

**Final Research Report
for The Takagi Fund for Citizen Science**

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day month year

Applicant Name	Lisitsyn Dmitry
Organization	“Sakhalin Environment Watch”
Theme of the research	To study the influence of the construction of the “Sakhalin-2” oil and gas project on indigenous peoples, local communities, and salmon spawning rivers. The research will provide the population and all interested parties with independent, alternative information about the impact of the project on the environment and society.
Decided Grant Amount	<u>JPY 500,000.00</u>

1. Overview of the Research

Our project was to study the impact of Sakhalin II oil-and-gas construction work on indigenous peoples, on local communities and on spawning rivers, and to provide alternative information about the social and environmental impacts to stakeholders.

During our research we conducted more than 10 field inspections of pipeline construction through spawning rivers, we held meetings with affected groups in Korsakov district, and we helped organize public hearings in the city of Korsakov to discuss the problems associated with the dumping of dredging materials into Aniva Bay. We also organized a citizen petition against dumping of dredging materials into Aniva Bay and conducted a number of expeditions to Nogliksky district to study the impact of the Sakhalin II project on indigenous peoples.

Field inspections revealed violations of Russian Federation law and instances where pipeline construction is having a greater impact on river ecosystems than that permitted by law and project materials. Information about these violations was provided to state agencies that then conducted their own inspections and issued large fines to Sakhalin Energy contractors. In addition, photo reports containing descriptions of the violations and the impacts on rivers were sent to banks considering financing of the Sakhalin II project. As a result of the steady attention of NGOs, of state agencies and of financial institutions, Sakhalin Energy is taking aggressive actions to develop and introduce measures to decrease environmental impact during pipeline construction.

Interviews with Korsakov district residents and public meetings held in the city of Korsakov show that the local population is strongly opposed to dumping of dredging materials from jetty construction into the central portion of Aniva Bay. The resolution from the public meetings and more than a thousand signatures against the dumping of dredging materials were sent to Sakhalin Energy, to the Russian Federation government, to the Governor of Sakhalin Oblast and to international banks. Sakhalin Energy, however, has ignored local opinion and continues its dredging operations, now having dumped more than 2 million tons of dredging materials into Aniva Bay. In response to public pressure, the work is being carried out in a shorter time frame than originally planned in project materials.

During research on the project's impact on indigenous peoples it was discovered that the Sakhalin I and Sakhalin II project pipeline routes cross traditional reindeer pasture, fishing grounds, berry and mushroom gathering areas and other non-timber forest product collection sites. However, compensation to the indigenous peoples has not been provided and mitigation measures have not been taken. Only after protests by indigenous peoples and bank pressure did Sakhalin Energy begin to develop an Indigenous People Development Plan to provide direct financial support of natives.

2.1 Progression of the Research(in time-series)

April – May: We conducted a series of meetings with Korsakov residents, local authorities and fishermen. During the meetings we gathered information about the impact of the Sakhalin II project on the environment and on local communities in Korsakov district. We also regularly met with the owners of summer residences in the village of Prigorodnoe, an areas that is in the zone of influence from the construction of the LNG plant. We advised them on legal issues relating to the determination of a sanitary - protective zone and on payment

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strategies for resettlement indemnities. At the end of March we helped organize and conduct public hearings in the city of Korsakov on the problem of dumping of dredging materials into Aniva Bay during the construction of jetties as part of the Sakhalin II project. We also distributed the hearing's resolution to all stake holders.

In early April we helped the initiative group of Korsakov citizens "Knowledge is Strength" organize and conduct an action against dumping huge volumes of dredging materials into the central portion of Aniva Bay near the village of Prigorodnoe.

June: We carried out a major expedition to the north of Sakhalin Island, to Nogliksky district, to hold meetings with indigenous peoples and fishermen who are experiencing impacts from the Sakhalin I and Sakhalin II oil and gas projects. We conducted a number of interviews with local residents, examined pipeline construction and oil and gas extraction and refining sites impact the traditional wildlife management of indigenous peoples, reindeer pastures and fishing sites. Information on the desecration of an ancient indigenous peoples cemetery by construction contractors was collected. At the end of June we took part in an indigenous peoples action staged to protest infringement of their rights to a favorable environment and a traditional way of life by oil companies.

