PERCEPTIONS OF THE ENVIRONMENT AND OF TOURISM IN THE ALTAI REPUBLIC, THE RUSSIAN FEDERATION

By

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Abstract

Although only 210,000 people reside in the Altai Republic of Western Siberia, the area received 1.8 million tourists in 2015. The overwhelming majority of visitors arrive from other areas of Russia. While tourists appreciate the landscape of the Altai Mountains and bring increased seasonal economic activity, not all of tourism's effects benefit the local culture, economy or environment. This paper presents survey data concerning perceptions of residents and visitors about the environment and tourism. During the summer of 2015, a survey was distributed in four locations across the Altai Republic. Resident respondents included Russians, local members of Altaian clans, and Kazakhs, and visitors included Russian citizens from across the Russian Federation. Analyzing the data contributes to understanding the complex interactions between tourists, residents, indigenous peoples, the environment and the cultural landscape.

Keywords

Altai, Environment, Indigenous, Mountains, Perception, Russia, Siberia, Sustainability, Tourism

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Chapter I: Introduction

Increasing numbers of Russian tourists travel annually to the sparsely populated Altai Republic of Western Siberia in the Russian Federation (Ogranichit, 2016), drawn by the beautiful landscapes of the Altai Mountains, which over the years have been labelled "Siberia's Switzerland" (McDowell & Conger, 1977, p. 338). Tourism provides the benefits of seasonal income for residents and an improved infrastructure to one of the least industrialized, economically undeveloped regions within Russia (Orttung, Lussier, & Paretskaya, 2000, pp. 124–125). Unfortunately, the uncontrolled expansion of tourism may cause irreparable damage to landscapes, wildlife populations, and local peoples' traditional ways of life (Kasparek, 2011, p. 14; Letman, 2016). The Altai Republic, like other mountain regions, represents some of the last remaining biodiversity refuges around the world (Chhatre, Lakhanpal, & Prasanna, 2016, p. 1).

As tourism's influence expands in the Altai Republic, residents contend with the challenge of supporting tourism as a means of economic development while maintaining the natural environment. Tourist destinations such as Lake Teletskoe and Mount Belukha have suffered from pollution and environmental degradation (Kasparek, 2011, p. 14; Mehl, 2009, pp. 62–63; Ogranichit, 2016), at the same time that the local standard of living ranks among the lowest of the regions of the Russian Federation (Kaliganov, 2014; UNDPb, 2013, pp. 150–151).

Understanding the viewpoints of tourism stakeholders on environmental topics provides insights for decreasing tourism's negative impacts while augmenting its benefits. To this end, I conducted a survey during the summer of 2015 in the Altai Republic. I also completed interviews prior to and during my stay there to broaden my knowledge base, and I engaged in participant observation by visiting tourist areas within and near the capital of Gorno-Altaisk.

A total of 400 residents of and visitors to the Altai Republic participated in the survey at four general locations: (a) the capital city of Gorno-Altaisk, (b) Chemal village, (c) the villages of Artybash and Iogach near Lake Teletskoe, and (d) Kosh-Agach village. The survey's 13 Likert statements encompassed three broad themes:

- Concern for the preservation of environmental settings;
- Tourism's local environmental, social, and cultural effects;
- Topics with implications for members of Altaian clans.

Analysis categories included resident/non-resident, gender, ethnicity, and religion.

The advantages of using a survey to gather perception data include the ability to collect viewpoints: (a) in a variety of locations, (b) over a relatively short period of time, and (c) at a limited cost. The disadvantages include: (a) the use of predetermined survey statements, which may not adequately reflect the issues of the target population, (b) the inclusion of participants whose viewpoints may not be truly representative, and (c) the drawing of conclusions based on too few responses to be representative.

The ethnographic approach represents an alternate method of gathering perceptions. Total or partial immersion ethnography involves living *in situ* among a target population over an extended length of time in order to learn firsthand those issues that a local population considers important (Agar, 1996, p. 62; Delamont, 2004, p. 206). Although that approach results in a more personalized, detailed understanding of the issues, it unfortunately also requires a far greater outlay of time and money to support the research than is required to administer and analyze survey results.

Survey results in the Altai Republic support various theories of environmental perception. Vaughan and Ardoin (2014, pp. 61–64) theorize that place-protective residents more frequently

exhibit caretaker tendencies than visitors do. Residents of the Altai Republic report more frequently than non-residents that they pick up garbage left by others in the natural environment, supporting Vaughan and Ardoin's theory. A number of authors theorize that females, socialized as caregivers and nurturers, hold greater environmental concern than males (Davey, 2009, p. 3; Dunlap & Van Liere, 1978, p. 191; Mohai, 1997, p. 154; Sulemana, James, & Valdivia, 2016, p. 87). Females in the Altai Republic indicate considerably more frequently than males that they notice the effects of overcrowding by tourists.

Theories concerning the role of social status show remarkable variety. According to Dunlap et al. (2000, pp. 429–430) and Sulemana et al. (2016, p. 283), people of higher social status tend to hold pro-environmental perspectives to a greater degree than those of lower status. On the other hand, Davey (2009, p. 3) theorizes that people of lower social status tend to broadly hold pro-environmental viewpoints. Still another theory by Fairbrother (2013, p. 912) encompasses both of the previous two, arguing that both those of higher and lower social status share pro-environmental perceptions. Participants in the Altai Republic, apparently of both higher and lower social status, overwhelmingly hold pro-environmental perspectives, in support of Fairbrother's theory.

Beyond increasing the knowledge base regarding theories of environmental perception, the study highlights important issues faced by tourism stakeholders within the Altai Republic. Residents strive to remove garbage and to protect the natural environment themselves, highlighting the problem that the government and tourism operations have not adequately dealt with waste management. Responses from the majority of both women and men at the Chemal location indicate that the area has already suffered environmental damage from high numbers of

tourists; tourism operators should consider changes to lessen degradation caused by tourists at that location.

Actions of governmental agencies and tourism operations, as well as the dire economic situation of poor rural residents, have resulted in rapidly falling populations of common and rare species (Braden, 2015, pp. 16–17; Chumakaev, 2016; Kasparek, 2011, p. 14) (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015). Members of Altaian clans agree more strongly than either Russians or Kazakhs with statements that illegal hunting harms the natural environment. Traditional Altaian clans have arguably allowed biodiversity to flourish through their centuries-old sustainable hunting practices (Almashev, 2010; Halemba & Donahoe, 2008, p. 3), which suggests that clan members should be included in efforts to sustain local wildlife populations, as supported by other authors (Aziz, Clements, Rayan, & Sankar, 2013, p. 652; Beltran, 2000, p. ix).

Chapter II: Literature Review

Prior to the 1970s, assessments regarding perceptions of the environment among sociologists usually held an anthropocentric view of nature, which Catton and Dunlap (1978, pp. 42–43) labelled as the Human Exceptionalism Paradigm (HEP). The view included the following assumptions:

- Humans are separate from other life forms, because they have culture.
- Human culture varies widely and can change rapidly.
- Humans can alter or eliminate social differences among themselves.
- Continuing cultural progress makes all social problems solvable.

In some ways, those assumptions reflected free market and laissez-faire capitalism principles, which presume that society benefits most when the individuals promote their own monetary interests, regardless of environmental concerns or concerns for humanity as a whole (Pirages & Ehrlich, 1974, pp. 65–67).

Measures of Environmental Perception

The New Environmental Paradigm. In response to rising awareness of environmental issues and to the widening gap between the wealthy and the poor, assessments in the later 1970s included more nature-oriented assumptions. Catton and Dunlap published a set of less human-oriented assumptions for use in measuring environmental perceptions, which they referred to as the New Environmental Paradigm. The assumptions included the following (1978, pp. 43–45):

- Humans are one among many interdependent species.
- Human action may have unintended consequences on nature.
- Physical and biological constraints limit economic growth and social progress.

Catton and Dunlap argued that increasing economic development would not alleviate societal and environmental issues because the natural environment is finite and cannot support unlimited growth.

Dunlap and Van Liere (1978) published a set of Likert statements employing the New Environmental Paradigm assumptions that became widely used by environmental researchers to measure pro-environmental perspectives (Dunlap, Van Liere, Mertig, & Jones, 2000, p. 425). The survey included 12 statements focusing on beliefs concerning the ability of humanity to interfere with the balance of nature, limits to growth for human society, and people's right to exercise power over nature. Eight statements reflected pro-environmental values of the new paradigm, and four reflected anthropocentric values. When Dunlap and Van Liere first used the statements, they interspersed them among 35 statements on a range of environmental issues. They administered their survey to two groups: 1) households in the state of Washington, half completed by women, and half by men, and 2) a statewide environmental organization in the state of Washington. Survey results showed that environmentalists supported the new paradigm more strongly than the general public, although the public also showed support (Dunlap & Van Liere, 1978, pp. 11–13).

The New Ecological Paradigm Scale. In 2000, Dunlap, Van Liere, Mertig and Jones published an updated version of the New Environmental Paradigm survey, which included a broader environmental worldview, both pro- and anti-environmental statements, and more contemporary terminology. They replaced the more male-oriented term, "Mankind" with "Humans," and they added the category, *Unsure*, to reduce nonresponse. They named the revised survey, the New Ecological Paradigm (NEP) Scale, which still contained statements of human exceptionalism, but added the possibility of a future ecological crisis or a catastrophic

environmental disruption. Eight odd-numbered statements held a pro-ecological view, and seven even-numbered statements indicated disagreement with such a view (2000, p. 432). The order of the statements followed a pattern of alternating supportive and non-supportive views toward the environment.

The researchers again administered the survey to residents of the state of Washington, with results confirming previous studies of pro-environmental tendencies there. Politically liberal adults and those who grew up in urban areas showed more pro-ecological views than other survey participants did. The NEP Scale came to be used not only as a measure of environmental attitudes, but also as a gauge of basic outlook or worldview (Dunlap et al., 2000, pp. 427, 436).

Theories of Environmental Perception

The role of social status. Various theories associated with socioeconomic status hypothesize that those of higher social status are more likely to hold pro-environmental views. Theories include the prosperity or affluence environmental perception theory, which argues that wealthier individuals and societies tend to have greater concern for environmental quality than the less wealthy. The post-materialist theory argues that as citizens become affluent, they become less concerned with economic difficulties and more concerned with self-fulfillment, self-expression and environmental protection. The Environmental Kuznets Curve (EKC) theory associates a country's level of environmental concern with its level of economic development. According to the EKC hypothesis, countries in early stages of economic growth hold less concern for environmental quality than countries in later stages, because economic struggles hold the attention of poor countries. As income levels of citizens rise, they begin to demand higher environmental quality. Economists have been proponents of the EKC theory to explain levels of

environmental concern; they view growth and the improving social status of citizens as the cure for degradation (Sulemana, James, & Valdivia, 2016, pp. 84–85).

Researchers have theorized that the young, the highly educated, and the politically liberal tend to hold pro-environmental views, as do those who grew up in urban areas (Dunlap & Van Liere, 1978, p. 16; Dunlap et al., 2000, p. 436). The highly educated and those from urban areas may represent a higher social status than that of the less educated or those from rural areas. The pro-environmental perspectives of younger individuals might reflect less static and more flexible worldviews than those held by older individuals. More highly educated individuals might favor pro-environmental views, because of their greater exposure to ecological ideas. The opposition of liberals to the status quo might influence their pro-environmental views (Dunlap & Van Liere, 1978, p. 16; Dunlap et al., 2000, pp. 429–430).

Sulemana et al. (2016) hypothesized that perception of one's social status influences levels of concern for the environment. The researchers compared responses by residents of African countries with those from developed countries measuring: (a) the likelihood of favoring environmental preservation over economic growth and jobs, (b) the willingness to make monetary sacrifices to prevent environmental degradation, and (c) the willingness to pay additional taxes to prevent environmental degradation. They found that in both African and developed countries, people who perceive themselves to be members of the working, or middle, class tend to support environmental conservation over economic growth and job creation more frequently than those who perceive themselves to be of the lower class, that is, the poor. Results for specific occupations were inconsistent across developed and developing countries. For example, in developing African countries, farmers tended to favor environmental protection, to be willing to pay part of their incomes for environmental causes, and to pay higher taxes to

prevent environmental degradation. In developed countries, responses by farmers showed no correlation with those tendencies (Sulemana et al., 2016, pp. 83, 90–92).

Davey (2009) refers to environmental actions and movements originating in developing countries as environmentalism of the poor (EOP), and he hypothesizes that because those in developing countries tend to live simpler, less materialistic lives than those in developed countries, developing countries would more easily adjust to a sustainable society than developed countries would. He argues that globally the wealthy in developed countries do not hold greater pro-environmental sentiment than the poor in developing countries, and that EOP may become a major force in achieving environmental sustainability (2009, pp. 1, 5, 7). With 80 percent of the world's population residing in developing countries, and 75 percent of those populations living in rural areas, poor populations often rely directly on the land and its resources, and are motivated to treat the environment carefully, whereas populations in wealthier countries often do not view the environment as their source of sustenance. For example, those in developed countries consume increasing quantities of fish, but do not experience the effects of falling fish stocks, which those in poorer countries may see first-hand. Transnational corporations play a role in the increased detachment of wealthy countries from the environment, as those corporations gain power through free trade agreements and globalization, and interact less with the people in developing countries affected by corporate decisions. Social conflicts have resulted in developing countries as the poor attempt to retain environmental resources for their livelihood or subsistence (Davey, 2009, pp. 4, 6).

In his discussion of EOP, Davey (2009) discounts the Deep Ecology Movement with its concern for maintaining pristine wildernesses at the expense of local peoples. He also disregards

the Shallow Ecology Movement goals of reducing pollution and lowering resource usage as a means to maintain the affluence of those residing in developed countries (2009, p. 2).

Research by Fairbrother (2013) indicates that both poorer and richer people support environmental preservation. His analysis relies on data from three versions of the World and European Values Surveys of people living in 92 countries. The cross-national results argue that poorer countries show greater levels of environmental concern than richer countries; however, wealthier people within countries seem more concerned about the environment than the poor are in those countries. Affluence across richer and poorer countries does not seem to be associated with levels of environmental concern, and countries whose per capita income has increased over time do not appear to become more environmentally concerned with increased economic development, as the EKC hypothesis would suggest (2013, pp. 911–912, 920).

The role of gender. Van Liere and Dunlap (1980) explained two competing theories from the 1970s related to gender:

- Males have greater concern over environmental problems, because they are more politically active, have more involvement in community issues, and have higher levels of education than females.
- Females have greater environmental concern than males, because they are not absorbed with jobs and economic growth, as men are.

Those theories hark back to a time when men dominated the workplace, and women primarily worked in the home. Two studies from the 1970s did not substantively associate gender with environmental concern (1980, pp. 185–186, 191).

Research by Mohai (1997) tested the hypothesis that that women would show greater environmental concern than men, because they have been socialized as “nurturers and

caregivers," while men have been socialized as financial providers for the family (1997, p. 154). Results for close-ended questions from the 1990 Detroit study indicated that white women show somewhat greater concern regarding pollution, environmental preservation, and global environmental issues than white men. Significant differences by gender among African-Americans toward environmental issues were not found to be significant (1997, pp. 162–163, 167).

Davey (2009) explains that women in poor, rural communities have great motivation to protect their local environment, because they understand their dependence on the environment through their daily gathering and harvesting activities. Women act in their local communities to preserve the environment, and have led environmental movements among the poor in India and Kenya (2009, pp. 3–4).

Results from a study by Givens and Jorgenson (2011) of 2005 World Values Survey data across 38 nations found women to be 5 percent more likely than men to express environmental concern (2011, pp. 75, 83). Results from a study by Xiao and McCright (2015) of 2000 and 2010 General Social Survey data found women to hold pro-environmental attitudes and show concern regarding environmental problems to a greater extent than men. Those results also showed educational level and political ideology to be predictors of pro-environmental sentiment (2015, pp. 19, 31–32).

Perceptions of Tourism

Place attachment and place-protective tendencies. A number of authors have explored perceptions of residents and tourists concerning tourism around the world (Esparon, Gyuris, & Stoeckl, 2014; Imran, Alam, & Beaumont, 2014; Vaughan & Ardoin, 2014). Vaughan and Ardoin examined differences between the perceptions of tourists and residents toward the coastal

area of Haena on the island of Kauai, Hawaii. Their study considered how residents and tourists foster and strengthen their place attachments to Haena by examining their types of activities, how they learned about the location, their perceptions of caretaking and resource health, and their sense of responsibility to Haena (2014, p. 56). Place attachment consists of two components: place identity, or emotional bonding with a place, and place dependence, or the functionality a place holds for a person (Imran et al., 2014, p. 291). Vaughan and Ardoin hypothesized that, although tourists might develop strong place attachments and assume caretaking behaviors, residents would be more likely to engage in place-protective behavior than tourists, because of their proximity and a sense of ownership (2014, pp. 51–52).

Administrators gave the survey of open-ended questions and Likert statements on the Haena beach during July and August of 2009 and during December of 2009 and January of 2010. Administrators read the survey aloud to those taking part and marked sheets for them. The sample was not random; administrators selected possible participants by approaching every third, fifth, or tenth individual depending on the density of the group of people. Because usually 90 to 95 percent of those on the beach were tourists, administrators had difficulty locating enough Kauai residents to survey. To increase the resident sample, administrators looked for identifiers to locate residents, such as type of vehicle or presence of surfboards or dogs. The resulting sample of tourists to residents included an overrepresentation of residents (Vaughan & Ardoin, 2014, pp. 57, 64).

Results support the authors' theory that residents would act as caretakers more readily than tourists would. Residents exhibited place protective behaviors and tried to educate others about the area, while tourists tended to focus on their own activities (Vaughan & Ardoin, 2014, pp. 61–63).

Influences on tourism stakeholders. Imran, Alam, and Beaumont (2014) used the NEP scale in assessing pro-environmental orientation at the Central Karakoram National Park (CKNP) of Pakistan, keeping in mind that displacing people or limiting their rights to resources in protected areas may result in negative attitudes toward an area, and that economic incentives associated with tourism may motivate people to support conservation efforts. Many residents live within or near the picturesque area, which is rich in biodiversity. Tourists, tour operators, and residents have caused environmental problems such as deforestation, deterioration of alpine grasslands, and the accumulation of human waste and litter near villages and campsites (2014, p. 292).

The authors sought to determine how different types of place attachment among four tourism stakeholder groups might influence engagement in environmentally responsible behavior. The authors described three possible orientations toward the environment: (a) an anthropocentric view, which considers the environment as subservient to humans; (b) a bio-spheric view, which values the environment for its own sake; and (c) a bio-centric view, which values humans as an element within nature as a whole (Imran et al., 2014, pp. 290–291).

The authors identified four types of stakeholders for their study:

1. Tourism enterprises, such as hotel owners and tour operators.
2. Authorities of the protected area.
3. Local community members.
4. Tourists.

The researchers selected participants through purposive sampling based on knowledge about the topic being researched, willingness to interact with survey administrators, and representation of a range of viewpoints. They conducted interviews with people from each

stakeholder group to gain a greater understanding of factors affecting stakeholder conservation intentions (Imran et al., 2014, p. 293).

Results did not show distinctly pro-HEP or pro-NEP positions. Participants held pro-environmental attitudes at a consistently lower rate than generally found in western countries, but at a rate closely matching data from developing countries. Two NEP statements drew the strongest responses with over 60 percent agreement, “Humans are severely abusing the environment,” and “Plants and animals have as much right as humans to exist,” but other responses were less conclusive. Participants working in protected areas and participants from local communities demonstrated higher pro-environmental attitudes than other stakeholders. Tourists and tourism enterprise stakeholders more frequently held anthropocentric views (Imran et al., 2014, pp. 293, 295).

Interviews disclosed four considerations which did not promote environmental conservation behavior among stakeholders:

- An inadequate understanding of the environment and of sustainable tourism by tourists and tourism operators.
- Inadequate opportunities for generating income by local communities.
- Restricted usage and access to the park, and the marginalization of indigenous people.
- Exclusion of the local communities from the planning and decision-making processes, because of top-down governance (Imran et al., 2014, p. 296).

Potential economic benefits from conservation behaviors influenced stakeholders’ views, but results highlighted the need for interventions that educate stakeholders about sustainable practices and that include community members in tourism planning for their location (Imran et al., 2014, pp. 296, 298).

Support of sustainable tourism facilities. Esparon, Gyuris and Stoeckl (2014) hypothesized that tourists in Australia would place greater importance on ECO (ecologically) certified tourism facilities and operations than on those not certified. The authors conducted a survey among tourists at the Wet Tropics World Heritage Area in Queensland, Australia, using three questionnaires: (a) one for visitors while staying at accommodations, (b) one for those participating in guided tours, and (c) one for those visiting venues that charge admission (Esparon et al., 2014, pp. 148, 153).

The researchers attempted to answer three research questions:

1. What aspects of sustainability certification do visitors consider most important?
2. Do different categories of visitors view sustainable and non-sustainable tourism operators differently?
3. Which aspects of sustainability show disagreement between perceived importance and perceived performance? (Esparon et al., 2014, p. 150)

Participants generally placed a greater value on ECO certified accommodations, tours and attractions than on non-certified ones, although they favored attributes specifically related to tourist accommodations, such as landscaping with native plants or green plants, over attributes related to the general environment. Participants under 50 years old tended to value environmental conservation more than older ones did, and females favored conservation more than males. Visitors to sustainability certified tourism operations rated the performance of the operations more highly than their importance. On the other hand, visitors to non-certified tourism operations rated the performance of the operations less highly than they rated their importance (Esparon et al., 2014, pp. 162–163).

Influences on the Research Tool

The survey that I developed for research in the Altai Republic took its original inspiration from the NEP scale of Dunlap et al. (2000), which included alternating positive and negative Likert statements regarding the environment. My survey measured general environmental perceptions, but also topics concerning tourism and topics specific to the Altai Republic. Unlike the NEP scale, the statements on my survey did not follow a positive/negative pattern. My 13-statement survey had pro-environmental perspectives with occasional negative ones, and I ended the survey with a negatively worded statement (see Appendix A).

I included the resident/non-resident category to compare place-protective responses of those who live in the Altai Republic with those who visit. I used the number of years participants have lived at their current residence as a level of place identity. Gender and age were included to test theories correlating those characteristics. Educational level, profession/occupation, and urban or rural background were included to test theories of socioeconomic status. I included ethnicity, mother tongue, and religion to compare differences between local Altaian clan members and Russian and Kazakh populations. I included nationality in order to learn the number of participants who travelled from a country outside the Russian Federation to visit the Altai Republic.

Some themes for survey statements often came from the literature review. Following the lead of Esparon, et al. (2014), a survey statement asked participants whether they supported the sustainable development of tourism operations, even though those operations might cost more than non-sustainable ones. With Vaughan and Ardoin's (2014) research in mind, I included a statement concerning garbage pickup in the natural setting to compare place-protective tendencies among residents and non-residents. Considering information from Imran et al. (2014),

I included a statement concerning the need for nature parks, in attempting to understand whether particular types of community members feel positively or negatively toward environmental conservation plans.

Chapter III: History of the Altai Republic

Visitors travel primarily from within the Russian Federation to seek out the beautiful landscapes of "Siberia's Switzerland" (McDowell & Conger, 1977, p. 338) in the Altai Republic, which hosts a UNESCO World Heritage site, and many federally and regionally protected areas (Letman, 2016). Writer Valentin Rasputin described the republic as "one of the most beautiful corners of our motherland, one of the most ecologically pure places on our planet" (Klubnikin, Annett, Cherkasova, Shishin, & Fotieva, 2000, p. 1302). The republic has the location and potential to become an international tourist destination, situated in the south of Western Siberia, northeast of Central Asia, at the intersection between Russia, Kazakhstan, China, and Mongolia (see Figure 1). Even so, beyond Russia's borders, a general lack of knowledge persists regarding the Altai Mountains, and extensive paperwork requirements dissuade foreigners from traveling to the remote region.

The lure of increased economic activity through the promotion of international tourism (Rotanova, 2014, p. 182), and through facilitating trade with neighboring China, may imperil local rural peoples and ecosystems. Either unrestrained tourism or the construction of a transportation corridor through the mountainous border with China "would inflict irreparable damage on the indigenous people's traditional lifeways, sacred landscapes, and critical wildlife populations and habitat," according to Jennifer Castner, Director of the Altai Project (Letman, 2016).

Figure 1. Map of Siberia and the Far East. Copyright © 2004 Current History (Hill, 2004, p. 327).

Geographic Setting

The sparsely populated Altai Republic lies just south of the most heavily populated region in Siberia (Klubnikin et al., 2000, p. 1299). Travel from Novosibirsk, Siberia's largest city, to the republic's capital of Gorno-Altaisk takes approximately seven hours by car (Hill, 2004, p. 328; Novosibirsk, 2016; Rasstoianie, 2017). Novosibirsk ranks as the third largest city within the Russian Federation after Moscow and St. Petersburg. The Altai Republic's population measures only 210,000 (AROPa, 2016) compared with Novosibirsk's population of 1.5 million (see Figure 2).

Figure 2. Map of the Altai Region, urban centers, and relief. Copyright © 2017 Ruth Heuertz Remmers[1].

The population of the Altai Republic includes Russians, members of Altaian clans, Kazakhs, and other ethnicities. Approximately 72 percent of the population resides in rural areas, and the remaining 28 percent lives in the one urban area, the city of Gorno-Altaisk. Ten rural districts of the Altai Republic have villages as their administrative center (AROPb, 2015). In contrast with the Altai Republic, 74 percent of the overall population of the Russian Federation lives in urban areas, and just 26 percent in rural areas (Vserossiiskaia-2010, 2013).

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Located in the center of Eurasia, the majority of the Altai Mountains lies within the Altai Republic, but also spreads southward into small areas of Kazakhstan, northwestern Mongolia, and China's Xinjiang Province (Altai, 2016). Two biomes join at the Altai Mountains, the humid boreal and the arid desert-steppe, resulting in an ecotone with diverse vegetation and wildlife (Enkhtaivan, 2006, p. 349). The Altai Mountains vary from small hills with thick forests in the north to snow-covered peaks in the south (Halemba, 2006, p. 11).

Glaciers of the Altai Mountains supply water for a wide region. The Ob River forms to the north of the Altai Republic in the Altai Krai at the confluence of the Katun and Biia Rivers. The Katun originates from the northern glaciers of Mount Belukha, and the Biia River discharges from Lake Teletskoe, both in the Altai Republic (Klubnikin et al., 2000, p. 1301). The Irtysh River, which originates from the southern glaciers of Mount Belukha, runs from the Mongolian Altai Mountains in Xinjiang, China, to Kazakhstan, and back to Russia, where it flows northward and eventually joins the Ob River to form the seventh longest river system in the world on its way northward to the Arctic Ocean (Malik, Micklin, & Owen, 2002).

Many natural features give the Altai Republic its unique beauty. Mount Belukha, at 4,506 meters (14,784 feet) stands as the tallest mountain in the Altai range and in Siberia. Lake Teletskoe, with its exceptionally clear water, is the largest and deepest of over 7,000 lakes in the republic (Orttung, Lussier, & Paretskaya, 2000, p. 124); it is the next largest fresh-water lake in Siberia after Lake Baikal (Malkov & Annett, 2004, p. 58).

Pre-history

Human predecessors inhabited the Altai region perhaps up to 1.5 million years ago. The Ulalinka archeological site, found in 1961with its lithic tools, lies within the boundaries of the current capital of Gorno-Altaisk, and it is the oldest known Paleolithic site in Siberia

(Okladnikov & Pospelova, 1982, p. 710). The age of the tools coincides with the period of *homo erectus*, which has been found in Africa, Asia, and Europe.

Evidence of Neanderthals and of Denisovans indicate that a number of different peoples resided in or travelled through the Altai Mountains approximately 45,000 years ago (Dulik et al., 2012, p. 229). In 2008, researchers found a girl's finger bone representing the Denisova hominin in the Denisova Cave, located in the Altai Krai just across the border to the north of the Altai Republic. Other artifacts found in the cave indicate that Neanderthals and modern humans also inhabited the cave at various times (Gibbons, 2011, pp. 1084–1085).

Ancestors of some Altaian clans seem to have travelled to the Americas. Genetic evidence indicates that Altai-kizhi share a recent paternal ancestor with some Native American tribes (Dulik et al., 2012, pp. 229, 239).

The Altai Republic's southern-most area, the steppes of the Ukok Plateau in the Kosh-Agach District, holds burial mounds (*kurgans*) which stretch north to south across the Pazyryk Valley. There archeologists excavated the permafrost-preserved remains of the Altai Princess, also known as the Siberian Ice Princess, in 1993. The tattooed, mummified body of the 25-year-old woman from 2,500 years ago was unearthed, along with her burial chamber, clothing, jewelry, attendants, and horses. The remains and artifacts represent the nomadic, equestrian, Scythian culture, which prospered from approximately the 7th to the 1st centuries BCE (Kydyev & Soenov, 1998, p. 13; Princess, 2012; Rolle, 2011, p. 110). Sites in the Pazyryk Valley bring to light the wealth that traversed southern Siberia along the Silk Road in centuries past, when the Altai Mountains fell along the northern route of the famed Silk Road, used by merchants from east and west (Christian, 2000, p. 16; Lincoln, 1994, p. 50). Some current members of Altaian

clans share genetic characteristics with people of the Pazyryk culture (González-Ruiz et al., 2012, p. 9).

Nomadic tribes travelled across the steppes, herding livestock and using portable felt yurts as housing. In 209 BCE, 24 Hunnic tribes, led by Shan-Yu Modae, combined into a confederation called the Hunnic Empire. With an army of tens of thousands of men, the confederation conquered a region that extended west to the Tien Shan Mountains, east to Manchuria, south to where the Great Wall of China was later built, and north to Lake Baikal. They developed a composite bow capable of shooting farther and with greater force than any previously known. Their attacks prompted China to begin construction in the 3rd century BCE of the Great Wall for protection. The Huns influenced the Siberian peoples, giving them much better bows and metal working techniques, and replacing bronze tools and weapons with iron ones. Under the Huns' influence, Siberian peoples began using saddles to ride their horses, and making ceramic pottery in the Hunnic style. The empire dissolved during the 1st century CE after being weakened by decades of continual warfare (Naumov, 2006, pp. 29–32, 226).

Pre-Russian Influences

In the 5th century, nomadic tribes moved from Central Asia to the Altai region, where they formed a coalition with local tribes. From 552 to 745 CE, a Turkic khanate controlled the Altai-Yenisei and Transbaikal regions of southern Siberia. During this time, the Turkic Orkhono-Yenisei language and writing system, based on the ancient Aramaic alphabet, spread across southern Siberia, Mongolia, and Kazakhstan. Examples still may be found as carvings on rocks, metal and wood. After the khanate lost power in the 580s, the writing system disappeared (Naumov, 2006, pp. 37–40).

In the mid-8th century, the Kyrgyz Yenisei Khanate developed the first independent Siberian state. Powerful Kyrgyz horsemen first inhabited areas of Lake Baikal and the Yenisei River, and later gained control of the region from west of Lake Baikal to the Altai Mountains. Kyrgyz people mixed with the Altai Dinlin, ancestors of current Altai-kizhi and Tubalar peoples, causing them to adopt Turkic languages. The Kyrgyz practiced shamanism and herded cattle, and they also practiced agriculture. Using slave labor and plows, they grew barley, millet, wheat and hemp, and they built irrigation systems in dry areas. The khanate maintained trade links with China, Tibet, and other areas, trading pottery and jewelry for items brought on camel caravans, such as silks, bronze mirrors, and inlaid horse harnesses. The Kyrgyz took control of present-day Mongolia in 840 CE, but lost control again in the 10th century. Following years of battles, Mongol conquerors finally destroyed the Yenisei Kyrgyz Khanate in 1270 CE (Forsyth, 1992, pp. 23, 123; Naumov, 2006, pp. 40–44).

In 1206, Mongol tribes elevated Chingis Khan to become “supreme chief of all the Mongol tribes;” he led the powerful Mongolian Empire until 1227 (Lattimore, 1963, p. 64). In 1207, the Siberian “forest peoples” of the Altai and Saian Mountain regions fell under the control of a horde led by Chingis Khan’s son, Jochi; those areas remained under Mongolian influence for several centuries (Forsyth, 1992, p. 23; Naumov, 2006, p. 44). In, 1224, Jochi became heir to the Golden Horde and controlled the lands west of the Ob River; the Golden Horde collapsed in the 15th century. During their reign, the Mongols brought Siberian furs to international attention, but they also caused Siberian peoples to abandon farming in favor of nomadic livestock herding (Naumov, 2006, pp. 45, 47). Ethnic mixing left its mark not only on the physical appearance of peoples of the Altai-Saian region, but also on their Turkic languages; the present-day languages

of the Altai-kizhi and of Tuvans contain a number of words of Mongolian origin (Forsyth, 1992, p. 24).

Early Russian Dominance

The fall of the Golden Horde led to separate khanates of Crimea, Astrakhan, Kazan, Nogai and Sibir (Siberia). In 1558, Tsar Ivan the Terrible gave the powerful Stroganov family authority to colonize the "empty lands" near the Kama River, which is a tributary of the Volga River, and to defend Russian settlements there (Forsyth, 1992, p. 29). The Stroganovs extended their reach farther east beyond the Ural Mountains into the area of the Sibir Khanate, with the result that Kuchum, the leader of the khanate of Sibir, began conducting raids on Stroganov trading posts in 1572. In order to secure their holdings, the Stroganovs hired a group of Cossack mercenaries, known for robbing caravans as they crossed the steppes, and led by Yermak Timofeevich.

In 1581, the Yermak's group began their travel across Siberian lands, pillaging as they went. Using firearms against opponents with only bows and arrows, the Cossacks defeated the town of Kashlyk, the capital of the Sibir Khanate in 1582. Despite the military advantage of Yermak's group, fighters for the khanate later wore down the Russians, causing the death of Yermak and many of his men in 1585; Kuchum and his descendants continued fighting Russians in the region until the 1670s. Yermak's defeat of the capital of the Sibir Khanate became known as the beginning of the Russian conquest of Siberia (Forsyth, 1992, pp. 29–31; Naumov, 2006, pp. 55–58), which continued through 1648 when Dezhnev navigated the Bering Strait (Mote, 1998, pp. 41–43).

The Russians extended their reach to outlying areas of the Altai Mountains by building a fort at Kuznetsk near the Tom River in the area of the Shor clan. Kyrgyz tribes, who occupied

the steppes of the upper Yenisei valley, also controlled a broad area including the Altai and Saian Mountains. As Russians pushed into the Altai Mountains, the Kyrgyz fought the Russians over the last 30 years of the 17th century. In 1701, the Russians defeated the Kyrgyz in their stronghold on the Abakan steppe, taking hostages and forcing them to pay tribute (Forsyth, 1992, pp. 37, 124, 127).

Following the defeat of the Kyrgyz, Oirats from Dzungaria claimed the Altai, Saian, and Irtysh regions as theirs in the early 18th century. The Oirats attacked a Russian outpost at Kuznetsk in 1709, after which, the Russians constructed more forts along the Irtysh River, and, by 1720, took control of the territory of the Teleuts between the Irtysh and Ob Rivers. Before beginning their conflict with the Russians, the Oirats had already been engaged in a long conflict with the Manchus of the Ching Empire. In 1756, the Manchus defeated the Oirats, slaughtering the majority of the Dzungarian population, approximately 1 million people (Forsyth, 1992, pp. 127–128). As the Manchus pressed onward into Mongolia, the Russians annexed the southern Altai Mountains in 1756 (Potapov, 2010, p. 510), which was home to the Altai-kizhi and Telengit clans. The Chinese, however, considered the area theirs by conquest, and made continual raids into the area, terrorizing the Altai clans, until 1758. As a result, approximately 15,000 members of Altai clans fled farther north to the protection of Russian lines, leaving the southern Altai Mountains largely depopulated (Forsyth, 1992, p. 129).

Control by Tsarist Russia, 1800-1916

Shamanism played an important role in the lives of members of Altaian clans prior to the arrival of Russian missionaries, and later during the Soviet period (Alekseev, 1997, pp. 83–88). Shamanists hold animist beliefs, considering physical features to be living beings, and practice rituals for them, for example, the water rituals still performed at rivers of the Altai Republic.

Shamans were regarded by their communities as healers and as negotiators between physical and spiritual worlds (Klubnikin et al., 2000, p. 1299).

In the 17th and 18th centuries, the religious conversion to Russian Orthodoxy of members of Altaian clans in the northern portion of the Altai region began earlier than in the highlands of the south. The Altaians of the north were more willing to listen to missionaries, if only out of curiosity, than those in the south, who often reacted toward them with hostility (Halemba, 2006, pp. 33–34). Clan members residing in the north, nearer to Russian settlements, generally lived more poorly than those in the high valleys, and retained less of their traditional culture (Forsyth, 1992, p. 184).

