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**TRIP REPORT**

**4 April – 8 April 1995  
Chuguevsky Raion, Primorsky Krai**

**David Gordon – April 1995  
Delivery Order 11, Task 24**

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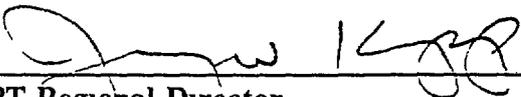
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EPT Regional Director

15 Sept, 1997  
Date

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Trip Report  
by David Gordon<sup>1</sup>

Visit to Chuguevsky Raion, Primorsky Krai  
April 4-8, 1995

Trip members Dale Miquelle, Vasily Karpenko, Vladimir Karakın, David Gordon

Report prepared for the Environmental Policy and Technology Project

Goal of the trip to initiate a planning process in Chuguevsky Raion, Primorsky Krai to demonstrate ecologically responsible forest planning and support for local communities

Meetings included

- the head of the Raion administration
- Chair of the Raion Committee on Protection of the Environment
- Director of the Chuguevsky *Leskhoz*
- Director of the Shumny *Leskhoz*
- Director of the small enterprise "Shumny"
- Director and head wildlife biologist for the *KoopZverPromKhoz*

Translations used in the report

*LesPromKhoz* -- local timber industry

*Leskhoz* -- Forest Service

*KoopZverPromKhoz (KZPK)* -- hunting and gathering industry

### Introduction

Chuguevsky Raion is a large district of approximately 2 million hectares (5 million acres) in the central part of the Sikhotealin Mountains. The Raion has a population of approximately 35,000, its capital of Chuguevka is a medium-sized town of 10-12,000 people.

Chuguevsky Raion is an appropriate area for a pilot planning project in the Sikhotealin to be sponsored by EPT. The Raion's lands are mostly forest-covered, and represent typical forests of the southern and central Sikhotealin. The economy of the Raion is to a large extent dependent on the timber industry, though the current economic difficulties have limited the timber industry.

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Many people in the district are dependent on the wildlife resources, many of those who live in Chuguevka, and virtually all of those who live in the smaller villages, are hunters. Habitat destruction, overhunting, and poaching have harmed wildlife populations.

The area is rich in non-timber forest products (NTFP's), ranging from *eleutheracoccus* (Siberian ginseng) to *limonnik* (*schisandra chinensis*), *aralia*, many types of berries and mushrooms, and honey. Although in previous times local inhabitants made a significant part of their income from NTFP's (both through individual gathering and production and through selling to the *KoopZverPromKhoz*), now commercial production and sale of NTFP's has been virtually stopped due to lack of a reliable market.

The Raion's forests suffered from severe overcutting in the 1980's, and new measures have to be adopted to encourage ecologically responsible forest planning, protection of wildlife, and development of a diversified economy. The EPT can assist in this process through

- facilitating a cooperative forest planning process,
- assisting in forest and wildlife restoration efforts,
- and supporting small enterprise initiatives in non-timber forest products.

#### An Overview of Forests and Forest Management in Chuguevsky Raion

Chuguevsky Raion includes a range of forest types that are characteristic of the central Sikhotealin. Mid-elevation forests are generally mixed pine-broadleaf forests, well known for the predominance of "*kedr*" (Korean pine). These forests contain an especially high amount of biodiversity and are extremely important for wildlife. Higher elevation forests are dominated by spruce and fir, although *kedr* is still found.

Chuguevsky Raion includes three administrative Forest Service Units which divide the Raion's forests under their control. These include the Chuguevsky *Leskhoz*, the Shumny *Leskhoz*, and the Koksharovsky *Leskhoz*. We were able to meet with the directors of both the Chuguevsky *Leskhoz* and the Shumny *Leskhoz*, unfortunately, we did not meet with the director of the Koksharovsky *Leskhoz*, which has jurisdiction over the region's more northern forests.

Chuguevsky *Leskhoz* has jurisdiction over forests that are especially important from an ecological point of view, since they contain the headwaters and upper portion of the Ussuri River. The Ussuri then winds down along the Russian-Chinese border, and is the largest river in Primorsky Region. The Ussuri then flows into the Amur River, which in turn flows into the Pacific Ocean. Thus, ecological effects from logging and other industrial activity in the headwaters of the Ussuri, in Chuguevsky Raion, impact the ecology throughout the entire Lower Amur lands.

