

THE LOWEST PRIORITY SOCIALIST AND “CAPITALIST” ENVIRONMENTAL POLICIES IN THE SOVIET UNION AND RUSSIA

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Abstract. During the Soviet period (1922-1991), environmental protection was theoretically implicit in centrally planning. “We communists can hear the grass grow,” once remarked Zinoviev. The plans, however, with their stress on feverish production easily overshadowed preservation, conservation, and pollution abatement. By the end of the Soviet period, central planners had created one of the most wasteful and polluted societies on earth, leaving a legacy that new democratic, “capitalist” Russia can hardly afford to neutralize. As the former centrally planned economy, with its bias for defense and heavy industries, imploded and shrank after 1991, so did the magnitude of environmental disruption. Logically, lower output spearheaded much of the reduction, but new environmental policies, such as pollution permits and charges and environmental impact assessments for new projects, also played roles. This paper examines the theoretical bases for the creation and negation of environmental disruption in Soviet/Russian society: it asks where (and why) that society has been and where (and why) it seems to be headed.

Introduction and Purpose

The Soviet legacy is an ambivalent page in human history. More than eight decades after the Bolshevik Revolution (1917), the economies of the countries it touched have been changed fundamentally. All were modernized and industrialized beyond their wildest dreams, but all suffer grave environmental consequences of that progress that they are hard-pressed to overcome. This is especially true in the country, which represented three-fourths of the Soviet Union. It was in Russia that the greatest industrial emphasis was placed and in which, logically, the most severe environmental disturbances were created. This paper will not be another inventory of Russia’s many environmental problems. Rather it will attempt to theorize why and where Soviet and, subsequently, Russian public policies have gone wrong in the environmental arena.

Marxian Foundations

Russia's environmental problems begin with Karl Marx's perspective on nature. Given the period in which he wrote, it is understandable why Marx made few allusions to environmental protection.¹ In regard to what happened in the Soviet Union, however, it is precisely what little reference he made that matters. Inasmuch as Marx provided no blueprint for socialist practitioners with which to replace capitalism, he provided them with even less advice on how to protect the environment.

To Marx, nature was a "totality" that consisted of two inseparable, unified agents: the *human species*, which was conscious, active, sensate, and modifying, and *nature external to man*, which was unconscious, inorganic, inactive, and insensate.² According to Marx, early humans worked in simple harmony with nature, but the relationship became increasingly estranged as human technology progressed (Figure 1). Through what Marx called *the prime expression of life*, which he defined as the human labor to obtain basic needs, humans transform nature and, in turn, are also transformed. The *alienation* of humans and nature results when workers become separated from the product of their labor, destroying societal unity. *Alienation* peaks under capitalism, theorized Marx, because the product of human labor no longer belongs to the worker, but to the factory owner. Ultimately, owing to the profit motive, the value of the product comes to possess a value that is greater than the labor that went into producing it (Marxian "exploitation," or *surplus value*—Figure 2). Marx's goal was to overcome the problem of *alienation* by means of terminating private ownership of the means of production and the capitalist mode of production. These would be replaced with state ownership and socialism.

****FIGURES 1 AND 2 JUST ABOUT HERE****

In his ideal socialist state, Marx intended for workers to be liberated, universally free beings who realized contentment in their community of work. In such a "community" the State would become the single, quasi-benevolent, all-seeing, all-wise authority. The given country thus manifested a vast corporation with the board of directors planning the economy from a central location. (This was what

¹ Charles E. Ziegler, *Environmental in the USSR* (Amherst, MA: The University of Massachusetts Press, 1987), p. 9. In this paper, the adjective "Marxian" refers to ideas attributable to Karl Marx. In contrast, "Marxist" applies to interpretations of Marxian notions.

Herbert Marcuse labeled “state corporate socialism.”³) In theory, comprehensive, “scientific,” central planning would be competent enough to preclude the diseconomies inherent in capitalism, thereby protecting the environment from the ravages of human technological progress. “We communists,” Zinoviev once remarked, “can hear the grass grow.” Given such grit, the official Soviet line confidently asserted that Soviet-type socialism could adequately cope with environmental disruption, without significant social, economic, or political restructuring. In their helter-skelter drive to industrialize their society as quickly as possible, and in the absence of Marxian guidelines, Soviet central planners gave lip-service to environmental protection while relegating it to the lowest priority.

