

The nexus of science and protected area policy making: a case study of Russian scientists, national parks, and zapovedniks, 1970-2000

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Introduction

The Russian scientific community has a century-long tradition of criticizing government protected area policies and voicing those criticisms through (relatively) independent societies. Their ability to criticize the government relied on access to scientific data and their standing in society. Events in the late 1980s radically changed the social and political climate of Russia. The scientific community was a small seed of civil society that grew with *perestroika* and combined with the environmental movement to fuel the fall of the USSR. The purpose of this presentation is to report on how the transition of post-Communist Russia is affecting scientists who work in protected area science and policy.

Since 1900, scientists in Russia have resisted the conversion of natural areas into production or agriculture. They established a system of *zapovedniks* (strict nature preserves), defined as areas that exclude virtually all anthropogenic disturbances to preserve typical and unique ecosystems for baseline field research (Weiner 1988; Shtil'mark 1996; Weiner 1999). The national park system was established in the 1970s and protects natural areas while providing for recreational activities. Although scientists still play an important role in protected area policy, their role appears to have changed. Evidence suggests that a significant number of scientists are moving out of academia and into Russian or international non-government organizations (NGOs) to continue to (1) affect policy through early and frequent participation, (2) gain access to government officials, and (3) act as checks and balances on government decisions—three variable but essential aspects to a successful democracy (Schmitter and Karl 1991).

I investigated these fundamental questions:

- Are Russian scientists working with the same institutions or agencies as they were before the fall of the Soviet Union in 1991?
- What is the amount of influence that scientists have on natural resource policy decisions? How does it compare with that in the Soviet era, and what is the trend for the future?

Methodology

Utilizing case study methodology (GAO 1990; Yin 1994), this analysis relies on elite interviews with over forty individuals, including NGO policy consultants, academicians from five state universities, the head of a Zapovednik Directors Association, and administrators in both the Department of Zapovedniks and the Department of National Parks. In addition, small group discussions, roundtable meetings, and written responses from over 70 protected area scientists provides a broad profile. My sample was drawn from the conservation community in Moscow, the Black-Earth region near Voronezh, and the Central Siberian cities of Barnaul and Gorni-Altai. Many meetings were arranged prior to my visit thanks to Nikolai Maleshin, Evgeny

Shvarts, and Misha Shishin. This research was supported by a grant from the National Research Council program on governance in post-Communist societies.

Soviet-era conditions

During the 1970s and 1980s proponents shifted their view of zapovedniks as sacrosanct, self-contained (or closed) biological systems to a view that they are open, dynamic ecosystems (Wiener 1999). The scientific community had to tread a tight line to maintain the social relevance of zapovedniks while perpetuating research on relatively undisturbed natural systems. Additional efforts supported national parks in the Federal Forest Service to address the social demand for recreational and scenic areas. Rather than lobby decision-makers as in the USA, Russians were constrained by a tightly controlled policy-making process.

The scientific community's influence on environmental policy may be described in two broad categories. One was that scientists approved government projects as proposed, or with slight, "Party-acceptable" modifications. Enormous pressure was brought to bear on scientists who were critical of projects. The pressure took several forms: a reduction of financial support, no approval for research, or suppression (destruction) of an individual's career. In general, input on policy development was rarely sought.

The second category of policy influence was whereby criticism and information from the scientific community contributed to some sort of public sentiment or, in the 1980s, protest. As Yanitsky (1993) illustrates, an important aspect of scientists in the policy process was the very nature of how information was passed on. Scientists understood the grim environmental conditions that provided ample opportunity for criticism (Peterson 1993; Pryde 1995). They passed this information on to their children (who often entered similar fields). The children of the 1970s became the outspoken voices for environmental reform in the late 1980s.

In several cases, a number of individuals within the scientific community spoke out against government projects, first privately and then publicly (Darst 1988). General public protests against water and air pollution, hydroelectric dams, and nuclear power incorporated scientific evidence. These same social dynamics kept the conservation community percolating into the 1990s. In particular, student organizations established in the 1960s were some of the most powerful guardians of nature through the 1980s (Weiner 1999). The resulting protests against the USSR undoubtedly contributed to its collapse (Mirovitskaya 1998).