Chuguevsky Raion includes three *LesPromKhozy*, or forest industries. These are (analogous to the Forest Service Units) the Chuguevsky *LesPromKhoz*, the Koksharovsky *LesPromKhoz*,

and the Shumny *LesPromKhoz*. A fourth *LesPromKhoz*, the Arkhipovsky *LesPromKhoz* recently went bankrupt and closed down. The Raion includes one Japanese-Russian joint venture that processes logs into sawn lumber and beams. The Raion also includes a number of smaller forest producers, including collective farms, the KPZK, and other small private companies. There are a great number of small companies, that are hard to keep track of, that are involved in timber trading.

Currently, virtually all the logs being cut are exported as raw logs. Most of the Raion's logs are being shipped out through the nearby port of Ol'ga, although some are also shipped exported through the ports of Plastun' and Nakhodka. Many of the people we talked to expressed an interest in lessening the Raion's dependence on raw log exports in favor of developing local wood-processing capabilities.

### Logging History

The Raion used to have extremely high rates of logging. In the 1980's the peak rates of logging reached to 2 million cubic meters per year. Since then both the annual allowable cut has dropped, as well as the amount actually logged. The annual allowable cut, as of 1994, had dropped to 860,000 cubic meters, while the actual amount logged was only 300 000 cubic meters. There are two main reasons for the drop in logging rates: 1) the Raion was seriously overlogged in the 1980's, with accompanying resource depletion and environmental consequences (demonstrated by the decrease in annual allowable cut), and 2) economic difficulties and breakdown of equipment prevents the *LesPromKhoz* from logging the annual allowable cut.

During the peak years, up to 12 000 hectares per year were logged within Chuguevsky *Leskhoz* (covering an area of 500 000 hectares in the southeastern portion of Chuguevsky Raion). Currently, the rate of logging has dropped to 2 000 hectares per year.

Several people agreed that the overcutting of previous years led to serious environmental effects. Overcutting led to the degradation of many landscapes throughout the region -- some landscapes have become purely hardwood forests, without the dominant coniferous trees and others have been entirely degraded after clearcutting. The chair of the Raion Committee on Protection of the Environment complained to us about clearcutting, claiming that "everything is destroyed."

Many people that we talked with agree that the resource base in timber has already been virtually exhausted. One logger from the village of Beryozovka (a small, 200-person timber village) told us that "at these rates it (the resource base) won't last for long." He guessed that the resource wouldn't last for another decade if they kept logging at the current rate. However, people also claim that there are no possibilities for work other than in the timber industry.

In areas that have been logged in Chuguevsky Raion, forest composition and structure has

been significantly changed. Coniferous forests have largely been replaced by purely oak forests or mixed birch and aspen forests. Although this is a natural species succession after clearcutting, these forests will take at least 150-200 years to return to their original *kedr* composition. Forest structure and composition has been noticeably changed throughout lower elevation forests, as well as on mid- and upper-elevation forests where intensive logging has occurred.

Areas that had been selectively logged generally retained better forest structure and composition, and still boasted a partial overstory of coniferous species. The mix of species left after selective logging more closely approximated the natural forest ecosystem, and measures should be taken to restore disturbed and degraded ecosystems to the same mix.

### Logging Restrictions

Due to poor regeneration after clearcutting, the Chuguevsky *Leskhoz* has banned clearcutting on its lands. They have had better results from selective logging and group selection logging. They still allow "gradual" multi-stage logging and strip cutting, but according to our conversations regeneration is sporadic after these kinds of logging.

In 1990, logging of *kedr* forests was forbidden. This has helped to protect many old-growth forests where *kedr*, or Korean pine, is dominant. The *kedr* plays vital ecological, cultural, and economic roles in the forest. The *kedr*'s pine nuts create an important food base for ungulate species, which in turn create a food base for predators like the Amur Tiger. *Kedr* has always been valued within Russian culture, and its pine nuts also have an economic potential as a non-timber forest product. For these reasons, along with the fact that *kedr* had been overlogged, the federal Russian government banned logging of *kedr*.