Russian authorities considered themselves superior to members of Altaian clans, and attempted to impose their culture by converting Altaians to the Russian Orthodox Church. (Collins, 1989, pp. 54–55, 64). Christian conversion efforts of the 19th century began with Makarii (Glukharev), a Russian Orthodox monk, who established a mission at Maima, near the current city of Gorno-Altaisk; he relocated the mission to the small settlement of Ulala over the 1828 to 1830 period. The original Ulala settlement currently lies within the boundaries of the city of Gorno-Altaisk. During Tsarist Russia, as the state-supported religion, Orthodox Christianity was closely associated with Russification policies. Missionaries pressured newly baptized native peoples to wear Russian-style clothing and to live in villages and practice agriculture (Halemba, 2006, p. 34).

Members of Altaian clans had a higher literacy rate than many other Siberian peoples, who might have little or none. The first Ulala mission led to a network of missions with schools, so that by 1913, 74 schools gave both Russian and Altaian children not only a general education,

but also instruction in reading and writing in their native languages (Forsyth, 1992, pp. 185, 284).

Old Believers, who separated from the Russian Orthodox Church following liturgical reforms of the mid-17th century, were the main early Russian settlers in the region. They either fled from or were deported from European Russia, because of religious oppression. Old Believers intermarried with native peoples and adapted to harsh living conditions. They provided labor and agricultural support for the mines belonging to the Demidov family (Mote, 1998, p. 58 68; Rasputin, 1996, pp. 19, 50). Silver, gold, and other minerals had been mined for centuries in the Altai Mountains (Klubnikin et al., 2000, p. 1301).

The Teleut clan had inhabited the Kulunda Steppe of the Altai region, however, few of them remained following the conflicts between China and Dzungaria, which pushed them north to the Baraba Steppe, west to Kazakhstan, or east to the territory of the Shors. In the 1860s, Russian officials confiscated the lands of those remaining and gave them back small lots. The Teleuts lost access to forests and hills, because they were forced to abandon their semi-nomadic lifestyle and to settle down as farmers. Although they adopted Russian dress, they continued the practice of shamanism, and they sacrificed horses to the sky god. Friedrich William Radlov interviewed some Teleuts remaining in the area and found that they believed that the Kulunda Steppe rightfully belonged to them, and that they did not support Russian imperialism. He reported, “It was in vain that I sought to explain to them that this was Crown land, so that the Crown had the right to dispose of it, and moreover, that until now most of their land had lain unused” (Forsyth, 1992, p. 182).

The Chelkan, Kumandin, and Tubalar clans lived in the lower Biia Valley of the northern Altai region, where they hunted and farmed. They gathered edible roots, bulbs, and cedar nuts,

and cultivated forest clearings to grow barley and oats. Russian traders exploited them, taking their food products, and leaving them with overwhelming debt. Those tribes withdrew further into the forests to avoid Russian contact, and maintained their shamanist beliefs (Forsyth, 1992, p. 183).

Russian and later Soviet doctrine promoted the view that the colonization of Siberia by European Russians took place peacefully, without conflict, through the settlement of Russian farmers. Russians generally considered the lands of traditional peoples to be unused, empty, or wasted space, and they set about to transform the lands into productive, economically utilized areas. Russians propagated the view that the transformation brought to native peoples the so-called benefit of inclusion into the "growing Russian national market" (Forsyth, 1992, pp. 109–110).

In 1861, the Tsar emancipated Russian serfs and transformed them into peasants paying rent to the state. In 1865, the Royal Cabinet, in order to develop agriculture in the Altai region as a potential source of income, opened the lands up for settlement, making it into a mass migration destination for peasants from European Russia. An 1879 decree allowed the peasants to settle in areas occupied by semi-nomadic peoples, encouraging them to seize land by force from local clans. Peasants then plowed accessible lands occupied by members of Altaian clans, cut their hay, and forced them to move. Over a 20-year period, more than 200,000 Russians travelled to the Altai region. The Trans-Siberian railway facilitated the movement of peasants to the Altai region, so that, by 1912, the region held the most densely concentrated population of Russians in Siberia. As Russians arrived, many clan members took refuge in inaccessible mountain and forest areas of the south and east (Forsyth, 1992, pp. 185–186).

In 1899, a land division directive stated that native peoples should receive plots of land on the same basis as peasants, disregarding the needs of semi-nomadic pastoral life and communal ownership. Altaian clans protested strongly, delaying implementation until 1912. During that period, clans on the northern lowlands were pressured to become settled farmers, while those in the southern highlands continued pastoral herding of livestock, primarily cattle. Large native herd owners became important in cattle breeding and commercial production, and helped to develop the Siberian butter industry (Forsyth, 1992, pp. 185–186). Butter from Siberia brought in "more than twice as much gold as the whole Siberian gold industry" (Naumov, 2006, p. 137).

Many members of Altaian clans associated the spread of Orthodox Christianity with Russian colonialism, the eviction from their traditional lands, and the extraction of tribute. They began calling themselves Oirats, reminiscent of their Dzungarian connection, and protested against Russian control. Altaian clan members cut trees in state owned forests, lands which formerly belonged to them, and ceased their tax payments in 1905. In 1906, Altaian clans sent two delegates to the State Duma in St. Petersburg to petition for their rights to their traditional lands (Forsyth, 1992, p. 188).

Antagonism grew among local peoples toward Russians as more land came under control of European Russians, and as the Russian government pressured them to serve in Russia's wars. In 1916, the government summoned them for labor on the front for World War I. Rather than joining the military, many ignored the summons, or they retreated to more remote areas, or they fought off the Russians with scythes and stones (Forsyth, 1992, p. 276).

Early Soviet Control, 1917-1929

Animosity toward Russian control continued during the October Revolution of 1917, and the Russian Civil War from 1917 to 1922. In 1918, local people organized the Constitutional Congress of the Altai Mountains at Ulala, where anti-Bolshevik White Russians, members of Altaian clans, and others gathered to proclaim the independence of the Altai. Four years of war followed as White Russians and Altaian peoples fought the Bolsheviks. The Bolsheviks defeated the White Russians and other local resistance in 1922 (Forsyth, 1992, p. 277).

Before 1917, Siberian native peoples had no formal government. In order to concentrate authority, early Bolsheviks began grouping indigenous peoples together and assigning them to specific areas. Altaian clans received superficial autonomy in 1922 under the name, the Oirat Autonomous Oblast, with its capital at Ulala. Clans of the Altai-kizhi, Chelkans, Kumandins, Telengits, and Tubulars then all found themselves named Oirats. No members of Altaian clans were included in the new local government (Forsyth, 1992, pp. 276–278; Mote, 1998, pp. 137–138). The settlement, Ulala, became designated as a town in 1928, and its name was changed to Oirat-Tura in 1932 (Potapov, 2010, p. 511).

To suppress religion, early Soviet officials sent to labor camps priests of the Orthodox Church, leaders of other Christian denominations, and also shamans; the prisoners in the camps often starved or were worked to death (Hartley, 2014, pp. 209, 213). Although Soviet control brought the destruction of Orthodox churches in the Altai region, some people carried on church-related activities in secret. Elderly Orthodox believers in the Ulagan District conducted simple ceremonies to baptize others, including Telengits, who were called half-baptized (*polukreshchonnye)* (Halemba, 2006, p. 34).

In 1921, Soviet authorities introduced the New Economic Policy (NEP) to alleviate food shortages caused by war and by early Bolshevik practices of seizing food and redistributing livestock. Under NEP, peasants could keep and trade their surplus grain, with the result that surpluses in Siberia grew until 1927. Although production did not recover to pre-revolution levels, Siberian agriculture satisfied most of the food requirements of its population (Hartley, 2014, pp. 202–203; Naumov, 2006, p. 197). Authorities allowed pastoral nomadism to continue among Altaian clans living at high elevations. Their traditional patriarchal system provided for mutual assistance among their peoples, and by sharing livestock, members of Altaian clans helped those among them who were poor and needy (Forsyth, 1992, p. 278).

In 1927, overall grain production fell by 30 percent across the country and by 50 percent in Siberia. Communist Party leadership abolished NEP in the late 1920s, considering the Sovietization of the countryside and the Russification of non-Russian areas as essential to increase productivity. With Joseph Stalin's rise to power, he toured Siberia in 1928 to check grain availability to support the country. Stalin blamed *kulaks,* relatively prosperous peasants, for grain shortages, saying that *kulaks* exploited the labor of other peasants. He had local officials seize grain stored by peasant farmers, and had thousands of Siberian farmers imprisoned (Hartley, 2014, pp. 203–204; Naumov, 2006, pp. 197, 199).

Later Soviet Control, 1930-1991

Collectivization, the forced consolidation of individual land and labor into collective farms, supported the goal of making nomadic and semi-nomadic peoples of Siberia give up their mobility by assigning them to fixed locations. In the 1930s, the negative effects of collectivization led to protests by many semi-nomadic Altaian herders, who destroyed 56 percent

of their cattle from 1929 to 1932. Other groups of Altaians joined Kazakhs in moving their herds to Xinjiang, China (Forsyth, 1992, pp. 290, 297, 301–302).

Collective farms often collapsed, because they were poorly equipped, or because they attempted to operate without their most productive members, which led to famine across the country in 1932-1933 (Hartley, 2014, p. 208). By 1936, 87.4 percent of farms had been collectivized, and herds were at 61 percent of pre-collectivization level; the economic and social domination of Altaian clans had mainly been achieved (Forsyth, 1992, pp. 201–203). Because of confiscation of food by governmental authorities and crop failures, serious problems with food availability continued for years, and Siberia became a famine zone by 1947 after World War II. According to Naumov (2006), "Collectivization resulted in the ruin of agriculture; it had not fully recovered by the end of the 20th century" (2006, p. 200).

With the 1930 Communist Party conference on women's rights, emancipating native women from their traditional roles became an important goal. Russian authorities wished to abolish practices such as bride price, polygamy, arranged child marriages, and exclusion of women from clan councils. To encourage women's empowerment, authorities organized women's meetings, and asserted women's right to participate in clan soviets or councils. By 1931, women occupied positions as deputies in about one fourth of the soviets of Siberia's autonomous republics (Forsyth, 1992, pp. 286–287).

Khrushchev and his planners regarded Siberia "as a storehouse of raw materials to serve the interests of the core" (Mote, 1998, p. 107), and in efforts to surpass the West, they began large industrial projects across Siberia. The Project of the Century, originally conceived prior to the establishment of the U.S.S.R, was originally intended to turn the major northward flowing rivers of Siberia southward in order to irrigate arid Central Asia. The project later evolved into

the construction of hydroelectric dams across the great rivers to support industrialization, and received support from both Khrushchev and Brezhnev. By 1964, under Khrushchev's reign, nine huge dam projects had been either approved, were under construction or were completed (Klubnikin et al., 2000, p. 1300; Mote, 1998, p. 110). Dams built from 1955 to 1974 resulted in the inundation of huge areas (Forsyth, 1992, p. 359), so that by the middle of the 1980s approximately 25 percent of previously cultivated land in Siberia was lost (Naumov, 2006, p. 209). Industrialization efforts also caused great environmental damage, with pollution in many rivers reaching dangerous levels (Lincoln, 1994, p. 403).

The project included plans to build hydroelectric plants along the Ob River, which forms at the confluence of the Katun and Biia Rivers, and which flows northward through Novosibirsk, and on to the Arctic Ocean. A 400-megawatt dam constructed during the 1950s at Novosibirsk (Mote, 1998, p. 110) significantly decreased the amount of wetlands available for spawning and foraging by many types of fish. It also prevented the upriver migration of large species, such as sturgeon and nelma, to the Katun and Biia Rivers. The Red Book of the Altai Republic lists the nelma as an endangered species (Klubnikin, Annett, Cherkasova, Shishin, & Fotieva, 2000, p. 1301).

Planning began in the 1980s to construct dams along the Katun River in the Altai Republic, on the headwaters of the Ob (Rasputin, 1996, p. 214), which would have flooded prime agricultural bottomlands of the Katun valley. The dams would also have destroyed cattle production for native peoples, and would have displaced them from the last remaining portion of their original homeland (Forsyth, 1992, p. 410; Klubnikin, Annett, Cherkasova, Shishin, & Fotieva, 2000, p. 1302). Opposition included writers and environmentalists of various ethnicities. The writer Valentin Rasputin, in arguing against the project, described the social costs of the

flooding of his village and region by the Bratsk Dam on the Angara River, which displaced 70,000 people. Participation by members of Altaian clans in the resistance brought attention to the traditional beliefs of Altaians concerning the sacredness of rivers. Public outcry finally stopped the damming of the Katun River during the Gorbachev administration in 1988 (Klubnikin et al., 2000, pp. 1300–1301).

From 1922 to 1947, the area of the Altai Republic was known as the Oirat Autonomous Oblast. The area's name changed to the Gorno-Altaisk Autonomous Oblast from 1948 to 1990 (AROPc, 2016), when it was included within the Altai Krai, which had become a designated region in 1937 (Naumov, 2006, p. 195).

Post-Soviet Developments

In 1991, with the fall of the Soviet Union, the Altai Republic seceded from the Altai Krai, and changed its name from the Gorno-Altaisk Autonomous Oblast to the Gorno-Altaisk Republic (Orttung et al., 2000, p. 125; West, 2009, p. 41). In 1992, it renamed itself to become the Altai Republic. In 1997, the republic adopted its own constitution as a member of the Russian Federation (West, 2009, p. 41). In expressing its sovereignty, the Altai Republic claimed exclusive rights to all the natural resources within its borders (Mote, 1998, p. 178).

Since the time of the tsars, when the Demidov family developed mining operations across Siberia, the Altai Mountains have been used as sources of precious metals such as silver and gold (Klubnikin et al., 2000, p. 1301; Lincoln, 1994, pp. 98, 184). Precious metal extraction requires the use of mercury. As of 2000, the only mercury works in the Russian Federation was located in Aktash in the Ulagan district of the Altai Republic (Orttung et al., 2000, p. 124). Elevated levels of mercury have been found in the Katun and Ob rivers, and entire lakes have been polluted by mercury in the Altai Mountains (Klubnikin et al., 2000, pp. 1301–1302).

Local and national conservationists, as well as the Russian government, have made efforts to protect the natural beauty and ecosystems of the Altai Republic. In 1998, UNESCO designated 16,000 square kilometers of the republic as a World Heritage Site, “Golden Mountains of Altai.” The site consists of three separate areas, the Altai Reserve including Lake Teletskoe, the Katun Reserve near Mount Belukha, and the Ukok Quiet Zone on the Ukok Plateau. In addition to their great beauty, the three areas are home to a wealth of species, including endangered ones, such as snow leopards and Argali mountain sheep (Castner, 2009, pp. 4–5).

Tourists began visiting the Altai Mountains during Soviet times, but since the late 1990s, their numbers have increased considerably (Halemba, 2006, p. 5) from 40,000 in 1990 to over 1.8 million in 2015 (Mandych, 2006, p. 270; Ogranichit, 2016). The area retains its rural character, with only one city, Gorno-Altaisk, population 57,000, and ten rural districts, for a total population of 210,000 (AROPa, 2016).

The Altai Republic had been one of the poorest, least urbanized regions within the Russian Federation in the late 1990s, receiving 85 percent of its budget from the federal government (Orttung et al., 2000, pp. 124–125). A low standard of living continued, and in 2010, the United Nations Human Development Index ranked the Altai Republic at the extremely low level of 78 out of 80 in a comparison with other areas within the Russian Federation (UNDPb, 2013, pp. 150–151). In 2014, the agency, RIA Rating from Moscow, ranked the republic at 81 out of 83 areas in the country for its quality of life (Kaliganov, 2014).

From 1922 until 2000, the Soviet government referred to all of the Altaian clans as one group, the Altaians. After recognition in 2000 of the Chelkan, Kumandin, Telengit, and Tubalar clans as Small-numbered Indigenous Peoples of the Russian Federation, members of those clans

began to register themselves by their separate clan names in the 2002 census. Those peoples who receive designation as ‘small-numbered’ have populations of 50,000 or less, are considered endangered, and may receive limited benefits not available to the greater Russian population (Halemba, 2006, p. 21; Koptseva & Kirko, 2014, p. 224; Poirier & Ostergren, 2002, p. 337; Sokolovskiy, 2013, pp. 183–184).

Conclusion

Pre-humans and modern humans have inhabited or travelled through the Altai region since over a million years ago. Archeologists unearthed lithic tools dating up to 1.5 million years ago at the Ulalinka archeological site (Okladnikov & Pospelova, 1982, p. 710). Neanderthals and Denisovans may have lived simultaneously in the Altai region approximately 45,000 years ago (Dulik et al., 2012, p. 229; Gibbons, 2011, pp. 1084–1085). Nomadic Scythians of the Pazyryk culture travelled across the Ukok Plateau 2,500 years ago. The traditional sustainable practices of semi-nomadic Altaian clans over hundreds of years, with their subsistence-level hunting and gathering, and low-intensity agriculture, may have allowed the high degree of biodiversity to flourish (Almashev, 2010; Aziz, Clements, Rayan, & Sankar, 2013, p. 652; Beltran, 2000, p. ix).

Early Russian trappers, Old Believer settlers, and Russian Orthodox missionaries encountered Altaian clans when first arriving in the region. The shamanist native peoples held animist beliefs, and practiced rituals of reverence toward natural features, some of which continue to be practiced (Forsyth, 1992, pp. 184–185; Klubnikin et al., 2000, p. 1299; Naumov, 2006, pp. 47, 110). Tsarist and Soviet Russification policies pressured members of Altaian clans to convert to Orthodox Christianity and to give up their semi-nomadic ways of life by settling in specified areas. Forced collectivization under Stalin caused great suffering across all of Siberia,

resulting in serious food shortages from the 1930s through World War II (Forsyth, 1992, p. 185; Naumov, 2006, pp. 198, 200).

Residents of the Altai Republic face the challenge of continuing to protect their natural environment while improving the living situation of residents, and dealing with the environmental impacts of tourism. After the fall of the Soviet Union, conservationists' efforts led to the designation of three areas as the protected "Golden Mountains of Altai" UNESCO World Heritage Site (Castner, 2009, pp. 4–5). Tourism became promoted as a means of economic development (Rotanova, 2014), and the number of tourists arriving annually expanded dramatically, reaching 1.8 million in 2015 (Ogranichit, 2016). However, according to ratings of two agencies, the local standard of living has remained at an extremely low level (Kaliganov, 2014; UNDPb, 2013, pp. 150-151).

Chapter IV: Method

Participants

Survey. During the summer of 2015 in the Altai Republic of the Russian Federation, approximately 400 persons, who were 18 years of age or older, completed a survey measuring their perceptions of the environment and of tourism according to three broad themes:

1. Concern for preserving an environmental setting.
2. The effects of tourism locally in the Altai Republic.
3. Topics with implications for members of Altaian clans.

Resident participants primarily included Russians, members of Altaian clans, and Kazakhs. Non-resident participants included citizens from elsewhere within the Russian Federation, and a small number of foreigners visiting from other countries.

Survey administration became possible through a coordination of efforts by the Assistant to the Rector for International Affairs at Gorno-Altaisk State University (GASU), a faculty member from the GASU Department of Germanic Languages and Applied Linguistics acting as project translator, the Director of the Sociological Laboratory of GASU, and four survey administrators.

The Director of the Sociological Laboratory led the four survey administrators in collecting surveys according to my requested breakdown of participants: 100 from each of four locations in the Altai Republic, with approximately 50 percent residents and 50 percent non-residents, and with approximately 50 percent males and 50 percent females. The resident portion turned out to consist of approximately 60 percent Russians, 30 percent members of Altaian clans, and 10 percent Kazakhs; those percentages are roughly similar to the 2015 population

demographics of the Altai Republic, which included 55.7 percent ethnic Russians, 35.3 percent indigenous peoples, and 6.1 percent Kazakhs (AROPa, 2016).

The survey team spent approximately two days in each of four locations of the Altai Republic administering surveys (see Figure 3):

1. Gorno-Altaisk, the capital of the Altai Republic, where the team recruited participants at four types of locations: (a) hotels, (b) tourist companies, (c) the bus station, which is frequented by both tourists and residents, and (d) residential areas where the team members live. Survey administration took place July 8-9, 2015.
2. The village of Chemal, located at a one hour and 20 minute drive from the capital of Gorno-Altaisk, travelling by car at about 120 kilometers an hour. There the survey team engaged tourists at the power station where many tourists stop, and at Patmos Island, the site of a former monastery. Survey administration took place July 14-15, 2015.
3. The village of Kosh-Agach, a six-hour drive from Gorno-Altaisk, where the team distributed the survey at an ecotourism site operated by Kazakhs who offer yurt rental and horseback tours and at a site where Mongolians sell their products. Survey administration took place July 12-13, 2015.
4. The Lake Teletskoe area, where the team gave the survey in the village of Artybash as tourists waited to begin excursions, and in the village of Iogach, where members of the Altai-kizhi and Tubular clans reside. Survey administration took place July 9-10, 2015 (Personal communication, E. Letyagin, 2015).

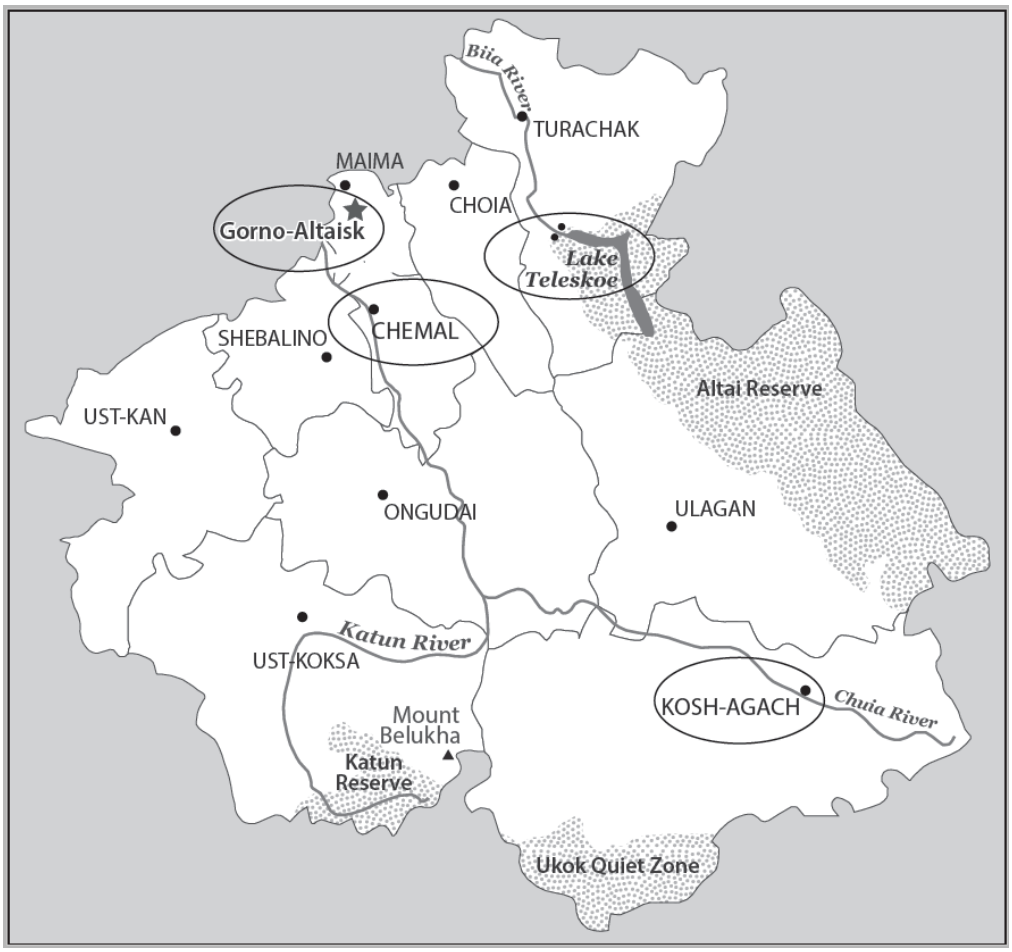

Figure 3. Map of Altai Republic, survey locations, districts, and UNESCO reserves. Copyright © 2017 Ruth Heuertz Remmers[2].

The rate of participation varied by location and by type of participant. In the urban area of Gorno-Altaisk, people participated less willingly than those in rural areas, perhaps because of their busy schedules; approximately six of every ten people asked to participate in Gorno-Altaisk agreed. In the rural areas of Chemal, Kosh-Agach, and the villages near Lake Teletskoe, approximately eight of every ten people who were asked to participate did so. Tourists were generally more eager to complete the survey forms than residents (Personal communication, E. Letyagin & D. Kireeva, 2015, 2016).

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A total of 401 people took the survey in the four areas. The total number decreased to 399 after my removal of two participant records with faulty data (see Appendix B for further information). Table 1 gives the number of participants by survey location.

Table 1.
Revised Number of Participants by Survey Location

Location	#	%
Chemal	100	25.1
Gorno-Altaisk	100	25.1
Kosh-Agach	100	25.1
Teletskoe Area	99	24.8
Total	399	100.0

Several tables that follow show the distributions of participants across a limited number of the categories. Table 2 gives the distribution of resident and non-resident participants.

Table 2.
Resident/Non-resident Participants

Status	#	%
Resident	207	51.9
Visitor or tourist	192	48.1
Total	399	100.0

Table 3 gives the distribution of participants by gender.

Table 3.
Gender of Participants

Gender	#	%
Female	212	53.1
Male	187	46.9
Total	399	100.0

Table 4 gives the distribution of resident and non-resident participants by educational level.

Table 4.
Educational Levels for Residents and Non-residents

Resident/Non-resident	Type	#	%
Resident	High school	54	26.1
	Middle Technical	60	29.0
	Higher (university)	90	43.5
	Other	3	1.4
	Subtotal	207	100.0
Non-resident	High school	22	11.5
	Middle Technical	44	22.9
	Higher (university)	114	59.4
	Other/Non given	12	6.2
	Subtotal	192	100.0
Total		399	

Note: Six people who did not complete higher education were included in high school level.

Table 5 gives the distribution of resident and non-resident participants by urban or rural background.

Table 5.
Urban/Rural Backgrounds for Residents and Non-residents

Resident/Non-resident	Type	#	%
Resident	Rural	161	77.8
	Urban	43	20.8
	Other	3	1.4
	Subtotal	207	100.0
Non-resident	Rural	54	28.1
	Urban	134	69.8
	Other	4	2.1
	Subtotal	192	100.0
Total		399	

Table 6 gives the distribution of resident participants by ethnic group.

Table 6.
Ethnicity of Resident Participants

Ethnic Group	#	%
Indigenous [a]	63	30.4
Kazakh	21	10.1
Russian	123	59.4
Total	207	100.0

[a] *Indigenous* represents non-Russian, and non-Kazakh participants.

Table 7 gives the distribution of non-resident participants by ethnic group or foreign status.

Table 7.
Ethnicity/Foreign Status of Non-resident Participants

Ethnic Group	#	%
Foreign [a]	13	6.8
Indigenous [b]	14	7.3
Kazakh	3	1.6
Russian	162	84.4
Total	192	100.0

[a] *Foreign* represents participants residing in other countries.
[b] *Indigenous* represents non-Russian, and non-Kazakh participants.

Table 8 gives the distribution of non-resident participants, by country or greater region of origin.

Table 8.
Country and Region of Non-residents of the Altai Republic

Region	Country	#	%
Europe	Belorussia	1	0.5
	France	1	0.5
	Germany	7	3.6
	Subtotal	9	4.7
Central Asia	Kazakhstan	2	1.0
	Mongolia	2	1.0
	Subtotal	4	2.0
Russia	Russia	179	93.2
Total		192	100.0

Interviews. To broaden my knowledge of the setting and the issues, I conducted semi-structured interviews prior to and during my visit to the Altai Republic. Interview respondents were either residents of the Altai Republic or were familiar with the area. Of the nine interviews, seven conversations took place in person and two by Skype. Those interviewed included five female ethnic Russians, two male ethnic Russians, one female of Altaian heritage, and one female American from Michigan familiar with the Altai Republic.

Materials

The survey itself. The two-page paper survey consisted of demographic questions, Likert statements, and multiple-choice questions (see Appendix A). Demographic questions appear on page one, the majority of which are directed toward all those participating, and requiring participants either to select from available options, or to self-report, that is, write in their responses. I included the self-reporting option to allow a broader variety of responses than would be possible by listing a set of options. Participants could select options for the following categories: resident or non-resident of the Altai Republic, gender, educational level, marital status, rural or urban background, and whether they work in tourism. Categories allowing

participants to supply their own responses include age, citizenship (гражданство), ethnicity (национальность), mother tongue, place of residence, and religion. Only non-residents were asked to respond to an additional four questions concerning their duration of stay, total number of visits to the Altai Republic, the goal of the current visit, and their type of accommodation.

The second page of the survey contained 13 Likert statements and three multiple-choice questions. The Likert statements pertained to three broad research questions. The set of statements in Table 9 concerns preserving the environment and the research question, “Are residents and non-residents of the Altai Republic similarly concerned about preserving the local environment in the face of rapidly increasing tourism?”

Table 9.
Survey Statements Regarding the Natural Environment

Statement
1) I am concerned about preserving the natural environment.
4) Economic development is not possible without pollution or the degradation of the natural environment.
8) Tourism facilities should be constructed in an ecologically friendly way, even if they cost more.
11) Emissions, industrial waste and garbage threaten the natural environment.

The second set of statements in Table 10 concerns the effects of tourism locally in the Altai Republic and the research question, “How do perceptions vary concerning the specific effects of tourism on the local economy, the natural setting, and culture within the Altai Republic?”

Table 10.
Survey Statements Regarding the Local Effects of Tourism

Statement
5) In this location, the natural environment is suffering damage from too many tourists.
6) Tourism improves the local standard of living.
7) Tourism saves local culture.
12) I pick up other people's garbage in the natural environment.
13) Waste produced by people has little effect on the natural environment.

The third set of statements in Table 11 concerns topics with relevance to members of Altaian clans and the research question, "Do Altaian clan members hold similar views to other participants on topics which may disproportionately affect Altaian peoples?"

Table 11.
Survey Statements with Implications for Traditional Peoples' Way of Life.

Statement
2) Nature reserves are necessary for the protection of the natural environment.
3) Historic and sacred sites are adequately protected by the government.
9) I am concerned that illegal hunting in general is a threat to the natural environment.
10) I am concerned about illegal hunting of endangered species found in the Red Book.

Two of the three multiple-choice questions ask for perceptions regarding environmental issues in the Altai Republic, and the third asks what participants find most pleasing about the area. For those questions, participants could select from a set of options, or provide their own responses (see Table 12).

Table 12.
Survey Multiple-choice Questions

Question
14) Who do you think treats the natural environment of the Altai Republic best?
15) Who do you think is responsible for removing garbage in the natural environment?
16) What do you enjoy most about the Altai Republic?

Training of the research team. I myself as the primary investigator, and those on my research team, all completed the online Human Subjects Protection Training required by the University of Kansas (KU) Internal Review Board (IRB) prior to beginning survey administration in the Altai Republic. I completed the training in English. The training became available in the Russian language later, and the research team completed it within days of the beginning of survey administration efforts.

The oral consent statement. I created an oral consent agreement in accordance with requirements of KU IRB. The statement would be read to participants prior to their participation in the survey. It would inform them of the nature of the research, eligibility for participation, assurance that participants would not be identified in any way, and contact information in case of questions. Participants received no compensation for their participation.

A Russian native speaker, who was a graduate student in the KU Department of Slavic Languages and Literatures, translated both the survey itself and the oral consent agreement from English into Russian. You will find English and Russian language versions in Appendix A.

Interview materials. I used a hand-held audio recorder to record conversations with interview respondents, and I later transcribed the conversations using Microsoft Word.

Data entry and analysis. I used Microsoft Excel for data entry of paper survey results, with the final corrected spreadsheet becoming input to SPSS. In order to minimize errors, and because it is improbable that two people would make the same data entry mistakes, both I and a colleague separately entered the data into spreadsheets of the same format. Later, I reviewed the two versions of the data first visually and then through an automated Spreadsheet Compare program by SourceForge (2015) to find differences. I used the resulting corrected spreadsheet

with SPSS for data analysis such as descriptive statistics frequencies and cross tabulations, and comparison of means for the one-way ANOVA test.

Although converting qualitative Likert data into numbers and calculating means has been debated as an analysis technique, it facilitates the comparison of responses (Esparon, Gyuris, & Stoeckl, 2014, p. 156; Schwartz, Wilson, & Goff, 2015, p. 18). The means are calculated from numbers associated with coding as follows: 1 - *Completely disagree,* 2 - *Somewhat disagree,* 3 - *Unsure,* 4 - *Somewhat agree, and* 5 - *Completely agree.* A mean that approaches the central value, 3, does not summarize information well, because it may represent an overall response of *Unsure*, or bimodal results divided between agreement and disagreement responses. For a statement with the mean approaching the value 3, the researcher reviews results for each of the five options for that statement.

I restructured categories of data into groups for easier analysis. As an example, I grouped together participants with similar religions. I used SPSS visual binning to sort participants into similar age groups (Pallant, 2013, p. 93). See Appendix B for a further explanation of data correction and restructuring.

Procedure

After locating potential participants, survey team members first read the Russian-language oral consent agreement to them. For those who agreed to participate, the team members filled in responses for participants on the two-page Russian-language survey, unless participants wished to complete the forms themselves. Participants spent a few minutes to complete each survey.

Participant Observation

During my stay in the Altai Republic during late July and early August of 2015, I visited several locations. Those included the Gorno-Altaisk Museum within the city, and the museum of Tubalar culture along the road from Gorno-Altaisk to the village of Choia. I visited tourism shops and kiosks in Gorno-Altaisk, near Lake Aya just across the border into the Altai Krai, and near Choia, where rural community members sell honey and other food items. I visited the village of Maima near Gorno-Altaisk, and Lesotel (forest hotel). I also viewed scenery and landscapes along roadways and along the Katun and Biia Rivers.

Positionality

As a white, female, American graduate student, born and raised in Kansas, I attempted to mitigate my lack of personal experience in the Altai Republic through reviewing literature, by interacting with colleagues in the Department of Slavic Languages and Literatures at KU, and through conversations with three interview respondents prior to my visit to the Altai Republic. Those actions influenced the topics that I included in the survey and its final form. I developed the survey as if it would be given by native Russian speakers familiar with the Altai Republic because, up until shortly before my trip, I was unsure whether I would be able to visit the area and because, although I have formally studied the Russian language for four years, my lack of fluency might hinder completion of the project. In addition, a GASU faculty member arranged interviews for me during my stay with residents familiar with the tourism industry, environmental issues, or topics concerning local Altaian clans.

Chapter V: Results

This chapter presents summarized results for the 13 Likert statements and for the three multiple-choice questions from the survey given during the summer of 2015 in the Altai Republic. Tables and figures display an overview of environmental perceptions among tourism stakeholders.

Likert Statement Overall Results

Participants indicated their level of agreement for the 13 Likert statements by selecting among the options: 1 - *Completely Disagree*, 2 - *Somewhat Disagree*, 3 - *Unsure*, 4 - *Somewhat Agree*, and 5 - *Completely Agree.* Calculating a statement's mean response often facilitates the comparison of responses. When a mean response for a Likert statement approaches either the upper limit of 5, or the lower limit of 1, it demonstrates a concentration of responses toward either agreement or disagreement with a statement. If the mean response for a statement approaches the middle value of 3, results cannot be generalized, but must be further examined for understanding. Two examples follow that elucidate problems of relying on a mean response which approaches the middle value. If 20 percent of the sample group selects each of the five options: 1 - *Completely Disagree*, 2 - *Somewhat Disagree*, 3 - *Unsure*, 4 - *Somewhat Agree*, and 5 - *Completely Agree*, a mean response of 3 represents a flat distribution with no clear preference shown in responses. If 50 percent of a sample group supports the upper option of 5 - *Completely Agree*, and 50 percent supports the lower option of 1 - *Completely Disagree*, the mean response again becomes 3, but this time represents a bimodal distribution with half of the participants holding a view in opposition to the other half.

Table 13 presents results for the 13 Likert statements, showing the overall mean responses and standard deviations by statement, and for residents and non-residents.