Change in the 1990s

Russia's state of democracy and climate for public participation are unique. The limited form of democracy in Russia has also been described as a "delegative democracy" (O'Donnell 1994). As a delegative democracy, the regime has free and contested elections but, once elected, the president governs with relatively little input from the general public (Tsygankov 1998). Russia's low level of political rights includes a lack of executive accountability; an emergent, but fragmented presidentialism; powerful, self-serving ministries; a tenuous pluralism; and the short history with open elections. Fundamental problems for civil rights includes state pressure on the media ("pro-government" bias), corruption, crime, human rights violations, and the slow reform of the judicial system (Fish 1995; Biryukov & Sergeyev 1997; Juviler 1998; Freedom House 2000). Nonetheless, "ten years after *perestroika*, Russia is more free and more democratic than it was before" (Sakwa 1996, 377).

Participation is partly dependent on enabling legislation and partly on access to policy-makers through personal connections and social status. The socioeconomic changes and deterioration living conditions have limited scientists' ability to dedicate time and energy to policy issues and making political connections. Despite the guarantee for participation and new, clarifying legislation for protected areas (Ostergren 2001), scientists' access to the policy process varies according to a combination of

their proximity to Moscow and their affiliated institution. Scientists have become just one more interest group.

Results and discussion

This investigation revealed that conservation scientists fell into three groups: (1) those at the Russian Academy of Sciences (RAS) and ministerial-level research institutes, (2) academicians at state universities, and (3) field scientists in nature preserves and national parks. Scientists who have experienced the most dramatic effect on their careers from the fall of the Soviet Union were (or still are) working with RAS and the research institutes (e.g., agriculture, forestry). In the words of one interviewee, “[t]he system collapsed when the government decided that there was little practical return for the investment in theoretical research. Structured as it was, the RAS simply couldn’t last” (Shvarts 2000). The devaluation of the ruble, inflation, and a general lack of interest in theoretical science has eroded nearly all government funding. Many scientists retain their affiliation with the RAS but rely on a wide range of outside sources for their income. They teach in universities, tutor, work side jobs outside their profession, land occasional grants, consult with NGOs, consult on the rare government contract, or make connections with international universities and organizations.

In terms of a change in career, the Russian scientists who seemed least affected by the fall are those affiliated with the state university system. They have economic difficulties, but the low, steady salaries provide a foundation easily augmented by other activities. The more successful scientists work as teams, either to perform regional environmental assessments or pursue grants from international funds. Research funds generally are applied to infrastructure: computers, copiers, phone lines, e-mail, and research equipment. Although funds are tight, researchers are pleased with the new freedom to choose their own research agenda rather than have it dictated by political authorities. The greatest concern for academicians is that fewer students are opting for advanced degrees and many promising students are avoiding a career in academia. It appears that academia has less prestige and, implicitly, diminished political clout.

The third “group” of scientists are those who work in the field in national parks and zapovedniks. After the fall of the USSR, the cadre of investigators in zapovedniks found themselves in a very difficult situation. Since 1992, funding for preserves across the nation has dropped a catastrophic 60-80% (Ostergren 1998). However, zapovednik communities offered a safe place to live, schools for the children, and enough land space to squeeze out a living. These factors kept many scientists in zapovedniks pursuing research with less and less funding. Since the fall of the USSR their ability to collect data on natural resources has been compromised.

Just as in the state universities, a tremendous concern for senior scientists is the lack of new, young researchers coming to the zapovedniks. The perception is that life is hard with little opportunity for a satisfactory salary. Young people no longer see the benefits or status that accompanied conservation scientists during the Soviet era.

Participation

The most prominent message from all of the respondents was that, technically, the opportunity to influence policy has improved since the Soviet era. However, the means for collecting information to make recommendations has diminished to a level whereby an accurate assessment of conditions is very difficult, if not impossible. The transition to democracy provided the freedom to voice an opinion, but the transition to a market economy constrained the financial resources to form an opinion.