While this helped to protect many important *kedr* forests in the Chuguevsky Raion, it has also created greater pressure on the higher elevation spruce and fir forests. Nonetheless, *kedr* forest health in mid-elevation areas is often dependent on the health of the higher-elevation spruce-fir forests. For example, the *kedrovka*, a bird that nests in spruce-fir forests, is vital to natural regeneration of *kedr* forests. This relationship and other landscape-level ecosystem relationships will have to be further studied and taken into consideration in any planning processes.

Other limitations on logging also exist. Logging is prohibited on steep slopes (above 30 degrees). Logging is prohibited within riparian buffer zones (ranging from 25 meters on each side of a small stream, up to a kilometer on each side of a large river, depending on the size of the waterway). Logging is also prohibited for 500 meters on each side of the main Sikhotealin ridge, and for 100-200 meters on each side of other spur ridges.

The *Leskhoz* personnel claim that there is good enforcement and control over these requirements (prohibition on logging *kedr*, prohibition on logging within riparian zones, prohibition on logging steep slopes, and prohibition on logging ridgetops). However, they

admit that enforcement is weaker on enforcement of specific cutting practices, such as ensuring that there is adequate protection of undergrowth and young trees, that there is adequate protection of soils, and that the cutting area is cleaned of brush that could cause fires

### Logging Practices

As mentioned earlier, clearcutting in Chuguevsky Raion has officially been banned by the *Leskhoz*. Clearcutting was banned due to the environmental effects of clearcutting and poor regeneration after clearcuts. Forest management recommendations within the EPT project should take these considerations into account. Under no circumstances should clearcutting be promoted through the EPT project.

Strip cutting, as practiced in Chuguevsky Raion, also appears to have serious ecological problems. Strip cuts are generally carried out vertical to the slope leading to problems with soil erosion. Trees left along the strips are often vulnerable to windfall, and soil degradation makes regeneration difficult.

Selective cutting in the Russian Far East can also be problematic, since it often amounts to high-grading the best and largest trees, and the best genetic stock, out of an ecosystem. The Russian forest planning system essentially mandates high-grading in a selective cut by allowing all trees over a certain diameter to be logged. This disrupts the natural structure and composition of a forest by taking out all the largest and oldest trees. If high-grading of a stand is repeated over the course of several decades the resulting ecosystem can be as degraded as a clearcut.

Nonetheless, the selective cutting that we viewed in Chuguevsky Raion tended to look better than strip cuts and old clear cuts because they retained basic forest cover, especially oak that is important for wildlife.

### Old-Growth and Native Forests

Old-growth and native forests in Chuguevsky Raion have been largely cut over. It is estimated that only 15-25 percent of remaining forests are old-growth and native forests, and they are scattered in small parcels throughout the Raion. The Raion is heavily roaded -- there are few areas inaccessible by vehicle -- and these roads have fragmented and divided those old growth forests that remain. There are no large protected areas within Chuguevsky that are off-limits to logging.

The forest ecosystems in Chuguevsky Raion have been degraded to such an extent that there should be no further logging of old growth or native forests. Much of the old growth and native forests are found either in *kedr* stands, riparian zones, or on steep slopes and thus are already off limits to logging. It is vital to preserve remaining old-growth and native forests in Chuguevsky Raion in order to protect critical fish and wildlife habitat. Any forest

planning in Chuguevsky Raion should ensure that no further areas of old growth and native forests are logged, and should attempt to link existing small patches of old growth and native forests through restoration and road-closure efforts

### Protected Territories

Chuguevsky Raion has no areas that are strictly protected from human encroachment. Considering the size of the Raion, at 2 million hectares one of the larger Raions in Primorsky Region, this lack of protected territories is an anomaly. This absence of specially protected territories is especially disturbing considering the importance of Chuguevsky Raion as a wildlife corridor in the heart of the southern Sikhote-Alin.

The only currently protected territory is a *zakaznik* or wildlife refuge for ungulate species that covers approximately 60,000 hectares (150,000 acres) near the village of Beryozovka. However, this wildlife refuge can hardly be called a protected territory. Logging is still allowed within the wildlife refuge without any special restrictions. Only one ranger is assigned to protect the wildlife refuge. Since the refuge is located near to a village, and there are problems with delivery of food products to the village, the local villagers regularly poach wildlife from the refuge.