July: We looked at conditions for indigenous peoples living in the small village of Venskoe in the north of Sakhalin to see how oil and gas projects are influencing traditional lands used by indigenous peoples and to assess the level of damage these projects are having on native peoples. During this trip we also investigated a report of construction on a field sacred to the Nivkhi People.

May – September: We carried out a number of expeditions along Sakhalin II project pipeline construction routes in Korsakov, Dolinsk, Makarov, Nogliki, Tymovsk and Smirnykh districts. Expeditions included trips both by car and on foot of pipeline routes and spawning river crossings.

October - December: We conducted four field inspections of Sakhalin II construction sites where the pipeline crosses spawning rivers in Dolinsk, Makarov, Smirnykh, Nogliki districts and five trips to Korsakov district to research LNG plant construction impacts on local communities and fishermen.

January - March 2006: We carried out four field inspections of Sakhalin II pipeline construction. Two inspections were conducted in Makarov district to look at avalanche danger, and dangerous geologic and hydrologic processes for the pipeline. Two additional inspections were conducted in Makarov, Smirnykh and Nogliki districts to identify legal violations during river crossing construction. We also visited Nogliki district to learn of impacts from pipeline construction on local communities, especially on indigenous peoples communities.

Over the course of the project we collected information and prepared fact sheets to report on Sakhalin II construction work impacts on rivers, indigenous peoples and local communities.

2.2 Outcome of the Research

Significant information on the negative impacts from Sakhalin II construction work on the environment, indigenous peoples of the north of Sakhalin and the local population of Korsakov district has been collected during our research. Residents of Korsakov district feel the dumping of more than two million tons of dredging materials into Aniva Bay is the key threat to the environment, fisheries and local ways of life. Fishermen and local people observe a decrease in the volume of scallops cast to the shore during storms and a sharp decline in salmon volumes in waters adjacent to the village of Prigorodnoe. Destroyed roads, intensive heavy truck movement through the city of Korsakov, local air and noise pollution from construction work, increasing crime rates, increased demand for medical services are also cited by local residents as negative consequences of LNG plant construction.

Significant information was also collected on the impact oil-and-gas projects have on traditional ways of life of indigenous peoples. For instance, it was revealed that Sakhalin I and Sakhalin II project pipeline routes cross traditional reindeer pasture, sites for gathering berries, mushrooms and other gifts of the forest, fishing grounds. An investigation was carried out regarding the construction of a building materials warehouse on a Nivkhi cemetery. In winter, an Exxon contractor destroyed part of the forest together with tombs and other ritual features of a glade sacred to indigenous peoples. The site was used for building equipment and metal. The company failed to respond at all to local complaints. Only after public organizations, including SEW, got involved and brought the incident to the attention of the press did the company's contractor remove all the

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equipment from the site, clean it, and cover it with peat. However, the graves of indigenous peoples cannot be restored. An important result of our work on indigenous peoples issues is that Sakhalin Energy began to develop an Indigenous Peoples Development Plan based on European Bank for Reconstruction and Development and World Bank procedures. Sakhalin Energy refused for a long time to carry this out work and failed to recognize indigenous fishing communities as an "affected group". However, our data, including data on pipeline impact on spawning rivers, show that the fishing community also is threatened by the project. SEW participated in the creation of this Plan by advising indigenous peoples on appropriate actions.

We discovered numerous violations during trips along Sakhalin Energy and Exxon pipelines. Sakhalin Energy is not building its oil and gas pipelines, and optical fiber cable system simultaneously as stipulated in project documents. This is resulting in excessive damage to surface vegetation and results in increased impact on salmon rivers as rivers are crossed four times instead of the prescribed single crossing. Because anti erosion measures are inefficient, a huge volume of soil removed at bridges constructed at river crossings and along the right-of-way ends up in water channels, increasing turbidity and decreasing salmon spawning area quality. Sakhalin Energy contractors have repeatedly changed channels in spawning rivers resulting in loss of life in those channels. Bridges at the majority of the rivers are illegal since Sakhalin Energy failed to include in project construction bridge design and thus approvals were not provided and no compensation for loss measures were calculated. Similar infractions are typical along the entire pipeline route showing a total lack of oversight of contractors and sub-contractors by Sakhalin Energy.

