Deforestation and Degradation in Russia During the 20th Century
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- Current State of Russian forests
- Historical Overview
- What is to be done
- Conclusions

Hypothesis
Political shortsightedness and bureaucratic mismanagement over the past one hundred years are the cause of the current state of Russian forests.

Geography of Russia
- Russia is the world's largest country, its total area is 6,192,800 sq. miles.
- The country contains 23 UNESCO World Heritage Sites, 40 UNESCO Biosphere reserves, 40 national parks, and 101 nature reserves (FAO 2010).
- Russian Federation is divided into 83 federal subjects. Each subject has equal representation in the Federation Council, but they differ in the degree of autonomy they have.

Ethnic Groups of Russia
- Population: 140,041,247
- Ethnic Makeup:
  - Russian: 79.8%
  - Tartar: 3.8%
  - Ukrainian: 2%
  - Bashkir: 1.2%
  - Chuvash: 1.1%
  - Other: 12.1% (CIA 2010)

Economy of Russia
- Third largest grain exporter
- Fourth largest in total cultivated land
- World's leading natural gas exporter and second largest oil exporter
- Fifth largest renewable energy producer
Forest Resources in Russia

- The Russian Federation has the largest land area in the world and more than half of it is forest and other wooded land. Russia accounts for more than one-fifth of the world's total area of forest (817 million hectares, FAO 2010).
- Most of Russia consists of northern forest forest, with mixed and broad-leaved forest in the south. Coniferous species make up 70 percent of the country's forest cover.
- Russia has more than 17 million hectares of planted forests. The area of forest is approximately stable. The State owns all forest and other wooded land (FAO 2010).

Current State of Russia’s Forest Industry

- Forests remain a federal property, and the state budget does not cover even 20% of what is required to provide salaries, equipment and education to forest managers and their families.
- A significant amount of the forest sector is in the hands of the federal government, and the confidence of forest industry managers remains low.
- Forest fire protection is insufficient. Early detection and suppression have been neglected. The area burned by forest fires is significant.
- The Russian forest industry is almost completely privatized, while the state forest industry provides only 2.5% of GDP. The country has no clearly defined national forest policy. The latest reorganization of state forest management in Russia in 2000 terminated the use of state forest management units.
- Forest fire protection is insufficient. The area burned by forest fires is significant.
- Clear-cutting is carried out with anti-ecological machinery, generally on large areas and in a way that destroys the forest environment.

Impact of Disturbances

- Approximately 106 million hectares of forested areas are affected annually by disturbances. The disturbances are wildfires, insect and disease outbreaks, landslides, floods and industrial pollution.
- The loss of forested areas is estimated at 1 to 2% of the forested area per year, and some 10 to 20% of the forested area are affected annually by the most significant disturbance of the forest zone. In the northern parts of the country, fires and insect infestations have reduced the area of forested land by 25 to 30%
- In Russia's coniferous forest areas, significant disturbances have been recorded.
- The spatial distribution, species composition and productivity of forests vary significantly over the country.

Forestry Production and Trade

- Two-thirds of the Russian forest is available for wood supply, most of the remainder being not available due to accessibility. More than 90 percent is classified as exploited by humans.
- The Russian Federation is one of the largest producers and exporters of industrial roundwood in the world. The country also exports significant volumes of sawmilled wood and pulp and paper. Total forest product exports valued at almost US$3.9 billion in 2001 (FAO 2010).
- The Russian forest industry is almost completely privatized, while the state forest industry remains state-owned.
- Hunting and the collection of a wide range of non-wood forest products are very important for local populations. The Russian forests are an invaluable source of wild fruits and berries, nuts and mushrooms, medicinal plants and herbs, honey, fodder and forage, resins, oils and game meats.

