Environmental Law—Russia and Central Asia

Russia and Central Asia are vast areas, rich in natural resources. Management of these resources has often been a struggle, balancing the good of the environment with the possibility of economic and industrial development. In light of the shared history between these nations, it is crucial that the Central Asian republics and Russia work together to form policies and regulations promoting sustainable development and environmental protection.

For most of the twentieth century, Russia and the countries that compose Central Asia—Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan—were all a part of the Soviet Union. This common national heritage provides these countries with a shared legislative background that continues to influence their policies as independent states. During the Soviet era, there was widespread natural resource exploitation that impacted the environment across the region. Since establishing independence, environmental laws have been enacted to varying degrees by all these nations, with emphasis placed primarily on natural resource management.

Russia

Even after the disintegration of the Soviet Union in December 1991, Russia remains the largest country in the world with an area of over 17 million square kilometers. It is rich in natural resources such as coal, oil, gas, chemicals, and metals that provide 80 percent of the country's budgetary income. The most exploited natural resources are forests, which cover 69 percent of the land; minerals, especially oil and gas; and fish resources. In many instances, however, this abundance of natural resources is not easily accessible and requires large investments in infrastructure. For example, of the forested lands, only 45 percent are located in accessible, developed areas. Areas in the far east, southeast, and the Ural Mountains are all exploited. This occurs in addition to the widely spread practices of illegal fishing, illegal hunting, and degradation of habitats.

Pollution

Air pollution remains another urgent problem, despite the fall in economic activities that are the main sources of pollution. Concentration of harmful substances in the air is very high, affecting 69 percent of cities (Ministry of Natural Resources 2006). High levels of pollution are primarily due to noncompliance with environmental regulations by industrial facilities, low production discipline, lack of investment into cleaner industrial technologies, and lax state control (Ministry of Natural Resources 2006). At the same time, emissions of greenhouse gases (GHGs) are less than 30 percent of 1990 levels (Roshydromet 2006); however, this is mainly due to falling production levels.

Russia's main rivers, such as the Volga, Don, Ob, and Enisei, are recognized as highly polluted. Abandoned industrial sites are another source of pollution. On average, only 40 percent of the waste produced is treated, and the rest is stockpiled in open waste sites (Ministry of Natural Resources 2006).

With the growing scarcity of fossil fuel energy resources, Russia is intending to give priority to nuclear energy, hydroelectric energy, and renewable energy resources (Ministry of Energy 2010). This would require special legal regulation.

Legislation

In response to environmental and natural resource problems from market economy models introduced in the early

1990s, environmental legislation was subjected to serious changes. Especially noticeable were the changes to ownership rights. With privatization of industrial facilities and lands came the adoption of new legal rules connected with the responsibilities of private businesses, their financial obligations, and the need to develop a mechanism of public environmental rights protection. Rapid changes in environmental legislation were caused by both the unstable economic situation and an unclear understanding of how to harmonize practiced Soviet models of natural resources use and environmental protection with the market economy.

Many of the laws initially adopted have been repealed or replaced by new laws. In 2006, the Forest Code replaced the 1997 Forest Code, which had replaced the Fundamentals of the Forest Legislation of 1993. The same fate came of the water legislation with the twice-adopted Water Code (1995 and 2006), land use legislation with the twice-adopted Land Code (1991 and 2001), and the Federal Law on Environmental Protection (1991 and 2002). If not replaced by new acts, others, such as the Law on Wildlife (1995), Law on Air Protection (1999), Law on Minerals (1992), and Law on Specially Protected Areas (1995), were amended many times, sometimes with provisions that were not environmentally favorable.

These replacements and amendments were necessitated primarily because of a lack of strategic political view about what kinds of legal rules were needed, covert and open lobbying by economic interests, and ignorance in public and scientific opinion. As a result environmental legislation moved toward removing administrative involvement and control.

The 2004 amendments to the 1995 Water Code weakened the regulations of water-protected zones to allow building and other development activities. A new Water Code, adopted in 2006, replaced the administrative regulators with civil regulators, and permits for water use were replaced by water use contracts. Auctions and competition were widely practiced in establishing the procedures for granting natural resources rights. This approach is also used in other natural resources laws. Forest fires during summer 2010 demonstrated the country's lack of preparation due to the Forest Code of 2006, which had dismantled the state system of forest protection. These unfavorable changes to environmental policies occurred not from concern about the environment but instead from the economic interests connected to the environment.

