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Great Steppe, Disastrous Steppe: Scientists and Natural Calamities in Twentieth-Century Russia

How did Russian and Soviet scientists endeavor to mitigate, control, and predict the occurrence of natural disasters in times of a massive state-driven technological, agricultural, and industrial transformation of ecosystems? This project seeks to answer this question by looking at the agricultural development of the Eurasian Steppe, an eco-region some 5,000 kilometers in length, stretching from the western frontier of the Russian Empire to Mongolia, through Ukraine, Southern Russia, Kazakhstan, Southern Siberia, and the Altai mountains.

Largely covered with rich black soil earth (*chernozem*), the steppe regions were considered the granary of the Russian and later Soviet empires. For the Soviet leadership, the steppe zones of Ukraine, Southern Russia, and Kazakhstan were key agricultural regions. But the dry climate of the Great Steppe rendered ploughing in the south a risky endeavor, a point driven home by several severe food shortages and famines during the nineteenth and twentieth centuries.

Promising but dangerous, the steppe thus emerged in the center of intellectual debates among educated Russians in the nineteenth century on the origins of disastrous erosion and the prospects of limiting such erosion. From the mid-nineteenth century and especially following the famine of 1891-1892, irrigation and reforestation came to be considered the two main approaches to mitigate droughts and erosion in the steppes. Confronted with regular food shortages, the Soviet leadership likewise sought to secure new land for farming in the steppes and to diminish the occurrence of disasters through large-scale melioration programs. Disastrous droughts and soil erosion remained the major threats in the dry steppe areas, but they were not the only ones. A constant challenge to the ability of regimes—tsarist or Soviet—to cope with famine-prone natural calamities like drought, inundation, locust plagues, hot and dust winds, the steppe played a major role in the larger project of mastering nature economically, technologically, and culturally.

I look at the traditional natural scourges of the Russian peasantry in the steppes as events that structured the way scientists imagined the peasant world and its modernization, engaged in projects of transforming landscapes and farming technologies, and perceived the relationship between humans and the natural world. The main hypothesis of this project is that scientific schemes of disaster mitigation are at the core of the political and social dynamics that shaped the Great Steppe under Soviet rule. In the Great Steppe, environmental engineering went together with social engineering (collectivization, the destruction of nomadism etc.). In the larger picture, these efforts were part and parcel of a wider matrix of twentieth-century modern Prometheanism.

More specifically, the focus of this project will be (1) on the production of knowledge about disasters, (2) on the links between disasters and programs of land and water development, (3) on disaster mitigation at the local farm level, and (4) on the cultural

images of nature and disasters.