Table 13.
Survey Statements, Numbers of Residents and. Non-residents, ANOVA Results

Statement		*N*	*M*	*SD*	*SE*	Min	Max
1) I am concerned about preserving the natural environment.	Resident	206	4.78	.652	.045	1	5
	Visitor or tourist	190	4.80	.536	.039	1	5
	Total	396	4.79	.599	.030	1	5
2) Nature reserves are necessary for the protection of the natural environment.	Resident	206	4.70	.768	.054	1	5
	Visitor or tourist	189	4.83	.539	.039	1	5
	Total	395	4.76	.670	.034	1	5
3) Historic and sacred sites are adequately protected by the government.	Resident	204	3.35	1.288	.090	1	5
	Visitor or tourist	190	3.52	1.259	.091	1	5
	Total	394	3.43	1.275	.064	1	5
4) Economic development is not possible without pollution or the degradation of the natural environment.	Resident	204	3.23	1.515	.106	1	5
	Visitor or tourist	192	2.77	1.494	.108	1	5
	Total	396	3.01	1.521	.076	1	5
5) In this location, the natural environment is suffering damage from too many tourists.	Resident	207	3.29	1.463	.102	1	5
	Visitor or tourist	190	3.21	1.224	.089	1	5
	Total	397	3.25	1.353	.068	1	5
6) Tourism improves the local standard of living.	Resident	205	4.33	1.042	.073	1	5
	Visitor or tourist	190	4.39	.906	.066	1	5
	Total	395	4.36	.978	.049	1	5
7) Tourism saves local culture.	Resident	204	3.92	1.253	.088	1	5
	Visitor or tourist	192	3.80	1.234	.089	1	5
	Total	396	3.86	1.244	.063	1	5
8) Tourism facilities should be constructed in an ecologically friendly way even if they cost more.	Resident	205	4.72	.725	.051	1	5
	Visitor or tourist	192	4.88	.390	.028	3	5
	Total	397	4.80	.591	.030	1	5
9) I am concerned that illegal hunting in general is a threat to the natural environment.	Resident	206	4.57	.999	.070	1	5
	Visitor or tourist	192	4.78	.682	.049	1	5
	Total	398	4.67	.866	.043	1	5
10) I am concerned about illegal hunting of endangered species found in the Red Book.	Resident	206	4.61	.886	.062	1	5
	Visitor or tourist	192	4.68	.831	.060	1	5
	Total	398	4.64	.860	.043	1	5
11) Emissions, industrial waste and garbage threaten the natural environment.	Resident	207	4.87	.537	.037	1	5
	Visitor or tourist	192	4.82	.639	.046	1	5
	Total	399	4.85	.588	.029	1	5
12) I pick up other people's garbage in the natural environment.	Resident	207	4.46	.928	.065	1	5
	Visitor or tourist	192	3.85	1.374	.099	1	5
	Total	399	4.17	1.203	.060	1	5
13) Waste produced by people has little effect on the natural environment.	Resident	206	1.83	1.271	.089	1	5
	Visitor or tourist	192	1.87	1.334	.096	1	5
	Total	398	1.85	1.300	.065	1	5

Table 14 presents Likert statements in descending order by mean response, listing first the statement with the highest rate of agreement. The table also summarizes the options selected by count and percentage.

Table 14.
Statement Responses for All Participants, Ordered by Mean

Statement	*M*	*SD*	*Completely disagree*	*Somewhat disagree*	*Unsure*	*Somewhat agree*	*Completely agree*	Total
11) Emissions, industrial waste and garbage threaten the natural environment.	4.85	.588	5	2	7	21	364	399
			1.3%	0.5%	1.8%	5.3%	91.2%	100.0%
8) Tourism facilities should be constructed in an ecologically friendly way even if they cost more.	4.80	.591	2	5	10	38	342	397
			0.5%	1.3%	2.5%	9.6%	86.1%	100.0%
1) I am concerned about preserving the natural environment.	4.79	.599	4	3	5	48	336	396
			1.0%	0.8%	1.3%	12.1%	84.8%	100.0%
2) Nature reserves are necessary for the protection of the natural environment.	4.76	.670	6	2	11	41	335	395
			1.5%	0.5%	2.8%	10.4%	84.8%	100.0%
9) I am concerned that illegal hunting in general is a threat to the natural environment.	4.67	.866	13	4	15	36	330	398
			3.3%	1.0%	3.8%	9.0%	82.9%	100.0%
10) I am concerned about illegal hunting of endangered species found in the Red Book.	4.64	.860	10	8	17	44	319	398
			2.5%	2.0%	4.3%	11.1%	80.2%	100.0%
6) Tourism improves the local standard of living.	4.36	.978	8	18	41	85	243	395
			2.0%	4.6%	10.4%	21.5%	61.5%	100.0%
12) I pick up other people's garbage in the natural environment.	4.17	1.203	23	32	26	92	226	399
			5.8%	8.0%	6.5%	23.1%	56.6%	100.0%
7) Tourism saves local culture.	3.86	1.244	24	43	64	98	167	396
			6.1%	10.9%	16.2%	24.7%	42.2%	100.0%
3) Historic and sacred sites are adequately protected by the government.	3.43	1.275	27	81	89	88	109	394
			6.9%	20.6%	22.6%	22.3%	27.7%	100.0%
5) In this location, the natural environment is suffering damage from too many tourists.	3.25	1.353	50	81	79	93	94	397
			12.6%	20.4%	19.9%	23.4%	23.7%	100.0%
4) Economic development is not possible without pollution or the degradation of the natural environment.	3.01	1.521	92	82	52	72	98	396
			23.2%	20.7%	13.1%	18.2%	24.7%	100.0%
13) Waste produced by people has little effect on the natural environment.	1.85	1.300	245	61	31	29	32	398
			61.6%	15.3%	7.8%	7.3%	8.0%	100.0%

Multiple-Choice Question Overall Results

Of the three multiple-choice questions on the survey; two questions concern environmental issues and one elicits participants' favorite aspect of the Altai Republic. In response to those questions, participants selected from available options, or provided their own. Summarized responses appear below to multiple-choice questions 14, 15 and 16 in Figure 4, Figure 5, and Figure 6 respectively.

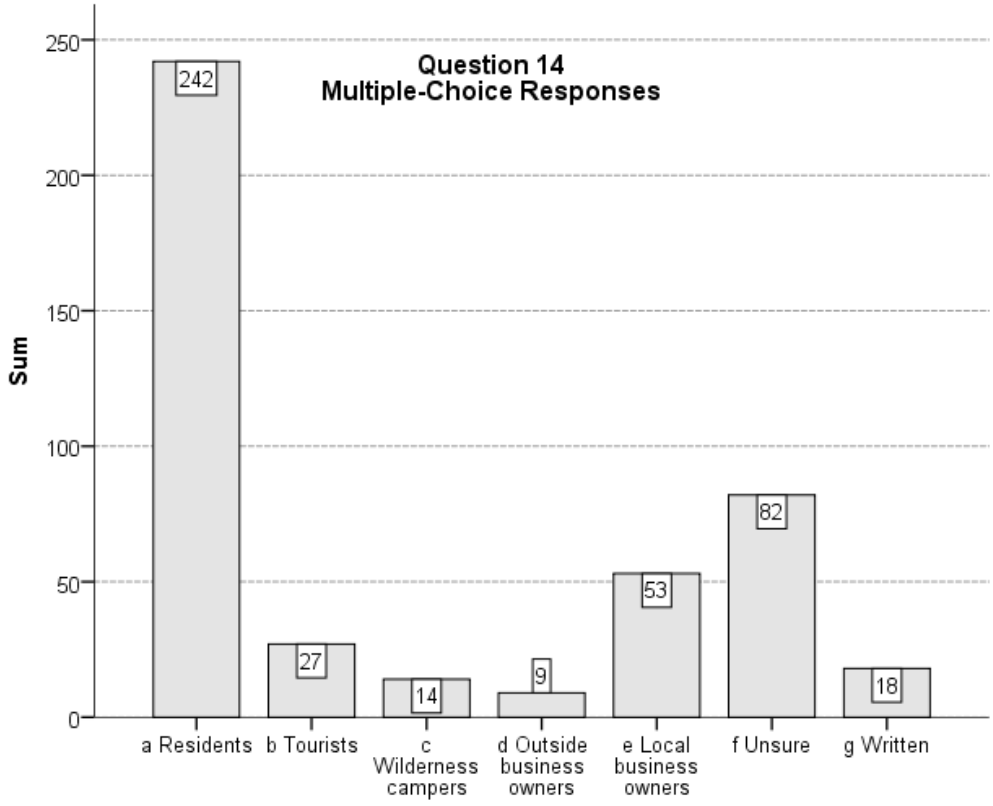

Figure 4. Bar chart of question 14 responses: "Who do you think treats the natural environment of the Altai Republic best?" N=399, total responses=445.

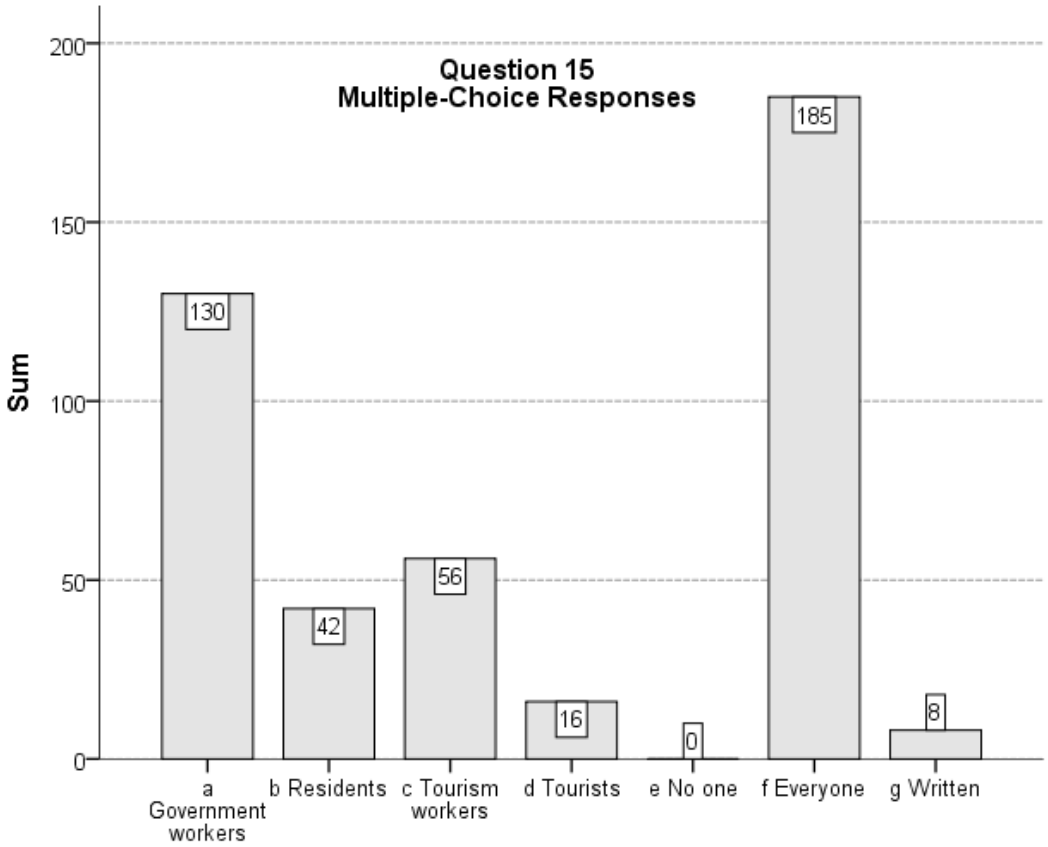

Figure 5. Bar chart of question 15 responses: “Who do you think is responsible for removing garbage in the natural environment?” N=399, total responses=437.

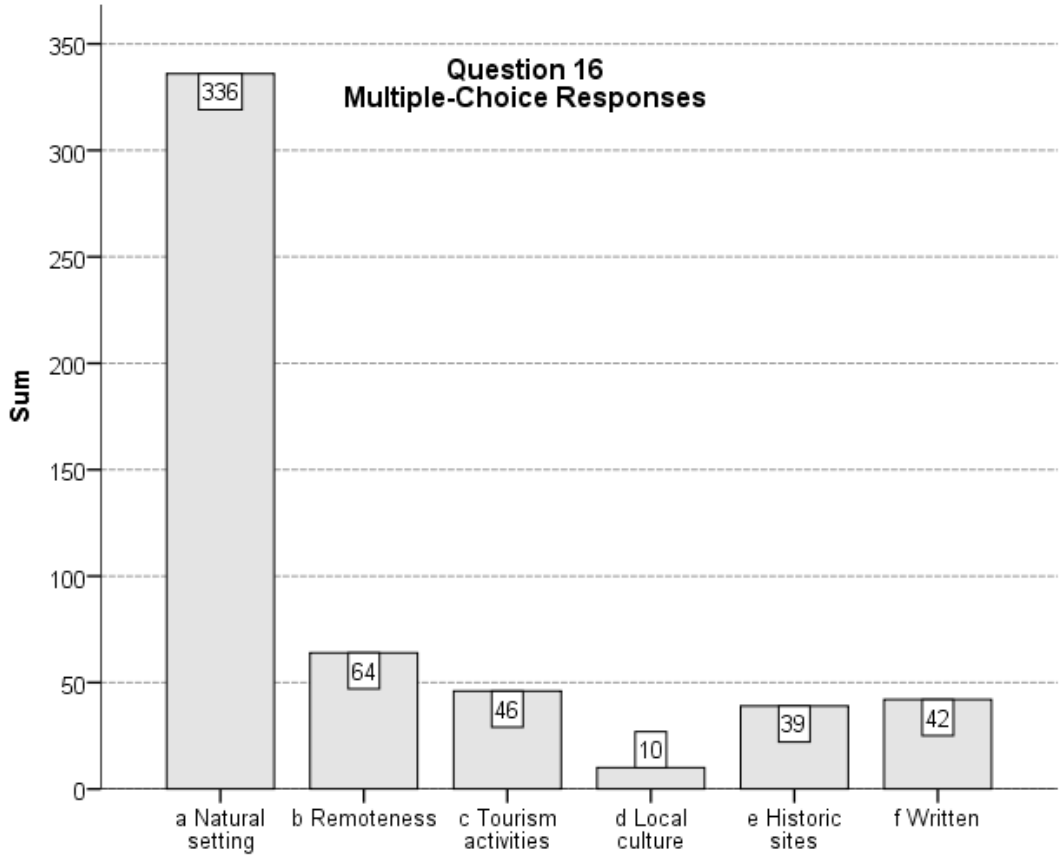

Figure 6. Bar chart of question 16 responses: "What do you enjoy most about the Altai Republic?" N=399, Total responses=537.

I discuss results appearing in this chapter in detail in later chapters of the thesis.

- See Chapter 6 for a discussion of Likert statements 1, 4, 8, and 11 regarding the natural environment, and of multiple-choice question 16.
- See Chapter 7 for a discussion of statements 5, 6, 7, 12 and 13 regarding the local effects of tourism, and of two multiple-choice questions, 14 and 15.
- See Chapter 8 for a discussion of statements 2, 3, 9, and 10, which may have implications for local, traditional peoples.

Chapter VI: Perceptions of the Natural Environment

The Altai Republic in Western Siberia draws large numbers of tourists and visitors annually from across the Russian Federation and small numbers from Europe and Central Asia. Although the total population in 2015 numbered only 210,000, the number of tourists in the region has risen rapidly from 40,000 in 1990, to 450,000 in 2002, to 1.3 million in 2012, to over 1.8 million in 2015 (AROPa, 2016; Brooke, 2013; Castner, 2009, p. 6; Mandych, 2006, p. 270; Ogranichit, 2016). Tourism showcases the Altai Mountains in the area, which has retained much of its natural landscape and environment as one of the least urbanized regions of Russia. Although flights are available into the capital of Gorno-Altaisk, a railway system does not serve the area (Brooke, 2013; Orttung, Lussier, & Paretskaya, 2000, p. 124; Welcome, 2012). Worldwide, mountainous regions represent some of the last important refuges of biodiversity (Chhatre, Lakhanpal, & Prasanna, 2016, p. 1).

The Altai Republic has just one city, Gorno-Altaisk, with a population of 57,000, and ten rural districts, each with a village as its administrative center (AROPb, 2015). Approximately 72 percent of the local population lives in rural areas, and 28 percent lives in Gorno-Altaisk. By contrast, 26 percent of Russia's overall population lives in rural areas and 74 percent lives in urban areas (Vserossiiskaia-2010, 2013).

Residents and non-residents revealed their perceptions concerning the natural environment and tourism by completing my survey during the summer of 2015. Approximately 100 persons participated from each of four general locations: (1) the urban area of Gorno-Altaisk, (2) the rural village of Chemal, (3) the rural village of Kosh-Agach, and (4) two rural villages near the north end of Lake Teletskoe, Iogach and Artybash.

Survey participants consist of 52 percent residents and 48 percent non-resident tourists or visitors. By gender, participants are 53 percent females, and 47 percent males. Of non-resident participants, 93 percent arrive from elsewhere within the Russian Federation, four percent from Europe, and three percent from Central Asia. By ethnicity, the resident portion includes 59 percent Russians, 30 percent indigenous, who are almost exclusively members of Altaian clans, and 10 percent Kazakhs. The ethnic breakdown of residents roughly mirrors the ethnic breakdown of residents of the Altai Republic, which has 56 percent Russians, 35 percent members of Altaian clans, and six percent Kazakhs (see Table 15).

Table 15.
Ethnic Groups: Resident Participants Compared with the Altai Republic

Ethnic Group	Resident Portion of Sample	Resident Portion as Entire Group	Altai Republic Statistics [a]
Indigenous [b]	15.8%	30.4%	35.3%
Kazakh	5.3%	10.1%	6.1%
Russian	30.8%	59.4%	55.7%
Other	--	--	2.9%
Total	51.9%	100.0%	100.0%

[a] Population statistics for the Altai Republic (AROPa, 2016).
[b] Indigenous represents non-Russian, non-Kazakh participants.

Non-resident participants appear to represent a higher social status than residents. A greater percentage of non-residents than residents hold university degrees (see Table 16). A much greater percentage of residents than non-residents comes from rural backgrounds rather than urban ones (see Table 17). Those who reside in rural areas of the Altai Republic experience significantly greater poverty than those in urban areas (Braden & Prudnikova, 2008, pp. 4–6).

Table 16.
Educational Levels for Residents and Non-residents

Resident/Non-resident	Type	#	%
Resident	High school	54	26.1
	Middle Technical	60	29.0
	Higher (university)	90	43.5
	Other	3	1.4
	Subtotal	207	100.0
Non-resident	High school	22	11.5
	Middle Technical	44	22.9
	Higher (university)	114	59.4
	Other/Non given	12	6.2
	Subtotal	192	100.0
Total		399	

Note: Six people who did not complete higher education were included in high school level.

Table 17.
Urban/Rural Backgrounds for Residents and Non-residents

Resident/Non-resident	Type	#	%
Resident	Rural	161	77.8
	Urban	43	20.8
	Other	3	1.4
	Subtotal	207	100.0
Non-resident	Rural	54	28.1
	Urban	134	69.8
	Other	4	2.1
	Subtotal	192	100.0
Total		399	

I conducted nine interviews to supplement my knowledge of tourism and environmental issues in the Altai Republic. Interview respondents consisted of five female ethnic Russians, two male ethnic Russians, one female of Altaian heritage, and one female American familiar with the Altai Republic.

Results from four survey statements and one multiple-choice question address general topics concerning tourism and the environment. The results present similarities and differences in the perceptions of residents and non-residents to gain understanding of the research question, "Are residents and non-residents of the Altai Republic similarly concerned about preserving the local environment in the face of rapidly increasing tourism?" Both residents and non-residents display high pro-environmental sentiment.

Survey Statements Regarding the Natural Environment

Participants display broad concern about the effects of pollution in the Altai Republic through their responses to three pro-environmental survey statements which concerned: (1) waste left in the natural environment, (2) the ecological construction of tourism facilities, and (3) the preservation of the natural setting. Those three statements receive the highest rates of agreement of all 13 statements on the survey, reflected in means of 4.79, 4.80, and 4.85 respectively. In contrast, a survey statement, which condones economic development despite potential collateral environmental damage, receives inconsistent, mixed results represented by a mean response of 3.01 (see Table 18).

I use a calculated mean to represent responses for survey statements, because in many cases the mean provides a summary of the responses. Means are calculated from numbers associated with statement response options as follows: 1 - *Completely disagree,* 2 - *Somewhat disagree,* 3 - *Unsure,* 4 - *Somewhat agree, and* 5 - *Completely agree,* using the ANOVA comparison of means test in SPSS. A mean which approaches the number 1 indicates greater disagreement, with more participants selecting either option 1 - *Completely disagree* or 2 - *Somewhat disagree*. A mean approaching the number 5 indicates greater agreement, with more participants selecting either option 4 - *Somewhat agree,* or 5 - *Completely agree*. However, if an

overall mean approaches the central value of 3, it may indicate either a high number of *Unsure* responses, or inconsistent or bimodal responses distributed among the agreement and disagreement options.

Table 18.
Survey Statements Regarding the Natural Environment, Ordered by Mean

Statement	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Total
11) Emissions, industrial waste and garbage threaten the natural environment.	4.85	5 1.3%	2 0.5%	7 1.8%	21 5.3%	364 91.2%	399 100.0%
8) Tourism facilities should be constructed in an ecologically friendly way, even if they cost more.	4.80	2 0.5%	5 1.3%	10 2.5%	38 9.6%	342 86.1%	397 100.0%
1) I am concerned about preserving the natural environment.	4.79	4 1.0%	3 0.8%	5 1.3%	48 12.1%	336 84.8%	396 100.0%
4) Economic development is not possible without pollution or the degradation of the natural environment.	3.01	92 23.2%	82 20.7%	52 13.1%	72 18.2%	98 24.7%	396 100.0%

Pollution in the Natural Environment

An interview respondent speaks about changes she has noticed over time, which include increased pollution. She indicates both her displeasure with the changes and her concern for the local area:

> It (the Altai Republic) used to be really an idyllic place. Few people on the banks of the rivers, no pollution, clean banks, no cabins, few tents. When I was a child, we used to have trips not very far from the city with our family, so we could find a lot of places with no people around. And those places looked pure, like nature. What has changed? A lot of people, crowds of people nowadays, a lot of ugly construction …. The pollution is worsening now. Well, as a representative of (the) local population, I'm not very happy

with this situation. (Interview with female ethnic Russian-4 from the Altai Republic, Gorno-Altaisk, 2015)

With incoming tourists come large amounts of garbage, for which tourism businesses often do not assume responsibility. According to one interview respondent, “The banks of the rivers are actually full of rubbish at the end of the tourist season,” although village authorities and residents attempt to deal with it (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015). However, according to another interview respondent, “They (village authorities) don’t have money for it, (or) any place … to dispose of all the trash properly” (Interview with female of Altaian clan heritage, Gorno-Altaisk, 2015).

Pollution in the natural environment: Responses. Survey participants broadly agree that pollution associated with economic development endangers the natural setting. Statement 11, “Emissions, industrial waste and garbage threaten the natural environment,” receives the highest mean score of all the statements on the survey, 4.85, representing the highest level of agreement, with the vast majority of participants completely agreeing. If percentages are summed for the options of *Somewhat agree* and *Completely Agree*, the combined agreement becomes 97 percent for all participants, with residents and non-residents both showing very high rates of combined agreement (see Table 19). The results affirm that both residents and non-residents would like to see natural areas protected from environmental damage, thereby preserving beautiful locations as are found in the Altai Republic.

Table 19.
Residents/Non-residents and Survey Statement 11: "Emissions, industrial waste and garbage threaten the natural environment."

Category	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined agree	Total
Resident	4.87	2	1	3	10	191	201	207
		1.0%	0.5%	1.4%	4.8%	92.3%	97.1%	100.0%
Non-resident	4.82	3	1	4	11	173	184	192
		1.6%	0.5%	2.1%	5.7%	90.1%	95.8%	100.0%

Note: *N*=399, *M*=4.85, Total combined agree=96.5%.

Additional Costs to Preserve the Natural Setting

If tourism developers follow environmentally friendly construction standards, more native plants and animals would remain. However, according to Richard Mattison, the CEO of the sustainability research company, Trucost, "If companies were to have to pay for the costs (of environmental damage) they created, it would actually wipe out profit" (Hepler & Grady, 2015).

When asked whether owners of large tourism businesses use their operations to protect the environment of the Altai Republic, an interview respondent reported:

> Well, they're concerned at the level of our laws making them [*sic*]. Do you follow me? …It's actually where the words nature and business meet. Of course, if you are a business man, you are concerned about the income first. And, of course, you would not be an initiator of keeping the nature and the landscape clean. They are concerned as far as our laws [are] forcing them to keep it clean and obey the law. (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015)

Another interview respondent laments dramatic changes that have already occurred in the local setting because of tourism development, including the devastation of some of the area's innate beauty:

> The main problem is that people who create this tourism here, they do not value the nature of our region. … if you go to some remote districts of our republic, of our region, you will see just more and more these big castles made for tourists. … We have … these roads that …four cars can go in one side, and four can go in another side. It's just wild for me, because they just destroy this natural beauty of our region, they make it look like some foreign hotels. (Interview with female ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015)

Another interview respondent reiterates the thought that tourism damages the inherent beauty of the Altai Republic:

> Well, everything became more civilized basically. Roads appeared – well paved roads, lots of stores, gas stations, all the touristic [*sic*] attractions that are within car reach are very well attended, but at the same time they lose their wildness, their kind of unique character. (Interview with female ethnic Russian from the Altai Krai, Lawrence, Kansas, 2015)

Additional costs to preserve the natural setting: Responses. Survey participants broadly support the notion that tourism should be developed in a way that maintains the natural setting. Statement 8, "Tourism facilities should be constructed in an ecologically friendly way, even if they cost more," received a high mean score of 4.80, and combined agreement of 96 percent for all participants, with 94 and 98 percent combined agreement from residents and non-residents respectively (see Table 20).

Table 20.
Residents/Non-residents and Survey Statement 8: "Tourism facilities should be constructed in an ecologically friendly way, even if they cost more."

Category	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined agree	Total
Resident	4.72	2	5	6	22	170	192	205
		1.0%	2.4%	2.9%	10.7%	82.9%	93.6%	100.0%
Non-resident	4.88	0	0	4	16	172	188	192
		0.0%	0.0%	2.1%	8.3%	89.6%	97.9%	100.0%

Note: *N*=397, *M*=4.80, Total combined agree=95.7%.

A portion of Kazakh survey participants hold a different viewpoint from the majority concerning ecologically constructed tourism facilities. While combined agreement falls in the 96 percent range for the vast majority, combined agreement for Kazakhs ranges from 71 to 76 percent as shown in results from three categories: ethnic group, native language, and religion (see Table 21).

Table 21.
Kazakhs and Survey Statement 8: "Tourism facilities should be constructed in an ecologically friendly way, even if they cost more."

Category		*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined agree	Total
Ethnic Group	Kazakh	4.04	1	3	3	4	13	17	24
			4.2%	12.5%	12.5%	16.7%	54.2%	70.9%	100.0%
Native Language	Kazakh	4.12	1	3	3	4	15	19	26
			0.3%	11.5%	11.5%	15.4%	57.5%	73.1%	100.0%
Religion	Muslim	4.21	1	3	3	4	18	22	29
			3.4%	10.3%	10.3%	13.8%	62.1%	75.9%	100.0%

Note: *N*=397, *M*=4.80, Total combined agree=95.7%.

Kazakhs constitute 6 percent of the total population of the Altai Republic. Kazakhs make up 6 percent of all participants, and 10 percent of survey participants who are residents (see Table 15 and Table 22).

Table 22.
Ethnic Groups: Resident/Non-resident Participants

Ethnic Group		Resident	Non-resident	Total
Foreign [a]	Count	0	13	13
	% of Total	0.0%	3.3%	3.3%
Indigenous [b]	Count	63	14	77
	% of Total	15.8%	3.5%	19.3%
Kazakh	Count	21	3	24
	% of Total	5.3%	0.8%	6.0%
Russian	Count	123	162	285
	% of Total	30.8%	40.6%	71.4%
Total	Count	207	192	399
	% of Total	51.9%	48.1%	100.0%

[a] *Foreign* represents participants residing in other countries.
[b] *Indigenous* represents non-Russian, non-Kazakh participants from within the Altai Republic or from elsewhere within Russia.

Kazakhs speak Kazakh as their native language, and they practice Islam, as compared with Russians, who make up 57 percent of the population, speak Russian as their native language, and primarily associate themselves with Orthodox Christianity. Members of Altaian clans, who make up 34 percent of the population, most commonly speak Altaian as their native language, and tend to hold pagan or shamanist beliefs or a syncretism of those with other religions.

Kazakhs primarily reside in the Kosh-Agach District in the south of the Altai Republic, located just across the border from the country of Kazakhstan. The district experiences harsh conditions, with fierce, cold winds even in July **(**Interview with female ethnic Russian-3 from the Altai Republic, Gorno-Altaisk, 2015**),** and it is an especially difficult area in which to live, because gardens cannot be grown there even in summer (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015**)**.

Kazakhs in the Kosh-Agach District offer some ecotourism options such as yurt rental or horseback tours, and some make their living, at least in part, through tourism. The distance from the city of Gorno-Altaisk near the northern border of the Altai Republic to Kosh-Agach village near the southern border is 465 kilometers (289 miles), and it takes about six hours to travel by car on the Chuiskii Trakt (AROPb, 2015) (Personal communication, E. Letyagin, 2015).

Why might some Kazakhs disagree about the need for additional fees to maintain the environment? Based on information about rural incomes in the Altai Republic and about Kazakh tourism activities, I hypothesize that the answer lies in the financial situation of Kazakh residents. Poverty threatens the subsistence of many rural residents in the Altai Republic who often make less than half the income of urban residents in the city of Gorno-Altaisk (Braden & Prudnikova, 2008, pp. 4–6). Kazakh participants might consider additional tourism fees to be an economic burden for small-scale, rural tourism operators, who may struggle in a market already limited by season (primarily summer), locale—a considerable distance from the city of Gorno-Altaisk (where most tourists initially arrive in the Altai Republic), and climate (harsh weather even in the summer). Additional expenses which decrease their incomes could make small-scale rural tourism entrepreneurs less able to support themselves.

To better understand Kazakh concerns about costs related to tourism, future research might consider whether poverty plays a role in perceptions in the Kosh-Agash district. Research might also investigate the type and extent of local ecological damage attributable to tourism as perceived by residents, and the perceived relationship of Kazakhs to their natural environment.

Desire to Preserve the Natural Setting

Russians represent the majority of resident and non-resident participants and display strong agreement with pro-environmental statements, and members of Altaian clans, such as

pagans and shamanists, often hold special regard for features of nature, such as rivers and mountains, considering them so important that they revere them as living beings (Klubnikin, Annett, Cherkasova, Shishin, & Fotieva, 2000, p. 1297). One interview respondent said about members of the local Telengit tribe that they believe, "Our land is God. If we leave this place, we leave our God" (Interview with female of Altaian clan heritage, Gorno-Altaisk, 2015).

Desire to preserve the natural setting: Responses. Survey participants in the Altai Republic, whether resident or non-resident, show broad support for the theme of preservation of the natural environment as shown through results of survey statement 1, "I am concerned about preserving the natural environment." Responses result in a mean score 4.79 with combined agreement of 97 percent for all participants, including 97 percent for both residents and non-residents (see Table 23).

Table 23.
Residents/Non-residents and Survey Statement 1: "I am concerned about preserving the natural environment."

Category	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined agree	Total
Resident	4.78	3	2	2	23	176	199	206
		1.5%	1.0%	1.0%	11.2%	85.4%	96.6%	100.0%
Non-resident	4.80	1	1	3	25	160	185	190
		0.5%	0.5%	1.6%	13.2%	84.2%	97.4%	100.0%

Note: *N*=396, *M*=4.79, Total combined agree=96.5%.

One might hypothesize that the pagans and shamanists would show greater agreement for the survey statement than participants with other religions or belief systems, because of their high esteem for natural features. Although Pagans/Shamanists show unwavering support for the statement, with 100 percent of them selecting *Completely agree*, Christians also agree at an extremely high rate of 99 percent combined agreement, and Muslims, as well as atheists and agnostics agree at rates of 93 percent and 94 percent respectively. Because of the high rates of

agreement by all groups, the breakdown by religion does not reveal a significant difference in perceptions in favor of pagans and shamanists (see Table 24).

Table 24.
Religion and Survey Statement 1: "I am concerned about preserving the natural environment."

Category	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined agree	Total
Atheist/Agnostic	4.67	1	1	2	9	48	57	61
		1.6%	1.6%	3.3%	14.8%	78.7%	93.5%	100.0%
Christian	4.86	0	1	1	27	208	235	237
		0.0%	0.4%	0.4%	11.4%	87.8%	99.2%	100.0%
Muslim	4.66	1	1	0	3	24	27	29
		3.4%	3.4%	0.0%	10.3%	82.8%	93.1%	100.0%
Pagan/Shamanist	5.00	0	0	0	0	21	21	21
		0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%

Note: N=396. *M*=4.79, Total combined agree=96.5%.

Consequences of Economic Development

Some view environmental degradation as a necessary price for progress and prosperity for the development of tourism, in the same way that others have viewed the negative environmental effects of industrialization as inevitable (Rotman, 2010). Consequences of tourism development for the Altai Republic have included the loss of unique natural areas and their replacement with tourist resorts, garbage left in the natural environment, increased air pollution from car traffic, and increased danger to residents dealing with traffic situations.

An interview respondent reports increased pollution in the Altai Republic, because of increasing numbers of tourists. "… because of a commercial campaign, more people come in the summer, and there are traffic jams on the highways, and if there are more cars, there is more pollution" (Interview by Skype with female ethnic Russian-1 from the Altai Republic, 2015).

Consequences of economic development: Responses. Participants give mixed responses to survey statement 4, "Economic development is not possible without pollution or the

degradation of the natural environment." The mean of 3.01 in this case represents a bimodal distribution where the combined agreement of 43 percent nearly matches that of the combined disagreement of 44 percent. Results from residents and non-residents of the Altai Republic tend to be evenly split; although residents agree somewhat more frequently, and non-residents disagree more frequently (see Table 25).

Table 25.
Residents/Non-residents and Survey Statement 4: "Economic development is not possible without pollution or the degradation of the natural environment."

Category	*M*	Combined disagree	Unsure	Combined agree	Total
Resident	3.23	76	27	101	204
		37.2%	13.2%	49.5%	100.0%
Non-resident	2.77	98	25	69	192
		51.0%	13.0%	36.0%	100.0%

Note: *N*=396, *M*=3.01, Total combined agree=42.9%, Total combined disagree=43.9%.

Results by urban/rural background, by survey location, and by education level are also somewhat evenly split. Participants with rural backgrounds, or who complete their surveys in a rural area such as the village of Chemal, or with high school educations, tend to agree more often with the statement, supporting the idea that environmental degradation is a necessary byproduct of economic growth. Those with urban backgrounds, or who complete their surveys in the city of Gorno-Altaisk, or with university educations (or higher) tend to disagree more often (see Table 26). Perhaps having an urban background, or visiting an urban survey location, or earning a university education indicates a higher social status and a greater likelihood of holding the pro-environmental perception that economic development can be accomplished without damaging the natural environment.

Table 26.
Selected Categories and Survey Statement 4: "Economic development is not possible without pollution or the degradation of the natural environment."

Category		*M*	Combined disagree	Unsure	Combined agree	Total
Background	Urban	2.66	94	26	57	139
			53.1%	14.7%	32.2%	100.0%
Background	Rural	3.29	77	26	109	212
			36.3%	12.3%	51.4%	100.0%
Survey Location	Gorno-Altaisk	2.66	54	14	31	99
			54.5%	14.1%	31.3%	99.9%
Survey Location	Chemal	3.27	34	12	54	100
			34.0%	12.0%	54.0%	100.0%
Education	Higher	2.77	103	25	75	203
			50.7%	12.3%	37.0%	100.0%
Education	High school	3.77	16	10	49	75
			21.3%	13.3%	65.4%	100.0%

Note: *N*=396, *M*=3.01, Total combined agree=42.9%; Total combined disagree=43.9%.

Results by profession do not show a clear pattern of response. While white collar office workers, such as economists and managers, tend to disagree more often with the statement, indicating more of a pro-environmental attitude, businessmen agree very slightly more often, although their responses are split between 43 percent disagreement and 47 percent agreement. Drivers, as blue collar outdoor workers, tend to agree slightly more often, similar to businessmen. Those with the professions of laborer, salesperson, and manager display greater indecision than others by selecting *Unsure* by 43 percent, 25 percent, and 22 percent respectively (see Table 27). If participants in the three latter professions have jobs dependent on economic development, such as in tourism, their indecision may indicate a conflict between a need for an income and a desire for less pollution. The mixed results might also indicate that professions in Russia do not easily correspond to the concepts of white and blue collar workers, or to higher and lower social levels. Future research might analyze in greater detail the relationship of various professions in the Altai Republic with social status and with environmental attitudes.

Table 27.
Selected Professions and Survey Statement 4: "Economic development is not possible without pollution or the degradation of the natural environment."

