

## A Track to the Taiga: Russian-American Arboreal Cooperation



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**I**n 1955, during the height of the Cold War, the scientific community in the United States shared intelligence and technology with state-sanctioned Soviet visitors on American soil.

The US-Soviet Agricultural Exchange was proposed by *The Des Moines Register* after Nikita Khrushchev offered an out-of-character speech in January of the same year praising the innovation and application of American agricultural technology<sup>1</sup>. The labor-intensive collective farms, particularly those on the steppes of Kazakhstan, were failing to produce enough corn to provide for human and livestock populations, and the Soviet leader was open in his criticism of the agricultural sector<sup>2</sup>.

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<sup>1</sup> Lauren Soth. March 20, 1955. "This is Iowa: Soviet Agricultural Experts are Coming to Study Midwest Farm Life. Here is What They Will See," *The New York Times*, SM10.

<sup>2</sup> Special to *The New York Times*. May 13, 1954. "Lag in Agriculture Assailed in Soviet," Special to *The New York Times*.

Twelve Soviet delegates arrived in the United States and were invited to attend lectures and technological demonstrations at Iowa State College and tour corn fields in Iowa and South Dakota while engaging with American agricultural experts and professors along the way. The Soviets were privy to information on modern farming techniques, including hybrid cultivars of corn designed for colder temperatures, as well as irrigation and machinery advancements<sup>3</sup>.

Later in the year, twelve American delegates reciprocated the visit, touring the USSR from Moscow to contemporary Kazakhstan and Ukraine, interacting with the Ministry of Agriculture, as well as farmers and their families. While the United States had little to gain by importing outdated Soviet farming technology and methodology, the exchange gave American civilians a rare glimpse of the politically isolated Republics and a chance to gauge the progress of Soviet technology<sup>4</sup>.

For thirty years before the Cold War began, the USSR had considered the US a model of agricultural best practices and innovation. In the 1920s, Vladimir Lenin began the precedent for scientific exchange within the agricultural sector when Soviet specialists were sent to the US to adopt Ford tractor technology<sup>5</sup>. The 1955 exchange moved beyond the tense formal relations of the US State Department and Supreme Soviet and instead allowed for grassroots scientific and cultural sharing beyond formal activities, with both American and Soviet delegates praising the hospitality and knowledge of their nuclear enemies.

With President-elect Donald Trump's recent proclamations regarding the United States' nuclear arsenal, the nations' opposing sides in the Syrian Civil War, as well as Russia's perceived role in the presidential race that elected Mr. Trump, the escalation of tensions between the countries renews the need for emphasis on Track II diplomacy. Like the agricultural exchange of 1955, Track II diplomacy involves private citizens and groups acting in an unofficial capacity while engaging with other states.

North of the corn fields of the American Midwest, the United States (Alaska) and Russia, as well as Canada, Finland, Norway and Sweden, share a vast opportunity for biological collaboration in the boreal forest ecosystem. Known as the *taiga* in Russia, the boreal forest covers 12 million square kilometers across North America and Eurasia, its vast swaths of pine, spruce and fir trees composing the largest terrestrial biome on the planet. Though species composition varies across the intercontinental forest, the dominant disturbance that has regulated the boreal ecosystem for millennia remains the high intensity forest fire.

Russia's boreal forest is the largest forested tract of land on the planet and remained largely undisturbed throughout the Soviet Era, when foreign economic sanctions held the demand for logging products at bay. Additionally, the Soviet State Committee for Forestry maintained regulations against the stripping of the forest and building of infrastructure that were rescinded upon the collapse of the Soviet Union in 1991.

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<sup>3</sup> "Russians Take Scholarly Look at Iowa State," The Mount Pleasant News, July 21, 1955.

<sup>4</sup> "Iowans Meet Soviet Hosts on Farm Tour," Carrol Daily Times, July 16, 1955.

<sup>5</sup> Parks, JD. (1983). Culture, Conflict, and Coexistence: American-Soviet Cultural Relations, 1917-1958. McFarland: Jefferson, NC, 1983.