Despite company statements reporting a halt to pipeline construction across rivers during salmon spawning seasons, we registered construction work in water protection zones, in rivers and their tributaries. Construction generated silt can be observed many kilometers down stream. Pink salmon numbers have declined since it is scientifically proven that this salmon species cannot spawn in muddy water.

Over the autumn winter period Sakhalin Energy did little to improve its river crossing practices and basic problems remain. During inspections in October-December 2005 we registered numerous violations of the law and instances where construction exceeds permitted environmental impacts:

- Suspended solids in rivers stretch several kilometers downstream from pipeline crossings instead of the 500 meters as planned in the project;
- Pipeline rerouting occurred following an initial clearing of the right-of-way and no state environmental review was conducted for these changes in right-of-way;
- Construction across the Firsovka River using the HDD method was carried out despite the negative conclusion of the regional state environmental review;
- Storage for drill cut wastes is located in the water protection zone of the Firsovka River despite laws prohibiting such storage in a water protection zone;
- Absence of or ineffective anti-erosion measures on most rivers;
- Rapid slope erosion further damaging the pipelines;
- Construction of earthen dams across rivers instead of bridges;
- Channels blocked by dams at spawning rivers fully disrupting water flow in those channels for periods of from several hours to several days resulting in a total die off of all living organisms from frost.

Our field monitoring in the first quarter of 2006 revealed a number of new problems at Sakhalin II pipeline construction sites. Inspections in Makarov district showed that avalanche danger is very high at pipeline sites putting not only the pipeline at risk, but workers also. Sakhalin Energy does not monitor for avalanche danger. During the inspection it was discovered that the pipeline runs along the river channel for a considerable distance on several rivers (Pulka, Mozhaika). The danger is that a trench dug too close to the river channel or directly in a channel could wash out, deform or fail.

In Makarov, Smirnykh and Nogliki districts the following violations were registered:

- Suspended solids in rivers stretch several kilometers downstream from the pipeline crossing instead of the 500 meters as planned in the project;
- Inappropriate construction technologies at several rivers resulted in underflow that froze spawning grounds;
- Drill cutting storage areas in the water protection zone of the Firsovka River using the HDD method have not been reclaimed and pose a threat should high waters wash toxic substances directly into the river;
- Barrels with a poisonous substance ethyleneglycol used for hydro testing of the pipeline were carelessly stored at the Makarov railway station. We discovered several ruptured, empty barrels. There was no security posted to protect this poisonous substance. An ethyleneglycol spill is a gross violation of environmental protection

norms for its use is not approved by state agencies and is not prescribed in project documentation.

In Nogliki district we discovered that pipeline builders in the village of Val (the main settlement of the indigenous people Uilta) placed waste recycling facilities several dozen meters from the shore in the water protection zone of a major spawning river, the Val. Sewage flows directly into the river, dramatically decreasing sanitary conditions and leading to the appearance of worms in fish, an especially dangerous condition since indigenous peoples consume raw fish as part of their traditional diet.

In the village of Veni, a community of Nivkhi people, we learned that fish in two spawning rivers (where traditional fishing is conducted) has almost entirely disappeared as a result of pipeline construction. This puts the Nivkhi community at risk since they have not received compensation from oil companies.

All this information has been sent to state oversight agencies that conducted their own inspections and issued fines to pipeline constructors. For example, violations of pipeline construction rules during the May-June 2005 period resulted in total fines of more than \$2,500 for some Sakhalin Energy contractors.

We prepared a detailed photo report for each inspection (or group of inspections if they are carried out consecutively over a short time frame) that describes construction violations; these were emailed (or delivered) to all financial institutions considering loans for the second phase of the Sakhalin II project. We prepared a total of seven photo reports as Power Point presentations. We also sent some presentations to state agencies.

Sakhalin Energy has taken action to improve pipeline construction practices at river crossing in light of strong public monitoring of construction work.

Our project also prepared a general report on Sakhalin II the impacts that the project has had on local people and the environment. However, a number of circumstances arose during the project that led to a decision to delay preparation of the general report and to continue with fact sheets. These circumstances are the extension of the pipeline construction terms for the Sakhalin II project and the start of intensive river crossing construction in the winter, as well as publication of new project materials – EIA Addendum in December 2005. From November 2005 until April 2006 Sakhalin Energy actively crossed rivers and we decided it was important to concentrate our efforts on inspecting construction work, identifying violations of the law, and collect additional fact sheet material for this report. We also need to study new Sakhalin Energy documents (EIA Addendum) and to understand the new mitigation measures planned for the project to prepare mitigation recommendations. Therefore, we believe it more expedient to prepare a final report in autumn 2006 when we will have more facts on construction work impacts and information on mitigation measures offered by the company.