Profession	*M*	Combined disagree	Unsure	Combined agree	Total
Blue Collar					
Driver	3.28	8	0	10	18
		44.5%	0.0%	55.5%	100.0%
Laborer	3.36	2	6	6	14
		14.3%	42.9%	42.8%	100.0%
White Collar					
Businessman	3.03	13	3	14	30
		43.3%	10.0%	46.7%	100%
Economist	2.67	10	2	6	18
		55.6%	11.1%	33.4%	100.0%
Manager	2.43	14	5	4	23
		60.8%	21.7%	17.4%	100.0%
Customer Interaction					
Salesperson	3.65	4	5	11	23
		20.0%	25.0%	55.0%	100.0%

Note: *N*=396, *M*=3.01, Total combined agree=42.9%, Total combined disagree=43.9%.

Survey Question Regarding the Most Valued Feature

When asked about his or her favorite place within the Altai Republic, each interview respondent usually describes a particular area. One person describes three:

> There are so many different places.… They all kind of make my heart sing in different ways. The Ust-Koksa region, in the southwest, is extremely idyllic, kind of verdant, grassy valleys with cattle, livestock farms, and beautiful tree-covered slopes, mountains all around it. …But then, so much is so beautiful. And you know the Argut Basin is so wild, and craggy, and severe, and difficult, and amazing in its own way. … And then eastern Kosh-Agach, where the steppes are, and the permafrost, tundra, and the very severe craggy mountains, but with no trees, is also really beautiful. So I think those are my top three all-time favorites: eastern Kosh-Agach, and Argut basin, and Ust-Koksa.

(Interview by Skype with female American from Michigan familiar with the Altai Republic, 2015)

In response to multiple-choice question 16, “What do you enjoy most about the Altai Republic?” the majority of participants, 84 percent overall, choose “The natural setting,” followed by “The remoteness”, an aspect of the non-urbanized setting, by 16 percent; residents and non-residents select the two options at similar rates. Many participants select more than one of the available choices; 399 participants gave a total of 537 responses. Non-resident participants, who commonly arrive in the Altai Republic as tourists, understandably select “Tourism activities” more frequently than residents, with 15 percent of non-residents selecting it compared with 8 percent by residents (see Table 28). After those options, residents and non-residents select “Historic sites” and “Local culture” at similar rates.

Because local sites and local culture showcase social aspects of the local area, one might speculate that residents would select them more frequently than non-residents; however, residents and non-residents select the options at similar rates. Perhaps residents select the options less frequently than anticipated because of the options’ familiarity, leading participants not to consider them when responding to the question.

Table 28.
Residents, Non-residents and Survey Question 16: "What do you enjoy most about the Altai Republic?"

Options	# Resident	% Resident	# Non-resident.	% Non-resident	# Total	% Total
a. The natural setting	169	81.6%	167	87.0%	336	84.2%
b. The remoteness	29	14.0%	35	18.2%	64	16.0%
c. Tourism activities	17	8.2%	29	15.1%	46	11.5%
d. Local culture	5	2.4%	5	2.6%	10	2.5%
e. Historic sites	18	8.7%	21	10.9%	39	9.8%
f. Written	25	12.1%	17	8.9%	42	10.5%
Total [a]	263	127.1%	274	142.7%	537	134.6%

Note: Percentages have been calculated using the number of total participants rather than by the number of responses.
[a] Total participants=399, Residents=207, Non-residents=192.

I reclassified a number of ethnicities into two general types in order to simplify the comparison of their survey results with results from Russians and Kazakhs. The revised ethnic groups, *Foreign* and *Indigenous,* became combined groups, while Kazakhs and Russians retained their previous designations. The term *Indigenous,* as an ethnic group, here refers to participants who are non-Russian or non-Kazakh citizens of Russia, either from Altaian clans or from other peoples across the Russian Federation. The designation includes 63 residents and 14 non-residents of the Altai Republic. Participants who are residents include members of four Altaian clans: Altai-kizhi (also known as Altaians), Kumandin, Telengit, and Tubalar.

The term *Foreign* represents participants who travelled to the Altai Republic during 2015, but reside outside of Russia. The 399 survey participants include only thirteen foreigners; the low number reflects the small number of tourists visiting Siberia from other countries (see Table D8). Of tourists from other countries, most arrive from Germany, and those tourists from Central Asia usually have a Russian heritage (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015).

In comparing the ethnic groups, foreigners choose the option, “The natural setting,” at the highest rate of 100 percent; Russians, Kazakhs, and indigenous participants select the option at the rates of 86 percent, 83 percent, and 75 percent respectively. Nineteen percent of Russians and 10 percent of indigenous participants select the option, “The remoteness,” a quality of the natural environment, (see Table 29).

Table 29.
Ethnic Groups and Survey Question 16: “What do you enjoy most about the Altai Republic?”

	#	%	#	%	#	%	#	%	#	%
Options	Foreign		Indigenous		Kazakh		Russian		Total	
a. The natural setting	13	100.0%	58	75.3%	20	83.3%	245	86.0%	336	84.2%
b. The remoteness	1	7.7%	8	10.4%	0	0.0%	55	19.4%	64	16.0%
c. Tourism activities	1	7.7%	7	9.1%	3	12.5%	35	12.3%	46	11.5%
d. Local culture	1	7.7%	1	1.3%	1	4.2%	7	2.5%	10	2.5%
e. Historic sites	0	0.0%	7	9.1%	2	8.3%	30	10.6%	39	9.8%
f. Written	0	0.0%	17	22.1%	2	8.3%	23	8.1%	42	10.5%
Total [a]	16	123.1%	98	127.3%	28	116.7%	395	138.6%	537	134.6%

Note: Percentages have been calculated using the number of total participants rather than by the number of responses.
[a] Total participants=399, Foreign=13, Indigenous=77, Kazakh=24, Russian=285.

Indigenous participants give written responses at a somewhat higher rate than other groups, 22 percent of them responding in writing as compared with 8 percent of both Kazakhs and Russians. The most frequent written response “Everything,” surprisingly appears 35 out of 42 times, and a related response “Everything: mountains, hospitality,” also appears. All written responses appear in Table 30, and display participants’ high regard for the area.

Table 30.
Written Responses to Question 16: "What do you enjoy most about the Altai Republic?"

Written Responses	#	%
Everything	35	8.8
People	2	.5
Air, energy of water	1	.3
Everything: mountains, hospitality	1	.3
I live here	1	.3
I was born here	1	.3
It is my motherland	1	.3
Total	42 of 399	10.5 of 100.0

Conclusion

In an age when Russians and citizens from around the world more frequently travel for recreation, the benefits of tourism in previously undeveloped areas are accompanied by detriments, such as pollution, loss of habitat for wildlife, and loss of pure, wild, natural settings for everyone. Some interview respondents complain about negative environmental changes in their beloved home area, the Altai Republic. At the same time, survey participants, both residents and non-residents, agree at high combined-agreement rates that pollution and garbage threaten the natural environment.

The ecologically friendly construction and operation of tourism facilities could reduce the detrimental effects of constructing a tourism infrastructure. However, such construction may bring decreased profits for both large-scale tourism developers and for small entrepreneurs, perhaps to the point of financial ruin. Resident and non-resident participants agree at high rates that facilities for tourists should incorporate ecologically sustainable practices, even though they may cost more. Non-residents agree at even higher rates than residents, although increased costs

might be passed on to incoming tourists. Kazakhs, who are primarily residents and make up 6 percent of survey participants, support sustainable tourism operations noticeably less strongly than other participants. Kazakhs live in the remote, rural village of Kosh-Agach, which experiences harsh weather conditions year round. Rural dwellers in the Altai Republic experience higher rates of poverty than urban dwellers (Braden & Prudnikova, 2008, pp. 4–6). Additional requirements for small-scale tourism operations might reduce Kazakhs' ability to maintain their way of life. Future research might consider Kazakh' perceptions regarding ecological damage and their ability to provide for themselves in the Kosh-Agach District.

Results by religion show that pagans and shamanists, who hold great regard for natural features, universally agree at the highest rate regarding their desire to preserve the natural setting, with all of them selecting *Completely agree*. However, Christians show an agreement rate nearly as high when combining their responses of *Completely* and *Somewhat agree*.

Survey participants overall give inconsistent results in response to a statement that economic development inevitably results in environmental degradation, with the agreement rate nearly matching that of the disagreement rate. Resident participants are somewhat more likely to agree than non-residents. Participants in rural areas, with lower education levels, or in blue collar professions are more likely to agree. Those in urban areas, with higher education levels, or in white collar professions are less likely to agree.

Interview respondents and survey participants view the Altai Republic favorably. Interview respondents describe their great admiration for the natural beauty of their favorite places. When presented with options for the most valued feature in the Altai Republic, both resident and non-resident survey participants choose "The natural setting" above all others. The high repetition of the written response, "Everything," is also surprising.

Resident and non-resident participants of the 2015 survey overall exhibit strong pro-environmental perspectives. Non-residents more frequently hold university degrees and come from urban backgrounds, while residents less frequently hold higher degrees, and more frequently come from rural backgrounds. High pro-environmental sentiment by non-residents supports the theory in Dunlap et al. (2000, pp. 429–430) and Sulemana et al. (2016, p. 283) that a higher social rank tends to indicate pro-environmental tendencies. High pro-environmental leanings by residents support the theory by Davey (2009, p. 3) that globally those of lower social status hold strong pro-environmental views. In the case of this survey, residents and non-residents both support environmental preservation at similarly high rates, supporting the theory by Fairbrother (2013, p. 920) that globally people from richer and poorer regions, exemplifying higher and lower social standings, all hold pro-environmental sentiments.

While resident and non-resident survey participants in the Altai Republic overall exhibit strong pro-environmental perceptions, such sentiment among non-residents, at times, seems more theoretical than practical, as far as helping with the situation in the Altai Republic. Survey participants reveal their perspectives and concerns in the next chapter regarding issues associated specifically with tourism within the Altai Republic.

Chapter VII: Local Effects of Tourism

The relationship between tourism and the natural environment in the Altai Republic is "...a very important topic. It's crucial for us" (Interview with female of Altaian clan heritage, Gorno-Altaisk, 2015). Tourism may cause changes to an area that are desirable or otherwise, depending on one's point of view, and such changes may involve the local ecology, the local standard of living, or the local culture.

Although tourism brings some economic benefits to residents of the Altai Republic, especially in the form of seasonal employment to residents, residents also face economic disadvantages, which tourism does not seem to ameliorate, such as the republic's continuously low standard of living, especially for rural residents. Tourists are also notorious for leaving behind great amounts of garbage, which small local municipalities become overburdened by, and individual residents attempt to remediate. As the numbers of tourists increase, some residents and non-residents notice the effects of overcrowding.

Survey results and comments from interview respondents provide insights for the research question, "How do perceptions vary concerning the specific effects of tourism on the local economy, the natural setting, and culture within the Altai Republic?" Survey categories such as resident/non-resident, gender, religion, and ethnic group supply sometimes anticipated and sometimes surprising results. Residents show a greater sense of caretaking than non-residents do through their willingness to pick up after others. Females seem to notice effects of overcrowding more readily than males.

Survey Statements Regarding Tourism's Local Effects

Five survey statements pertain to perceptions of the effects of tourism on the local setting, particularly on local culture, the standard of living, and the natural environment. Of those

five, the two statements with the highest rates of agreement concern: (1) tourism raising the local standard of living, with a mean response of 4.36; and (2) participants who remove garbage left by others, with a mean response of 4.17. Two statements show mixed, less consistent results: (1) tourism helps to maintain local culture, with a mean of 3.86; and (2) the local area suffers from too many tourists, with a mean of 3.25. A statement, with which the majority of participants disagrees, has a mean of 1.85; it disputes the viewpoint that waste left behind damages a natural area (see Table 31).

Table 31.
Survey Statements Regarding the Local Effects of Tourism, Ordered by Mean

Statement	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Total
6) Tourism improves the local standard of living.	4.36	8	18	41	85	243	395
		2.0%	4.6%	10.4%	21.5%	61.5%	100.0%
12) I pick up other people's garbage in the natural environment.	4.17	23	32	26	92	226	399
		5.8%	8.0%	6.5%	23.1%	56.6%	100.0%
7) Tourism saves local culture.	3.86	24	43	64	98	167	396
		6.1%	10.9%	16.2%	24.7%	42.2%	100.0%
5) In this location, the natural environment is suffering damage from too many tourists.	3.25	50	81	79	93	94	397
		12.6%	20.4%	19.9%	23.4%	23.7%	100.0%
13) Waste produced by people has little effect on the natural environment.	1.85	245	61	31	29	32	398
		61.6%	15.3%	7.8%	7.3%	8.0%	100.0%

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Tourism and Quality of Life

By making tourism their major industry, some developing countries in the Pacific Islands and in East Africa have used tourism as a means of rapid economic development (Cohen, 1978, p. 218). Rotanova (2014) promotes tourism as a means of improving economic conditions and the standard of living both within the Altai Republic and in border regions of the nearby

countries of Kazakhstan, Mongolia, and China (p. 184). A survey in Van, Turkey, reported increased economic benefits to residents from tourism (Alaeddinoglu, Turker, & Can, 2016, p. 436). However, whether tourism improves the standard of living of the poor in a developing economy depends on whether tourism operators and the government deliberately use tourism to direct employment and benefits to vulnerable groups of society (Alam & Paramati, 2016, p. 112). In Thailand, tourism has been shown to increase aggregate household income, but to worsen income distribution. Poorer members of society have not reaped economic benefit, in part because tourism in that country does not especially employ low-income workers (Wattanakuljarus & Coxhead, 2008, p. 24).

In recent years, two rating agencies have noted a decline in the standard of living in the Altai Republic when compared with other regions within the Russian Federation. According to the United Nations Human Development Index, the Altai Republic fell from a rank of 74 out of 80 areas within Russia in 2002 to 78 out of 80 in 2010 (UNDPa, 2005, pp. 168–169; UNDPb, 2013, pp. 150–151). In 2014, a Moscow agency, RIA Rating, ranked the Altai Republic as 81 out of 83 areas in the country for its quality of life (Kaliganov, 2014). Incomes of rural residents, who make up about 72 percent of the total population, often amount to less than half that of those in the city of Gorno-Altaisk (Braden & Prudnikova, 2008, pp. 4–6), and unemployment in some villages reaches 90 percent (Vasilieva, 2012). The overall population of the Russian Federation, by contrast, lives primarily in urban areas (74 percent), while just 26 percent reside in rural areas (Vserossiiskaia-2010, 2013).

Of survey participants, approximately 78 percent of the residents of the Altai Republic come from rural backgrounds and 21 percent from urban backgrounds. Non-resident backgrounds roughly approximate the living situation of the general Russian population, with 28

percent of non-residents having rural backgrounds, and 70 percent having urban backgrounds. See Table 32 regarding urban and rural backgrounds of resident and non-resident participants.

Table 32.
Urban/Rural Backgrounds for Residents and Non-residents

Resident/Non-resident	Type	#	%
Resident	Rural	161	77.8
	Urban	43	20.8
	Other	3	1.4
	Subtotal	207	100.0
Non-resident	Rural	54	28.1
	Urban	134	69.8
	Other	4	2.1
	Subtotal	192	100.0
Total		399	

Interview respondents give differing responses on whether tourism improves the local living condition. One, who agrees that it does, said that villages in the Altai Republic show recent signs of progress: “Tourism brought 3G internet to some villages which didn’t have any mobile connection at all…. Here you can see new roofs, plastic windows … satellite TV sets, which you won’t find in some neighboring regions (such as villages across the border to the north in the Altai Krai)” (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015).

On the importance of tourism as an income for rural, indigenous peoples, an interview respondent reports, “tourism means money for them. And it’s their only way to get money for some indigenous people, maybe in a village that’s far from Gorno-Altaisk” (Interview with female ethnic Russian-3 from the Altai Republic, Gorno-Altaisk, 2015).

Another interview respondent believes that tourism does not increase the local standard of living:

> Well, not crucially, maybe to a very, very small extent, a very small degree. So there are local people who earn their living by rendering tourist services. But the number of these people is small, and if we take the situation in general, I do not think that tourism has really influenced the level of standards of living of people in the republic. And you know the tourist industry here depends on seasons…. So in summer we have a lot of tourists, but in winter we have few. So people usually earn money in summer, and then just live on what they have earned…. (Interview with female ethnic Russian-4 from the Altai Republic, Gorno-Altaisk, 2015)

The latter comments support findings that the living situation in the Altai Republic has not improved in recent years in comparison to other regions of Russia.

Tourism and quality of life: Responses. Results from survey statement 6, "Tourism improves the local standard of living," reveal that participants generally believe the local standard of living to be improving. Residents and non-residents show little difference in their overall responses (see Table 33).

Table 33.
Residents/Non-residents and Survey Statement 6: "Tourism improves the local standard of living."

Category	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined agree	Total
Resident	4.33	5	14	16	43	127	170	205
		2.4%	6.8%	7.8%	21.0%	62.0%	83.0%	100.0%
Non-resident	4.39	3	4	25	42	116	158	190
		1.6%	2.1%	13.2%	22.1%	61.1%	83.2%	100.0%

Note: *N*=395, *M*=4.36, Total combined agree=83.0%.

Survey location and categories related to work show greater differences in responses to statement 6. Participants in the three rural locations of Chemal, Kosh-Agach, and the Teletskoe

area have higher mean responses, showing a greater tendency to agree, than participants in the one urban location, the city of Gorno-Altaisk (see Table 34).

Table 34.
Survey Location and Survey Statement 6: "Tourism improves the local standard of living."

Survey Location	*M*	Combined disagree	Unsure	Combined agree	Total
Urban					
Gorno-Altaisk	4.01	7	21	72	100
		7.0%	21.0%	72.0%	100.0%
Rural					
Chemal	4.44	7	4	87	98
		7.2%	4.1%	88.8%	100.0%
Kosh-Agach	4.39	6	12	80	98
		6.1%	12.2%	81.6%	100.0
Teletskoe Area	4.61	6	4	89	99
		6.0%	4.0%	89.9%	100.0%

Note: *N*=395, *M*=4.36, Total combined agree=83.0%; Total combined disagree=6.6%.

Higher educational levels and higher incomes for participants in the city of Gorno-Altaisk may indicate a higher social status than experienced in the rural areas, and a somewhat lower tendency to believe that tourism raises the local standard of living. A higher percentage of participants in Gorno-Altaisk, 34 percent, have completed university degrees than in the three rural areas: (1) Chemal with 27 percent, (2) Kosh-Agach with 25 percent, and (3) the Teletskoe area with 15 percent (see Table 35). In Gorno-Altaisk, the higher education rate is about twice that of the Teletskoe area.

Table 35.
Survey Location and Education Level

Education		Chemal	Gorno-Altaisk	Kosh-Agach	Teletskoe Area	Total
High school	Count	19	8	19	30	76
	%	25.0%	10.5%	25.0%	39.5%	100.0%
Higher education	Count	54	69	50	31	204
	%	26.5%	33.8%	24.5%	15.2%	100.0%
Middle technical	Count	24	21	24	35	104
	%	23.1%	20.2%	23.1%	33.7%	100.0%
Not given	Count	3	2	6	3	14
	%	21.4%	14.3%	42.9%	21.4%	100.0%
Other	Count	0	0	1	0	1
	%	0.0%	0.0%	100.0%	0.0%	100.0%
Total	Count	100	100	100	99	399
	%	25.1%	25.1%	25.1%	24.8%	100.0%

Participants' efforts to earn a living through tourism to maintain or improve their lives seemed to coincide with the perception that the standard of living improves thanks to tourism. Those participants reporting themselves to be tourism workers agree slightly more frequently than non-tourism workers, with means of 4.49 and 4.30 respectively. Non-residents who arrive in the Altai Republic in order to work agree somewhat more frequently than those who come for tourism activities, with means of 4.55 and 4.23 respectively. Among the professions, businessmen agree at the highest rate, while teachers agree at one of the lowest rates, with means of 4.61 and 4.14 respectively. Because tourism is the main industry in the Altai Republic, businessmen, who may depend on tourism for their livelihoods, may presume tourism presents advantages, such as positive effect on the standard of living. A participant with the profession of teacher may have a higher income, standard of living, and/or social status than enjoyed by businessmen. Teacher here represents those who report their profession either as teacher, school teacher, kindergarten teacher, or university teacher (see Table 36; see Appendix B, Profession).

Table 36.
Work-Related Categories and Survey Statement 6: "Tourism improves the local standard of living."

Category		*M*	Combined disagree	Unsure	Combined agree	Total
Tourism Worker	Yes	4.49	6	6	79	91
			6.6%	6.6%	86.8%	100.0%
Tourism Worker	No	4.30	20	35	241	296
			6.8%	11.8%	81.4%	100.0%
Goal of Visit	Work	4.55	1	2	19	22
			4.5%	9.1%	86.4%	100.0%
Goal of Visit	Tourism	4.23	1	9	30	40
			2.5%	22.5%	75.0%	100.0%
Profession	Businessman	4.61	2	1	28	31
			6.5%	3.2%	90.4%	100.0%
Profession	Teacher	4.14	2	6	28	36`
			5.6%	16.7%	77.8%	100.0%

Note: *N*=395, *M*=4.36, Total combined agree=83.0%, Total combined disagree=6.6%.

Resident participants are more likely to work in tourism than non-residents. Thirty-three percent of residents report themselves as tourism workers compared with 11.5 percent of non-residents (see Table 37). Indigenous participants are more likely than Russians or Kazakhs to work in tourism. Of indigenous participants, 29.9 percent work as tourism workers, compared with 22.8 percent of Russians, and 8.3 percent of Kazakhs (see Table 38)

Table 37.
Tourism Workers by Resident/Non-resident

	Tourism Worker			
Resident/non-resident	No	Not given/ Other	Yes	Total
Resident	137	1	69	207
	66.2%	0.5%	33.3%	100.0%
Non-resident	163	7	22	192
	84.9%	3.6%	11.5%	100.0%
Total	300	8	91	399
	75.2%	2.1%	22.8%	100.0%

Table 38.
Tourism Workers by Ethnic Group

	Tourism Worker			
Ethnic Group	No	Not given/ other	Yes	Total
Foreign	8	4	1	13
	61.5%	30.8%	7.7%	100.0%
Indigenous	54	0	23	77
	70.1%	0.0%	29.9%	100.0%
Kazakh	22	0	2	24
	91.7%	0.0%	8.3%	100.0%
Russian	216	4	65	285
	75.8%	1.5%	22.8%	100.0%
Total	300	8	91	399
	75.2%	2.1%	22.8%	100.0%

Motivation to send remittances back to their home countries does not seem to play a role in foreigners' decision to visit the Altai Republic. Of the 13 foreign participants, 7 come from Germany, 1 from France, 3 from Kazakhstan, and 2 from Mongolia. Just one of the 13 foreign participants works in tourism, a person who is a pre-university student from Kazakhstan. Of participants from within the Russian Federation, if they send remittances back to their families elsewhere in the country, those money transfers occur primarily during the summers. Remittances from Russia to other countries have declined, especially to other countries within the Commonwealth of Independent States, because of the poor economic situation of Russia, and the depreciation of the ruble, according to Ratha et al. (2016, p. xii).

Garbage in the Local Setting

Piles of refuse appear along major roads and rivers and in rural areas of the Altai Republic, and are seemingly increasing with rising numbers of tourists. An interview respondent reported that on the day before her interview, she and her family had seen piles of rubbish, which they associate with tourists, along the road as they travelled to Ust-Kan in the Altai Republic.

The garbage made her and her family upset; she said, “And it just makes me angry sometimes, not angry, but it’s sad, because I like my land” (Interview with female ethnic Russian-3 from the Altai Republic, Gorno-Altaisk, 2015). Another interview respondent reported that she had gone to the Katun River to pick up garbage during her lunch hour earlier on the day of her interview (Interview with female ethnic Russian-4 from the Altai Republic, Gorno-Altaisk, 2015).

An interview respondent said about incoming tourists, that they have pro-environmental sentiments:

> But you know, the garbage along the street, our street, tells me people are concerned in a peculiar way. They are concerned in theory. When it comes to take the garbage away, to the trash can, they don’t do that. And if it happens in town, I think it may happen everywhere. (Interview by Skype with female ethnic Russian-1 from the Altai Republic, 2015)

The interview respondent reported that when she and her family go to their favorite places in the mountains, “…we always find trash, and we have to clean the place where we like to stay” (Interview by Skype with female ethnic Russian-1 from the Altai Republic, 2015). Another interview respondent reports that “…usually the majority of people (tourists) are not caring about what is left behind them. And unfortunately…when my family and I are going to a picnic, we first need to clean this place…” (Interview with female ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015). Waste management may be the single greatest issue associated with tourism, according to another interview respondent: “Trash, it’s just everywhere. They just leave their trash everywhere. There is no concept whatsoever of ‘Leave no trace left behind’ tourism” (Interview by Skype with female American from Michigan familiar with the Altai Republic, 2015).

Leave No Trace low-impact tourism stresses minimizing human influence on natural areas. One tenet "Pack it in, pack it out," means that when leaving an area, one should remove all trash, leftover food, and any evidence of a person's visit. Leave No Trace wilderness practices have been encouraged in national parks (Marion & Reid, 2001), and across the United States through publications such as Marion (2014); and McGiveney (2003).

Medovaya (2007) reported that among Altai-kizhi villagers in the Karakol Valley of the Ongudai District, the word, tourist, "…and particularly a Russian tourist, invokes (villagers') long-standing anti-imperial sentiments. It is a derogatory term, it signifies a lazy good-for-nothing who does not have anything better to do than to roam freely and leave garbage wherever he/she goes" (p. 76).

Not just the tourism industry, but Russia in general has faced a nationwide problem of inadequate waste processing services. Authorized landfills overflow while illegal dumps increase. The average Russian generates about half a ton of garbage annually, of which only 11 percent is recycled. A 2013 proposed law by the Minister of Natural Resources and Ecology of the Russian Federation suggested increasing recycling across the country through creation of a new ministry branch dedicated to recycling. The costs would be covered by an additional 0.4 percent tax on the value of products (Snytkova & Salnik, 2013).

After the fall of the Soviet Union, authorities failed to maintain recycling plants. According to one interview respondent, "During Soviet times, everyone recycled. …after the Soviet Union, no one recycled." She continued, "Some people in civilized countries have some plants, right, for recycling. We don't have any. Not a single factory or plant for recycling (in the Altai Republic)" (Interview with female of Altaian clan heritage, Gorno-Altaisk, 2015).

An Altai Republic resident and free-lance tour guide interview respondent reports that tourist groups are more likely to act responsibly if led by guides from the Altai Republic than from other regions, because local tour guides educate tourists in how to treat the environment. Unfortunately, most tour guides come from the Altai Krai, the neighboring region to the north:

> …the best way to educate … is to be an example. This way, when we go to the forests or up to the mountains, when we make a meal, making a campfire, we have a talk about what to do with the rubbish. And we collect all the rubbish (and take it) to the big trash cans. …if we see some rubbish on the trail, maybe it is paper from the candy, we just take it with us….. It's actually the best way. When tourists see how we treat nature, they want to do the same. (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015)

Personal training by tour guides may be the advisable method of educating tourists to minimize their impacts in wilderness areas. A study measuring whether personal communication or communication through signage more effectively decreased wilderness campers' dispersion, and therefore, their ecological impact on park areas, found personal communication with visitors to be effective, while signage brought no noticeable difference in tourist behavior (Kidd et al., 2015, p. 59).

While tourism receives the blame for much of the garbage left in the natural setting, other types of organizations share some responsibility. An August 2015 article in *Novosti Altaia* reported the unauthorized dumping of large amounts of both construction and consumer waste along the road from Gorno-Altaisk to the village of Artybash near Lake Teletskoe (Borba, 2015). In another case, one governmental agency fined another governmental agency for leaving trash on the banks of the Katun River in July 2015. Following an overnight outing along the Katun

River by employees of the Altai Republic division of the Russian Federal Penitentiary System (Управление Федеральной Службы Исполнения Наказания, УФСИН), the Russian Emergency Situations Ministry (Министерство по Чрезвычайным Ситуациям, МЧС России) fined the penitentiary agency for leaving litter along the river. An interview respondent, who had seen an internet report concerning this, also had the incident verified by a family member employed by the penitentiary agency. The internet posting that initially reported the news could not be found a few days after it first appeared (Interview with female ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015).

Garbage in the local setting: Responses. Because residents have been shown to support conservation efforts in tourism areas (Imran, Alam, & Beaumont, 2014, p. 290), and to act more as local caretakers than tourists do (Vaughan & Ardoin, 2014, pp. 61–63), I anticipated greater caretaking tendencies from residents of the Altai Republic than from non-residents. Residents do agree more readily than non-residents to survey statement 12, "I pick up other people's garbage in the natural environment." Residents show 89 percent combined agreement, while non-residents agree by 69 percent (see Table 39).

Table 39.
Residents/Non-residents and Survey Statement 12: "I pick up other people's garbage in the natural environment."

Category	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined agree	Total
Resident	4.46	5	8	9	49	136	185	207
		2.4%	3.9%	4.3%	23.7%	65.7%	89.4%	100.0%
Non-resident	3.85	18	24	17	43	90	133	192
		9.4%	12.5%	8.9%	22.4%	46.9%	69.3%	100.0%

Note: *N*=399, *M*=4.17, Total combined agree=79.7%.

Although non-residents agree less frequently with the statement than residents, when separated by type of accommodation, non-resident participants who camp in wilderness areas

agree at a rate similar to residents. Wilderness campers have a mean response of 4.24, compared with a mean of 4.46 for residents overall, and a mean of 3.85 for non-residents overall. Thomson (2007) noted that Russian residents in the Lake Baikal area had begun promoting Leave No Trace low-impact tourism to protect natural areas despite the lack of governmental or nongovernmental aid (pp. 81-82). Further research might consider the extent that caretaking tendencies are increasing among wilderness campers in the Altai Republic and across the Russian Federation.

Non-residents who use the most common type of accommodation, tourist camps, disagree as frequently as non-residents in general. Non-residents who stay with relatives disagree most frequently, and have a bimodal distribution of results, with 40 percent disagreeing and 60 percent agreeing (see Table 40). Perhaps the non-residents, who stay with relatives or in tourist camps, presume that caretaking responsibilities belong to others, somewhat agreeing with the theory by Vaughan and Ardoin (2014, p. 62) that non-residents believe the government assumes local caretaking functions.

Table 40.
Selected Accommodations for Non-residents and Survey Statement 12: "I pick up other people's garbage in the natural environment."

Accommodation	*M*	Combined disagree	Unsure	Combined agree	Total
Tourist camp	3.85	14	6	42	62
		22.6%	9.7%	67.7%	100.0%
Wilderness camping	4.24	4	1	28	33
		12.1%	3.0%	84.8%	100.0%
With relatives	3.32	10	0	15	25
		40.0%	0.0.%	60.0%	100.0%

Note: *N*=399, *M*=4.17, Total combined agree=79.7%., Total combined disagree=13.8%.

Survey participants tend to agree more frequently if they come from rural rather than urban backgrounds, which applies more to residents, or if they work in tourism, which applies to

approximately 25 percent of resident and non-resident participants, or especially if they hold the profession of businessman. Salespersons are less likely to agree than those in other professions, but at the same rate as those not working in tourism. Businessmen and tourism workers may be motivated to maintain the scenery if they rely on nature tourism for their livelihoods. Those with rural backgrounds may have a heightened sense of caretaker tendencies from growing up in less developed areas (see Table 41).

Table 41.
Selected Categories and Survey Statement 12: "I pick up other people's garbage in the natural environment."

Category		*M*	Combined disagree	Unsure	Combined agree	Total
Background	Rural	4.44	16	11	188	215
			7.4%	5.1%	87.5%	100.0%
Background	Urban	3.88	35	15	127	177
			19.7%	8.5%	71.8%	100.0%
Tourism Worker	Yes	4.56	5	2	84	91
			5.5%	2.2%	92.3%	100.0%
Tourism Worker	No	4.05	48	24	228	300
			16.0%	8.0%	76.0%	100.0%
Profession	Businessman	4.84	0	1	30	31
			0.0%	3.2%	96.8%	100.0%
Profession	Teacher	4.33	2	2	32	36
			5.6%	5.6%	88.9%	100.0%
Profession	Salesperson	4.05	4	1	16	21
			19.0%	4.8%	76.1%	100.0%

Note: *N*=399, *M*=4.17, Total combined agree=79.7%., Total combined disagree=13.8%.

The length of time that participants, both residents and non-residents, have remained at their current residence positively correlates with levels of agreement; for those with 18 or more years at the same residence, approximately 80 percent of participants, the longer they have remained at their current residence, the more they tend to agree with the statement, as shown by increasing mean responses (see Table 42). Higher levels of place identity have been associated with pro-environmental tendencies, according to Imram, et al. (2014, p. 297). The time spent at

the same residence might be viewed as a level of place identity for survey participants, and reveal pro-environmental tendencies.

Table 42.
Years at Residence and Survey Statement 12: "I pick up other people's garbage in the natural environment."

Years at Residence	*M*	Combined disagree	Unsure	Combined agree	Total
0 to 17	3.99	14	6	63	83
		16.8%	7.2%	75.9%	100.0%
18 to 24	3.77	17	9	58	84
		20.2%	10.7%	69.1%	100.0%
25 to 30	4.21	11	4	60	75
		14.7%	5.3%	80.0%	100.0%
31 to 41	4.44	7	4	70	81
		8.7%	4.9%	86.4	100.0%
42 and over	4.46	6	3	67	76
		7.8%	3.9%	88.1	100.0%
Total	4.17	55	26	318	399
		13.8%	6.5%	79.7%	100.0%

Note: *N*=399, *M*=4.17, Total combined agree=79.7%., Total combined disagree=13.8%.

Tourism and Local Culture

Tourism's positive benefits may include the revitalization of local traditions and an improved self-image for members of ethnic groups. Negative impacts may include accelerated assimilation of a minority group into the dominant population, or loss of local culture because of tourism development. To advance tourism's benefits for minority groups, members should be encouraged to preserve and showcase their cultural heritage (Besculides, Lee, & McCormick, 2002, pp. 303, 308, 316). However, while minority tourism entrepreneurs may strive to preserve their cultural traditions through their businesses, competition from external entrepreneurs may cause decreased profits, and eventually cause local operators to abandon work in tourism (Su, Wang, & Wen, 2013, p. 246).

The question of whether tourism helps to preserve local culture, specifically the culture of Altaian clans, may bring a positive or negative answer, depending on the perspective of the person interviewed. Tourism may help preserve local culture through educating both younger clan members and incoming tourists, or, on the other hand, it may harm local culture by disturbing sacred rituals and sites of Altaian clan members, who try to distance themselves from tourist activity. An interview respondent of Altaian heritage, who is a resident of the city of Gorno-Altaisk, which hosts many tourists, said:

> Probably yes. It's good for indigenous people because they get interested in their background. They want to know more. They ask their parents, elder people, about lifestyle, about the traditions. So this is a good chance to look back to preserve the lore, the culture, and they disseminate their knowledge. … Mostly they do it for incoming tourists who are interested in it…usually people from Western countries…. (Interview with female of Altaian clan heritage, Gorno-Altaisk, 2015)

However, Medovaya (2007), reported an interview with an Altai-kizhi shamanist from the Karakol Valley of the Ongudai District of the Altai Republic; the person spoke of tourists' disrespect for the land and the culture of Altaian peoples, and the harm tourists cause:

> The Valley is a sacred place, and it has to be treated as such, and not bring tourists there. Tourists tie kaera [ritual cloth wrapped around tree branches] the wrong way, they don't know how …. Because of such irreverence to Altai, the balance and the course of things are disturbed. … It is harmful for local people when crowds of tourists come (p. 75).

Tourism and local culture: Responses. The statement, "Tourism saves local culture," has a lower mean response of 3.86 than means for survey statements concerning tourism's positive effect on the standard of living and concerning assumption of personal responsibility for

removing litter. Residents and non-residents agree at fairly similar rates with statement 7, although residents agree somewhat more frequently than non-residents (see Table 43).

Table 43.
Residents/Non-residents and Survey Statement 7: "Tourism saves local culture."

Category	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined agree	Total
Resident	3.92	13	22	24	54	91	145	204
		6.4%	10.8%	11.8%	26.5%	44.6%	71.1%	100.0%
Non-resident	3.80	11	21	40	44	76	120	192
		5.7%	10.9%	20.8%	22.9%	39.6%	62.5%	100.0%

Note: *N*=396, *M*=3.86, Total combined agree=66.9%.