Current State of Russia’s Forests

- The spatial distribution, species composition and productivity of forests vary significantly over the country. A quarter of all forest stands are situated in European Russia (where most of the population resides), and half of these stands are in the central parts of the zone. Forest fires are the most dangerous environmental impact of disturbances. The central part of the zone, forest fires are the most dangerous environmental impact of disturbances.
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- By the latter half of the 19th century, many Russian scientists such as Peter the Great (1696-1725), Grigorii Kozhevnikov and Ivan Borodin, begin to institute European forestry practices in Russia. He designed to benefit the well-being of the whole Russian state. He created a sustained-yield baseline for logging, divided Russian forests into protected and exploitable categories, and promoted protection of forest areas that were important for erosion control and oak forests that were important for naval construction.
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Forestry Under the Tsars

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The Bolshevik Revolution and New Theories on Conservation

- Tsar Nicholas II abdicates on March 15, 1917. Conservationists in Russia are elated, believing a new era of environmental protection would begin.
- Parks, gardens, reserves, sanctuaries, and private estates are ravaged by peasants during the social upheaval.
- World War I was also occurring at this time, causing enormous loss of forests and wildlife in western Russia.
- November 7, 1917. The Bolshevik Party comes to power. Lenin, its leader, believes in economic productivity and biological conservation. He saw science as an ally to economic planning, and he saw pure science to expand our knowledge of how nature worked to use applied science to translate this knowledge into achievable productivity capacity.
- Two days after taking power, Lenin declares all forests, water, and subsoil minerals belong to the state and are sold for the exclusive use by the state. The government creates the Central Administration of Forests of the Republic to manage the forests on the basis of sustained yield and planned reforestation. The forests were divided into exploitable and protected sections; the purposes of the protected sections being to control erosion, protection of watersheds, and the preservation of monuments of nature. However, with the onset of the First World War in 1914, conservation fell by the wayside in favor of national security and lack of fuel sources.

Khrushchev, Brezhnev, and the Cold War Years

- The first aggregated data on all Russian forests, based on a complete inventory of the entire country (the State Forest Account (SFA)), were recorded in 1961 and every five years since.
- This time period from 1955 to 1985 is known for massive environmental disasters (Aral Sea, Neva River, Chernobyl, etc.).
- Concurrently, Soviet environmental and forestry science academies were considered second-rate. Ex. Methods for pollution assessment created in the USSR were adopted by the WHO in 1964 and recommended to other nations as the optimal means to abate pollution.
- Unfortunately, regulatory ministries fell under the direct control of bureaucratic central planning committees. Science gave way to politics and ill-conceived policies.

The Collapse of Communism and the New Russia

- Economy bottoms out. Desperate for cash, the interim government sells state industries for next to nothing.
- The rule of law evaporates. Gangsters and oligarchs run the country.
- The forestry industry is forgotten. Deforestation and degradation become rampant due to lack of land tenure and govt. regulation.

Conclusions

- Govt. needs to promote forestry industry and enforce regulations
- Privatization and Land tenure issues must be resolved
- Forest regulatory agencies need more funding and autonomy
- Need to introduce a concession system for logging

Stalin, the Five Year Plans, and World War II

- Following the end of the Civil War, the New Economic Policy (NEP) is introduced. This policy put the ownership of forests into the hands of the peasants. Agricultural output increases greatly, as millions of people leave the land.
- In 1934, Lenin dies and is replaced by Joseph Stalin. Stalin introduces full central planning, nationalizes the entire economy and begins implementing Five Year Plans which are policies meant to rapidly modernize Russia. Stately collectivization of agriculture saw its most destructive phase, causing millions to starve and causing massive environmental damage.
- During Stalin’s reign, the Communist party held back the development of ecology as a discipline and interfered with any organizations promoting conservation. Such ecological goals were seen as counter to economic development and providing the means and state of society needs.
- Officials in Stalin’s government believed that nature and climate were “enemies of the people.” In 1949, the Communist Party took Stalin’s plan for the Transformation of Nature. This plan calls for the straightening and dredging of rivers, the building of huge dams to hold water for electricity, irrigation, and municipal uses. It also authorized the planting of thousands of kilometers of “forest belts.” This plan came to an end in 1953 with the death of Stalin. Deforestation and loss of land continued. The result of Stalin’s environmental policies were the same damage to ecosystems, pollution, rapid loss of vegetation, and desertification of forests.

References

Questions?