The potential creation of the Verkhne-Ussurny National Park, which is partially located within Chuguevsky Raion, is one step toward creating specially protected territories within the Raion. The planning process should be closely connected to ensuring Raion approval for the National Park. The planning process should also pay special attention to creating further specially protected territories throughout the Raion.

### Forest Regeneration

As mentioned earlier, the forests of Chuguevsky are largely mixed forests. Artificial planting by the *Leskhoz* is minimal. The Chuguevsky *Leskhoz*, for example, plants approximately 300 hectares per year, although up to 2,000 hectares is logged each year. Artificial planting is not carried out on a greater scale because in these mixed forests, natural regeneration works best.

We viewed one area where *kedr* had been planted along skid rows under an oak forest. The *kedr* seemed to be doing well -- although in the same oak forest, naturally regenerating *kedr* was surviving even better -- likely due to better soil conditions, since soil is often disturbed most along the skid rows.

Soils in the Chuguevsky Raion are poor for forest regeneration. The soils are susceptible to damage during logging, especially when heavy equipment such as feller-bunchers or bulldozers is used. The soils are clay-like, and as such artificial forest regeneration is difficult, if not impossible. Natural regeneration is possible if the soils are protected during logging. Unlike other parts of Siberia and the Russian Far East, however, logging occurs

year-round (in other parts of the country, logging is restricted to winter months in order to protect the soils with snow cover) Logging during the spring, summer, and fall seasons has a great impact on the soils

Artificial regeneration is also problematic because it creates a monocultural (single-species) forest, unlike the naturally mixed forests with high biodiversity normally found in Chuguevsky Raion and generally throughout the Sikhote-Alin

Russian forest management in the Chuguevsky Raion has traditionally focused on facilitating natural regeneration Representatives from the *Leskhoz* speak highly of natural regeneration following selection or group selection cuts Other limitations on logging (such as leaving a strip along the ridge top, and protecting young trees and undergrowth during logging) are also meant to facilitate natural regeneration Planning in the Chuguevsky Raion should take natural regeneration into consideration, and should recommend only logging practices that facilitate natural regeneration No logging practices that require artificial plantings should be encouraged

### Forest Fires

Fires are a danger within Chuguevsky Raion primarily during spring and fall The summer season is generally wet, preventing a large fire danger However, during a summer drought, Chuguevsky Raion experiences fire danger throughout the summer as well Based on our discussions with *Leskhoz* representatives, natural forest fires are not a serious problem, and make up only 5-10% of all fires that are started Human-caused fires are the primary danger in Chuguevsky Raion

Fires started by careless hunters and tourists in the taiga make up approximately 20-25% of all fires in the Raion

The primary cause of fires in Chuguevsky Raion is agricultural burning -- these fires, when they burn out of control and into the forests make up some 65-70% of all fires in Chuguevsky Raion Agricultural burning used to be strictly controlled during Soviet times -- fire brigades, collective farms, and the *Leskhoz*y worked together to ensure that agricultural burning did not endanger forests However, this system has broken down in the last several years

As a result fires are now started carelessly by agricultural workers who throw a match into a field to start a burn, without informing any other organizations like the *Leskhoz* of the burn, and leading to a forest fire

This situation can best be resolved by supporting a fire education program that is aimed particularly at agricultural workers, farmers, and collective farms This fire education program can be carried out together with the local and regional *Leskhoz*y, who have carried out fire education programs themselves The fire education programs should encourage

farmers to 1) find alternative fertilizing methods other than burning their fields, and 2) if they do burn, to do so only in an organized manner with the permission and control of the *Leskhoz*

## Forest Planning

In Soviet times, the *LesPromKhozy* were required to provide their logging plans 5-10 years in advance. Although they are still required to provide logging plans with perspectives for the next 5-10 years, this does not happen. According to regulations, a forest cutting area, together with the logging prescription, must be approved two years before the start of logging on the site. Again, however, this is never enforced anymore.

General large-scale forest planning is based on forest inventory information (*lesoustroystvo*), which includes very detailed information about each forest plot (including species composition and volumes). The forest inventory is updated every 10 years. Based on the inventory, certain forest plots are off limits to logging because of the amount of *kedr* in the stand, or because of other limitations.