Of the four survey locations, participants in the city of Gorno-Altaisk agree less frequently, while participants in the three rural areas agree slightly more frequently (see Table E14). The response pattern is consistent with that for survey statement 6, "Tourism improves the local standard of living," where participants in Gorno-Altaisk are also more likely to disagree than those in the three rural areas (see Table 44). Residents in Gorno-Altaisk enjoy a higher social status than those in rural areas, because of higher levels of income and education. A higher social status within the Altai Republic seems to indicate less likelihood of believing that tourism benefits the local area's standard of living or culture.

Table 44.

Survey Location and Survey Statement 7: "Tourism saves local culture."

Survey Location	*M*	Combined disagree	Unsure	Combined agree	Total
Urban					
Gorno-Altaisk	3.53	21	19	59	99
		21.2%	19.2%	59.6%	100.0%
Rural					
Chemal	3.88	18	11	71	100
		18.0%	11.0%	71.0%	100.0%
Kosh-Agach	3.95	16	17	65	98
		16.3%	17.3%	66.3%	100.0%
Teletskoe Area	4.09	12	17	70	99
		12.1%	17.2%	70.7%	100.0%

Note: *N*=396, *M*=3.86, Total combined agree=66.9%, Total combined disagree=16.9%.

Participants who report a tourism work interest, both residents and non-residents, are more likely than other participants to agree with the statement. Non-residents who come to the Altai Republic with the goal of work also agree more frequently than non-residents who come for tourism or for other goals. Among the professions, businessmen agree at the highest rate, while teachers agree at one of the lowest rates (see Table 45).

The responses for these categories are similar to responses for the survey statement 6, "Tourism improves the local standard of living," where three groups agree more frequently than others: (1) tourism workers, (2) those who arrive in the Altai Republic with the goal of work, and (3) businessmen. Those with a work interest in the Altai Republic may have lower incomes and, therefore, a lower social status than other participants, and may be more likely to agree that tourism benefits the area.

Table 45.
Work-Related Categories and Survey Statement 7: "Tourism saves local culture."

Category		*M*	Combined disagree	Unsure	Combined agree	Total
Tourism Worker	Yes	4.16	11	8	72	91
			12.1%	8.8%	79.1%	100.0%
Tourism Worker	No	3.75	55	56	186	297
			18.5%	18.9%	62.6%	100.0%
Goal of Visit	Work	4.05	3	3	16	22
			13.6%	13.6%	72.7%	100.0%
Goal of Visit	Tourism	3.48	9	9	24	42
			21.4%	21.4%	57.2%	100.0%
Profession	Businessman	4.29	5	0	26	31
			16.2%	0.0%	83.8%	100.0%
Profession	Teacher	3.64	9	1	26	36
			25.0%	2.8%	72.2%	100.0%

Note: *N*=396, *M*=3.86, Total combined agree=66.9%, Total combined disagree=16.9%.

Too Many Tourists in a Location

For tourism, carrying capacity denotes the greatest number of people an area can support without causing detrimental impacts on an area and without lessening the quality of the experience for tourists; carrying capacity also concerns the effects of the tourism industry on the local population (Briassoulis, 2000, p. 266; Saarinen, 2006, pp. 1125–1126). Tourism can be self-destructive if the development of the infrastructure and services destroys the quality of the area which attracts tourists (Cohen, 1978, p. 219). Because exceeding an area's carrying capacity may bring economic decline, tourism should be planned sustainably, which may mean limiting the number of tourists or the use of natural resources in an area, and ensuring that a tourism budget includes the costs to maintain or to restore the natural environment (Briassoulis & van der Straaten, 2000, p. 6; Coccossis & Parpairis, 2000, p. 103).

An interview respondent, in response to a question of whether the number of tourists will continue increasing in the future as quickly has it has in the past, said,

> I hope that it will not. I know that developing the Altai Republic is one of the goals included in the program of development of Siberia, developing Altai Republic as a tourist destination. First, for Russian tourists only, then for international tourists. There is a strategy of development of Siberia, and Baikal and Altai are the places or the sites to be developed as tourist destinations. (Interview with female ethnic Russian-4 from the Altai Republic, Gorno-Altaisk, 2015)

According to Cohen (1978), the motivation for past environmental policy toward tourism has been to increase the numbers of tourists in valuable environments. However, the unlimited expansion of tourism initiatives should not be allowed to continue, because the most popular destinations eventually reach a saturation point, which should lead to imposing limits on the numbers of tourists. Planners must reorient their efforts from strategies for the expansion of tourism to strategies for defending the environment from the impacts of tourism (pp. 233-4).

In April 2016, Ivan Belekov, Speaker of the State Assembly of the Altai Republic, proposed a law to limit the numbers of tourists in areas of the republic, because of environmental damage caused by tourists in the Lake Teletskoe and Mount Belukha areas. Belekov recommended that tourism operators be local residents of the republic; they should be familiar with protected areas and with the customs of the local population regarding nature conservation. According to Belekov, local legislators must develop legislation to protect the natural environment for future generations. The Altai Republic received 1.83 million tourists in 2015, with demand during the May holidays twice as high as previously (Ogranichit, 2016; Postupilo, 2016; Vlasti, 2016). According to an interview respondent, tourism business owners, "… always come from somewhere else. … Mainly the rich people from Siberia own tourism facilities here" (Interview by Skype with female ethnic Russian-1 from the Altai Republic, 2015).

The village of Maima, the largest village in the Altai Republic, lies just 10 kilometers (6 miles) northwest of the city of Gorno-Altaisk. A female interview respondent and resident of Maima reported that increasing tourist traffic negatively impacts the lives of those in her village:

> …we make everything for tourists here, but sometimes it destroys the life of … people who live here. …I am from … Maima. And it is … the center of all the roads of the republic. …They tried to make the roads in my village bigger and bigger, and that is getting more and more disastrous for people and children who live there…. (Interview with female ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015)

Too many tourists in a location: Responses. Participants consider whether the numbers of tourists were too high in their specific areas when responding to survey statement 5, "In this location, the natural environment is suffering damage from too many tourists." Residents and non-residents show somewhat of a tendency to agree about the presence of overcrowding (see Table 46), however, 32 percent of non-residents selected *Unsure*, perhaps indicating less familiarity with the Altai Republic.

Table 46.
Residents/Non-residents and Survey Statement 5: "In this location, the natural environment is suffering damage from too many tourists."

Category	*M*	Combined disagree	Unsure	Combined agree	Total
Resident	3.29	79	18	110	207
		38.2%	8.7%	53.2%	100.0%
Non-resident	3.21	52	61	77	190
		27.3%	32.1%	40.5%	100.0%

Note: *N*=397, *M*=3.25, Total combined agree=47.1%, Total combined disagree=33.0%.

The theory that women have greater concern for the environment than men, perhaps because of their socialization as family nurturers and caregivers, has been discussed by Van

Liere and Dunlap (1980, p. 191), and Sulemana et al. (2016, p. 87). Research has shown that women show more concern about pollution, environmental preservation, and large-scale environmental issues than men (Mohai, 1997, pp. 154, 168), and that women often act in their communities to maintain a healthy environment (Davey, 2009, p. 3). I anticipated greater caretaker tendencies from women than men toward the natural environment, and the statement regarding overcrowding reveals an obvious difference by gender. Women agree more frequently than they disagree, with 55 percent combined agreement. Men agree by 38 percent, but men agree and disagree at nearly the same rates (see Table 47).

Table 47.
Gender and Survey Statement 5: "In this location, the natural environment is suffering damage from too many tourists."

Gender	*M*	Combined disagree	Unsure	Combined agree	Total
Female	3.48	54	42	116	212
		25.4%	19.8%	54.7%	100.0%
Male	2.99	77	37	71	190
		41.6%	20.0%	38.4%	100.0%

Note: *N*=397, *M*=3.25, Total combined agree=47.1%, Total combined disagree=33.0%.

In results by survey location, participants in the rural location of Chemal show greater concern about the large number of tourists than participants in the other three locations, Gorno-Altaisk, Kosh-Agach, and the Teletskoe area. In the latter locations, bimodal distributions have approximately the same rates of agreement as disagreement, and results show a general lack of consensus (see Table 48).

Table 48.
Survey Location and Survey Statement 5: "In this location, the natural environment is suffering damage from too many tourists."

Survey Location	*M*	Combined disagree	Unsure	Combined agree	Total
Chemal	3.91	15	11	73	99
		15.1%	11.1%	73.8%	100.0%
Gorno-Altaisk	3.16	34	28	38	100
		34.0%	28.0%	38.0%	100.0%
Kosh-Agach	2.98	41	19	40	100
		41.0%	19.0%	40.0%	100.0%
Teletskoe Area	2.96	41	21	36	98
		41.8%	21.4%	36.7%	100.0%

Note: *N*=397, *M*=3.25, Total combined agree=47.1%, Total combined disagree=33.0%.

Women in all four locations tend to agree more frequently than men that overcrowding damages the local natural setting. Men agree at about a 20 percent lower rate than women for three locations: Chemal, Gorno-Altaisk, and Kosh-Agach; and at about a 10 percent lower rate for the Teletskoe area. Both males and females agree more frequently about environmental damage in Chemal than participants in the other three areas (see Table 49). Future research might focus on specific issues for Chemal, and try to understand differences in women's and men's perceptions.

Table 49.
Gender by Location and Survey Statement 5: "In this location, the natural environment is suffering damage from too many tourists."

Survey Location	Gender	Combined disagree	Unsure	Combined agree	Total
Chemal	Female	3	6	43	52
		5.7%	11.5%	82.7%	100.0%
	Male	12	5	30	47
		25.6%	10.6%	63.8%	100.0%
Gorno-Altaisk	Female	13	14	24	51
		25.5%	27.5%	47.1%	100.0%
	Male	21	14	14	49
		42.8%	28.6%	28.6%	100.0%
Kosh-Agach	Female	20	7	26	53
		37.8%	13.2%	49.1%	100.0%
	Male	21	12	14	47
		44.6%	25.5%	29.8%	100.0%
Teletskoe Area	Female	18	15	23	56
		32.2%	26.8%	41.1%	100.0%
	Male	23	6	13	42
		54.8%	14.3%	31.0%	100.0%

Note: *N*=397, *M*=3.25, Total combined agree =47.1%, Total combined disagree=33.0%.

In order to more easily compare results of Russian and Kazakh participants with participants from foreign countries or of other ethnicities, I formed two new combined ethnic groups. The term *Foreign* represents those participants who reside in another country but travelled to the Altai Republic during the summer of 2015. The term *Indigenous* represents non-Russian, non-Kazakh participants from within the Altai Republic, and from elsewhere within the Russian Federation. Those include 67 who are members of four Altaian clans: Altai-kizhi, Kumandin, Telengit, and Tubalar, and 10 participants from five other ethnicities from across Russia. In the reclassification of ethnicities, only Kazakhs and Russians retained their previous designations.

Results by ethnic group show that Kazakhs agree at slightly higher rates than indigenous participants or Russians, with 67 percent agreement by Kazakhs, 51 percent by indigenous

participants, and 45 percent by ethnic Russians (see Table 50). Kazakhs reside mainly in the harsh, cold climate of the Kosh-Agach area, which may exhibit environmental damage more starkly than other areas.

Table 50.
Ethnic Group and Survey Statement 5: "In this location, the natural environment is suffering damage from too many tourists."

Ethnic Group	*M*	Combined disagree	Unsure	Combined agree	Total
Kazakh	3.83	5	3	16	24
		20.9%	12.5%	66.7%	100.0%
Indigenous	3.31	27	11	39	77
		35.1%	14.3%	50.7%	100.0%
Russian	3.18	97	57	127	281
		34.5%	20.3%	45.2%	100.0%

Note: *N*=397, *M*=3.25, Total combined agree=47.1%, Total combined disagree=33.0%.

Waste as Unimportant in the Natural Setting

Unorganized and uncontrolled tourism among Russian tourists, who camp along the Katun River and nearby Lake Teletskoe, has disturbed wildlife habitat, increased the rate of forest fires, and resulted in large accumulations of garbage and waste along the banks of waterways (Kasparek, 2011, p. 14). An interview respondent expressed exasperation about general tourism activities near waterways and bodies of water, saying, "Tourists feel like they are masters here. They should be…obedient to local norms. Tourists do not park in the parking areas near the water. Instead they drive up…and park one meter from the water's edge" (Interview with female of Altaian clan heritage, Gorno-Altaisk, 2015). Also, Mehl (2009) reported that tourists at Lake Teletskoe would use soap to bathe or wash clothes in the lake, and boat operators would pour oil or chemicals into the lake. When questioned about this, one tourist replied that the lake was so large that "a little soap, trash, or motor oil won't cause a problem" (pp. 62-63).

Unfortunately, such activities may harm aquatic populations and also human populations who rely on Lake Teletskoe for food.

Because several survey statements expressed pro-environmental points of view, I included statement 13 to verify that participants read all statements, rather than responding according to a perceived pattern. The final survey statement 13, “Waste produced by people has little effect on the natural environment,” gives an opposing viewpoint to statements such as 11, “Emissions, industrial waste and garbage threaten the natural environment.” One person’s data was not included in the survey results, because the person responded to all of statements 1 through 13 in exactly the same way, by always circling option 5, *Completely Agree* (see Appendix B, Removing Records from the Data).

Waste as unimportant in the natural setting: Responses. Participants tend to disagree with statement 13, “Waste produced by people has little effect on the natural environment,” with an overall mean response of 1.85 and combined disagreement of 77 percent. I anticipated higher pro-environmental tendencies from participants with higher educational levels and greater social status, based on information from Van Liere and Dunlap (1980, p. 189). However, because residents, seemingly with a lower social status than non-residents, disagree with the statement at about the same rate as non-residents, that supports the theory by Fairbrother (2013, p. 912) that globally those of both higher and lower status share pro-environmental views (see Table 51).

Table 51.
Residents/Non-residents and Survey Statement 13: "Waste produced by people has little effect on the natural environment."

Category	*M*	Combined disagree	Unsure	Combined agree	Total
Resident	1.83	162	13	31	206
		78.7%	6.3%	15.1%	100.0%
Non-resident	1.87	144	18	30	192
		75.0%	9.4%	15.7%	100.0%

Note: *N*=398, *M*=1.85, Total combined agree=15.3%, Total combined disagree=76.9%.

The urban area of Gorno-Altaisk, which has a greater rate of higher education than the three rural survey locations, shows the lowest mean of the four areas, 1.43, representing greater disagreement and more pro-environmental sentiment. Participants in the rural areas of Chemal and Kosh-Agach disagree slightly less frequently than those in Gorno-Altaisk. Those in the Teletskoe area have the highest mean of 2.59, and are more likely to agree, representing a lower pro-environmental sentiment than in the other areas, and less concern about waste in the natural environment (see Table 52).

Table 52.
Survey Location and Survey Statement: 13: "Waste produced by people has little effect on the natural environment."

Survey Location	*M*	Combined disagree	Unsure	Combined agree	Total
Urban					
Gorno-Altaisk/	1.43	90	5	5	100
		90.0%	5.0%	5.0%	100.0%
Rural					
Chemal	1.66	81	7	12	100
		81.0%	7.0%	12.0%	100.0%
Kosh-Agach	1.73	80	10	10	100
		80.0%	10.0%	10.0%	100.0%
Teletskoe Area	2.59	55	9	34	98
		56.2%	9.2%	34.7%	100.0%

Note: *N*=398, *M*=1.85, Total combined agree=15.3%, Total combined disagree=76.9%.

In data by profession, white-collar workers, such as businessmen, economists, and teachers, disagreed more frequently, representing greater pro-environmental attitudes, than blue-collar workers, such as drivers, or than salespersons, who interact with customers. Laborers, however, disagree as frequently as they agree, with a 50-50 split bimodal distribution (see Table 53). Those with white collar professions may have higher incomes, representing a higher social status.

Table 53.
Selected Professions and Survey Statement 13: "Waste produced by people has little effect on the natural environment."

Profession	*M*	Combined disagree	Unsure	Combined agree	Total
Blue collar					
Driver	2.28	11	2	5	18
		61.1%	11.1%	27.8%	100.0%
Laborer	2.93	7	0	7	14
		50.0%	0/0%	50.0%	100.0%
White collar					
Businessman	1.35	28	1	2	31
		90.3%	3.2%	6.5%	100.0%
Economist	1.78	16	0	2	18
		88.9%	0.0%	11.1%	100.0%
Teacher	2.03	26	3	7	36
		72.3%	8.3%	19.4%	100.00%
Customer interaction					
Salesperson	2.52	13	0	8	21
		61.9%	0.0%	38.1%	100.0%

Note: *N*=398, *M*=1.85, Total combined agree=15.3%, Total combined disagree=76.9%.

Survey Questions Regarding Caretaking and Waste

Caretakers of the natural environment. Participants generally believe that residents act as better caretakers of the natural environment than non-residents. In response to the survey multiple-choice question 14, "Who do you think treats the natural environment of the Altai Republic best?" 61 percent of all participants select "Residents," including 71 percent of resident

participants and 50 percent of non-resident participants. The next most frequent selections by all participants are “Unsure” with 21 percent, and “Local business owners” with 13 percent (see Table 54). The results compare positively with the previously discussed survey statement, “I pick up other people’s garbage in the natural environment,” where 89 percent of residents indicated that they themselves pick up garbage, while 69 percent of non-residents indicated the same behavior (see Table 39). The results correspond with findings by Vaughan and Ardoin (2014, pp. 61–64) that residents hold a more place-protective attitude toward their home areas than non-residents do.

Table 54.
Residents/Non-residents and Survey Question 14: “Who do you think treats the natural environment of the Altai Republic best?”

Options	# Resident	% Resident	# Non-resident	% Non-resident	# Total	% Total
a. Residents	147	71.0%	95	49.5%	242	60.7%
b. Tourists	8	3.9%	19	9.9%	27	6.8%
c. Wilderness campers	8	3.9%	6	3.1%	14	3.5%
d. Outside business owners	4	1.9%	5	2.6%	9	2.3%
e. Local business owners	22	10.6%	31	16.1%	53	13.3%
f. Unsure	29	14.0%	53	27.6%	82	20.6%
g. Written	11	5.3%	7	3.6%	18	4.5%
Total	229	110.6%	216	112.5%	445	111.5%

Note: Percentages have been calculated using the number of total participants rather than the total number of responses.
[a] Total participants=399, Residents=207, Non-residents=192.

In results by ethnic group, both indigenous participants and Kazakhs select “Residents” more frequently than Russians do, with response rates of 77 percent by indigenous participants, 75 percent by Kazakhs, and 55 percent by Russians (see Table 55).

Table 55.
Ethnic Groups and Survey Question 14: "Who do you think treats the natural environment of the Altai Republic best?"

Options	# Foreign	% Foreign	# Indigenous	% Indigenous	# Kazakh	% Kazakh	# Russian	% Russian	# Total	% Total
a. Residents	9	69.2%	59	76.6%	18	75.0%	156	54.7%	242	60.7%
b. Tourists	0	0.0%	6	7.8%	0	0.0%	21	7.4%	27	6.8%
c. Wilderness campers	1	7.7%	3	3.9%	2	8.3%	8	2.8%	14	3.5%
d. Outside business owners	0	0.0%	1	1.3%	1	4.2%	7	2.5%	9	2.3%
e. Local business owners	2	15.4%	5	6.5%	1	4.2%	45	15.8%	53	13.3%
f. Unsure	2	15.4%	7	9.1%	3	12.5%	70	24.6%	82	20.6%
g. Written	0	0.0%	6	7.8%	1	4.2%	11	3.9%	18	4.5%
Total [a]	14	107.7%	87	113.0%	26	108.3%	318	111.6%	445	111.5%

Note: Percentages have been calculated using the number of total participants rather than by the number of responses.
[a] Total participants=399, Foreign=13, Indigenous=77, Kazakh=24, Russian=285.

The variety of written responses to the question includes nine instances of "Depends on the person," and ranges from "Nobody" to "Everybody" (see Table 56).

Table 56.
Written Responses to Question 14: "Who do you think treats the natural environment of the Altai Republic best?"

Written Responses	#	%
Depends on the person	9	2.3
Nobody	2	.5
Sensible people	2	.5
Everybody	1	.3
Everybody except tourism	1	.3
Everybody is bad	1	.3
Half and half	1	.3
Visitors	1	.3
Total	18 of 399	4.5 of 100.0

Responsibility for garbage removal. Mehl (2009) reported that camping areas along the Katun River near Gorno-Altaisk lack adequate waste receptacles, and that tourists may discard

their garbage in the river, or leave it on the shore. Workers from the Sanitation Service of the Altai Republic pick up some of tourists' garbage along the river (p. 63).

In 2015, the prosecutor's office for the Gorno-Altaisk Office of the Environment ordered district authorities of the village of Choia to eliminate a large unauthorized roadside waste dump along the route from Gorno-Altaisk to Artybash. The Choia Public Utilities Service was assigned responsibility to deal with the eyesore, which contained large amounts of construction and consumer waste (Borba, 2015).

Who holds responsibility for garbage cleanup in rural areas of the Altai Republic? Three interview respondents have specific ideas about who holds responsibility. One said that village authorities are responsible for cleanup along roads. However, "They don't have money for it, (or) any place … to dispose of all the trash properly" (Interview with female of Altaian clan heritage, Gorno-Altaisk, 2015). Each of the ten rural districts of the Altai Republic has a village as its administrative center (AROPb, 2015). The interview respondent also said that there is a special area "…for collecting all the trash of this region (the Altai Republic). Before we actually had a kind of a factory, a kind of a recycling system. But now they are just removing it out of sight" (Interview with female of Altaian clan heritage, Gorno-Altaisk, 2015).

Cleanup responsibilities usually fall, according to another interview respondent, to either villages or to residents, rather than to tourism organizations, although tourists generate the bulk of the garbage.

> The banks of the rivers are actually full of rubbish at the end of the touristic [*sic*] season. Local municipalities are involved in cleaning it, and many volunteers from the local people are also involved in cleaning the banks after the season (ends), and before the

> (next) season in the spring, when the snow melts. (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015)

Another interview respondent revealed her exasperation, saying that essentially no one is accountable for garbage cleanup in the more remote areas. She listed the major issues concerning tourism and the environment:

> Pollution, crowds, and not responsible tourists, and to some extent, not responsible government. Because nobody is responsible for cleaning the banks of the rivers. So even very far in the mountains, very remote places, you can find places with a lot of garbage, and nobody is responsible for the areas. … In most places, tourist (groups) are not organized, and tourist services – I cannot call them services – tourists just come and stay and do what they want. And what upsets me is the fact that people who come here, they come here as though for … the single time, and they leave everything behind, as though they will never come back. (Interview with female ethnic Russian-4 from the Altai Republic, Gorno-Altaisk, 2015)

Residents and non-residents display similar views in their two most frequently selected options when responding to multiple-choice question 15, “Who do you think is responsible for removing garbage in the natural environment?” Approximately 46 percent overall select “Everyone,” and 33 percent overall select “Government workers.” Next, residents select “Residents” most frequently by 12 percent, while non-residents select “Tourism workers” by 20 percent (see Table 57). Because nearly half of all non-residents believe that everyone has caretaker duties, the results do not agree with findings by Vaughan and Ardoin (2014, p. 62) that non-residents assume that the government will handle local caretaking functions.

Table 57.
Resident/Non-resident and Survey Question 15: "Who do you think is responsible for removing garbage in the natural environment?"

Options	# Resident	% Resident	# Non-resident.	% Non-resident	# Total	% Total
a. Government workers	73	35.3%	57	29.7%	130	32.6%
b. Residents	25	12.1%	17	8.9%	42	10.5%
c. Tourism workers	18	8.7%	38	19.8%	56	14.0%
d. Tourists	2	1.0%	14	7.3%	16	4.0%
e. No one	0	0.0%	0	0.0%	0	0.0%
f. Everyone	97	46.9%	88	45.8%	185	46.4%
g. Written responses	7	3.4%	1	0.5%	8	2.0%
Total [a]	222	107.2%	215	112.0%	437	109.5%

Note: Percentages have been calculated using the number of total participants rather than the total number of responses.
[a] Total participants=399, Residents=207, Non-residents=192.

Results by ethnic group repeat the pattern above with Russians, indigenous participants, and foreign participants selecting "Everyone" first, with 49 percent, 40 percent and 62 percent respectively, followed by "Government workers," with 31 percent, 44 percent and 15 percent respectively. However, Kazakhs select "Residents" most frequently by 37.5 percent, and then they select "Everyone" and "Government workers" by 25 percent each (see Table 58).

Table 58.
Ethnic Groups and Survey Question 15: "Who do you think is responsible for removing garbage in the natural environment?"

Options	# Foreign	% Foreign	# Indigenous	% Indigenous	# Kazakh	% Kazakh	# Russian	% Russian	# Total	% Total
a. Government workers	2	15.4%	34	44.2%	6	25.0%	88	30.9%	130	32.6%
b. Residents	1	7.7%	8	10.4%	9	37.5%	24	8.4%	42	10.5%
c. Tourism workers	1	7.7%	4	5.2%	4	16.7%	47	16.5%	56	14.0%
d. Tourists	1	7.7%	2	2.6%	1	4.2%	12	4.2%	16	4.0%
e. No one	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
f. Everyone	8	61.5%	31	40.3%	6	25.0%	140	49.1%	185	46.4%
g. Written responses	0	0.0%	3	3.9%	0	0.0%	5	1.8%	8	2.0%
Total [a]	13	100.0%	82	106.5%	26	108.3%	316	110.9%	437	109.5%

Note: Percentages have been calculated using the number of total participants rather than by the number of responses.
[a] Total participants=399, Foreign=13, Indigenous=77, Kazakh=24, Russian=285.

Written responses to the survey question include "Village administration," as was indicated by an interview respondent. Responses also include other types of public and private services, and "Rural population," that is, rural residents (see Table 59).

Table 59.
Written Responses to Question 15: 'Who do you think is responsible for removing garbage in the natural environment?'

Written Responses	#	%
Special service	2	.5
Village administration	2	.5
City communal services	1	.3
LLC "Clean town", A. Agarkov	1	.3
Rural population	1	.3
Unsure	1	.3
Total	8 of 399	2.0 100.0

Conclusion

Tourism brings seasonal employment to the Altai Republic and evidence of an improved quality of life, such as internet access and recent home improvements in villages. However, tourism does not seem to improve the overall standard of living, especially among poor, rural residents according to rating agencies (Kaliganov, 2014; UNDPb, 2013). Inhabitants of rural areas in the Altai Republic often have much lower incomes than city dwellers (Braden & Prudnikova, 2008, pp. 4–6). Despite this, survey participants overall believe that tourism helps to improve the standard of living in the Altai Republic. Those in rural areas show greater agreement than those in the city of Gorno-Altaisk, and those working in tourism also show greater agreement than other participants. Low employment and the continuously low overall standard of living in the Altai Republic, despite tourism's influence, support arguments by Alam and Paramati (2016, p. 112), and Wattanakuljarus and Coxhead (2008, p. 24) that vulnerable groups of society must receive specific benefits and employment from tourism in order for general living conditions to improve.

Tourism may help sustain local culture by teaching younger members of a society about their own heritage, revitalizing traditions, and educating tourists in the area. However, some members of Altaian clans have blamed tourists for disrupting their lives, and disrespecting their land and culture. Participants in rural areas are more likely to agree that tourism preserves local culture than those in the city, and those who work in tourism or with the profession of businessman are also more likely to agree. Resident and non-resident participants overall believe that tourism preserves local culture. Those results support information in Lai and Nepal (2006, p. 1126) that communities in areas where tourism is expanding hold more favorable attitudes toward tourism than communities where tourism is stagnant.

The Altai Republic often faces large amounts of waste left by tourists in rural areas. Local government services and outside tourism interests seem inadequate or unready to handle the situation. As a result, the costs of waste removal may be assigned to village administrative centers, or residents themselves may act to clean up areas. Participants who reside in the republic agree more frequently than non-residents do that they themselves pick up after others, supporting findings in Vaughan and Ardoin (2014, p. 62) that residents assume caretaking responsibilities more readily than non-residents. Participants from rural backgrounds, tourism workers, and businessmen also indicate that they clean up garbage. Non-resident wilderness campers, who may be familiar with Leave No Trace practices (Marion & Reid, 2001), are more likely to agree than other non-residents that they assume caretaker responsibilities.

In early 2016, legislators of the Altai Republic State Assembly discussed limiting the number of incoming tourists in areas because of environmental degradation caused by tourists in 2015 (Ogranichit, 2016). While overall results seem inconsistent, residents agree somewhat more frequently than non-residents that overcrowding damages the local setting. However, female participants agree at approximately a 20 percent greater rate than males. Results support the theory that women, who are acculturated as caregivers, possess greater concern for the environment than men (Davey, 2009, p. 3; Dunlap & Van Liere, 1978, p. 191; Mohai, 1997, pp. 154, 168; Sulemana et al., 2016, p. 87). Differences in environmental perceptions by gender merit further research.

Viewpoints among resident and non-resident participants show general disagreement concerning a negatively articulated survey statement that waste produced by people in the natural setting has little consequence. That repeats the overall tendency toward pro-environmental responses. Residents and non-residents disagree at similar rate. Because residents may represent

a lower social status than non-residents, disagreement by both confirms the theory by Fairbrother (2013, p. 912) that those of higher and lower status globally share pro-environmental views.

Inadequate waste disposal, the low standard of living, especially among rural residents, and ecological damage from tourism affect the lives of many residing in the Altai Republic. Nevertheless, tourism affects groups of the population unequally. Conservation topics which might be thought to elicit overall support instead bring differing responses between minority peoples and the majority. The following chapter examines topics with implications for members of Altaian clans.

Chapter VIII: Topics Pertinent to Altaian Peoples

The Altai region holds "exotic mystic status among Russians, many of whom are fascinated with its mountains, shamans, and archeology" (Medovaya, 2007, p. 44). Modern, urban Russians come to the Altai Republic to visit the natural areas and to learn of the Altaian clans, although Russians and members of Altaian clans view natural areas quite differently. Local Altaians believe that natural features, such as mountains, rivers, trees, and springs are spiritual beings deserving deference, and Altaians perform ritual prayers to show respect for those features (Klubnikin, Annett, Cherkasova, Shishin, & Fotieva, 2000, p. 1297; Mehl, 2009, pp. 59–60).

Altaian clans suffered disproportionately during the Soviet period compared to other members of the population, because of lost access to natural areas and through the relegation of their traditional homes and/or sacred areas to collective farms (Mehl, 2009, p. 31). Privatization within Russia after the fall of the Soviet Union led to the sale or utilization of sacred places of indigenous peoples "for development projects such as unregulated housing sprawls and tourist resort constructions" (Medovaya, 2007, p. 49). One interview respondent said, "…we (do) everything for tourists here, but sometimes it destroys the life of indigenous people who live here" (Interview with female ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015).

Russians and participants from Altaian clans respond similarly to some pro-environmental statements; however, some aspects of the tourism development affect members of Altaian clans more than other citizens of the Altai Republic. The following discussion explores responses for the research question, "Do Altaian clan members hold similar views as other participants on topics which may disproportionately affect Altaian peoples?" Responses of Russians and Altaians reflect differing cultural perspectives. Altaians agree more frequently than

Russians do that the preservation of the natural environment is vital, and the shamanist tradition emphasizes this viewpoint. However, Altaians do not support the corresponding idea that nature reserves are necessary to protect the natural environment or wild animals.

Survey Statements with Significance for Altaian Peoples

Poor segments of society often include local indigenous peoples, whose way of life may include subsistence-level food production, a mother tongue different from the dominant national language, an attachment to traditional territories and resources, and self-identification as part of a distinct cultural group (World Bank, 1991). Four survey statements pertain to the traditional ways of life of Altaian peoples of the Altai Republic. Table 60 presents the four statements with summary counts and percentages of the five response options for each statement. The table also shows the statements in decreasing order by mean, so that those statements with which most participants agree appear at the top and those with which most disagree fall to the bottom.

Table 60.
Survey Statements with Implications for Members of Altaian Clans, Ordered by Mean

Statement	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Total
2) Nature reserves are necessary for the protection of the natural environment.	4.76	6	2	11	41	335	395
		1.5%	0.5%	2.8%	10.4%	84.8%	100.0%
9) I am concerned that illegal hunting in general is a threat to the natural environment.	4.67	13	4	15	36	330	398
		3.3%	1.0%	3.8%	9.0%	82.9%	100.0%
10) I am concerned about illegal hunting of endangered species found in the Red Book.	4.64	10	8	17	44	319	398
		2.5%	2.0%	4.3%	11.1%	80.2%	100.0%
3) Historic and sacred sites are adequately protected by the government.	3.43	27	81	89	88	109	394
		6.9%	20.6%	22.6%	22.3%	27.7%	100.0%

One statement concerns the necessity of nature reserves to protect the natural environment. Because nature reserves often are located near areas inhabited by Altaian clan members, and the reserves may prohibit local people's access to their traditional lands, the comparison of Altaian responses with those of the majority of the survey participants provides an important window into differing viewpoints. Pagans and shamanists are less likely than other participants to agree that nature reserves are needed to protect the natural environment. Survey participants overall have a mean response of 4.76 to the statement, while the mean for pagans and shamanists is 4.38.

Hunting has been a traditional means of obtaining sustenance among indigenous peoples; and some local Altaians debate their need for hunting licenses in their traditional lands. Two statements concern illegal hunting: (1) a statement that illegal hunting in general threatens the natural environment, which received an overall mean response of 4.67, and (2) a statement that the illegal hunting of endangered species causes concern, which received a mean response of 4.64. I expected that responses would differ between the two statements among Altaian participants, because they might view illegal hunting in general, if done for subsistence, as inconsequential, while illegal hunting of endangered species might cause alarm. However, Altaians, especially pagans and shamanists, agreed at higher rates than other participants regarding the problems of illegal hunting both in general (mean of 4.95), and with regard to endangered species (mean of 4.90).

Russia's Red Book lists rare and endangered species, and includes argali big-horned mountain sheep, which inhabit the Altaian Mountains. Those convicted of illegally killing protected animals listed in the Red Book could serve to up to seven years in prison. The Telengit

people of the southern Altai Republic live in argali habitat and do not hunt them, because they consider argali sacred (Castner, 2014).

Many members of Altaian clans consider natural features such as mountains and rivers as sacred. They also consider the sites where they conduct their own rituals to be sacred, as well as historic sites left by previous civilizations, such as petroglyphs and burial mounds (*kurgans*). Because of the importance of all such sites among Altaian clans, and because of reports from interview respondents of damage to Altaian and historic sites by tourists, I expected greater disagreement from Altaian participants than from others for a statement that historic and sacred sites receive adequate protection. Participants overall gave mixed, inconsistent results, with a mean response of 3.43. Altaian and other non-Russian or non-Kazakh participants in general, here labelled as Indigenous, and participants who speak Altaian as their mother tongue disagreed more frequently than did other participants. Indigenous participants in general responded with a mean of 3.15, and speakers of the Altaian language responded with a mean of 3.21.

Altaian Clans

The population of the Altai Republic includes a sizeable number of people from clans or tribes who speak languages from Kypchak and Uighur-Oguz groups of the Turkic branch of the Altaian family of languages, which includes Turkic, Tungusic and Mongolian languages (Thompson, 2016). The southern clans, the Altai-kizhi and Telengit, speak dialects of the Kypchak group; the northern clans, the Tubalar, Kumandin, and Chelkan, speak dialects of the Uighur-Oguz group. Northern Altaian clans generally understand each other’s dialects, as do southern Altaian clans; however, major differences between northern and southern dialects make them mutually unintelligible (Kolga, Tonurist, Vaba, & Viikberg, 2001, pp. 29–30; Kydyeva, 1993, p. 3) (Personal communication, A. Kravchenko, 2015).

According to the 2010 census, the republic has a population of 206,200. The most numerous Altaian clan, the Altai-kizhi, accounts for approximately 31 percent or approximately 62,200 people, while ethnic Russians make up the majority at 57 percent or 115,000, and Kazakhs make up about six percent or 12,500. Four other Altaian clans, the Telengits, Tubalars, Chelkans, and Kumandins, make up about 3.7 percent or 7,700, and the Germans, Shors, and others account for the remainder of the population. See Table 61 for total numbers of Altaian clans within the Altai Republic (Vserossiiskaia-2010, 2013).

Table 61.
Altaian Clan Census 2010, the Altai Republic

Clan	Number	Percent
Altai-kizhi	62,200	89.0
Chelkan	1,100	1.6
Kumandin	1,060	1.5
Telengit	3,650	5.2
Tubalar	1,900	2.7
Total	69,910	100.0

The Altai-kizhi and the Telengits originate from the mountainous, southern part of the republic. The Telengits originally resided beside Lake Teletskoe, but they moved further south to the Kosh-Agach and Ulagan Districts; their population numbers may be understated. The Tubalars originate from the middle portion of the republic. The Chelkans and Kumandins originate from the northern part of the republic. A fifth clan, the Teleuts, originated near Lake Teletskoe, but moved north to the Kemerovo Oblast; Teleuts speak a southern dialect. The clans from the south faced invasions by nomadic Mongolians, while those from the north encountered invasions by nomadic Kazakh and Kyrgyz (Anderson, 2004, p. 20; Halemba, 2006, pp. 16–17; Vserossiiskaia-2010, 2013) (Personal communication, A. Kravchenko, 2015).