The Three Concentrations

American Federalist James Madison equated liberty with the dispersal of power (pluralism) through a free-flowing “marketplace of ideas.” In such a society, the ambition of one group would counter that of another group. In the modern world, the marketplace of ideas empowers grassroots interest groups, who serve as watchdogs for the people, or the environment, as the case may be.⁴

To govern his ideal “universally free” community, Marx opted for the opposite of pluralism, an extreme form of elitism, which he called the dictatorship of the proletariat. While claiming that his ideas would “liberate” and empower the proletariat, Karl Marx actually eviscerated the working class and created the most alienated society in history. By repudiating the ideas of the Radical Whigs of Europe, Marx unwittingly encouraged “three concentrations:” (1) concentration of power, (2) concentration of industry (economies of scale), and (3) concentration of ideas. These concepts encumbered the Soviet people for seventy-four years.

Living in an age of monarchism, Madison equated tyranny with the concentration of power. If Marx read Madison’s works, he rejected them. As the Soviet people were wont to jape in the 1980s: “We’ve been waiting to see the ‘dictatorship of the proletariat.’ All we’ve seen so far is the dictatorship!” To implement their dictatorship, Soviet Marxists created a command-and-control system, which

² W. A. Douglas Jackson, *The Shaping of Our World* (New York: John Wiley & Sons, 1985), p. 87.

³ Herbert Marcuse, *Soviet Marxism* (New York: Columbia University Press, 1958), p. 20.

ultimately restricted the flow of information so much that it literally was out of touch with the people and the environment it purported to support and protect. Power cascaded downward and outward from the core to the periphery (Figure 3), with the overwhelming bulk of this power vested in a single “infallible” political party.

****FIGURE 3 JUST ABOUT HERE****

Although they became less doctrinaire with the passage of time, Soviet Marxists never ceased to believe that collective ownership and central planning, free of self-interest, would yield the best solution for protecting the environment.⁵ Unfortunately, their stress on industry in general and heavy industry in particular eventually overwhelmed most sympathies for conservation and resource protection, even in the presence of, what eventually became, a plethora of environmental legislation.

Much of the angst derived from another idea favored by, but not original with, Marx: economies of scale; therefore, Soviet industries were concentrated in a few large enterprises frequently located in compact geographical regions. As D. J. Peterson observed in the 1990s, “big was better, huge was best, and science solved all the problems.”⁶ With Marx as their Moses, Soviet planners presumed that the larger the size of the firm, the greater its efficiency and output. The bias also led to the vertical integration of industry and the favoring of big, high-visibility projects over smaller ones. Industrial concentration engendered the now well-known ecological disaster zones in central Ukraine, the southern Urals, southern Siberia, and the world’s worst air pollution in the northern Siberian city of Noril’sk. Complicating this already dire circumstance, planners permitted their industrial infrastructure to become dilapidated and antiquated, with much of it over fifty years old. Some of the urgency to keep the aged equipment in operation sprang from the insatiable appetite of the defense industry, which captured 25 percent or more of GDP. “The net result of the Soviet [industrial] development model was an economy trapped on a treadmill of consumption and providing little output of social value.” As one Soviet pundit explained it, “Coal was mined to produce steel, which was used to build machinery, which was used to

⁴ Benjamin Ginsberg, Theodore J. Lowi, and Margaret Weir, *We the People* (New York: W. W. Norton & Company, 1997), pp. 203-204.

⁵ V. Granov, “The Ideological Struggle and Ecological Problems,” *International Affairs*, No. 12 (1980), p. 93, cited in D. J. Peterson, *Troubled Lands: The Legacy of Soviet Environmental Destruction* (Boulder, CO: Westview Press, 1993), p. 11.

mine coal.”⁷ By extension, when it was not mining coal, machinery was used to make weapons of mass destruction, which, thankfully, never were used.