The *Leskhoz* becomes involved in preparing the logging prescription for a site. A forester from a forest service office (*lesnichesivo*, one rank lower than a *Leskhoz*) plans the logging area, together with a representative from the logging firm. In the prescription, the forester includes information about which trees are allowed to be logged. This is determined for each species, and shows that only trees over a certain diameter on each plot may be logged. In selection cuts, regulations allow for up to 25% of the volume to be logged, and in multi-stage clearcuts (*postepennye rubki*) up to 40% of the volume can be logged each time. This volume is then determined between each species and a minimum diameter for logging each species is determined.

The forester also includes the percentage of land in skid rows, the percentage of land in log decks, and the general falling direction. The plan sometimes includes a very general map of the logging site that shows skid rows. Finally, the logging prescription includes specific logging prohibitions and what regulations have to be followed in the logging site. If a prohibition (such as not logging in a riparian area) is not mentioned in the logging prescription, then the logging firm is free to ignore that regulation on the site.

One of the main ecological problems with this style of planning is that it essentially mandates high-grading -- logging the largest and oldest trees (over a certain diameter) from each stand. This leads to problems in protecting composition and structure of forest stands.

The planning thus does not allow for large, old trees to remain a part of the forest ecosystem, although these trees play an important ecological role. Furthermore, the *Leskhoz* is currently mandated to remove all snags and dying trees in a cut (supposedly to reduce fire danger). Unfortunately, this approach harms the wildlife and birds in the area, who need these snags and dying trees for habitat. An integrated planning process that takes wildlife

protection into account would ensure for the protection of large, old trees and snags

We learned that the Biology-Soil Institute of the Far Eastern Branch of the Russian Academy of Sciences in Vladivostok has a field station in Chuguevsky Raion. It is likely that scientists from the Biology-Soil Institute have carried out some long-term experiments in Chuguevsky Raion and have gathered interesting and useful data about the forests of the Raion. Curiously, these results have never been given to the local *Leskhoz*, and the Institute's scientific work has never had a practical effect on forest planning in the Raion. An integrated planning process should ensure participation of scientists from the Biology-Soil Institute who know the area and can offer solid scientific information.

### Wildlife

Our short visit to the Raion gave us the impression that wildlife populations had been severely impacted by both hunting and logging in the region. The head of the Raion administration, for example, told us that the ungulate populations had been decimated.

Poaching in the Raion is certainly an issue. However, we learned that poaching is committed mostly to feed locals rather than to sell animal products to foreigners. We received mixed reports about the numbers of tigers in the region which demonstrates the need for a good tiger census to be carried out.

No wildlife issues are considered during forest planning. The *Leskhoz* is responsible solely for the forests, and carries no responsibility for protecting wildlife or wildlife corridors when writing logging prescriptions. Similarly, wildlife management decisions are made by the KZPK without any consultation with the *Leskhoz*.

This is one of the main areas in which the EPT project can assist in a cooperative planning effort. Given the location of Chuguevsky Raion, its overly fragmented forests, and history of intensive hunting and logging, it is vital to launch planning efforts that incorporate the interests of both wildlife and forests.

Fish stocks have also been seriously impacted by logging practices. Although some of the largest salmon in the Sikhotealin were once found in Chuguevsky Raion, in the upper Ussun River, salmon no longer returns.

### Non-Timber Forest Products

Non-timber forest products are a viable economic alternative for small enterprises in Chuguevsky Raion. In the past, sale of non-timber forest products (berries, honey, mushrooms, medicinal plants, and furs) accounted for 65-70% of the *KoopZverPromKhoz* budget in Chuguevsky Raion. Five to ten years ago, non-timber forest products brought a significant revenue to raion enterprises. However, production of NTFP's has fallen off, and local entrepreneurs claim that there is no longer a market for these products.

Chuguevsky Raion has the possibility for developing a variety of non-timber forest products, including

*eleutheracoccus* (Siberian Ginseng)

Ginseng (panax Ginseng)

*Aralia*

*limonnik*

Fern ("Orlyak")

Birch sap/juice

Mushrooms, various kinds

Berries, various kinds

Honey

Pine nuts

Various kinds of processed fur hats, coats, etc

Although these activities were once organized entirely through the KZPK, there is greater perspective in the future for developing small village-based enterprises that concentrate on two or three non-timber forest products

For example, we visited a small enterprise, TOO "Shumnyi" in the village of Shumnyi, which has done a variety of work with non-timber forest products. Anatoly Fyodorovich Luk'yantsev, the director of this enterprise, provided us with samples of some quite tasty honey prepared with *limonnik*. The honey had been stored in cans which could be easily sold on the local or international market. This honey was once provided to Europe, but the market has since disappeared. Luk'yantsev told us that he could easily begin honey production again, if only there were a market.