During the Soviet period, government authorities treated the separate Altaian clans as one block, referring to them all as ‘the Altaians.’ Russian media, censuses, and popular books have used the conglomerate term, Altaians, to refer to all of the Altaian clans (Halemba, 2006, p. 21). Prior to 2002, the Russian census classified members of all Altaian clans as Altaians, that is, Altai-kizhi. Separate clan enumeration for the census became possible for the Chelkans, Kumandins, Telengits, and Tubalars after their recognition in 2000 as among the “Small-numbered Indigenous Peoples of the Russian Federation,” a designation limited to peoples with populations of less than 50,000 (Postanovlenie, 2015; Sokolovskiy, 2013, pp. 183-184). The federal government considers the “small-numbered” peoples as endangered and may provide limited benefits for their support. In 2002, the census began reporting clan numbers separately, with 2,400 Telengits registered within the Altai Republic in 2002, and 3,650 Telengits registered in the 2010 census (Halemba, 2006, p. 21; Koptseva & Kirko, 2014, p. 224; Sokolovskiy, 2013, pp. 183–184; Vserossiiskaia-2010, 2013).

The census may underrepresent Telengits in the Altai Republic, who live primarily in the Kosh-Agach and the Ulagan Districts (Halemba & Donahoe, 2008, p. 9). In 1993, Telengits were reported to constitute 39 percent of the population of the Kosh-Agach District (Halemba, 2006, p. 20). If Telengits continued to be 39 percent of the Kosh-Agach population of 18,300, by 2010 their numbers should approximate 7,100 in just the Kosh-Agach District (Vserossiiskaia-2010, 2013). Total numbers of Telengits in the Altai Republic may actually approach 15,000 (Cultural Survival, 2011). The 2010 census may also underrepresent the numbers of Chelkans, Kumandins, and Tubalars. In 1994, the numbers of Chelkans were estimated at 2,000, Kumandins at 7,000, and Tubalars at 4,900 (Sokolovskiy, 2013, p. 183).

After their designation as a “small-numbered” people, Telengits began reporting themselves as either Altaians (Altai-kizhi) or as Telengits, depending on the scenario. As a political statement, Telengits might report themselves as Altai-kizhi to show their patriotism to the community of Altaians or their patriotism to the Altai Republic. A local media campaign prior to the 2002 census promoted the unity of the Altaian clans as one nation and pressured Telengits to register themselves as Altaians, in order to maintain the political influence of the larger Altai-kizhi clan; the campaign labelled those who might register themselves as Telengits as “traitors of the united Altaian nation” (Halemba, 2006, p. 21).

The second scenario concerns the language used to address them. Members of Altaian clans may refer to themselves as Altaians when speaking with Russians or foreigners (Personal communication with female ethnic Russian-3 from the Altai Republic, 2016), or when they respond to surveys in the Russian language (Halemba, 2006, p. 21). However, if asked in the Altaian language, they usually give their own clan name. Past policies concerning self-reporting of the smaller clans may have led some Telengits who participated in the survey to label themselves instead as Altai-kizhi, because they completed the survey for this research in Russian, rather than in Altaian (see Table F3; see the survey in Appendix A).

Although Altaian clans have separate languages and traditions, they do view themselves as one community in a sense, because they share a common set of attitudes and practices toward the Altai Mountains, apparent in their “great admiration for the beauty and power of Nature” (Halemba, 2006, p. 18). They consider a person’s characteristics to include not only the physical body, the emotions, and other individual characteristics, but also the area in the Altai region where they reside. They treat the Altai region as more than their homeland, and generally believe that the “people and land are one” (Halemba, 2006, p. 18). An interview respondent said of the

Telengits, that they believe, “Our land is God. If we leave this place, we leave our God” (Interview with female of Altaian clan heritage, Gorno-Altaisk, 2015).

Indigenous Participants: Altaians and Others

Participants representing ten non-Russian, non-Kazakh ethnicities took part in the survey. To allow a variety of responses in providing their ethnic identity, participants did not select from a pre-defined set of options, but instead self-reported their ethnicity on blank lines. For analysis, the ethnic group, Indigenous, represents 77 non-Russian and non-Kazakh participants. Of those, 67 of the participants represent four Altaian clans originating in the Altai Republic: Altai-kizhi, Telengit, Kumandin, and Tubalar. Sixty-two of the Altaian participants reside within the Altai Republic, and five reside elsewhere in Russia. The ethnic group also includes members of six other ethnicities originating elsewhere within Russia (see Table 62).

Table 62.
Indigenous Participants: Place of Origin, Ethnic Group and Current Residence Region

Original Area	Ethnic Group	Place of Residence	#	%
Altai Republic	Altai-kizhi	Altai Republic	52	13.0
	Kumandin	Altai Republic	1	0.3
	Telengit	Altai Republic	2	0.5
	Tubalar	Altai Republic	7	1.8
	Altai-kizhi	Altai Krai	1	0.3
	Altai-kizhi	Kemerovo Oblast	2	0.5
	Altai-kizhi	Novosibirsk Oblast	1	0.3
	Altai-kizhi	Zabaikalski Krai	1	0.3
		Subtotal	67 of 399	16.8
Udmurt Republic	Udmurt	Altai Republic	1	0.3
Chechen Republic	Chechen	Altai Krai	1	0.3
Chuvash Republic	Chuvash	Altai Krai	1	0.3
Kalmyk Republic	Kalmyk	Kalmyk Republic	1	0.3
Khakassia Republic	Khakass	Krasnoyarsk Krai	2	0.5
Tatarstan Republic	Tatar	Altai Krai	1	0.3
Tatarstan Republic	Tatar	Moscow Oblast	2	0.5
Tatarstan Republic	Tatar	Tatarstan Republic	1	0.3
		Subtotal	10 of 399	2.5
Total			77 of 399	19.3

Note: “Indigenous” here refers to participants of non-Russian and non-Kazakh ethnicities.

Three categories help to distinguish the responses of indigenous participants from those of Russians and Kazakhs:

- *Indigenous* as a combined ethnic group of non-Russian, non-Kazakh participants from within the Altai Republic and from elsewhere within the Russian Federation.
- *Altaian* as the native language spoken by the largest number of members of Altaian clans.
- *Pagan/Shamanist* as the religion category of participants with animist beliefs, such as paganism, or shamanism, or the syncretism of those with other religions. Altaian clan members from remote areas are likely to hold pagan or shamanist beliefs.

The broadest category for indigenous participants, the Indigenous ethnic group, includes 77 participants, 63 of whom reside in the Altai Republic, and 14 non-residents from elsewhere in the Russian Federation. The next largest category represents participants who speak Altaian as their native language; of 48 total Altaian speakers, 42 currently reside in the Altai Republic, and 6 reside elsewhere within Russia. The smallest category represents participants in the religion group, Pagan/Shamanist; of 21 participants, 20 reside in the Altai Republic, and one elsewhere within Russia.

Three tables highlight the characteristics of those 63 non-Russian and non-Kazakh participants who reside within the Altai Republic; the tables give totals by ethnicity, survey location, native language, and religion (see Table 63, Table 64, and Table 65). Of residents, 52 self-report themselves as Altaian (presumably Altai-kizhi), 1 as Kumandin, 2 as Telengit, and 7 as Tubalar (see Table 62). The 18 Altai-kizhi in the Kosh-Agach survey location may actually be Telengits, based on possible misinformation concerning their self-reporting (Halemba, 2006, p. 21). Forty-two resident participants report Altaian as their native language. Twenty hold pagan or shamanist beliefs or the syncretism of those beliefs with other religions.

Table 63.
Resident Indigenous Participants by Survey Location

	Survey Location				
Ethnicity	Chemal	Gorno-Altaisk	Kosh-Agach	Teletskoe Area	Total
Altai-kizhi	6	17	18	11	52
	9.5%	27.0%	28.6%	17.5%	82.5%
Kumandin	0	0	0	1	1
	0.0%	0.0%	0.0%	1.6%	1.6%
Telengit	0	0	2	0	2
	0.0%	0.0%	3.2%	0.0%	3.2%
Tubalar	0	0	0	7	7
	0.0%	0.0%	0.0%	11.1%	11.1%
Other [a]	0	0	0	1	1
	0.0%	0.0%	0.0%	1.6%	1.6%
Total	6	17	20	20	63
	9.5%	27.0%	31.7%	31.7%	100.0%

Note: "Indigenous" here refers to participants of non-Russian and non-Kazakh ethnicities.
[a] One participant, who resides in the Altai Republic and whose ethnicity is associated with the Udmurt Republic of the Russian Federation, is counted among resident indigenous participants for the survey.

Table 64.
Resident Indigenous Participants by Native Language

	Native Language						
Ethnicity	Altaian	Not Given	Other	Russian	Telengit	Tubalar	Total
Altaian	39	0	1	12	0	0	52
	61.9%	0.0%	1.6%	19.0%	0.0%	0.0%	82.5%
Kumandin	0	0	0	1	0	0	1
	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	1.6%
Telengit	1	0	0	0	1	0	2
	1.6%	0.0%	0.0%	0.0%	1.6%	0.0%	3.2%
Tubalar	2	1	0	1	0	3	7
	3.2%	1.6%	0.0%	1.6%	0.0%	4.8%	11.1%
Other [a]	0	0	0	1	0	0	1
	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	1.6%
Total	42	1	1	15	1	3	63
	66.7%	1.6%	1.6%	23.8%	1.6%	4.8%	100.0%

Note: "Indigenous" here refers to participants of non-Russian and non-Kazakh ethnicities.
[a] One participant, who resides in the Altai Republic and whose ethnicity is associated with the Udmurt Republic of the Russian Federation, is counted among resident indigenous participants for the survey.

Table 65.
Resident Indigenous Participants by Religion

Ethnicity	Religion: Atheist/ Agnostic [a]	Christian [b]	Muslim	Not Given	Buddhist/ Christian	Pagan/ Shamanist [c]	Total
Altai-kizhi	10	15	1	8	1	17	52
	15.9%	23.8%	1.6%	12.7%	1.6%	27.0%	82.5%
Kumandin	0	1	0	0	0	0	1
	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	1.6%
Telengit	0	0	0	0	0	2	2
	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	3.2%
Tubalar	2	4	0	0	0	1	7
	3.2%	6.3%	0.0%	0.0%	0.0%	1.6%	11.1%
Other [d]	0	0	0	1	0	0	1
	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	1.6%
Total	12	20	1	9	1	20	63
	19.0%	31.7%	1.6%	14.3%	1.6%	31.7%	100.0%

Note: "Indigenous" here refers to participants of non-Russian and non-Kazakh ethnicities.
[a] *Atheist/Agnostic* combines Atheism and Agnosticism.
[b] *Christian* combines Baptist, Catholic, Christian, and Orthodox.
[c] *Pagan/Shamanist* includes Paganism, Shamanism, and the syncretism of those with other religions or belief systems.
[d] One participant, who resides in the Altai Republic and whose ethnicity is associated with the Udmurt Republic of the Russian Federation, is counted among resident indigenous participants for the survey.

Shamanism may have originated during the Stone Age (Basilov, 1997, p. 30) in Siberia (Beltran, 2000, pp. 120–121). Clairvoyant shamans are regarded as sensing supernatural beings and communicating with them on behalf of their own peoples (Alekseev, 1997, p. 78). The appearance of shamanism was a sign of early social change, "because, you know, in prehistoric society, all people, all members of the tribe were absolutely equal, and in a certain moment, there appeared chiefs and shamans. A shaman is like a politician, and like a doctor at the same time, a medicine man" (Personal communication, A. Kravchenko, 2015).

Prior to the arrival of Russian missionaries and during the Soviet period, shamanism played a central role in the lives of Altaian clan members in the Altai region (Alekseev, 1997, pp. 83–88). The first Christian missionary, Makarii (Glukharev), a Russian Orthodox monk, found

shamanism practiced among the clans in the Altai region when he arrived in the area in 1830. He established an Orthodox mission first at Maima, and later moved it to Ulala, the current location of Gorno-Altaisk. Russian authorities considered Russian culture superior to that of the Altaians, and attempted to transfer Russian culture to them through conversion to the Russian Orthodox Church (Collins, 1989, pp. 54–55, 64). During the 19th century, Russians persecuted shamans and destroyed their holy places (Basilov, 1997, p. 39). During the Soviet period, authorities considered shamanic practices outdated in a scientific age, and they harassed, publicly denounced, and confiscated property from shamans (Balzer, 1997, p. xiii).

After the fall of the Soviet Union, in the early 1990s, rural members of Altaian clans suffered economically, because of the liquidation of collective farms (*kolkhozy*). As an example, corrupt Moscow politicians ruined the Telengit collective farm, Kyzyl Maany in the Kosh-Agach District, by taking and selling the livestock for almost nothing to local politicians, and leaving the Telengit farmers penniless. Badenkov (2002) alleges that the Telengits would be more capable of capitalizing on entrepreneurial opportunities if they formed a unified political or cultural voice, but their shamanistic beliefs prevent a united response. Meanwhile, the solidarity of Kazakhs, who share the Islamic religion, gives them greater economic resilience (Badenkov & Sabin, 2002, pp. 321–322). Non-uniform shamanism represents a flexible, non-institutionalized, cross-cultural religion, which allows changing beliefs and practices (Beltran, 2000, p. 121; Halemba, 2003, p. 174).

Despite years of repression under both Tsarist Russia (Forsyth, 1992, pp. 180–182), and the Soviet Union (Bobrick, 1992, p. 455), shamanism continues among Altaian clans in the Altai Republic. A 2012 online survey found that 13 percent of respondents in the Altai Republic follow the traditional religion of their ancestors, worshipping the gods of nature (Sreda, 2012).

Syncretism often occurs among members of Altaian clans, with them holding beliefs from distinct religious systems simultaneously (Halemba, 2006, p. 27). An interview respondent said, based on her academic research, "…in Altai we can find … the Christian belief mixed with animism and with pagan traditions. Sometimes people believe in the God, but they also believe that the mountain will help them or the river" (Interview with female ethnic Russian-3 from the Altai Republic, Gorno-Altaisk, 2015).

Laws of the Russian Federation have treated indigenous peoples inconsistently concerning rights to their traditional lands. In 1999, a law formally guaranteed the right of "small-numbered" peoples, such as the Telengits, to use land and renewable natural resources within their traditional territories. However, a 2007 law undermined that right by making traditional territories available only through required paid licenses. That law also made the rights to traditional territories available to the highest bidder by auction, which forced poor indigenous peoples to compete with the wealthy for their traditional lands. A 2009 law then designated all hunting grounds as available for long-term lease, further threatening the traditional way of life of indigenous peoples (Koch & Tomaselli, 2015, pp. 9–11).

Kazakhs in the Altai Republic

Kazakhs make up 6 percent or 12,500 of the population of the Altai Republic (Vserossiiskaia-2010, 2013). Kazakhs represent the third largest ethnic group after Russians, and the Altai-Kizhi clan, or the fourth largest after the Russians, Altai-Kizhi, and Telengits, if Telengit clan numbers truly reach 15,000 people within the republic (Cultural Survival, 2011). Kazakhs reside primarily in the Kosh-Agach District, where they, not Russians, are in the majority, and where Telengits make up most of the rest of the population (Halemba, 2006, pp. 20, 40).

Under pressure from Tsarist Russian and the Soviet Union, Kazakhs of Central Asia gradually transformed their lifestyle from nomadic animal herders to reliance on agriculture and industry. Kazakhs speak the Turkic language, Kazakh (Fouse, 2000, p. 259). Kazakhs migrated into the Altai region in two waves, first during the 1870s as they fled from Dzungaria (Badenkov & Sabin, 2002, p. 320) and again during the 1920s and 1930s, because of a worsening socio-political situation in Kazakhstan. Telengit elders responded to the first wave by providing Kazakhs with an area to live on the bank of the Chui River (Halemba, 2006, p. 40).

The current country of Kazakhstan lies just across the southwest border of the Altai Republic. The area had been an autonomous republic within the U.S.S.R., but declared its independence in 1991 with the fall of the Soviet Union. Nursultan Nazarbaev, the President of Kazakhstan, encouraged Kazakhs residing in other countries to return to their historic homeland in Kazakhstan, and from 1991 to 1992, approximately 3,300 Kazakhs moved from the Altai Republic to Kazakhstan. From 1994 through 1996, approximately 1,250 Kazakhs, nearly half, returned from Kazakhstan to the Altai Republic, due to disillusionment with their poor reception and with the emphasis on market-based interpersonal relations in Kazakhstan. Those who returned to the Kosh-Agach District settled primarily either in the village of Kosh-Agach, which is the administrative center of the district, or in the villages of Toboler or Zhanaul. Other villages, which had previously enjoyed ethnic diversity between Telengits and Kazakhs, then became primarily Telengit (Halemba, 2006, p. 40).

After the recognition of Telengits in 2000 as an indigenous minority and member of the "Small-numbered Indigenous Peoples of the Russian Federation," tensions increased between the Telengits and the Kazakhs in the Kosh-Agach District. Kazakhs consider themselves as indigenous to the region, and two local Kazakh congresses (*kurultais*) met to demand the same

status for themselves that Telengits had received. However, federal authorities did not recognize Kazakhs as an endangered indigenous minority within the Russian Federation (Badenkov & Sabin, 2002, p. 322) Authorities also did not grant that status to Russian Old Believers of Ust-Koksa village in the Altai Republic (Sokolovskiy, 2013, pp. 183–184).

One might argue that members of Altaian clans and Kazakhs should both be known as indigenous, because the Kazakhs, like the Altaian clans, have a longer history in the region than Russians do. However, for this research, I do not include Kazakhs under the umbrella, "Indigenous," but instead I treat Kazakhs as a distinct and important portion of survey participants.

Following the breakup of the Soviet Union, the economy of the Altai Republic changed abruptly from a socialist one to a market-oriented one, and many people, including the Telengits of Kosh-Agach District, experienced increased social distress. Badenkov argues that Kazakhs in the district adapted more readily to the new situation, compared with the Telengits, because of Kazakh solidarity from a shared, institutionalized religion, Islam, and because of new-found opportunities for Kazakhs for trade and cultural exchange with Kazakhstan and Mongolia following the opening of borders (Badenkov & Sabin, 2002, p. 321).

Kazakh Participants

The 26 Kazakhs who participated in the survey appear highly homogeneous. They share the native language, Kazakh, and the religion, Islam, with the exception of one Agnostic (see Table 66). Twenty-one of them reside within the Altai Republic, and five reside elsewhere; three non-residents come from within the Russian Federation; two foreigners come from Kazakhstan and Mongolia. (In survey results, tables may indicate either Islam or Muslim as the religion associated with Kazakh participants.)

Table 66.
Kazakh Participants, Residents and Non-residents of the Altai Republic, Selected Categories

Residents	Category		#	%
	Place of Residence	Gorno-Altaisk	1	3.8%
		Kosh-Agach village	20	76.9%
	Native Language	Kazakh	21	80.8%
	Religion	Islam	21	80.8%
	Sub-total		21 of 26	80.8% of 100.0%
Non-residents			#	#
	Place of Residence	Altai Krai, Russia	2	7.7%
		Novosibirsk Oblast, Russia	1	3.8%
		Kazakhstan	1	3.8%
		Mongolia	1	3.8%
	Native Language	Kazakh	5	19.2%
	Religion	Islam	4	15.4%
		Agnosticism	1	3.8%
	Sub-total		5 of 26	19.2% of 100%

The discussion of survey results relies on three categories to distinguish Kazakh views from those of Russians and from members of Altaian clans or other traditional peoples:

- *Kazakh* as an ethnic group.
- *Kazakh* as the native language of Kazakhs.
- *Muslim* or Islam as a religious group of the Kazakhs.

Nature Reserves

Conservationists and environmentalists endeavor to protect and conserve native flora and fauna by creating protected areas and many areas around the world remain in an ecologically diverse condition because of those efforts. However, protected-area designations that separate landscapes from cultural areas for indigenous peoples bring suffering to indigenous peoples through lost access to their traditional lands and to resources to support their communities (Morrison, 1997, p. 285).

Previously, during the Soviet period, the government forced indigenous peoples and others to relocate from their homes for the establishment of protected areas. Soviet and post-Soviet protected-area legislation similarly ignored rights of indigenous peoples (Poirier & Ostergren, 2002, pp. 335, 351).

Policies which prohibit access by indigenous and traditional peoples to their lands, as promoted by international conservation organizations, and by national and local governments, destroy the cultures of indigenous communities, according to Chhatre et al. (2016, p. 8) and Letman (2016). Such policies essentially are "tearing indigenous people away from their traditional landscapes," and disrupting the relationship those peoples have had "with land that is an intrinsic part of our culture," according to Danil Mamyev, community leader from the Karakol Valley (Letman, 2016).

Imran, Alam and Beaumont (2014, pp. 293–296), and Lai and Nepal (2006, p. 1120) report that indigenous rural residents residing adjacent to nature reserves tend to maintain negative views toward them. Aziz et al. (2013) argues that conservation groups and governments should recognize the rights of indigenous peoples to their ancestral lands, and allow them greater say in the economic development of those areas in order to improve biodiversity efforts (p. 652).

Opinions of Altaian clan members regarding nature reserves may differ completely from Russian government officials' views of them. During a 2005 conference in the Altai Republic, a government official stated that local Altaian people definitely supported the creation of nature reserves:

> Establishing [*sic*] of specially protected areas of different categories is completely supported by the [Altaian] population, probably because at a subconscious level people understand that it is one of the methods of preservation of [a] biotope that provides for

survival, health, a sense of harmony and unity with [the] natural environment….

(Medovaya, 2007, p. 46)

When asked in 2008 about the possible creation of a nature reserve in his area, a Telengit herder in the Argut Valley not only did not support it, he expressed his distrust of the intentions of government officials: “Someone wants to buy this territory and make a nature reserve. They will push us out of here and they will hunt here, the animals will be gone” (Halemba & Donahoe, 2008, p. 24). The 2008 survey to assess local attitudes toward the hunting of wild or endangered animals found that those members of the Telengit clan in the Kosh-Agach District, who lived closest to protected areas, tended to support them least (pp. 2-3). Telengits disapproved of nature reserves for two reasons: (1) the potential for the forced relocation of their people, and (2) the prevention of their use of their traditional lands as pasture for their animals (Halemba & Donahoe, 2008, pp. 2–3, 25).

In 2005, a portion of the Altai-kizhi residents in the Karakol Valley did not support establishing the Uch-Enmek nature park, because publicity would draw tourists to their otherwise remote area, and they considered tourists to be the “worst threat to Altai” (Medovaya, 2007, p. 75). Tourists would damage local sacred places, arrogantly acting as if the place belonged to them, and they would “go wherever they wish to, including marked and unmarked sacred places, which have certain rules of attendance, and, worst of all, leave their garbage behind” (p. 76). When informed about restrictions by park guards, tourists might reply, “…that this is their country and they as Russian citizens have every right to use the land as they want” (p. 77).

Three protected areas in the Kosh-Agach District of the Altai Republic occupy 35 percent of the district’s 19,845 square kilometers. Those are Shavlinskii Federal Wildlife Reserve

(*zakaznik*), spreading over 3,289 square kilometers, Sailiugem National Park, with 1,184 square kilometers, and Ukok Quiet Zone Nature Park, with 2,540 square kilometers (Personal communication, J. Castner, 2016).

Grassroots action working through small government organizations can prevent outside interests from using nature park designations to the disadvantage of local residents (Chhatre et al., 2016, p. 7). A 2016 proposal to expand Sailiugem National Park and to increase the amount of private ownership in the district would have brought nearly 64 percent of the entire district under the control of either national parks or private hands. Those changes would have also resulted in the relocation of entire Telengit and Kazakh villages. A people's congress in the village of Tobeler in the Kosh-Agach District defeated the proposed expansion in February 2016 (Chumakaev, 2016).

Nature reserves: Responses. Results below compare survey responses of residents with non-residents and of indigenous participants with Russians and Kazakhs. Survey participants widely support the need for nature reserves in response to survey statement 2, "Nature reserves are necessary for the protection of the natural environment." Overall, 95 percent of respondents agreed with the statement, with 94 percent of residents in agreement and 96 percent of non-residents in agreement (see Table 67).

Table 67.
Residents and Non-residents with Survey Statement 2: "Nature reserves are necessary for the protection of the natural environment."

Category	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined Agree	Total
Resident	4.70	5	1	6	26	168	194	206
		2.4%	0.5%	2.9%	12.6%	81.6%	94.2%	100.0%
Non-resident	4.83	1	1	5	15	167	182	189
		0.5%	0.5%	2.6%	7.9%	88.4%	96.3%	100.0%

Note: *N*=395, *M*=4.76, combined agreement=95.2%.

Telengits who live closest to protected areas tended to support their development least (Halemba & Donahoe, 2008, pp. 2–3), and rural peoples residing near protected areas often hold negative attitudes toward them (Imran et al., 2014, pp. 293–296; Lai & Nepal, 2006, p. 1120). Because Kazakhs, like Telengits, have faced the possible relocation of entire villages from the proposed expansion of Sailiugem National Park in 2016, and because of the proximity of Kazakhs with their Telengit neighbors in the Kosh-Agach District, I expected both members of Altaian clans and Kazakhs to be less likely to support nature reserves than Russians.

Results met my expectations for shamanist participants and for Kazakhs, who agree at lower rates than Russians do. When comparing responses on the need for nature reserves, Russians show higher levels of agreement than other groups by ethnic group, native language and religion, with mean responses at similar levels of 4.80, 4.79, and 4.82 respectively. Kazakhs show consistent, although slightly lower agreement levels than Russians, with mean responses of 4.57, 4.60, and 4.61 respectively. The rate of indigenous agreement falls between that of Russians and Kazakhs by ethnic group and by native language, with mean responses of 4.70 and 4.65 respectively; however, by religion, agreement by pagans and shamanists falls lower than other groups, with a mean response of 4.38 (see Table 68).

Table 68.
Ethnic Group, Native Language, and Religion with Survey Statement 2: "Nature reserves are necessary for the protection of the natural environment."

Category	*M*	Combined disagree	Unsure	Combined agree	Total
Ethnic Group					
Indigenous	4.70	2	3	71	76
		2.6%	3.90%	93.4%	100.0%
Kazakh	4.57	2	0	21	23
		8.7%	0.00%	91.3%	100.0%
Russian	4.80	3	8	270	281
		1.1%	2.80%	96.1%	100.0%
Native Language					
Altaian	4.65	2	2	44	48
		4.2%	4.20%	91.7%	100.1%
Kazakh	4.60	2	0	23	25
		8.0%	0.00%	92.0%	100.0%
Russian	4.79	4	8	291	303
		1.3%	2.60%	96.1%	100.0%
Religion					
Atheist/Agnostic	4.89	1	0	60	61
		1.6%	0.0%	98.4%	100.0%
Christian (primarily Russians)	4.82	2	7	228	237
		0.8%	3.00	96.2%	100.0%
Muslim (Kazakhs)	4.61	2	0	26	28
		7.1%	0.0%	92.8%	100.0%
Pagan/Shamanist (Altaian clans)	4.38	2	2	17	21
		9.5%	9.5%	81.0%	100.0%

Note: *N*=395, *M*=4.76, Total combined agree=95.2%, Total combined disagree=2.0%.
"Indigenous" here refers to participants of non-Russian and non-Kazakh ethnicities.
The ethnic group, Foreigners, does not appear.
Native languages of smaller numbers of participants do not appear.

Illegal Hunting in General

Hunting has been a traditional activity of many indigenous peoples, but environmentalists, concerned with maintaining wildlife biodiversity, label hunting as poaching if done in restricted nature reserves without obtaining a required license or permit. Regulations have denied indigenous peoples access to nature parks for traditional hunting and gathering

activities on land which previously belonged to them (Poirier & Ostergren, 2002, pp. 348–349). However, Aziz, et al. (2013, p. 641) argue that authorities should safeguard the rights of indigenous peoples to the lands that they rely in order to ensure the future biodiversity of those lands.

According to Telengits, whether hunting sustains or damages the natural environment depends on the protocols followed. In the Telengit tradition, hunting rules include the following:

- Hunt no more than needed for subsistence
- Use all parts of the animal
- Clean the area where the killing or slaughtering occurred
- Share meat among all hunters equally (Halemba & Donahoe, 2008, p. 17)

Hunting regulations, ostensibly put into place to preserve wildlife in remote areas as numbers of tourists increase, have not prevented the loss of large numbers of wildlife (Chumakaev, 2016; Kasparek, 2011, p. 14) (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015). However, the sustainable practices employed by members of Altaian clans support an argument that local indigenous peoples are most capable of maintaining biodiversity, and they must be engaged in sustainability efforts in order for those efforts to succeed (Aziz et al., 2013, p. 652; Beltran, 2000, p. ix).

Population numbers of various wild animals have been falling in the Altai Republic. An interview respondent reported that after the beginning of commercial hunting in the 1990s, the numbers of red deer (*maral*) in the Altai Republic plummeted. Farmers, who had held a portion of the deer for breeding, released some of them into the wild to increase the numbers available to hunters. However, the red deer population in 2015 had not recovered to even the level of ten years before (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk,

2015). A Telengit herder predicted that animal populations would fall after the designation of local areas as nature reserves (Halemba & Donahoe, 2008, p. 24). Residents of the village of Dzhazator in the Kosh-Agach District reported that the numbers of animals in Sailiugem National Park, including endangered species, had decreased as animals fled the reserve over the past three years following designation of the area as a national park. Habitat disruption from the influx of helicopters, snowmobiles, and other tourist vehicles caused the decrease (Chumakaev, 2016).

One interview respondent thought that hunting tourism might be the most important topic concerning tourism and the environment from the perspective of Altaians:

> … local residents all see that they're being prevented from doing the hunting that they consider their birthright, whereas they see this complete corruption, and lack of enforcement by all these trophy hunters coming in. And, you know, there is a lot of disrespect and derision (by government officials and the wealthy toward local residents). (Interview by Skype with female American from Michigan familiar with the Altai Republic, 2015)

Illegal hunting in general: Responses. Survey respondents overall display concern about dangers to wildlife from illegal hunting. Both residents and non-residents respond with high mean responses to survey statement 9, "I am concerned that illegal hunting in general is a threat to the natural environment;" although non-resident participants display a slightly higher mean response of 4.78 than residents with a mean response of 4.57 (see Table 69).

Table 69.
Residents and Non-residents with Survey Statement 9: "I am concerned that illegal hunting in general is a threat to the natural environment."

Category	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined Agree	Total
Resident	4.57	10	2	11	20	163	183	206
		4.90%	1.00%	5.30%	9.70%	79.10%	88.80%	100.00%
Non-resident	4.78	3	2	4	16	167	183	192
		1.60%	1.00%	2.10%	8.30%	87.00%	95.30%	100.00%

Note: *N*=398, *M*=4.67, combined agreement=91.9%.

Some argue that indigenous peoples are the best guardians of their natural setting, because their traditional lifestyles act in harmony with nature (Beltran, 2000, p. ix; Colchester, 1997, p. 112; Lai & Nepal, 2006, p. 1121). Human interference may be an integral factor in maintaining diverse ecosystems (Chhatre et al., 2016, p. 4). Members of the Telengit clan in the Altai Republic see themselves as living in a harmonious, sustainable way with their natural environment (Almashev, 2010; Halemba & Donahoe, 2008, p. 3). Because of concerns about hunting, and because hunting has been part of their traditional lifestyle, I expected a stronger show of concern, that is, greater agreement for the statement, from indigenous participants than from other participants.

Rates of agreement by indigenous participants did surpass those of Russians and Kazakhs. Russians expressed consistent levels of agreement with mean responses by ethnic group, native language, and religion as 4.64, 4.65, and 4.70 respectively. Kazakhs also expressed consistent rates of agreement with mean responses of 4.67, 4.69, and 4.59 respectively. The mean response from indigenous participants by ethnic group of 4.74 was similar to, but slightly higher than rates of agreement by Kazakhs and Russians. The mean responses from participants who speak the Altaian native language and from those with pagan and shamanist beliefs reached higher means with 4.88, and 4.95 respectively (see Table 70).

Table 70.
Ethnic Group, Native Language and Religion with Survey Statement 9:"I am concerned that illegal hunting in general is a threat to the natural environment."

Category	*M*	Combined disagree	Unsure	Combined agree	Total
Ethnic Group					
Indigenous	4.74	2	2	72	76
		2.6%	2.6%	94.7%	100.0%
Kazakh	4.67	1	0	23	24
		4.2%	0.0%	95.9%	100.0%
Russian	4.64	14	13	256	283
		4.9%	4.6%	90.5%	100.0%
Native Language					
Altaian	4.88	0	0	48	48
		0.0%	0.0%	100.0%	100.0%
Kazakh	4.69	1	0	25	26
		3.8%	0.0%	96.2%	100.0%
Russian	4.65	14	15	277	306
		4.6%	4.9%	90.6%	100.0%
Religion					
Atheist/Agnostic	4.65	3	3	54	60
		5.0%	5.0%	90.0%	100.0%
Christian (primarily Russians)	4.70	8	9	223	240
		3.3%	3.80%	92.9%	100.0%
Muslim (Kazakhs)	4.59	2	0	27	29
		6.9%	0.00%	93.1%	100.0%
Pagan/Shamanist (Altaian clans)	4.95	0	0	21	21
		0.0%	0.00%	100.0%	100.0%

Note: *N*=398, *M*=4.67, Total combined agree=91.9%, Total combined disagree=4.3%.
"Indigenous" here refers to participants of non-Russian and non-Kazakh ethnicities.
The ethnic group, Foreigners, does not appear.
Native languages of smaller numbers of participants do not appear.

Illegal Hunting of Endangered Species

In a remote area inhabited by only few hundred endangered argali, the world's largest mountain sheep, some of Russia's elite illegally hunted the elusive animals using a helicopter in January 2009. After the helicopter crashed, killing seven people in the Shavlinskii Wildlife Reserve, the infamous, flagrant poaching example reached the media. The helicopter passengers

held permits to hunt mountain goats and red deer, and the helicopter's emergency beacon had been turned off so that the helicopter could not be tracked (Castner & Ewald, 2009). Two top government officials (*chinovniki*) died in the crash: Aleksandr Kosopkin, presidential envoy to the State Duma, and Viktor Kaimin, chair of the Committee for the Protection, Use, and Reproduction of Fauna of the Altai Republic, whose office issues hunting licenses. Kaimin had previously promoted local trophy hunting rather than the protection of local, rare and endangered species. The survivors included two government officials, and a CEO of an environmental company, all of whom escaped punishment for illegal hunting after repeated legal delays and the expiration of the statute of limitations (Braden, 2015, p. 17). As early as 2004, the World Wildlife Fund Altai-Saian Ecoregion claimed that governmental officials in the Altai Republic organized illegal hunting trips into the Kosh-Agach District (Halemba & Donahoe, 2008, p. 8). Tour companies openly promoted trophy hunting in the Shavlinskii reserve, where all hunting is prohibited (WWF-Russia, 2006).

Telengit residents of the Altai Republic have not supported the development of nature reserves in the Kosh-Agach District, known for its diversity and rare and endangered species of flora and fauna. They firmly believe that nature reserves simply provide government officials with unlimited hunting privileges, equating a nature reserve with a private hunting ground. Many Telengits view uncontrolled, wasteful trophy hunting done by those in positions of power, such as those with the government or in the army, as true poaching (Halemba & Donahoe, 2008, p. 15. 25). An interview with a Telengit by Halemba and Donahoe (2008) affirmed that hunting licenses do not protect wild animals:

> …it is precisely those who have all necessary permissions (that is, hunting cards or licenses) (including inspectors, border guards, and police), who are the "real poachers"

> and pose the greatest threat to wild animals. One local hunter said that the greatest threat comes from "People who have the money to buy expensive automatic rifles, but don't know how to hunt. They drink when they go hunting. Some local people do this, some dargalar (bosses, officials, authorities). … They shoot indiscriminately." (Halemba & Donahoe, 2008, p. 11)

Other residents of the Altai Republic, who participated in my survey, also associate nature reserves with hunting privileges of the powerful. A female Kazakh survey participant (#338) from Kosh-Agach village, in response to the survey statement, "Nature reserves are necessary for the protection of the natural environment," definitely did not support the development of nature reserves, because of illegal hunting occurring there. She selected option 1, *Completely disagree,* in response to the statement, and she also wrote on her survey, "They (nature reserves) work for residents, but do not protect from helicopter hunting." The response highlights the broadly held sentiment that local people must obey restrictive hunting policies of nature reserves, while well-connected government officials and the wealthy, who engage in hunting for sport, disregard those policies (Braden, 2015, pp. 16–17).