In contrast to the marketplace of ideas, Soviet planners had a monopoly on the creativity of their society. Grassroots organizations were limited and, if they existed, were always approved by the State. Unless a prominent Soviet celebrity, such as the writer Mikhail Sholokhov, led them, informal environmental groups with a mission were doomed to failure. Because the all-seeing, all-wise Party system could not be at fault, environmental disruption was facilely explained as a “vestige of capitalism.” Although there were a few spontaneous episodes of public outcry (by prominent academicians and writers) against the environmental crimes of Soviet enterprises (Lake Baykal, Yasnaya Polyana, the Don River, and so on), almost all violations were dismissed, or else went unchallenged. Fines were ridiculously low. Ministries were corrupt and bribable. Although the USSR was the first country in the world to develop criteria and “standards” (MPCs⁸) on air and water pollution, the agencies responsible for the enforcement of the MPCs were chronically under funded (Figure 4). In most cases, it was the quintessential “fox in the henhouse problem:” the government literally was responsible for cleaning up the government’s act. As economist-turned-People’s Deputy, Gennadiy Fil’shin said in 1990, “[Ours] is an exceptional country. Exceptions were given to build a lot of polluting enterprises.”⁹ To quote D. J. Peterson again, “The net result was that environmental protection existed in name only [in the USSR].”¹⁰

****FIGURE 4 JUST ABOUT HERE****

The End of the Soviet Union

By the end of the Soviet period, the Marxists had created the most wasteful economic system on earth. The abolition of private property and the absence of clear-cut property rights were the crux of the problem. This stimulated a widely held attitude epitomized in the statement *if it does not belong to me, it belongs to no one, so why should I care if I waste or destroy it*. Total suspended particulate emissions per thousand

⁶ Peterson, Idem.

⁷ Ibid., pp. 13-14, 19. The quotation is that of Andrey Piontkowski in Washington, D. C., August 1990.

⁸ Maximum Permissible Concentrations

⁹ Ibid., p. 16. I interviewed this incredible man in Irkutsk in 1985 long before he became a politician. He died in the early 1990s.

dollars of GNP on average were thirteen times higher than in the European Union (EU), and emissions of other air pollutants and discharges of wastewater were two to three times that of the EU per dollar of output. Still mired in the Second Wave, or Industrial Revolution, the steel production of the USSR was almost twice as large as that of the United States. An incredible feat when placed in the perspective of an economy that was only one-eighth as large. In machine shops around the USSR, on any given day, excessive quantities of fabricated steel lay on the cutting room floor. Plant managers were neither penalized for inefficiency nor were they rewarded for doing more with less. To support their belching behemoth of heavy industry, Soviet planners heavily subsidized the required energy inputs, encouraging massive waste of valuable fuels and enormous amounts of air and water pollution.¹¹ In sum, under socialism, as practiced, in a trade-off between the economy and the environment, the economy always won.¹²

The Importance of Linkage Institutions

In democratic societies everywhere, linkage institutions are the mechanisms that arouse public awareness of environmental disruption. The Communist experience glaringly proves that the relative lack of such mechanisms is devastating to nature.

Linkage institutions represent the conduits through which ordinary citizens may express their opinions to the representatives of their governments. They include competing political parties, free multicandidate elections, and interest groups. For three generations, the Soviet people had one overwhelmingly dominant linkage institution: the Communist Party of the Soviet Union (CPSU). In the absence of competing linkages, public policy was what the CPSU said it was (Figure 5). Until the Gorbachev administration (1985-1991), the Soviet political framework was authoritarian, federal in name only, and democratically centralized, with a single linkage institution that took the environment for granted.

¹⁰ Peterson, *Troubled Lands*, p. 18.

¹¹ Randall Bluffstone and Bruce A. Larson, eds., *Controlling Pollution in Transition Economies* (Cheltenham, UK: Edward Elgar, 1997), pp. xvi-xvii.