Human development within the forest has remained moderate due to the difficulty of accessing the forest terrestrially. The cities of Murmansk, Arkhangelsk, and Anchorage are exceptions because of their port access. Both Canada and the United States have largely allowed provincial and state policies, respectively, to regulate the boreal forest, focusing on the prevention of illegal logging and land management, both to varying degrees of success.

The first and strongest signs of global climate change exist in the highest latitudes of the planet, where ecosystems show a collective response to increased levels of greenhouse gases,<sup>6</sup> making the boreal forest the most susceptible to climate change as based on projected scenarios of temperature increases within the biome's current distribution.<sup>7</sup> As such, the boreal ecosystem is the ideal region of the Earth to study emerging changes in climate patterns, as well as one of the most critical areas of the planet to protect from further environmental degradation. Over 30% of the globe's terrestrial carbon exists beneath the boreal forest, threatening to enter the atmosphere and exacerbate climactic shifts if the dense forest migrates northward toward the tundra on account of warming temperatures. Understanding the projected shifts and changes of this biome are essential as the landscape of the Arctic and sub-Arctic are transformed, presenting new opportunities for industry and challenges for natural management practices.

Across the United States, Canada and Russia, the logging industry, as well as oil and gas interests drawn northward by a thawing permafrost that make Arctic exploration more viable, have developed infrastructure and clear-cut vast swaths of the forest, often replanting fields with single species to be harvested again in the future. Future melting ensures that the forest will be increasingly vulnerable to climactic and socioeconomic changes.<sup>8</sup>

The newfound importance of the boreal forest ecosystem, both for its economic opportunities and climactic signaling, creates broad opportunities for research and land management.

The United States and Russia, along with Canada, as the largest powers with vested interests in the Arctic region, have the opportunity to collaborate on longitudinal bilateral agreements that allow for scientific and educational exchange throughout the ecosystem. Knowledge and technology interchange within the academic fields of ecology, forest management and environmental science, and private industry agreements between the timber and oil and gas industries promise to enhance scientific understanding of the region, while simultaneously strengthening diplomatic relationships. Operating at a more informal level than traditional Track I relationships between the State Department and Kremlin, such exchanges forgo traditional political

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<sup>6</sup> Barber, B.G., Lukovich, J.V., Keogak, J., Baryluk, S., Fortier, L., and Henry, G.H.R. (2008). The Changing Climate of the Arctic. *Arctic*, 61(1), 7–26.

<sup>7</sup> Gonzalez, P. N., Neilson, R.P., Lenihan, J.M., Drapek, R.J. (2010). Global patterns in the vulnerability of ecosystems to vegetation shifts due to climate change. *Global Ecological Biogeography*, 19, 755–768.

<sup>8</sup> Burton, P.J., Bergeron Y., et al. (2010). Sustainability of boreal forests and forestry in a changing environment. 2010. *Forests and Society – Responding to Global Drivers of Change*. International Union of Forest Research Organizations.

relationships to foster cultural understanding while expanding intelligence in areas in which both nations perceive a common threat or opportunity.

Perhaps the clearest frontier for collaboration and exchange lies in the national park system, an entity that exists in comparable form in all the nations with boreal forest territory. Olekminsky Zapovednik, the equivalent of a national park, in Yakutia, Russia, could strongly benefit from sending teams of park rangers and firemen to Denali National Park in Alaska to learn the technical skills and machinery used in controlled burns. For researchers, the ability to study the Russian *taiga*, which is for the time more intact than its American and Canadian counterparts, may offer clues as to the composition of primordial species and faunal interactions, allowing a baseline to be established as a measure of future climate change within the ecosystem. The ability to conserve flora and fauna, as well as to assist in the sustainable development of overlooked indigenous populations, would dramatically increase with such open human exchange, both of which are regarded as domestic policy priorities by the United States and Russia.

In addition, bilateral cooperation within the boreal forest stands to improve international relationships for both the United States and Russia, which have been criticized for their lack of action and commitment to the Paris Climate Accords.

Both Mr. Trump and Mr. Putin are known for their inflammatory rhetoric and indecisive policy proposals within the global arena. Without clear direction in the relationship between the United States and Russia, Track II diplomacy, which has a strong precedent for operating – even in times of war – may provide a rare opportunity for the nations to engage each other and the planet positively.

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