Well-placed government officials do hunt illegally in the Russian Federation, but perhaps not as frequently as commonly thought. A study from 2000 to 2010 by the World Wildlife Fund of Russia found that prominent government officials and oligarchs accounted for just 5 percent of poaching, while poor, rural villagers accounted for 25 to 30 percent, and criminal organizations made up the rest (Polianskaia, 2013).

One interview respondent explained that there are two types of trophy hunters in the Altai Republic. She also explained that hunting tourism angers members of Altaian clans, because the

government condones irresponsible actions by the wealthy and powerful, while harassing those who live in poverty.

> There are the relatively innocent ones (trophy hunters) that just want to come in and kill an elk and be done with it. You know, Germans with their overpowered rifles, and they're not any good at shooting. But then, there's the Russian, politically well-connected government employees and well-connected entrepreneurs that come in with very, very high powered equipment, and helicopter, and come in and do very, very targeted, unfortunately very successful hunting. And those are the people who really set off the local residents, in terms of just make them completely… livid. Because it's clearly government sanctioned, clearly sanctioned, or at least ignored by the local Altaian government. While, at the same time, locals are told that they are not allowed to use their crappy, 50-year-old rifle that they can subsistence hunt with. (Interview by Skype with female American from Michigan familiar with the Altai Republic, 2015)

Illegal hunting of endangered species: Responses. Survey participants overall agree at high rates to statement 10, "I am concerned about illegal hunting of endangered species found in the Red Book." Residents and non-residents agree at similar rates, with mean responses of 4.61 and 4.68 for residents and non-residents respectively (see Table 71).

Table 71.
Residents and Non-residents with Survey Statement 10: "I am concerned about illegal hunting of endangered species found in the Red Book."

Category	*M*	Completely disagree	Somewhat disagree	Unsure	Somewhat agree	Completely agree	Combined Agree	Total
Resident	4.61	5	6	8	26	161	187	206
		2.4%	2.9%	3.9%	12.6%	78.2%	90.8%	100.0%
Non-resident	4.68	5	2	9	18	158	176	192
	%	2.6%	1.0%	4.7%	9.4%	82.3%	91.7%	100.0%

Note: *N*=398, *M*=4.64, combined agreement=91.3%.

Because of the Telengit people's concerns about indiscriminate, illegal hunting, especially the hunting of some species they consider sacred, I expected indigenous participants to agree more strongly with the statement than Russians or Kazakhs would. Indigenous participants do agree at higher rates than Russians and Kazakhs, with mean responses of 4.78, 4.85, and 4.90 by ethnic group, native language, and religion respectively. Russians agree with means of 4.61, 4.62, and 4.68 respectively, and Kazakhs agree at somewhat lower rates, with means of 4.38, 4.42, and 4.34 respectively (see Table 72).

Table 72.
Ethnic Group, Native Language and Religion with Survey Statement 10: "I am concerned about illegal hunting of endangered species found in the Red Book."

Category	*M*	Combined disagree	Unsure	Combined agree	Total
Ethnic Group					
Indigenous	4.78	3	1	72	76
		3.9%	1.30%	94.7%	100.0%
Kazakh	4.38	2	3	19	24
		8.3%	12.50%	79.2%	100.0%
Russian	4.61	13	13	257	283
		4.6%	4.60%	90.8%	100.0%
Native Language					
Altaian	4.85	1	1	46	48
		2.1%	2.10%	95.9%	100.0%
Kazakh	4.42	2	3	21	26
		7.7%	11.50%	80.7%	100.0%
Russian	4.62	14	13	279	306
		4.6%	4.20%	91.2%	100.0%
Religion					
Atheist/Agnostic	4.78	1	2	57	60
		1.7%	3.3%	95.0%	100.0%
Christian (primarily Russians)	4.68	8	9	223	240
		3.4%	3.8%	92.9%	100.0%
Muslim (Kazakhs)	4.34	3	3	23	29
		10.3%	10.3%	79.3%	100.0%
Pagan/Shamanist (Altaian clans)	4.90	0	1	20	21
		0.0%	4.8%	95.2%	100.0%

Note: *N*=398, *M*=4.64, combined agreement=91.3%, Total combined disagree=4.5%.
"Indigenous" here refers to participants of non-Russian and non-Kazakh ethnicities.
The ethnic group, Foreigners, does not appear.
Native languages of smaller numbers of participants do not appear.

Comparing responses of the illegal hunting statements. Responses from indigenous participants are extremely similar for both statements about illegal hunting, one about illegal hunting in general, and the other about illegal hunting of endangered species. By ethnic group, native language, and religion, mean responses concerning illegal hunting in general are 4.74,

4.88, and 4.95 respectively, while results concerning illegal hunting of endangered species are of 4.78, 4.85, and 4.90 respectively.

Russian participants agree with both statements at slightly lower rates than indigenous participants do, however, overall responses by Russians to both statements are nearly identical. Responses by ethnic group, native language, and religion concerning illegal hunting in general have mean responses of 4.64, 4.65, and 4.70 respectively, and concerning illegal hunting of endangered species have mean responses of 4.61, 4.62, and 4.68 respectively.

Kazakh participants agree with both statements at lower rates than either indigenous or Russian participants do. However, Kazakh responses concerning illegal hunting of endangered species show somewhat less agreement than their responses concerning illegal hunting in general. Mean responses by ethnic group, native language, and religion concerning illegal hunting in general are 4.67, 4.69, and 4.59 respectively, while mean responses regarding illegal hunting of endangered species are 4.38, 4.42, and 4.34 respectively (see Table F11 and Table F13).

One Kazakh participant, mentioned earlier, reacted strongly against illegal hunting involving helicopters, which presumably also involved endangered species. However, other Kazakhs seem to feel less strongly about illegal hunting of endangered species than about illegal hunting in general. Perhaps future research might explore differences among Kazakh views on types of illegal hunting.

Protection of Historic and Sacred Sites

Just as members of members of Altaian clans consider hunting to be part of their traditional life style, they also consider their own sacred sites and also historic sites from previous civilizations as part of their heritage. Their own might encompass natural features, such

as springs or mountain passes, or places where they perform their rituals. General Altaian beliefs toward nature include:

> …That every human would protect birds, animals and plants when s/he has to kill them for food or pick them for feeding. …It is forbidden to kill animals without need and only in moderate numbers. Without necessity, it is forbidden to break, to saw and to devastate. It is forbidden to soil rivers [*sic*]. If you need anything, you have to ask for that from Altai and take with a blessing. (Halemba, 2006, p. 87)

Members of Altaian clans consider natural features to have spirits, and Altaians perform rituals when interacting with rivers, mountains, or other natural features (Mehl, 2009, p. 31). For example, they ritually tie strips of white cloth to tree branches near springs or mountain passes to represent their prayers and offerings to the spirits of those places, after which an Altaian may use the water for personal use (p. 60). Tourists, seeing bushes with strips of cloth, may attempt to participate in the ritual by tying their own pieces of cloth to the branches, which ruins the sacred site for Altaians (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015).

Springs have been traditional drinking water sources in the Altai region, because of difficulties associated with digging wells in permafrost. The local population, both Russians and indigenous peoples, believe that springs hold curative properties. High numbers of tourists are drawn to springs, where they, unfortunately, often cause environmental damage by leaving litter on the banks, or by depleting vegetation from heavy foot-traffic, which allows soil erosion to cloud otherwise crystal-clear water (Mehl, 2009, p. 64).

Altaians generally consider themselves related to those peoples who have lived previously in the Altai region, as if they were their own ancestors, related by interaction with the

land itself. Regardless of differing time periods or cultural or genetic differences of other civilizations, Altaians consider historical sites left by previous cultures as their own sacred sites and part of their heritage. Historical sites within the Altai Republic include the thousands of petroglyphs of Kalbak-Tash in the Karakol Valley of the Ongudai District, which represent Neolithic, Eneolithic, Scythian, and Turkish cultures of the past (Skliar, 2015), and Scythian burial mounds in the Kosh-Agach District.

Russians and Altaians reveal differences in cultural viewpoints in response to treatment of the elaborately tattooed Scythian Ice Maiden, also called the Ukok Princess. Russian archeologists unearthed the body from permafrost on the Ukok Plateau in the Kosh-Agach District in 1993. Altaians have insisted that the woman belongs to the Altai region as one of their ancestors, and that Russian authorities should return the body of the princess to its burial place. However, Russian authorities have kept the body for analysis as an example of an historic person and culture, and the body remains in a museum. Altaians blamed the 2003 earthquakes in the southern region of the Altai Republic in part on the removal of and failure to return the body to its original resting place (Halemba, 2006, pp. 18–19, 2008, pp. 285–286; Medovaya, 2007, p. 34). Earthquakes measured between 7 and 9 on the Richter scale, and severely damaged or destroyed schools and public facilities in the impoverished area, where high numbers of Altai-kizhi and Telengits reside (Malkov & Annett, 2004, p. 56).

One main reason that tourists come to the Altai region is to visit historic sites (Interview with male ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015). A 2012 survey of visitors to sacred sites in the Altai Republic and the Altai Krai found that 65 percent of them reported that the sites had clear impacts on them (Melnikova, 2012, p. 423). During the Soviet period, visitors damaged historic sites, and, unfortunately, tourists sometimes continue to do so.

They "…don't just look at places, but may destroy petroglyphs on rocks" (Interview by Skype with female ethnic Russian-1 from the Altai Republic, 2015). However, historic sites may suffer less damage from tourists than previously, because guides often tell them, "Be careful, this place is not for jokes…. It's just sacred for indigenous people" (Interview with female ethnic Russian-2 from the Altai Republic, Gorno-Altaisk, 2015).

Protection of historic and sacred sites: Responses. Responses to statement 3, "Historic and sacred sites are adequately protected by the government," indicate inconsistent results and a lack of conviction that historic and sacred sites are adequately maintained. Participants overall have a mean response of 3.43, and residents and non-residents respond with mean responses of 3.35 and 3.52 respectively. While approximately half of residents and non-residents agree that the protection of historic and sacred sites is adequate, another 32 percent of residents and 23 percent of non-residents disagree, and 21 percent of residents and 24 percent of non-residents select *Unsure* (see Table 73).

Table 73.
Residents and Non-residents with Survey Statement 3: "Historic and sacred sites are adequately protected by the government."

Category	*M*	Combined disagree	Unsure	Combined agree	Total
Resident	3.35	65	43	96	204
		31.9%	21.1%	47.1%	100.0%
Non-resident	3.52	43	46	101	190
		22.7%	24.2%	53.1%	100.0%

Note: *N*=394, *M*=3.43, Total combined agree=50.0%. Total combined disagree=27.4%.

Because of concerns about destruction of sacred sites by tourists, I expected that indigenous participants would be less likely to agree with the statement than either Russians or Kazakhs would. Results for indigenous participants partially met my expectations, because indigenous participants do agree less frequently than Russians or Kazakhs by ethnic group and

by native language. However, results by religion from pagans and shamanists seem to correspond with results from Russians and Kazakhs.

Russians show consistent mean response rates by ethnic group, native language, and religion, of 3.45, 3.44, and 3.42 respectively, in each case with approximately 50 percent combined agreement. Kazakhs agree with slightly higher mean responses of 3.58, 3.62, and 3.52 respectively, also with approximately 50 percent combined agreement by ethnic group and by native language, but 45 percent combined agreement by religion. Mean responses among indigenous participants by ethnic group and native language are slightly lower than means from Russians or Kazakhs, with 3.15, and 3.21 respectively, and combined agreements of 43 to 45 percent nearly match combined disagreements of 42 to 45 percent. However, when compared by religion, pagans and shamanists agree at similar rate to Christians, and slightly more frequently than larger indigenous categories, having a mean response of 3.40, and 50 percent combined agreement (see Table 74).

Table 74.
Ethnic Group, Native Language and Religion with Survey Statement 3: "Historic and sacred sites are adequately protected by the government."

Category	*M*	Combined disagree	Unsure	Combined agree	Total
Ethnic Group					
Indigenous	3.15	31	11	32	74
		41.9%	14.90%	43.2%	100.0%
Kazakh	3.58	8	4	12	24
		33.3%	16.70%	50.0%	100.0%
Russian	3.45	69	69	143	281
		24.5%	24.60%	50.9%	100.0%
Native Language					
Altaian	3.21	21	5	21	47
		44.6%	10.60%	44.7%	99.9%
Kazakh	3.62	8	5	13	26
		30.8%	19.20%	50.0%	100.0%
Russian	3.44	76	73	153	302
		25.1%	24.20%	50.6%	99.9%
Religion					
Atheist/Agnostic	3.49	15	16	30	61
		24.6%	26.2%	49.1%	99.9%
Christian (primarily Russians)	3.42	65	50	121	236
		27.5%	21.20%	51.2%	100.0%
Muslim (Kazakhs)	3.52	9	7	13	29
		31.0%	24.10%	44.8%	100.0%
Pagan/Shamanist (Altaian clans)	3.40	7	3	10	20
		35.0%	15.00%	50.0%	100.0%

Note: *N*=394, *M*=3.43, Total combined agree=50.0%, Total combined disagree=27.4%.
"Indigenous" here refers to participants of non-Russian and non-Kazakh ethnicities.
The ethnic group, Foreigners, does not appear.
Native languages of smaller numbers of participants do not appear.

Results by survey location show that participants in the Chemal and Kosh-Agach areas are somewhat more likely to agree with the statement than participants in Gorno-Altaisk or in the Teletskoe Area. Mean responses from Chemal and Kosh-Agach areas of 3.76 and 3.72 respectively are higher than the overall mean response of 3.43. However, responses from Gorno-Altaisk and the Teletskoe Area have even lower mean responses than those of the indigenous categories, with 3.14 and 3.11 respectively (see Table 75). Future study might detail perspectives

of those in Gorno-Altaisk and the Teletskoe area compared with those in Chemal and in Kosh-Agach on preservation of sacred sites.

Table 75.
Survey Location with Survey Statement 3: "Historic and sacred sites are adequately protected by the government."

Survey Location	*M*	Combined disagree	Unsure	Combined agree	Total
Chemal	3.76	17	21	60	98
		17.4%	21.40%	61.2%	100.0%
Gorno-Altaisk	3.14	32	26	40	98
		32.6%	26.50%	40.9%	100.0%
Kosh-Agach	3.72	17	29	54	100
		17.0%	29.00%	54.0%	100.0%
Teletskoe Area	3.11	42	13	43	98
		42.8%	13.30%	43.8%	100.0%

Note: *N*=394, *M*=3.43, Total combined agree=50.0%, Total combined disagree=27.4%.

Conclusion

As conservationists and environmentalists promote nature reserves for the preservation of natural ecosystems, they often do so at the expense of indigenous peoples by restricting access to land that had traditionally belonged to indigenous peoples, and upon which they depend for their subsistence. A survey by Halemba and Donahoe (2008) of Telengit attitudes toward hunting in the Kosh-Agach District found that those living closest to nature reserves tended to support them least. Those findings corroborate findings by Imran et al. (2014) and by Lai and Nepal (2006).

Responses to the survey statement, "Nature reserves are necessary for the protection of the natural environment," indicate that those in the indigenous religion subgroup, Pagan/Shamanist, disagree at a slightly greater rate than other groups, and support nature reserves less than other survey participants do. Russians, Kazakhs, and even indigenous participants by ethnic group and native language agree more strongly with the statement than do

the more select group of pagans and shamanists; they tend to live near nature reserves or in remote, natural areas. Kazakhs disagree more than Russians, but less than pagans and shamanists. Responses of pagans, shamanists and Kazakhs confirm my expectations by showing greater disagreement than other groups.

Altaian clans have traditionally relied on hunting to provide a portion of their diet. An increase in trophy hunting tourism in the Altai Republic has led to a decrease in the numbers of wildlife in the Altai Republic, and an increase in regulations concerning hunting. Environmentalists, in their efforts to preserve wildlife diversity, have targeted illegal hunting, or hunting done without obtaining a proper permit, also known as poaching, and have put themselves at odds with indigenous peoples. I expected that Altaian participants would show greater concern and agree at greater rates than Russians or Kazakhs with the survey statement, "I am concerned that illegal hunting in general is a threat to the natural environment." Survey results confirm that those participants most concerned about illegal hunting in general are members of Altaian clans, and that level of concern seems to increase as those participants associate more closely with their traditional lifestyle. Participants who speak the Altaian language agree at a slightly higher rate than indigenous participants by ethnic group; participants with pagan or shamanist religious beliefs agree at a still higher rate.

High-profile stories of illegal hunting of endangered species by government officials have influenced perceptions concerning hunting tourism throughout the Russian Federation, and especially in the Altai Republic. Some local Altaians believe that both government officials and the wealthy use nature reserves for their private hunting grounds, while at the same time those officials prevent poor, rural indigenous people from hunting on their traditional lands. I expected a high rate of agreement from Altaian clan participants to the survey statement, "I am concerned

about illegal hunting of endangered species found in the Red Book." Altaian participants do agree at higher rates than Russians or Kazakhs. Rates of agreement increase from the more general indigenous ethnic group, to the more select group who speak the Altaian language, to the most select group who hold pagan or shamanist religious beliefs.

Residents overall show less concern regarding illegal hunting in general than members of Altaian clans or non-residents, which may reflect a local perspective that subsistence hunting done by poor rural residents is of little consequence. Residents and non-residents share similarly high concern regarding illegal hunting of endangered species, although less than shown by members of Altaian clans.

Although indigenous participants are more likely to agree than either Russians or Kazakhs to the two survey statements regarding illegal hunting, responses from indigenous participants are quite similar for both, as are responses from Russian participants. Kazakhs, however, generally agree at somewhat lower levels concerning hunting of endangered species, than they do concerning illegal hunting in general, perhaps indicating less concern about endangered species in the area. Future research might attempt to differentiate Kazakh perceptions on the two types of hunting.

Members of Altaian clans often consider themselves as being one with the land of the Altaian region, and they consider natural features, such as springs and mountain passes, as sacred. Altaian peoples also consider the historic sites left by previous cultures in the Altai region as a sacred part of their own heritage. Because of concerns regarding the destruction of indigenous sacred sites, I expected indigenous participants to disagree at a greater rate than Russians and Kazakhs with the survey statement, "Historic and sacred sites are adequately protected by the government." Although a central mean response to the statement indicates

somewhat inconsistent responses, indigenous participants do disagree at higher rates by ethnic group and by native language than Russians or Kazakhs do.

Chapter IX: Conclusion

As tourism advances in the Altai Republic, the region faces the challenges of preserving its environmental setting and local traditional culture. The disruption of local ecosystems through the construction of tourism facilities, the heavy influx of visitors, and increased hunting of wildlife accompany the economic benefits of improved infrastructure and seasonal employment. Conservation efforts for the establishment of nature parks may decrease negative impacts by limiting tourist access, but those efforts may also cause disadvantages for poor, local community members by preventing them from obtaining food for their subsistence, and by hastening the loss of traditional cultural practices.

Both resident and non-resident participants of the survey given during the summer of 2015 in the Altai Republic exhibit admirably high pro-environmental sentiment when considering global environmental issues associated with the research question, “Are residents and non-residents of the Altai Republic similarly concerned about preserving the local environment in the face of rapidly increasing tourism?” Participants overall demonstrate strong concern regarding pollution of the natural environment and the preservation of the natural setting, and they support the ecological construction of tourism facilities, despite the possibility of additional costs.

Non-resident participants come more frequently from urban backgrounds, and hold university degrees at greater rates than do residents. Residents not only less frequently hold higher degrees, they are more likely to come from rural backgrounds, where poverty is widespread. If we presume non-residents to have a higher social status than residents, survey results are relevant to three different theories regarding the role of social status and pro-environmental sentiment. Dunlap et al. (2000, pp. 429–430) and Sulemana et al. (2016, p. 283)

discuss the theory that a higher social status indicates greater pro-environmental sentiment, and results from non-residents seem to support that theory. Davey (2009, p. 3) endorses the theory that those of lower social status, that is, the global poor, broadly hold pro-environmental views, and residents' results seem to support that theory. However, because both resident and non-resident participants exhibit strong pro-environmental beliefs, results more properly align with the theory by Fairbrother (2013, p. 912) that people of both higher and lower social status, from richer and poorer areas of the world, all share pro-environmental perspectives.

When considering local environmental issues, resident participants agree to a greater degree than non-residents regarding the positive benefits of tourism in responses related to the research question, "How do perceptions vary concerning the specific effects of tourism on the local economy, the natural setting, and culture within the Altai Republic?" As tourism continues to expand, residents agree more frequently that tourism helps to preserve local culture, which is consistent with information in Lai and Nepal (2006, p. 1126) that communities in early stages of tourism development tend to hold favorable attitudes toward tourism. Residents also agree more frequently that tourism improves the local standard of living, even though Human Development Index ratings place the quality of life in the Altai Republic near the bottom of all regions of the Russian Federation. The consistently low standard of living, especially among rural residents in the Altai Republic, despite tourism's growth, reinforces arguments by Alam and Paramati (2016, p. 112), and Wattanakuljarus and Coxhead (2008, p. 24) that tourism's benefits and employment must be directed toward vulnerable groups of society in order to improve local living conditions. Otherwise, increased aggregate household income may occur at the same time that income distribution worsens and poverty remains widespread.

Resident participants exhibit caretaker tendencies and seem vested in preserving the local environment, because a higher percentage of residents than non-residents report that they pick up garbage left by others. Although non-residents display high pro-environmental views generally, they appear less likely than residents to expend efforts to maintain the natural settings of the Altai Republic. Those results corroborate results found by Vaughan and Ardoin (2014) that residents connect with their home areas in a more place-protective way than visitors, while visitors tend to assume that caretaking responsibilities to belong to the government. The results also support the logic and importance of engaging residents in preservation initiatives (pp. 61-64).

Although overall results appear inconsistent, resident participants observe the negative impacts of overcrowding somewhat more frequently than do non-residents. However, females, both resident and non-resident, notice the detrimental effects of overcrowding at greater rates than males. Those results corroborate the theory that women, as caregivers and nurturers, possess greater environmental concern than men, as discussed in Dunlap and Van Liere (1978, p. 191), Mohai (1997, pp. 154, 168), Davey (2009, p. 3), and Sulemana et al. (2016, p. 87). Women's views of the environmental aspects of tourism in the Altai Republic call for further research.

Members of Altaian clans at times respond differently than other participants regarding issues pertaining to the question, "Do Altaian clan members hold similar views as other participants on topics which may disproportionately affect Altaian peoples?" In the Altai Republic, members of Altaian clans represent a large minority, making up approximately one third of the total population. Differences in responses by members of Altaian clans from other residents reflect differing historical and religious perspectives. The traditionally shamanist

Altaian clan members inhabited the lands of the Altai Mountains prior to the arrival of Russian settlers in the early 19th century, during the expansion of the Russian empire across Siberia.

While responses of both residents and non-residents strongly support the need for nature reserves to preserve biodiversity, Altaian clan members, who hold pagan or shamanist beliefs, and Kazakhs, another minority group residing near protected areas, show less support for reserves. Nature reserves have brought rural peoples threats of relocation and the loss of access to resources necessary for their survival (Halemba & Donahoe, 2008, pp. 2–3, 25; Poirier & Ostergren, 2002, p. 351). Chhatre et al.(2016, p. 8) and Letman (2016) argue that preventing access by indigenous peoples to their traditional lands, thereby disregarding their long-standing relationship with the land, hastens the loss of indigenous cultures. The lesser support shown by pagan and shamanist participants and by Kazakhs corroborates findings that indigenous and other traditional rural residents often harbor negative views toward nearby nature parks as reported by Imran, Alam and Beaumont (2014, pp. 293–296), and Lai and Nepal (2006, p. 1120). Those negative views might be ameliorated, according to Beltran (2000, pp. ix–x) and Aziz et al. (2013, p. 652) if indigenous and other traditional peoples had greater say in the establishment and management of protected areas in order to improve biodiversity efforts, and to bring benefits to those peoples who rely on traditional lands.

Members of Altaian clans display greater concern than other participants regarding two types of illegal hunting, that is, illegal hunting of more commonly found wildlife, and illegal hunting of threatened species. Rural peoples value the sustainable preservation of wild animals as some of them continue to lead subsistence lifestyles and rely on hunting for a portion of their food supply (Halemba & Donahoe, 2008, p. 17). Rural shamanist members of Altaian clans do not hunt endangered species, especially those they consider sacred (Castner, 2014). The

traditional sustainable practices of indigenous peoples have arguably allowed biodiversity to flourish in the Altai Republic and throughout the world (Almashev, 2010; Aziz et al., 2013, p. 652; Beltran, 2000, p. ix).

Kazakhs, who comprise six percent of the population and reside primarily in the Kosh-Agach District, represent another minority group, whose perspectives at times stand separate from those of Russians or members of Altaian clans. Future research should investigate Kazakh perspectives in greater depth regarding the local environment, small-scale tourism income opportunities in remote areas, and local endangered species.

My research contributes to the global body of knowledge regarding perceptions of tourism and the environment, and to discussions regarding best practices to maintain ecosystems, to preserve local cultures, and to bring tourism's benefits to the local population. I have presented information concerning the role of social status, ethnicity and gender in a landscape under pressure from tourism's advance. Survey results in the Altai Republic are connected with the larger question of how perceptions of tourism stakeholders may aid or impede the preservation of natural landscapes; the results also reveal critical information for maintaining ecosystems and biodiversity for future generations.

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Appendix A:

Survey in English

Number_____

Survey

Date _____

Place _____

Personal and Demographic Information

Respondent	_____ Resident	_____ Visitor or Tourist	_____ Seasonal Worker
Gender	_____ Male	_____ Female	
Education	_____ Middle School	_____ Middle Technical	_____ Higher
Marital status	_____ Single	_____ Married	_____ Widowed/ Divorced
Type of area where you were raised	_____ Rural	_____ Urban	
Do you work in tourism?	_____ Yes;	_____ No	

Age: . . . . . _____

Nationality: . . . . . _____

Ethnicity: . . . . . _____

Occupation . . . . . _____

Mother tongue: . . . . . _____

Place of residence - town and region. . . _____ _____

How many years you have lived there. . _____

Religion: . . . . . _____

VISITORS/TEMPORARY WORKERS (Complete this section if you are not a resident of the Altai Republic.)

How long are you staying?	_____ Days	_____ Weeks	Other_____
Is this your first trip?	_____ Yes	_____ No	
If not, how often have you visited the Altai Republic?	_____ Times		
Purpose of visit	_____ Relaxation	_____ Tourism	_____ Work
	_____ Health	Other_____	
Type of accommodation	_____ Hotel	_____ Vacation hotel	_____ Vacation camp
	_____ Sanitarium	_____ Rental housing	_____ With relatives
	_____ Camping in designated area	_____ Wilderness camping/wild tourism	Other_____

Number_____

Rate the following according to your agreement with the ideas:

1 = completely disagree; 2 = somewhat disagree; 3 = unsure; 4 = somewhat agree; 5 = completely agree

1) I am concerned about preserving the natural environment.	1	2	3	4	5
2) Nature reserves are necessary for the protection of the natural environment.	1	2	3	4	5
3) Historic and sacred sites are adequately protected by the government.	1	2	3	4	5
4) Economic development is not possible without pollution or the degradation of the natural environment.	1	2	3	4	5
5) In this location, the natural environment is suffering damage from too many tourists.	1	2	3	4	5
6) Tourism improves the local standard of living.	1	2	3	4	5
7) Tourism saves local culture.	1	2	3	4	5
8) Tourism facilities should be constructed in an ecologically friendly way even if they cost more.	1	2	3	4	5
9) I am concerned that illegal hunting in general is a threat to the natural environment.	1	2	3	4	5
10) I am concerned about illegal hunting of endangered species found in the Red Book.	1	2	3	4	5
11) Emissions, industrial waste and garbage threaten the natural environment.	1	2	3	4	5
12) I pick up other people's garbage in the natural environment.	1	2	3	4	5
13) Waste produced by people has little effect on the natural environment.	1	2	3	4	5

Choose among the answers:

14) _____Who do you think treats the natural environment of the Altai Republic best?

a) Residents, b) Tourists, c) "Wild" tourists, d) Business owners from outside the republic, e) Business owners from within the republic, f) Unsure, g) Other _____

15) _____Who do you think is responsible for removing garbage in the natural environment?

a) Government workers, b) Residents, c) Tourism workers, d) Tourists, e) No one, f) Everyone, g) Other _____

16) What do you enjoy most about the Altai Republic?

a) The natural setting, b) The remoteness, c) Tourism activities, d) Local culture, e) Historic sites, f) Other _____

Survey in Russian

No. _____

Опрос

Число _____

Место _____

Личная и демографическая информация

В Республике Алтай я….	_____ житель	_____ гость / турист	_____ сезонный работник
Пол	_____ мужской	_____ женский	
Уровень образования	_____ среднее	_____ среднее специальное	_____ высшее
Семейное положение	_____ не женат / не замужем	_____ в браке	_____ вдовец/вдова / разведен (а)
Где вы выросли?	_____ в сельской местности	_____ в городе	
Вы работаете в туризме?	_____ да	_____ нет	

Возраст . . . . . _____

Гражданство . . . . . _____

Национальность . . . . . _____

Профессия . . . . . _____

Родной язык . . . . . _____

Где вы живете (город/село, область) _____ _____

Сколько лет вы там живете? . . . . . _____

Религия . . . . . _____

Гости региона (заполните эту секцию, если вы не являетесь жителем Республики Алтай)

На какой срок вы приехали?	_____ дни	_____ недели	другое _____
Это ваш первый приезд?	_____ да	_____ нет	
Если нет, сколько раз вы были в Республике Алтай?	_____ раз		
Цель вашего визита	_____ отдых	_____ туризм (активный отдых)	_____ работа
	_____ поправка здоровья	другое _____	
Где вы остановились?	_____ гостиница	_____ дом отдыха	_____ турбаза/база отдыха
	_____ санаторий	_____ съемное жилье	_____ у родственников
	_____ организованный кемпинг	_____ палатка/ "дикий" палаточный лагерь	другое _____

No. _____

Выберите один из ответов в зависимости от степени важности этой проблемы для вас:

1 = абсолютно не согласен; 2 = не вполне согласен; 3 = затрудняюсь ответить;
4 = частично согласен; 5 = полностью согласен

1) Меня волнуют проблемы сохранения окружающей среды.	1	2	3	4	5
2) Заповедники необходимы для сохранения окружающей среды.	1	2	3	4	5
3) Исторические и священные места в равной мере защищены государством.	1	2	3	4	5
4) Экономическое развитие невозможно без загрязнения окружающей среды.	1	2	3	4	5
5) В этом районе окружающая среда страдает от слишком большого количества туристов.	1	2	3	4	5
6) Туризм способствует улучшению уровня жизни в регионе.	1	2	3	4	5
7) Туризм способствует сохранению местной культуры.	1	2	3	4	5
8) Туристические объекты должны быть построены с учетом требований защиты окружающей среды, даже если это увеличивает их стоимость.	1	2	3	4	5
9) Я считаю, что нелегальная охота в целом представляет собой угрозу для окружающей среды.	1	2	3	4	5
10) Меня волнует проблема нелегальной охоты на виды, занесенные в Красную книгу.	1	2	3	4	5
11) Выбросы, отходы промышленного производства и мусор представляют угрозу для окружающей среды.	1	2	3	4	5
12) Я подбираю мусор, оставленный другими людьми на природе.	1	2	3	4	5
13) Отходы, производимые людьми, не сильно влияют на окружающую среду в целом.	1	2	3	4	5

Выберите один из ответов, который наиболее точно отражает вашу точку зрения:

14) _____ Кто, на ваш взгляд, относится к окружающей среде Республики Алтай лучше?

а) жители Республики Алтай, б) туристы, отдыхающие "дикарями", в) туристы,
г) владельцы бизнеса в Республике Алтай, живущие за ее пределами,
д) владельцы бизнеса в Республике Алтай, живущие в самой республике,
е) затрудняюсь ответить, ж) другое _____.

15) _____ Кто, на ваш взгляд, ответственен за вывоз мусора из окружающей среды?

а) правительственные чиновники, б) жители республики, в) работники туриндустрии,
г) туристы, д) никто, е) все, ж) другое _____.

16) _____ Что вам больше всего нравится в Республике Алтай:

а) природа, б) удаленность / отсутствие городской суеты, в) местная культура, г) наличие туристических развлечений, д) достопримечательности, е) другое _____.

Oral Consent Form in English

Oral Consent Form

This survey is an integral part of a research project carried out by Ruth Remmers, a graduate student in the Department of Geography at the University of Kansas (USA). The project aims to understand people's attitudes towards environment and tourism in the Altay Republic and assess how much they value the natural setting of the region. Results will provide a better understanding of issues concerning the natural and cultural environment. The survey has been designed by Ruth Remmers to be conducted by students of the Gorno-Altaisk State University in the Altay Republic (Russian Federation).

We would like you to complete a survey to obtain your views on the natural environment. Participation in the survey takes about 5 minutes. You must be 18 years of age or older to participate. Your participation is entirely voluntary, and you may cease completion at any time. Your participation should cause no particular discomfort, although you many not receive a direct benefit. Please put no identifying remarks on the survey. You will not be identified in any way by your participation.

Should you have questions about the project or your participation in it, you may contact Ruth Remmers at the University of Kansas by email at r793h032@ku.edu. If you have questions about your rights as a research participant, you may contact the Human Subjects Protection Office at the University of Kansas at email irb@ku.edu or at the University of Kansas, 2335 Youngberg Hall, 2385 Irving Hill Road, Lawrence, KS 66045, USA.

Oral Consent Form in Russian

Форма информированного согласия

Данный опрос является неотъемлемой частью исследования, проводимого Рут Реммерс, аспиранткой Географического факультета Канзасского университета (США). Задача исследования состоит в том, чтобы понять отношение людей к окружающей среде и туризму в Республике Алтай и оценить, насколько окружающая среда значима для жителей и гостей региона. Результаты данного исследования помогут составить лучшее представление о проблемах, связанных как с природной, так и с антропогенной средой. Опрос был составлен Рут Реммерс для проведения студентами Горно-Алтайского государственного университета в Республике Алтай (Российская Федерация).

Нам бы хотелось узнать Ваше мнение по проблемам, указанным выше. Пожалуйста, заполните анкету. Это займет около пяти минут. Для участия в опросе Вам должно быть не менее 18-ти лет. Участие в опросе является абсолютно добровольным, оно не должно доставлять Вам дискомфорта. Вы можете прекратить заполнение анкеты в любой момент. При этом участие в опросе не гарантирует Вам прямой выгоды. В анкете не требуется указывать никаких личных данных. Заполненная анкета никоим образом не может послужить к идентификации человека ее заполнившего.

Если у Вас возникнут какие-либо вопросы, связанные с опросом и участием в нем, пожалуйста, обращайтесь к Рут Реммерс в Канзасский университет, США по адресу r793h032@ku.edu. Если у Вас возникают вопросы о Ваших правах как участника данного исследования, Вы можете обратиться в Управление по защите прав людей-участников научных исследований, США (Human Subjects Protection Office) по адресу irb@ku.edu, или University of Kansas, 2335 Youngberg Hall, 2385 Irving Hill Road, Lawrence, KS 66045, USA.

Appendix B

Preparation of Survey Data

Entering Data

I conducted fieldwork in the Altai Republic in the Russian Federation for my M.A. degree in the Department of Geography and Atmospheric Science at the University of Kansas (KU). I arranged for a team of five people from Gorno-Altaisk State University (GASU), Gorno-Altaisk, in the Altai Republic, to distribute my survey in four areas of the Altai Republic. With Evgeniy Letyagin, Director of the Sociological Laboratory, as a team leader and member, the team completed their work on Thursday, July 16, 2015.

I visited Gorno-Altaisk from July 20 until August 4, 2015 where I met several times with Darya Kireeva, Associate Professor of Germanic Languages and Applied Linguistics at GASU, who had acted as my translator and intermediary in communicating with the survey team. When first meeting with Kireeva to review the original paper surveys, I determined the organization for data entry into Excel spreadsheets, which would have one row containing all data for each participant and columns representing different variables or categories. I based the organization of the data on my previous programming experience. Kireeva assisted me in deciphering written information on the surveys. To minimize data entry errors, and because it seemed unlikely that we would both make the same mistakes, Kireeva and I separately entered all of the results from approximately 400 paper surveys into Excel spreadsheets before I left the Altai Republic. After my return to Kansas, I compared the two spreadsheets for differences. Below I explain the processes I used in comparing the spreadsheets and in arriving at one corrected spreadsheet.

Reviewing Spreadsheets for Differences

After returning to Kansas from the Altai Republic, I compared the two spreadsheets created by Kireeva and myself for differences by going through two processes: (a) visually reviewing differences in the way we entered data, and (b) using an automated program to compare the two spreadsheets. The visual review brought to my attention a few differences we had made in entering the same data. After deciding on resolutions, I changed data in new copies of both Kireeva's and my spreadsheets so that those differences would not be flagged later by the automated comparison. Table B1 below gives a short set of examples of differences found visually.