****FIGURE 5 JUST ABOUT HERE****

Despite what I have said here, conservationist-geographer Philip Pryde noted that even before the introduction of *glasnost* (1985), the Soviet system always allowed a modest amount of public input into environmental issues.¹³ This came in the form of letters that complained about “administrative (*never party*) ineptness” and campaigns against violations associated with the earlier mentioned celebrity cases of Lake Baykal, the Tolstoy estate at Yasnaya Polyana, and a few others. “Citizens,” Pryde continues, “could also join government-sponsored public conservation groups, such as the All-Russian Society for the Conservation of Nature” and “the Leningrad Society for the Protection of Cultural and Historic Monuments.”¹⁴ For more than thirty years (founded December 13, 1960), however, Moscow State University’s *Druzhina Student Nature Protection Corps (Druzhina)* “was the only *activist organization* devoted to nature conservation.”¹⁵ Yet, these voices in the wilderness were obviously too few to make a difference in the overall scheme of things.

Gorbachev’s reforms of government after 1988 shook up even Leninist democratic centralism. Upstart factions that fielded candidates in competitive elections now challenged the CPSU for political power. Some of the candidates ran on environmental issues and, what is more, they won.¹⁶ Simultaneously, the Socio-Ecological Union, today’s Russian version of the Sierra Club, sprang out of *Druzhina* and, by 1990, listed a minimum of 331 Soviet non-government environmental organizations (NGOs), including 235 in Russia alone.¹⁷ At one point, environmental activists numbered in the millions, such was the enthusiasm for the Russians newly discovered “democracy.”

Since the collapse of the USSR, NGOs have become fewer but more vocal. “The severe economic conditions in post-Soviet countries forces ordinary people to spend more and more time simply trying to

¹² Barbara Jancar-Webster, “Environmental Politics in Eastern Europe in the 1980s,” Joan DeBardeleben, ed., *To Breathe Free: Eastern Europe’s Environmental Crisis* (Washington, D. C.: Woodrow Wilson Center for Scholars, 1991), p. 27.

¹³ Philip R. Pryde *Environmental Management in the Soviet Union* (Cambridge: Cambridge University Press, 1991), p. 246.

¹⁴ *Ibid.*, p. 247.

¹⁵ Vladimir Kuznetsov, “Happy Birthday, Druzhina!” *Russian Conservation News*, No. 24 (Fall/Winter 2000), p. 29; the author thanks Phil Pryde for this article.

¹⁶ A. V. Berezkin, et al., “The Geography of the 1989 Elections of People’s Deputies of the USSR (Preliminary Results).” *Soviet Geography*, Vol. 30, No. 8 (October 1989), pp. 607-634.

¹⁷ Pryde, *Environmental Management*, p. 253.

survive.”¹⁸ Particularly noteworthy survival efforts, in the early 1990s, were those of Middle and Lower Ob’ environmental activists, including ethnic Nenets, Khanty, and Mansi, who confronted representatives of the powerful oil and gas companies. There the protests became not only vocal but also physical, as the indigenes deliberately blocked attempts of the Russian Oil and Gas Ministry to further develop their native lands without just compensation.¹⁹

Because of Russia’s economic and political instability, the rate of NGO development has slowed. “Since 1991, the number of environmental activists has greatly decreased from the millions to the hundreds.”²⁰ Yet, those who remain involved in the movement are more professional and savvy. For example, federal authorities and inspectorates remain weak in Russia, and NGOs are often the only defense that citizens have to struggle against the abuses of local industries.

Environmental Impact Assessments and the Duma

Although the CPSU approved many environmental laws, the Soviet Union was not a law-based society, in which citizens’ groups could sue the government. Today, when Russian NGOs require legal assistance, they turn to Moscow’s *Ecojuris Institut*. Established in 1991, *Ecojuris* is the leading public interest environmental law organization in the country. The group has challenged large environmentally disruptive projects such as the proposed St. Petersburg-Moscow high-speed railway and the earlier mentioned West Siberian oil and gas developments. Its primary focus, however, is the enforcement of Russia’s latest environmental legislation, which requires every new project that involves the exploitation of a federal resource to be subjected to an environmental impact assessment (EIA). Each EIA must include citizen participation in the review process. *Ecojuris* is there to see that grassroots analysis is carried out.