Although we have already used the funds provided by the Takagi Fund to conduct more field inspections than originally planned, we have secured additional funds from other sources to publish a detailed, color report about the environmental impact of Sakhalin II construction work.

2.3 Release / Presentation / Publication the outcome of the research

Throughout the project we have regularly provided journalists with information on the violations uncovered during Sakhalin II construction work as well as information on impacts on the environment and on local people. Based on our information and interviews with Dmitry Lisitsyn, articles were published in international news outlets: The Observer, Reuters, Associated Press, The Independent, The Times, Environment News Service, Argus Media, The Wall Street Journal, Dow Jones Newswires.

In May, and together with Greenpeace Russia, we organized a press trip for journalists from REN-TV, New Times (USA), Independent (UK), NRC Handelsblad (Germany) and Irkutsk TV. Publications about Sakhalin II project impacts on the environment and local people were published in all editions, including plots on REN-TV and Irkutsk TV.

We organized visits for journalists wishing to collect materials for analytical pieces on the Sakhalin II project:

- British Broadcasting Company film crew tour that we organized on our own. The result was a 15 minute piece aired on the top rated BBC Night News about Sakhalin II project impacts on the island's environment and local communities.

- British news agency Dow Jones journalist that strings for The Wall Street Journal. We organized most of the meetings for him as well as trips along the pipeline route and to the LNG plant construction site. This resulted in two articles in Dow Jones and three article in WSJ with additional publications in preparation.

In September a German film crew arrived on the Island and we helped organize a number of meetings and trips to the south of Sakhalin and our representative accompanied them on a trip to the north of Islands (Nogliki and Val).

In mid October the Moscow information agency RIA "Novosti" organized a press-conference where fishermen and ecologists (including D. Lisitsyn) presented information on the environmental problems caused by the Sakhalin II project. The press conference resulted in more than 15 publications in different editions.

In November-December several critiques on the Sakhalin II project were published in the foreign press, including in such newspapers as The Observer and International Herald Tribune.

All these publications were made possible thanks to the Takagi Fund. The Fund also supported our efforts to identify violations and instances of Sakhalin II project impacts on the environment. This work resulted in national and international attention being focused on the issue of the project's impact on salmon and spawning rivers.

This report includes copies of some press publications and photo reports documenting violations discovered during inspections of the Sakhalin II project as well as photos from field excursions made during the first quarter of 2006.

2.4 Perspective after the research

Sakhalin II pipeline construction will proceed until September 2007. In the summer of 2006 we plan to conduct additional inspections of pipeline construction, to carry out research of construction impact on spawning grounds, and to study new Sakhalin Energy EIA Addendum and Updated River Crossing Strategy documents. Based on the collected information, in autumn 2006 we will prepare a report on pipeline construction impacts on rivers, on the key project design flaws, on inadequate mitigation measures as well as including our proposals for improving pipeline construction standards. This report will be widely distributed and we will promote our recommendations to ensure that pipeline construction across spawning rivers in the winter period results in minimal environmental damage. The information collected during the work supported by Takagi Fund will form the basis of this report.

However, even after the publication of the report, it will be very important to continue our inspections and to monitor pipeline construction to register violations and non compliance with river mitigation measures. This will serve as a basis for working with oil companies to decrease environmental impact.

3. Your comments for the Takagi Fund

We want to thank the Takagi Fund for Citizens Science for its support of our work. It's funding has made it possible to carry out regular field inspections and to monitor pipeline construction and other features of the Sakhalin II project and to track impacts on the environment and on local people. As a result of the steady attention of NGOs, of state agencies and of financial institutions, Sakhalin Energy is taking aggressive actions to develop and introduce measures to decrease environmental impact during pipeline construction.

We would be pleased to receive information about other groups and projects supported by the Takagi Fund and to learn about their experiences and directions of work. It would also be very interesting to find out what is in those letters written in Japanese that we regularly receive from representatives of Fund.