In the past, some 600-800 tons of honey per year was produced in Chuguevsky Raion. The KZPK produced 300 tons of honey per year, and the rest was produced by individuals or families with small apiaries. The honey was sold on the internal market, the KZPK director told us there was once a large demand for this honey. Now the domestic market has been closed off by high transportation costs, driving up the price of honey.

The KZPK in Chuguevka attempted to market *eleutheracoccus* abroad, through a US-Russian joint venture. The joint venture was founded with Omega Pharmaceuticals Company of Birmingham, Alabama. The KZPK sent two train cars of *eleutheracoccus* to a division of this company in Germany, but the company responded that there is no market for *eleutheracoccus*. According to the KZPK director, Omega Pharmaceuticals created an extract from *eleutheracoccus*.

A market in the U.S. may be just starting to develop for *eleutheracoccus* and other NTFP products from the RFE. Taiga Tea of Delaware started marketing four kinds of tea made from RFE herbs in 1994. The teas are being marketed through health food stores throughout the United States. Taiga Tea also started marketing an extract from

### *eleutheracoccus*

There is large potential for *eleutheracoccus* harvesting, if there were a stable market. According to the KZPK director, 300-350 tons of *eleutheracoccus* can be harvested per year in Chuguevsky Raion without any ecological damage. However, this depends on a market. At this time, the KPZK has 35 tons of *eleutheracoccus* in storage waiting for a buyer.

Another strong potential for both domestic and international markets is *limonnik* juice. The KZPK produced *limonnik* juice two years ago, and it was bought quite well. *Limonnik* seeds also sell fairly well on the internal market.

One of the primary problems in developing NTFPs in Chuguevsky Raion is the tax structure. The current tax system in Russia makes it virtually impossible for any small enterprise to profitably engage in NTFP production.

### Other economic development possibilities

We briefly discussed the tourism potential for Chuguevsky Raion. Although there are some small enterprises like the TOO "Shumny" that could easily develop into a "Bed and Breakfast," Chuguevsky Raion is not likely to attract foreign tourists. Foreigners interested in ecotourism are more likely to visit more well-known areas like Ternei, Lazo, and Kedrovaya Pad', rather than visiting Chuguevsky Raion. Even Russian tourists are more likely to go Olginsky Raion or Lazovsky Raion, which are known for their adventure tourism possibilities. The only visible potential for a tourism economy in Chuguevsky is for Russians on the road to Ternei who would be interested in spending the night along the route.

There is a potential for small-scale processing of hardwood species. Most of the timber logged in Chuguevsky Raion including softwoods and hardwoods, goes directly for export to Japan as unprocessed wood. Lower-quality hardwood species are also used for firewood. Many people in the Raion are interested in developing processing capabilities, although there is a question about the market demand for processed lumber in Russia. We visited a Japanese-Russian joint venture sawmill that is currently producing high-quality processed lumber. However, they claim that there are problems in selling the lumber because their production is meant for the Russian market. However, Russians no longer have the money needed to buy high-quality processed lumber, so the joint venture is not able to sell all of its products.

There was some discussion of supporting the development of a more intensive wood-processing industry such as a small-scale pulp mill or an oriented strand board (OSB) plant. However, the local officials in Chuguevsky were unanimously opposed to these ideas because of the ecological hazards to the region from these types of factories. Their opposition to these industries also stems from the fact that wastes would go into the upper Ussuri, potentially contaminating the entire Ussuri and lower Amur watersheds.