¹⁸ Oleg Tsaruk, “Equality for the Earth: Fostering Genuine Partnerships in the Environmental Movement,” *Surviving Together* (Winter 1995), p. 5.

¹⁹ Andrei V. Golovnev and Gail Osherenko, *Siberian Survival. The Nenets and Their Story* (Ithaca and London: Cornell University Press, 1999), pp. 104-106 and Marjorie Mandelstam-Balzer, *The Tenacity of Ethnicity: A Siberian Saga in Global Perspective* (Princeton, NJ: Princeton University Press, 1999), p. 4.

²⁰ Vladimir Slivyak, “Strong Russian Antinuclear Movement Mobilizes Government and Public,” *Give and Take* (Fall 1998), pp. 16-17.

Recently, it joined forces with Sakhalin Island's *Sakhalin Environmental Watch* to protect the island's biodiversity against unrestrained oil and gas development associated with the Sakhalin-1 and -2 projects. Upon learning that an EIA had not yet been done, *Ecojuris* drafted letters to the three institutions that were underwriting the projects: the European Bank for Reconstruction and Development (EBRD), the Japan Export-Import Bank, and the US Overseas Private Investment Corporation (OPIC). As a result, all three investment agencies delayed their loans, until a satisfactory EIA was conducted.²¹

Perhaps because of successes like these, the Russian Duma legislated a new Tax Code in June 1998, which proposed to subject NGOs and all non-profit and charitable activities to taxation. The Duma traditionally made a distinction between profit- and non-profit-making organizations. The NGOs were able to temporarily postpone the new legislation, but may not be able to do so for long because of the government's desperate need for tax revenues. A cost-benefit analysis conducted by Consultations for Associations and Funds (CAF) concluded that "no more than 20 percent of all NGOs [would] survive such a tax program," and this was a liberal assessment.²² CAF estimated the aggregate budget of all NGO programs in 1996 to have been \$300 million. In response to the proposed changes in the Tax Code, more than one thousand NGOs throughout Russia rose up in protest.²³

Pollution Abatement and the Charge-Permit System

For years I have been saying that the key to Russian environmental protection is technological, not necessarily a lack of willpower.²⁴ Because of the up-to-40-percent capital investment in pollution control equipment for, say, a standard metallurgical, or thermal power, plant, Soviet and Russian plant managers naturally have striven to avoid such investments. The worst polluting industrial enterprise in the world is the Zavenyagin Mining and Metallurgical Combine (Cu, Ni, Co, and Pt) in the northern Siberian city of

²¹ B. J. Chisholm, "Combining Legal Experience and Local Activism: NGOs and Sakhalin's Offshore Oil Development," *Give and Take* (Fall 1998), pp. 18-19.

²² Yuriy Dzhibladze and Oleg Stakhanov, "NGOs in Danger: A New Tax Law Could Have Devastating Effects on Russia's Third Sector," *Russian Conservation News*, No. 19 (Spring 1999), p. 29.

²³ *Idem*.

²⁴ Victor L. Mote, "The Theoretical Roots of Soviet Environmental Problems" (Abstract), *Yearbook of the Association of Pacific Coast Geographers* (1972), pp. 186 and Victor L. Mote, "Environmental Protection and the Tenth Five-Year Plan," *Geographical Survey* (April 1978), pp. 25-26.

Noril'sk. To date, the facility has no sophisticated air or water pollution abatement equipment, save for tall smokestacks.

The Soviet government began experimenting with economic incentives in the area of environmental management in 1981, with the introduction of water-use payments, and ended with the levy of pollution charges in 1991.²⁵ The latter were introduced just as the old command-and-control system was imploding. A standard emission charge was internalized as part of the normal costs of running a given enterprise, followed by a higher charge, at five times the standard rate, if the plant produced, what planners considered, excessive pollution. The latter charge was considered the responsibility of the enterprise and was taken out of the plant's "surplus income." More often than not, enterprises were excused from such payments.