The majority of interviewees characterized scientific influence on policy after 1995 as being less than during *perestroika*. Paradoxically, most recent natural resources legislation explicitly mandates public participation. In fact, 1995 represents a watershed year with the publication of the Law on Specially Protected Natural

Areas—an organic act after 100 years of conservation. The law clarifies the role of protected area personnel, empowers managers to enforce regulations, provides a standing to sue on behalf of protected areas, and stipulates participation in the policy process (Ostergren 2001). Nonetheless, outside of Moscow interviewees felt they have little or no influence on federal policy. Those in Moscow felt as if their influence on policy was marginal at best. The most optimistic group in the sample worked with NGOs whose specific purpose was to influence state policy.

An important avenue for scientists to access the policy process is the *expertiza* (an environmental impact statement). Scientists may be investigators in one of two *expertiza*: one is sponsored and organized by the state, the other, by citizen organizations. The *expertiza* must consider factors such as economic costs and benefits, environmental damage, cultural values, recreational values, and biodiversity. Unfortunately, politicians are demonstrating a general disregard for academics and remain unmotivated to incorporate the results of scientific investigations into policy.

Another political limitation is that scientists rely on the ministries and government agencies for funding. These ministries may be the source of an environmentally questionable project and a scientist criticizing a ministry's project runs the risk of losing future financial support. Still, advocates for conservation wish that more scientists would take advantage of the "new" political climate and speak out on environmental issues. Even with limited information, the scientific community can make powerful recommendations to slow or stop projects until further data is collected.

In contrast to federal policy, academicians and zapovednik scientists reported an increased role in local environmental policy. Professors who serve on local committees may instigate investigations to monitor water or air quality. Additionally, several individuals actively sought consulting positions for businesses expanding their operations. The ideal future would see businesses hiring teams of scientists for advice on how to meet evolving environmental regulations. Several interviewees suggested that consultation would increase the role of scientist in the implementation of policy as well as add to their credibility and stature in the community.

A new strategy, environmental education, takes a long-term view of policy influence. A difference between the Soviet and post-Soviet educators (scientists) is that the goal evolved from creating a basic awareness of flora and fauna to encouraging children to investigate human impacts on the environment and the long-term consequences of utilizing natural resources. A possible long-term benefit is developing a sympathetic political constituency.

The most interesting development is not in the zapovednik employees' ability to create policy, but in their flexibility to interpret policy. As funds from various sources augment federal support, allocation priorities change. New debates have emerged on how to allocate money, time, and personnel. Three general implementation strategies have emerged:

1. Continue conducting research on traditional topics in a traditional format restricting all access.
2. Place the zapovednik in a larger context and conduct research that addresses local or regional community concerns (e.g., game population studies or air quality monitoring).
3. Generate public support through an aggressive environmental education program and allow limited access.

The remarkable change in policy implementation is not in the variety of strategies, but that each zapovednik is *deciding for itself*, on its own, which path to adopt.

Conclusion

As a final challenge to the scientific community, President Vladimir Putin abolished the State Committee on the Environment in May 2000 (the U.S. equivalent is

the Environmental Protection Agency). The committee was the umbrella organization for zapovedniks. In addition, he abolished the Federal Forestry Department. Zapovedniks and national parks have been united under one department and placed in the Ministry of Natural Resources—a traditionally utilitarian ministry. It is too early to predict how this will effect the ability of conservation scientists to influence protected area policy, but the outlook is not positive.

Although scientists from universities have less influence on federal policy than during *perestroika*, on the local and regional level they participate through committee work and as advisors. In zapovedniks the change is not how they influence policy creation, but rather how they are interpreting policy and influencing policy implementation. The newfound freedoms are also being tested and exercised in zapovedniks, but often the poor economy restrains the most ambitious plans to conduct research and implement outreach environmental education programs.

The process of democratization is having a mixed effect on participation by the scientific community. The scientific community has freedom to move, freedom to choose a research agenda, and a legal mandate for participation. However, economic survival comes first and they are unable to secure funds to conduct research to support one opinion or another. In that sense, Russia is less democratic than in 1992. In a perfect world, scientists would have ample government support to pursue basic research, while sponsored investigations would influence local, regional, and federal policy to protect and conserve Russia's natural resources.

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