Table B1.
Change Examples from Visual Review of Two Spreadsheets

Participant ID	Category	Kireeva Entry	Remmers Entry	Resulting Change
4	Education	Middle technical	Technical	Middle technical
18	Profession	School teacher	Teacher	School teacher
160	Citizenship	Russia / Germany	Russia	Russia/Germany
302	Ethnicity	Altaian+Russian	Altaian/Russian	Altaian/Russian

The automated Spreadsheet Compare found other differences between the two spreadsheets. The program made a cell-by-cell comparison and created a new spreadsheet where cells with discrepancies contained data from both spreadsheets; data from one spreadsheet appeared in red and from the other in blue. Table B2 gives examples found by the automated process and resulting changes. From that information, I created one new spreadsheet, which became the data source for future survey analysis.

Table B2.
Change Examples from Automated Comparison of Two Spreadsheets

Participant ID	Category	Kireeva Entry	Remmers Entry	Resulting Change
19	Marital status	Divorced	Widowed/divorced	Widowed/divorced
33	Age	60	50	60
71	Residence	Novosibirsk, Novosibirsk Oblast	Novokuznetsk, Kemerovo Oblast	Novosibirsk, Novosibirsk Oblast
153	Question 16	a, b	a, b, c	a, b, c

Removing Records from the Data

I removed two participant data records from the survey results. In the first case, a Russian male tourist, participant 67, completed demographic information, but did not answer the statements and questions on the reverse side of the survey, and, therefore, his perceptions were not available for consideration. In the second case, an Altaian male resident, participant 81, answered survey statements 1 through 13 all exactly the same way, always circling option 5, *Completely Agree*. While several of the survey statements 1 through 12 presented views which are supportive toward the environment, statement 13 presented a decidedly unsupportive one. Therefore, I presumed that the participant had not read the statements completely, and I disqualified his responses. Removal of the two records decreased the number of participants in the sample study from 401 to 399.

Restructuring Data

To improve the analysis process, I restructured data, creating new columns in the spreadsheets, while keeping the original data unchanged. For categorical questions that participants left unanswered, I indicated that an answer was not given. Also, I changed or

restructured data for the following categories; the order below follows that of the survey itself and of the resulting spreadsheet columns.

1. Missing Data
2. Survey Location
3. Seasonal Workers
4. Educational Levels - Unfinished
5. Age
6. Ethnicity
7. Profession
8. Native Language
9. Place of Residence
10. Years at Current Residence
11. Religion
12. Duration of Stay
13. Total Visits
14. Multiple Choice Question Responses

Missing data. Participants occasionally left responses unanswered. To populate blank cells, I changed 87 blank entries to the phrase, “Not given,” as shown in Table B3.

Table B3.
Missing Data Changed to "Not Given"

Category	#
Education	13
Marital Status	3
Native Language	2
Place of Residence	3
Profession	10
Religion	44
Tourism worker	7
Urban/Rural	5
Total	87

Survey location. The survey team from GASU administered the survey in four general locations:

1. Gorno-Altaisk, the capital city.
2. Chemal, a village south of the capital.
3. Kosh-Agach, a village near the southern border.
4. Lake Teletskoe area.

For the Lake Teletskoe area, the team recorded three possible locations as the Place of Survey: (a) the village of Artybash, (b) the village of Iogach, or (c) simply Lake Teletskoe. For easier analysis, I added a column replacing the three Lake Teletskoe locations with *Teletskoe Area*. Table B4 shows the number of participants at four locations after the change.

Table B4.
Participants at Four Locations in the Altai Republic

Survey Location	#	%
Chemal	100	25.1
Gorno-Altaisk	100	25.1
Kosh-Agach	100	25.1
Teletskoe Area	99	24.8
Total	399	100.0

Seasonal workers. Participants could classify themselves as residents, visitors/tourists, or seasonal workers. People from various walks of life take part in the tourism industry of the Altai Republic, which is most prominent during the summer. Seasonal workers might arrive from other regions, or they might reside within the Altai Republic, where they might live in one district but work in another. Table B5 gives the number of residents, non-residents, and seasonal workers in the sample.

Table B5.
Resident, Non-resident, or Seasonal Worker

Participants	#	%
Resident	203	50.9
Visitor or tourist	183	45.9
Seasonal worker	13	3.3
Total	399	100.0

Because the small number of seasonal workers did not seem to justify separate analysis for them, I created a revised Resident/Non-resident column in the spreadsheet, where I reclassified the 13 seasonal workers based on their place of residence as three residents and ten non-residents. Table B6 shows the revised number of residents and non-residents after changes.

Table B6.
Residents and Non-residents with Seasonal Workers Included

Participants	#	%
Resident	207	51.9
Visitor or tourist	192	48.1
Total	399	100.0

Educational levels unfinished. Participants could select from three options for level of education: (a) high school, (b) middle technical, or (c) higher education or university level. Secondary education in Russia may be either high school or middle technical, although universities normally require a high school diploma for admission. A small number of participants did not complete high school (one person) or higher education (six people). To decrease the number of levels recorded, I added a column and changed the six people who had not completed higher education to high school level, reasoning that they had at least completed high school. For educational analysis, I changed participant 371, who had not completed high school, to the label "Other." Table B7 shows participant numbers by education level after reclassification. Although the greatest percentage of participants, 51.1 percent, have a university level education, almost as many, 45.1 percent, have completed secondary education, which includes high school and middle technical.

Table B7.
Educational Levels Reclassified for Unfinished Programs

Level	#	%
High school [a]	76	19.0
Higher education	204	51.1
Middle technical	104	26.1
Not given	14	3.5
Other [b]	1	.3
Total	399	100.0

[a] Six people who did not complete higher education were included in high school level.
[b] *Other* designates a person who did not finish high school.

Age. Participant ages ranged from 18 to 73 years old with 38 as the average. Because age data contains a large number of distinct values, analysis done using so many values would be tedious. By converting ages into ranges, analysis becomes more manageable. I used SPSS visual binning to create five groups of approximately equal participants as shown in Table B8 and in B9. The group, *33 to 40*, includes the mean age of 38.1, while the group, *27 to 32*, contains the mode of 30.

Table B8.
Age Groups of Participants

Year Ranges	#	%
18 to 26	86	21.6
27 to 32	83	20.8
33 to 40	75	18.8
41 to 52	78	19.5
43 and over	77	19.3
Total	399	100.0

Note. Mean age=38.1, Median=35, Mode=30, Minimum=18, Maximum=73.

Table B9 gives age groups by resident/non-resident status.

Table B9.
Age Groups and Resident/Non-resident Status

Resident/Non-Resident		Age Group 18 to 26	27 to 32	33 to 40	41 to 52	53 and over	Total
Resident	Count	37	47	43	40	40	207
	%	17.9%	22.7%	20.8%	19.3%	19.3%	100.0%
	% of Total	9.3%	11.8%	10.8%	10.0%	10.0%	51.9%
Non-resident	Count	49	36	32	38	37	192
	%	25.5%	18.8%	16.7%	19.8%	19.3%	100.0%
	% of Total	12.3%	9.0%	8.0%	9.5%	9.3%	48.1%
Total	Count	86	83	75	78	77	399
	%	21.6%	20.8%	18.8%	19.5%	19.3%	100.0%
	% of Total	21.6%	20.8%	18.8%	19.5%	19.3%	100.0%

Ethnicity. Survey participants represent ethnicities from within the Altai Republic, from across the Russian Federation, and from other countries, as shown in Table B10.

Table B10.
Ethnicity of Participants

Participants	#	%
Altai-kizhi	54	13.5
Altai-kizhi /Russian	3	.8
Belorussian	1	.3
Chechen	1	.3
Chuvash	1	.3
French	1	.3
German	6	1.5
Kalmyk	1	.3
Kazakh	26	6.5
Khakass	2	.5
Kumandin	1	.3
Mongolian	1	.3
Russian	286	71.7
Tatar	4	1.0
Telengit	2	.5
Tubalar	7	1.8
Udmurt	1	.3
Ukrainian	1	.3
Total	399	100.0

To compare responses of indigenous peoples as a group with the ethnic Russians and Kazakhs, I created a label, *Indigenous*, combining non-Russian, non-Kazakh ethnicities from the Altai Republic and from Russia in general. The indigenous group of 77 participants represents four types of peoples originating from the Altai Republic and six originating from elsewhere within Russia, as shown in Table B11.

Table B11.
Indigenous Participants: Place of Origin, Ethnic Group and Residence Region

Original Area	Ethnic Group	Place of Residence	#	%
Altai Republic	Altai-kizhi	Altai Republic	52	13.03
	Kumandin	Altai Republic	1	0.25
	Telengit	Altai Republic	2	0.50
	Tubalar	Altai Republic	7	1.75
	Altai-kizhi	Altai Krai	1	0.25
	Altai-kizhi	Kemerovo Oblast	2	0.50
	Altai-kizhi	Novosibirsk Oblast	1	0.25
	Altai-kizhi	Zabaikalski Krai	1	0.25
	Subtotal		67 of 399	16.79
Udmurt Republic	Udmurt	Altai Republic	1	0.25
Chechen Republic	Chechen	Altai Krai	1	0.25
Chuvash Republic	Chuvash	Altai Krai	1	0.25
Kalmyk Republic	Kalmyk	Kalmyk Republic	1	0.25
Khakassia Republic	Khakass	Krasnoyarsk Krai	2	0.50
Tatarstan Republic	Tatar	Altai Krai	1	0.25
Tatarstan Republic	Tatar	Moscow Oblast	2	0.50
Tatarstan Republic	Tatar	Tatarstan Republic	1	0.25
	Subtotal		10 of 399	2.51
Total			77 of 399	19.30

Also, I labeled as *Foreign* those participants from other countries. Only local Kazakhs and ethnic Russians residing within Russia kept their existing labels. Table B12 shows numbers of participants in four ethnic groups after reclassification to Foreign, Indigenous, Kazakh, and Russian.

Table B12.
Four Ethnic Groups after Reclassification (*)

Place of Citizenship	#	%
Europe	8	2.0
Germany-7, France-1		
Central Asia	5	1.3
Kazakhstan-3, Mongolia-2		
*Foreign [a] Subtotal	13	3.3
*Indigenous [b]	77	19.3
*Kazakh	24	6.0
*Russian	285	71.4
Russia Subtotal	386	96.7
Total	399	100.0

[a] *Foreign* represents participants residing in other countries. Three ethnic Russians with foreign citizenship were designated as Foreign, because they live outside of Russia.
[b] *Indigenous* represents non-Russian, non-Kazakh peoples originating within the Altai Republic or elsewhere within Russia.

Cross-referencing the groups with resident/non-resident status reveals residents in the sample to be 15.8 percent indigenous, 5.3 percent Kazakhs, and 30.8 percent ethnic Russians. Table B13 compares residents from the study sample with the population of the Altai Republic as a whole, and shows that percentages of those groups roughly approximate population percentages of the Altai Republic, so that the resident portion of the study sample may be considered representative of the local population.

Table B13.
Ethnicities: Sample Residents Compared with Residents of the Altai Republic

Ethnicity	%Resident Portion of Sample	%Resident Portion as Entire Group	%Population of Altai Republic [a]
Indigenous [b]	15.8	30.4	35.3
Kazakh	5.3	10.1	6.1
Russian	30.8	59.4	55.7
Other	--	--	2.9%
Total	51.9%	100.0%	100.0%

[a] Population statistics apply to the Altai Republic, not to the sample. Altai Republic Official Portal (AROPa, 2016), provides population statistics of ethnic groups.
[b] *Indigenous* represents non-Russian, non-Kazakh peoples from the Altai Republic.

Profession. The participants responded with 125 separate professions. To reduce the number, and in order to sort similar professions together, I changes some professions. For example, to sort three types of teachers together, *Kindergarten teacher*, *School teacher*, and *University teacher*, I placed the word *teacher* first: Likewise, to sort various types of workers or engineers together, I placed the words, *Worker* or *Engineer* first. I left *Social worker* as it was as an exception to the pattern. Table B14 shows examples of changes made in the process.

Table B14.
Profession Revision Examples

Participant Number	Initial Entry	Revised Entry
11	Tourism manager	Manager, tourism
18	School teacher	Teacher, school
101	Decorative artist	Artist, decorative
196	Medical worker	Worker, medical
114	Mechanical engineer	Engineer, mechanical
234	Kindergarten teacher	Teacher, kindergarten
289	Night guard	Guard, night

Following these changes, I revised yet again, adding a spreadsheet column to combine some professions. For example, I changed all teachers to *Teacher*, several types of engineers to

Engineer, professions concerning forestry, such as forest rangers and forest engineers, to *Forestry personnel*, and managers, such as marketing manager and tourism manager, to *Manager*.

Native language. Survey participants reported 14 separate native languages, some of which were given as combinations, such as Altaian/Russian, or Altaian/Kazakh/Russian, or Tubalar/Russian. The great majority, 306, reported Russian as their native language. The second largest group reported Altaian, the language of the Altai-kizhi clan. The third largest group reported Kazakh, spoken by Kazakhs (see Table B15).

Table B15.
Native Languages of Participants

Language	#	%
Russian	306	76.7
Altaian	38	9.5
Kazakh	26	6.5
Altaian/Russian	10	2.5
German	6	1.5
Tatar	3	.8
Tubalar	2	.5
Altaian/Kazakh/Russian	1	.3
Belorussian	1	.3
Chuvash	1	.3
French	1	.3
Kalmyk	1	.3
Telengit	1	.3
Tubalar/Russian	1	.3
Not given	1	.3
Total	399	100.0

Because of the very low numbers of participants speaking some languages and to improve analysis, native languages were combined into four groups. The 10 participants who reported both Altaian and Russian as their native languages were changed to just Altaian,

because most people in the Altai Republic speak Russian in addition to any other languages. That change increased the number of Altaian native language speakers from 38 to 48 (see Table B16). “Other” represented native languages spoken by six or fewer participants, including the local languages of Tubalar and Telengit, the non-local language of Tatar from within Russia, and French from an outside country.

Table B16.
*Native Language Groups (*Combined)*

Language	#	%
*Altaian	48	12.0
Kazakh	26	6.5
*Other	19	4.8
Russian	306	76.7
Total	399	100.0

Place of residence. Although the survey requested the region as well as the city or village for *Place of residence*, participants often gave just a city, or a village within Russia. A frequency table of the original data contained 71 separate residence entries. To improve analysis, I restructured the data, and I created two additional columns:

1. A column containing the city or village along with the region within Russia or the country for foreigners.
2. A column of only the region or country.

I confirmed location details using the Russian search engine, “Yandex.ru.” Table B17 gives examples of the conversion process to the two new columns.

Table B17.
Place of Residence Revision Examples

Participant #	Place of residence	City or Village, Region or Country	Region or Country
40	Maima	Maima, Altai Republic	Altai Republic
62	Barnaul	Barnaul, Altai Krai	Altai Krai
89	Tatarstan	Tatarstan, Tatarstan Republic	Tatarstan Republic
93	Moscow	Moscow, Moscow Oblast	Moscow Oblast
142	Novosibirsk	Novosibirsk, Novosibirsk Oblast	Novosibirsk Oblast
144	Uvarovo	Uvarovo, Kazakhstan	Kazakhstan
371	Mongolian village	Mongolian village, Mongolia	Mongolia

After converting to regions, Table B18 lists 26 regions, rather than 71 cities or villages, and gives a clearer overview of where participants travel from. Three regions located nearby and just to the north of the Altai Republic contributed the greatest number of non-residents to the sample: (a) Altai Krai, (b) Novosibirsk Oblast, and (c) Kemerovo Oblast. Together the three contributed 115 of the 192 visitors for the study, amounting to 60 percent of visitors.

Table B18.
Residence Regions or Countries of Participants

Residence	#	%
Altai Republic [a]	208	52.1
Altai Krai	45	11.3
Novosibirsk Oblast	44	11.0
Kemerovo Oblast	26	6.5
Moscow Oblast	12	3.0
Omsk Oblast	12	3.0
Tomsk Oblast	10	2.5
Germany [b]	7	1.8
Krasnoyarsk Krai	5	1.3
Tyumen Oblast	4	1.0
Kazakhstan	3	.8
Chelyabinsk Oblast	2	.5
Irkutsk Oblast	2	.5
Krasnodar Krai	2	.5
Mongolia	2	.5
Samara Oblast	2	.5
Vologda Oblast	2	.5
France	1	.3
Kalmyk Republic	1	.3
Kirov Oblast	1	.3
Komi Republic	1	.3
Saratov Oblast	1	.3
Tatarstan Republic	1	.3
Tver Oblast	1	.3
Zabaikalski Krai	1	.3
Not given	3	.8
Total	399	100.0

[a] The number residing locally, 208, exceeds the number of participants who called themselves residents for various reasons. For example, one visitor gave his residence as his temporary address in the Altai Republic.
[b] While seven participants reside in Germany, only six ethnic Germans appeared in Table C13. The seventh person is an ethnic Russian.

Years at current residence. When asked how long they have lived at their residence, participants normally indicated the numbers of years. The participant who spent the shortest length of time at his current residence had stayed there just two months, while the participant

who spent the greatest length of time had spent his entire life, 73 years. I revised the years into five approximately equal groups using the SPSS visual binning as shown in table B19.

Table B19.
Years at Residence of Participants

Ranges	#	%
0 to 17	81	20.5
18 to 24	83	21.0
25 to 30	75	18.9
31 to 41	81	20.5
42 and over	76	19.2
Total	399	100.0

Note. Mean=28.2, Mode=20, Min=0 (2 months), Max=73.

Religion. Participants responded concerning religion with twenty separate varieties of religions or belief systems, as shown in Table B20.

Table B20.
Religions and Belief Systems of Participants

Type	#	%
Russian Orthodox Christianity	180	45.1
Christianity	58	14.5
Atheism	54	13.5
Islam	29	7.3
Paganism	8	2.0
Agnosticism	7	1.8
Shamanism	6	1.5
Shamanism - Ak-tyan	4	1.0
Baptist	1	.3
Believes in God	1	.3
Buddhism	1	.3
Buddhism/Christianity	1	.3
Buddhism/Orthodox	1	.3
Catholicism	1	.3
Hinduism	1	.3
Paganism/Shamanism	1	.3
Shamanism/Islam/Orthodox	1	.3
Shamanism/Orthodox	1	.3
Unsure	1	.3
Not given	42	10.5
Total	399	100.0

The largest number of participants specified Orthodox Christianity, while 11 participants gave individual responses not shared by anyone else. To better analyze perceptions, I combined religions and belief systems into groups of related beliefs, as shown in Table B21.

Table B21.
Religions and Belief Systems Combined into Groups

New Group	Religion or Belief System
Pagan/Shamanist	Paganism, Shamanism, Shamanism–Ak-tyan, Paganism/Shamanism, Shamanism/Islam/Orthodox, Shamanism/Orthodox
Atheist/Agnostic	Agnosticism, Atheism
Christian	Baptist, Catholicism, Christianity, Russian Orthodox
Muslim	Islam
Other	Believes in God, Buddhism, Hinduism, Buddhism/Christianity, Buddhism/Orthodox, Unsure
Not Given	Not Given

Table B22 shows numbers of participants under the groups. The Pagan/Shamanist group, with 21 participants, includes those with Shamanist or Pagan beliefs, or the syncretism of those with other religions or belief systems.

Table B22.
Religion and Belief Systems Groupings of Participants

Group	#	%
Christian [a]	240	60.2
Atheist/Agnostic [b]	61	15.3
Muslim [c]	29	7.3
Pagan/Shamanist [d]	21	5.3
Other [e]	6	1.5
Not given	42	10.5
Total	399	100.0

[a] *Christian* combines Baptist, Catholicism, Christianity, and Russian Orthodox.
[b] *Atheist/Agnostic* combines Atheism and Agnosticism.
[c] *Muslim* has not been combined with others.
[d] *Paganist/ Shamanist* includes Paganism, Shamanism, and the syncretism of these with other religions or belief systems.
[e] *Other* represents belief systems not shared by anyone else.

Duration of stay. Non-residents indicated their length of stay in the Altai Republic, with phrases such as a number of days, weeks, or months, which I converted into days. I estimated

what some phrases might mean, for example, I converted *Several days* to five; for *Till September*, I calculated 53, which was the number of days from when the participant completed the survey until September 1, 2015; I replaced three weeks with 21 days; *3* by itself became three days; *One season* became 90 days. Table B23 gives the number of days that non-residents spent during their visits to the Altai Republic. The most common length of stay was 7 days, and slightly over half of the visitors, 57.3 percent, stayed one week or less. One person stayed six months, or 180 days, the maximum, making the average 15 days.

Table B23.
Non-resident Participant Duration of Stay

Stay in Days	#	%
1	3	1.5
2	11	5.5
3	23	11.6
4	10	5
5	10	5
6	2	1
7	55	27.6
8	2	1
9	1	0.5
10	13	6.5
11	2	1
12	1	0.5
14	29	14.6
15	2	1
21	10	5
30	8	4
40	1	0.5
45	2	1
53	1	0.5
60	4	2
90	8	4
180	1	0.5
Total	199	100.0

Table B24 shows non-residents separated into groups by the duration of their stays.

Table B24.
Non-resident Duration of Stay as Ranges of Days

#Days	#	%
1 to 7	114	57.3
8 to 14	48	24.1
15 to 30	20	10.1
Over 30	17	8.5
Total	199	100.0

Total visits. Non-residents usually responded with a number for how many times they had visited the Altai Republic, although some wrote phrases. I converted three phrases to numbers to aid analysis: (a) I changed *Many*, given by 15 participants, to 11 as an arbitrary number greater than 10; (b) I changed the phrase, *Almost every year*, which one participant gave, to 18, representing the minimum age required to take the survey; and (c) I treated the phrase, *Was born here*, to *Not given*, since no assignment strategy was apparent. See Table B25.

Table B25.
Total Visits by Non-residents (Includes 2015)

#Visits	#	%
1	76	39
2	30	15.4
3	20	10.3
4	11	5.6
5	12	6.2
6	6	3.1
7	1	0.5
8	1	0.5
10	11	5.6
12	1	0.5
15	3	1.5
20	4	2.1
25	1	0.5
30	1	0.5
Many	15	7.7
Almost every year	1	0.5
Was born here	1	0.5
Total	195	100.0

After those changes, I grouped participants according to number of visits, as shown in Table B26.

Table B26.
Non-resident Total Visits in Ranges

#Visits	#	%
1 to 3	126	64.9
4 to 10	42	21.6
Over 10	26	13.4
Total	194	100.0

Multiple-choice question responses. The survey concluded with three multiple choice questions, Questions 14, 15, and 16, for which participants often selected more than one response, and may have also written a phrase. Kireeva and I initially entered all of each participant's responses to a question into one cell of a column for the question. In order to analyze the responses separately, I added a number of columns to the spreadsheet associated with the three questions. Generally I populated those with a '1' if an option was selected, and a '0' if it was not; I also added a column to hold any written response. For question 14, I added seven columns for options *a* through *g*, and also a column to hold any written response. Table B27 gives an example with three options selected by one participant.

Table B27.
Multiple-choice Question Data Representation, Question 14 Example

Column Heading	Q14a	Q14b	Q14c	Q14d	Q14e	Q14f	Q14g	Q14-Written
Cell Entry	1	1	1	0	0	0	0	--

I treated the three multiple-choice questions 14, 15 and 16 all similarly, adding enough columns to distinguish the possible responses.

Appendix C

Survey Data as Tables

Tables and graphs illustrate the demographic breakdown of the sample study, and also illustrate how participants responded to Likert statements and multiple-choice questions. On the survey, all participants, residents and non-residents were directed to respond to the early categories, however, the latter were targeted for non-residents. This appendix contains representations of the survey data as the following:

1. Frequency tables for numerous categories of participants, those for all participants generally first, and for non-residents second
2. A table and a graph concerning responses from all participants to the 13 Likert statements
3. Graphs demonstrating responses to the three multiple-choice questions

The total number of participants shown on a table depends on the number who answered the particular question, and whether a table represents all participants, or a specified portion of them. The order of tables and graphs follows the order in which the categories appear on the survey, which is below (see also the survey itself in Appendix A).

- Survey location
- Resident/non-resident
- Gender
- Education
- Marital status
- Urban/rural background
- Tourism worker

- Age
- Citizenship
- Ethnicity
- Profession
- Native language
- Place of residence
- Years at current residence
- Religion
- Duration of stay
- Total visits
- Goal of visit
- Accommodation

Tables of Participants by Category

Table C1.
Four Survey Locations of Participants

Location	#	%
Chemal	100	25.1
Gorno-Altaisk	100	25.1
Kosh-Agach	100	25.1
Teletskoe Area	99	24.8
Total	399	100.0

Table C2.
Resident/Non-resident Participants

Status	#	%
Resident	207	51.9
Visitor or tourist	192	48.1
Total	399	100.0

Table C3.
Gender of Participants

Gender	#	%
Female	212	53.1
Male	187	46.9
Total	399	100.0

Table C4.
Marital Status of Participants

Status	#	%
Married	252	63.2
Single	114	28.6
Widowed/divorced	30	7.5
Not given	3	.8
Total	399	100.0

Table C5.
Educational Levels for Residents and Non-residents

Resident/Non-resident	Type	#	%
Resident	High school	54	26.1
	Middle Technical	60	29.0
	Higher (university)	90	43.5
	Other	3	1.4
	Subtotal	207	100.0
Non-resident	High school	22	11.5
	Middle Technical	44	22.9
	Higher (university)	114	59.4
	Other/Not given	12	6.2
	Subtotal	192	100.0
Total		399	

Note: Six people who did not complete higher education were included in high school level.

Table C6.
Urban/Rural Backgrounds for Residents and Non-residents

Resident/Non-resident	Type	#	%
Resident	Rural	161	77.8
	Urban	43	20.8
	Other	3	1.4
	Subtotal	207	100.0
Non-resident	Rural	54	28.1
	Urban	134	69.8
	Other	4	2.1
	Subtotal	192	100.0
Total		399	

Table C7.
Tourism Workers and Non-workers

Works in Tourism	#	%
Not in Tourism	300	75.2
Other [a]	1	.3
Tourism Worker	91	22.8
Not given	7	1.8
Total	399	100.0

[a] *Other* represents a participant who selected both yes and no.

Table C8.
Age Groups of Participants

Ranges	#	%
18 to 26	86	21.6
27 to 32	83	20.8
33 to 40	75	18.8
41 to 52	78	19.5
43 and over	77	19.3
Total	399	100.0

Note. Mean age=38.1, Median=35, Mode=30, Minimum=18, Maximum=73.

Table C9.
Country of Citizenship of Participants

Country	#	%
Russia	386	96.7
Germany	6	1.5
Kazakhstan	2	.5
Mongolia	2	.5
Belorussia	1	.3
France	1	.3
Germany/Russia	1	.3
Total	399	100.0

Table C10.
Ethnicity of Participants

Ethnicity	#	%
Altai-kizhi	54	13.5
Altai-kizhi /Russian	3	.8
Belorussian	1	.3
Chechen	1	.3
Chuvash	1	.3
French	1	.3
German	6	1.5
Kalmyk	1	.3
Kazakh	26	6.5
Khakass	2	.5
Kumandin	1	.3
Mongolian	1	.3
Russian	286	71.7
Tatar	4	1.0
Telengit	2	.5
Tubalar	7	1.8
Udmurt	1	.3
Ukrainian	1	.3
Total	399	100.0

Table C11.
Ethnicity of Resident Participants

Ethnic Group	#	%
Indigenous [a]	63	30.4
Kazakh	21	10.1
Russian	123	59.4
Total	207	100.0

[a] *Indigenous* represents non-Russian, and non-Kazakh participants.

Table C12.
Ethnicity/Foreign Status of Non-resident Participants

Ethnic Group	#	%
Foreign [a]	13	6.8
Indigenous [b]	14	7.3
Kazakh	3	1.6
Russian	162	84.4
Total	192	100.0

[a] *Foreign* represents participants residing in other countries.
[b] *Indigenous* represents non-Russian, and non-Kazakh participants.

Table C13.
Ethnic Groups: Resident Participants Compared with the Altai Republic

Ethnic Group	Resident Portion of Sample	Resident Portion as Entire Group	Altai Republic Statistics [a]
Indigenous [b]	15.8%	30.4%	35.3%
Kazakh	5.3%	10.1%	6.1%
Russian	30.8%	59.4%	55.7%
Other	--	--	2.9%
Total	51.9%	100.0%	100.0%

[a] Population statistics for the Altai Republic (AROPa, 2016).
[b] *Indigenous* represents non-Russian, and non-Kazakh participants.

Table C14.
Most Frequent Professions of Participants

Profession	#	%
Teacher	36	9.0
Businessman	31	7.8
Manager	23	5.8
Salesperson	21	5.3
Driver	18	4.5
Economist	18	4.5
Laborer	14	3.5
Student	13	3.3
Total	174 of 399	43.7 of 100.0

Table C15.
Professions among Tourism Workers Only

Profession	#	%
Administrator	2	0.6
Artist	1	0.3
Businessman	13	3.6
Carpenter	1	0.3
Cook	1	0.3
Designer	1	0.3
Director, tourist camp	2	0.6
Driver	5	1.4
Driver/veterinarian	1	0.3
Economist	5	1.4
Engineer	2	0.6
Forestry personnel	1	0.3
Geographer	1	0.3
Guard, night	1	0.3
Hotel administrator	1	0.3
Housewife	1	0.3
Laborer	3	0.8
Lawyer	3	0.8
Locksmith	1	0.3
Manager	13	3.6
Manager/university teacher	1	0.3
Military man	1	0.3
Organizer, off-site training	1	0.3
Pensioner	1	0.3
Programmer	1	0.3
Sales consultant	1	0.3
Salesperson	9	2.5
Ship captain	2	0.6
Student	2	0.6
Teacher	7	1.9
Tour operator	2	0.6
Waitress	1	0.3
Worker, construction	1	0.3
Worker, cultural	1	0.3
Not given	1	0.3
Total	91of 399	23.0 of 100.0

Table C16.
Native Languages of Participants

Language	#	%
Russian	306	76.7
Altaian	38	9.5
Kazakh	26	6.5
Altaian/Russian	10	2.5
German	6	1.5
Tatar	3	.8
Tubalar	2	.5
Altaian/Kazakh/Russian	1	.3
Belorussian	1	.3
Chuvash	1	.3
French	1	.3
Kalmyk	1	.3
Telengit	1	.3
Tubalar/Russian	1	.3
Not given	1	.3
Total	399	100.0

Table C17.
Place of Residence as Region or Country

Region or Country	#	%
Altai Republic [a]	208	52.1
Altai Krai	45	11.3
Novosibirsk Oblast	44	11.0
Kemerovo Oblast	26	6.5
Moscow Oblast	12	3.0
Omsk Oblast	12	3.0
Tomsk Oblast	10	2.5
Germany [b]	7	1.8
Krasnoyarsk Krai	5	1.3
Tyumen Oblast	4	1.0
Kazakhstan	3	.8
Chelyabinsk Oblast	2	.5
Irkutsk Oblast	2	.5
Krasnodar Krai	2	.5
Mongolia	2	.5
Samara Oblast	2	.5
Vologda Oblast	2	.5
France	1	.3
Kalmyk Republic	1	.3
Kirov Oblast	1	.3
Komi Republic	1	.3
Saratov Oblast	1	.3
Tatarstan Republic	1	.3
Tver Oblast	1	.3
Zabaikalski Krai	1	.3
Not given	3	.8
Total	399	100.0

[a] The number residing locally, 208, exceeds the number of participants who called themselves residents for various reasons; for example, one visitor gave his residence as his temporary address in the Altai Republic.
[b] While seven participants reside in Germany, only six ethnic Germans appeared in Table C13. The seventh person living in Germany is an ethnic Russian.

Table C18.
Country and Region of Non-residents of the Altai Republic

Region	Country	#	%
Europe	Belorussia	1	0.5
	France	1	0.5
	Germany	7	3.6
	Subtotal	9	4.7
Central Asia	Kazakhstan	2	1.0
	Mongolia	2	1.0
	Subtotal	4	2.0
Russia	Russia only	179	93.2
Total		192	100.0

Table C19.
Years at Residence for Participants

Year Ranges	#	%
0 to 17	81	20.5
18 to 24	83	21.0
25 to 30	75	18.9
31 to 41	81	20.5
42 and over	76	19.2
Total	399	100.0

Note: Mean=28.2, Mode=20, Minimum=0 (2 months), Maximum=73.

Table C20.
Religion or Belief System of Participants

Type	#	%
Russian Orthodox Christianity	180	45.1
Christianity	58	14.5
Atheism	54	13.5
Islam	29	7.3
Paganism	8	2.0
Agnosticism	7	1.8
Shamanism	6	1.5
Shamanism - Ak-tyan	4	1.0
Baptist	1	.3
Believes in God	1	.3
Buddhism	1	.3
Buddhism/Christianity	1	.3
Buddhism/Orthodox	1	.3
Catholicism	1	.3
Hinduism	1	.3
Paganism/Shamanism	1	.3
Shamanism/Islam/Orthodox	1	.3
Shamanism/Orthodox	1	.3
Unsure	1	.3
Not given	42	10.5
Total	399	100.0

Table C21.
Religion or Belief System in Groups

Group	#	%
Christian [a]	240	60.2
Atheist/Agnostic [b]	61	15.3
Muslim [c]	29	7.3
Pagan/Shamanist [d]	21	5.3
Other [e]	6	1.5
Not given	42	10.5
Total	399	100.0

[a] *Christian* combines Baptist, Catholic, Christian, and Russian Orthodox.
[b] *Atheist/Agnostic* combines Atheism and Agnosticism.
[c] *Muslim* has not been combined with others.
[d] *Pagan/Shamanist* includes Paganism, Shamanism, and the syncretism of these with other religions or belief systems.
[e] *Other* represents belief systems not shared by anyone else.

Table C22.

Duration of Stay for Non-Residents

# Days	#	%
1	3	1.5
2	11	5.5
3	23	11.6
4	10	5
5	10	5
6	2	1
7	55	27.6
8	2	1
9	1	0.5
10	13	6.5
11	2	1
12	1	0.5
14	29	14.6
15	2	1
21	10	5
30	8	4
40	1	0.5
45	2	1
53	1	0.5
60	4	2
90	8	4
180	1	0.5
Total	199	100.0

Table C23.

Duration of Stay as Groups of Days

#Days	#	%
1 to 7	114	57.3
8 to 14	48	24.1
15 to 30	20	10.1
Over 30	17	8.5
Total	199	100.0

Table C24. Total Visits by Non-residents

Total Visits by Non-residents (Includes 2015)

#Visits	#	%
1	76	39
2	30	15.4
3	20	10.3
4	11	5.6
5	12	6.2
6	6	3.1
7	1	0.5
8	1	0.5
10	11	5.6
12	1	0.5
15	3	1.5
20	4	2.1
25	1	0.5
30	1	0.5
“Many”	15	7.7
“Almost every year”	1	0.5
“Was born here”	1	0.5
Total	195	100.0

Table C25

Total Visits Grouped for Non-residents

#Visits	#	%
1 to 3	126	64.9
4 to 10	42	21.6
Over 10	26	13.4
Total	194	100.0

Table C26.
Goal of Visit for Non-Residents

Goal	#	%
Relaxation	96	48.2
Tourism	42	21.1
Work	22	11.1
Tourism/relaxation	18	9.0
Work/relaxation	4	2.0
Health/relaxation	3	1.5
Work/health/relaxation	3	1.5
Tourism/relaxation/health	2	1.0
Work/tourism/relaxation	2	1.0
Entering college	1	0.5
Health	1	0.5
In transit	1	0.5
Relaxation/fishing	1	0.5
Relaxation/health	1	0.5
Relaxation/to enjoy nature	1	0.5
Work/tourism	1	0.5
Total	199	100.0

Table C27.
Accommodation for Non-residents

Accommodation	#	%
Tourist camp [a]	62	31.2
Wilderness camping [b]	33	16.6
Rental housing	30	15.1
With relatives	25	12.6
Hotel	19	9.5
Multiple [c]	13	6.5
Resort	5	2.5
With friends	4	2.0
Camping in designated areas	3	1.5
Stay one day without accommodation	1	0.5
Guest house	1	0.5
Other	1	0.5
Sanatorium	1	0.5
Second residence	1	0.5
Total	199	100.0

[a] *Tourist camp* refers to the Russian term, *Tourist base*, a business providing cottages or other lodging.
[b] *Wilderness camping* refers to the Russian idea of *Wild tourism*, or camping in wild areas.
[c] *Multiple* indicates that participants selected more than one type of accommodation.