## Recommendations

- The EPT should move ahead with its ideas to initiate a cooperative planning project in the Chuguevsky Raion. This planning should be based first and foremost on the idea of ecosystem protection and restoration. Planning should be based on protecting fully functioning forest ecosystems, and restoring degraded forest ecosystems. Planning for industrial-scale logging should only occur after planning ensures the protection and restoration of Chuguevsky Raion's forest ecosystems.
- The planning should be conducted by a joint Russian-American team of specialists. The Russian team should include representatives from each of the *Leskhozy* in Chuguevsky Raion, a representative from the KZPK, a representative from the Raion administration, a representative from the Pacific Institute of Geography knowledgeable in planning, a representative from the Pacific Institute of Geography knowledgeable in wildlife biology, and a representative from the Biology-Soil Institute knowledgeable about Chuguevsky Raion forests. The US team should include one forest planner who has experience and knowledge in planning for ecosystem protection and restoration and for protecting fully functioning forest ecosystems, and one wildlife biologist who has experience and knowledge in forest planning as it relates to wildlife protection and restoration. PERC should remain involved to provide a link between planning efforts and local community development efforts.
- The planning process should under no circumstances recommend practices that deviate from Russian logging regulations. Furthermore, the planning process should under no circumstances recommend any forms of clearcutting within Chuguevsky Raion.
- The planning process should only recommend natural methods of forest regeneration for Chuguevsky Raion.
- Planning should begin at a scale of 1:100,000. The project should consider more detailed planning, at a scale of 1:25,000, during the second year of the project. Such detailed planning would help clarify forest protection and restoration issues in specific, more controversial areas.
- The planning process should first and foremost identify forest types, history of logging and fires, and the road system. It would be useful to first map all remaining *kedr* and old-growth/native forests with the goal of setting these areas aside from timber management planning.
- Avenues should be explored for obtaining high-quality, specific map information for Chuguevsky Raion. Ideally, aerial photos at a scale of 1:25,000 should be made available to all interested parties. There may be problems with secrecy of this information, although the availability of this kind of information is critical to a successful planning process.

- Where appropriate, Chuguevsky Raion should be included in community development meetings and seminars that are occurring through other parts of the EPT project. The Small Enterprise Fund should also work with TOO "Shummy" and other small enterprises in Chuguevsky Raion to develop projects for funding small enterprises that are based on non-timber forest products. However, it should also be made clear that the primary goal of EPT's work in Chuguevsky Raion is to facilitate a cooperative planning process, and support for small enterprises is secondary.

- Wherever possible, the planning process should identify and work to support potential restoration projects. There is great potential to link environmental protection and economic sustainability together in Chuguevsky Raion through the restoration of natural ecosystems. Specific attention should be given to stream restoration and restoration of wildlife habitat.

- The program should consider developing a fire education program aimed at agricultural workers in Chuguevsky Raion, together with the *Leskhoz*.

Letter to *Zov Taigi*, printed in *Zov Taigi* journal, March-April 1995, page 5

Hello, respected editors of the *Zov Taigi* journal!

Having found out your address, I decided to write you a letter. I was motivated to write this letter by the soulless and merciless relation to nature. We live deep in the Ussuri taiga, in the village of Samarka. All the forests here are under the direction of the Koksharovskiy *Leskhoz*, and the *Leskhoz* distributes the forests as if they were its "personal property." The *Leskhoz* sold the plot including Molyannov Creek of the Samarskiy Forest Service District (*Lesnichestvo*) to a cooperative for forest cutting. And the cooperative created its own logging prescriptions. As a result everything is being cut down, mostly on a large territory of oak. Claiming exceptions for skid rows, *kedr* (Korean pine) is cut along the way as well as a large percent of linden. Commercial timber is exported to Japan for sale, and the rest is sold here as firewood to local villagers for a lot of money. The local branch of the forest service closes its eyes to this. On this plot there are a lot of natural *kedr* seedlings and all of them are trampled and crushed into the earth. And this plot is not more than 8 kilometers from the village. What are we going to leave to the next generation: denuded skid rows, grown over with *Aralia*? After all *kedr* has been practically destroyed, and now they're cutting down the oak, which provides the main food base for wildlife.

I have hunted in this creek for 15 years already as a non-staff hunter. My father hunted here for many years, and I am very concerned about the future of the creek. What will happen to other creeks in the near future? I ask you not to think that I am just worried about my own hunting plots, because I'm talking in general about the fate of the Ussuri taiga as a whole. I ask you, respected editors, to provide strong help to our taiga. After all this is our people's heritage and wealth.

With Respect,  
Aleksandr Poddubnyy,  
Samarka, Chuguevskiy Raion, Primorskiy Krai  
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