As the centrally planned fiscal system collapsed in 1990, money for environmental protection became increasingly scarce. "The system of pollution charges, it was believed, could potentially provide extra budgetary funds for environmental protection. In Russia, this was [called] the 'tax approach' to environmental charges."²⁶ Based on a demonstration model that had already been in use in Estonia, this was the system ultimately adopted in Russia.

Russian authorities based their charge-and-permit system on the estimated average cost of carrying out programs to reduce emissions in three media: air, water, and solid waste. The average cost was computed in accordance with the formula

$$p = C/M$$

where p is the average cost, or charge, C is the total cost of a given medium program, and M is the estimated annual emissions (with different emissions weighted by toxicity). Realizing that certain regions would be more ecologically sensitive than others, the authorities also introduced so-called "coefficients of ecological conditions." The magnitude of the coefficient depended on both the state of the regional economy and the environmental quality of the region: for instance, air pollution coefficients varied from

²⁵ Michael Kozeltsev and Anil Markandya, "Pollution Charges in Russia: The Experience of 1990-1995," in *Controlling Pollution in Transition Economies*, ed. by Randall Bluffstone and Bruce A. Larson (Cheltenham, UK: Edward Elgar, 1997), p. 128.

²⁶ Kozeltsev and Markandya, "Pollution Charges in Russia," p. 132.

1.0 in the Russian Far East to 2.0 in the Ural region. Accordingly, the charge (p) was multiplied by the region-specific coefficient. The result was a system of charges for various pollutants (Table 1).

****TABLE 1 JUST ABOUT HERE****

To facilitate a smooth transition from the central command economy to the free-market economy, Russian authorities developed a system of “temporary compliance levels” of pollution (TCLs), which were acceptable to both polluters and regional environmental enforcement agencies. In essence, the TCLs represent pollution permits that increase in stringency until they reach maximum permissible levels of pollution (MPLs) during a fixed period of time of, say, five to ten years. During that time, the TCL is set above the MPL. To encourage plant managers to meet pollution levels that are lower than TCLs but greater than MPLs, enterprises must pay a fivefold penalty on such emissions (these are treated as firm-level standards). If an enterprise exceeds its TCL, it suffers a 25-fold penalty. TCLs are supposed to be established based on the level of emissions from similar firms using *best-available technology*. Such technology, however, is chronically lacking throughout Russia, and, in practice, the TCL has become an arbitrary political football game between the enterprise and the local environmental enforcement agency. In such a game, the environment inevitably loses.

Conclusion

During the period of transition, environmental protection remains the lowest priority in the Russian economy, not because Russians want it to be, but because they can’t afford it to be anything else. The average annual level of expenditures on the environment in Russia during the 1990s was a mere \$2 billion, only \$600 million of which represented capital expenditures on pollution abatement equipment and technology.²⁷ This coupled with the miniscule \$300 million budget of the NGOs is less than one-third of the budget of the U. S. EPA alone.²⁸ A major reason for why Russia’s federal environmental budget is so small is “that non-payment of [pollution] charges[—one of its leading sources of revenue—]is [still] quite common.” In a society in which at least one out of four able-bodied workers is

²⁷ Ibid., p. 137.

underemployed, more than half of the wage-earners earn less than the minimum wage, 55 percent of the salariat is below poverty level, and the richest 20 percent now possess earnings that are 40 times higher than those of the poorest quintile,²⁹ how can the average Russian get excited about environmental protection? He and she are not, because daily they must concern themselves with the age-old Russian focus of *vyzhivaniye* (survival). To Russians then, when it comes to a choice between “me” and “thee” (the Russian environment), the outcome is obvious.

²⁸ U. S. Environmental Protection Agency, “EPA’s Budget and Workforce, 1970-2001,” *EPA Budget Authority*, EPA Budget Division, October 6, 2000, available on line at <<http://www.epa.gov/history/org/resources/budget.htm> (April 8, 2001).

²⁹ *Argumenty i fakty*, No. 10 (2000). Comparable statistics for U. S. wage earners were 4% unemployed, 13% poverty-level, and 5 times between the richest and poorest quintiles.