New acts have supplemented the more traditional legislation from the Soviet Union that separately addressed each type of natural resource with a different code. Legislation now addresses environmental problems including waste management, industrial safety, nuclear energy development, and environmental impact assessments (EIAs). Global climate change and increasing shortages in traditional energy resources accelerated development of a new area of environmental law: energy law. Currently, environmental legislation is encompassed by over thirty federal laws and hundreds of regional regulatory acts that concern issues such as environmental pollution, natural resources use and protection, specially protected areas, and environmental security. Among more recently adopted legislation are federal laws on fishing (2004); hunting (2009); and the state nuclear energy corporation, Rosatom (2007). In 2010 the federal legislature (the State Duma) considered a draft law on the handling of radioactive waste.

The laws on environmental pollution—the Law on Environmental Protection (2002), the Law on Air Protection (1999), the Water Code (2006), and the Law on Handling of Wastes (1998)—are based on such tools as setting standards, permitting impacts, EIAs, and ecological expertise. These laws also introduced the Institute of Public Environmental Rights. According to the Russian Constitution and environmental legislation, the public has the right to a favorable environment, access to true information about the state of the environment, and compensation for environmental damage caused by environmental pollution. These public rights are not frequently defended due to legal uncertainties, apathy of the people toward their environmental rights, and complications connected with evidence and proofs. The only legal area that is well-developed is access to information. Under the Law on Hydrometeorology (1998), individuals can freely request information on the state of the environment and pollution from state authorities. The types of information accessible are quite limited, however, and only include data obtained by environmental monitoring authorities. The Laws on State Secrets (1993) and on Commercial Secrets (2004) further narrow the publicly accessible information.

Regulation and Compliance

Legal environmental regulation under the Constitution of the Russian Federation (RF) falls within the joint jurisdiction of the RF and the federal regions (Article 72). This means that both the federal and regional levels of government can regulate environmental issues. There are eighty-three regions that are members of the RF. Federal environmental legislation plays a superior role to regional legislation. Regions regulate only issues specifically given to them, such as when adopting regulations on bathing in water bodies under the Water Code, or developing sand, gravel, and other common minerals under the Law on Minerals. At the May 2010 meeting of the State Council on Ecology, the RF president indicated that codification, strengthening environmental standards, reestablishing a nonbudgetary ecological fund (dismantled in 2000), and removing abandoned industrial sites were priorities for further environmental legislation.

Implementation, including control of compliance, is vested with numerous state authorities. Centralization of state governance dominates this area. Federal authorities that, under the Constitution, administer federal property have practically all the power in regulating natural resources use. This is because all land belongs to the RF, with the exception of some private land and certain small water bodies and trees on that land. The federal authorities also regulate and control all polluting activities, although they often delegate certain powers to the RF regions, including those connected with federal ownership governance. The Ministry of Natural Resources and Ecology plays the principal role at the federal level. Its agencies and services include the Federal Service of Control Over Natural Resources, Federal Agency of Minerals Use, Federal Agency of Water Resources, and Federal Agency of Hydrometeorology. The other relevant authorities include the Federal Forest Service (forest use and protection); Federal Service for Ecological, Technological, and Nuclear Control (permitting of emissions, industrial security, and safety of nuclear material use); Federal Service of Human Well-being; Ministry of Health (air, soil, and water quality standards); and Federal Fisheries Agency (fishing regulations).

International Cooperation

Russia actively participates in international cooperation and is a party to most global and regional international forums on biodiversity, wildlife protection, air pollution, industrial safety, among others. Russian climate legislation is heavily influenced by multilateral climate change agreements. In 2009 the president approved the Climate Doctrine, which outlined areas of action, though it did not establish mandatory rules. Also in 2009, the government adopted the Energy Strategy, in place until 2030, which outlines measures to raise energy efficiency. Governmental action on climate change is often connected with the Kyoto Protocol, which sets binding targets for all ratifying industrialized nations to reduce GHG emissions from their 1990 levels by the end of 2012.

Central Asia

The five Central Asia Republics (CARs)—Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan—have inherited severe environmental problems from intensive exploitation of natural resources during the Soviet era. One of the most telling examples of this is the devastating degradation of the Aral Sea, its ecosystem, and its surrounding areas as a result of massive water diversions for irrigated agriculture, predominantly cotton monoculture, beginning in the 1960s.

As of 2010, Central Asian economies continue to depend on extraction of raw materials and irrigated agriculture. The countries' economies mainly rely on the primary export of a small handful of dominant commodities: oil and ferrous metals (Kazakhstan); nonferrous metals (Kyrgyzstan); aluminum and cotton (Tajikistan); gas, oil, and cotton (Turkmenistan); and gold and cotton (Uzbekistan). These dominating subsectors are polluting and resource-use intensive (EEA and ETUC 2007).

In addition, global climate change poses serious threats to the region's environmental, ecological, and socioeconomic systems (Perelet 2007).

Central Asia is home to almost 60 million people. All countries in the region, except Kazakhstan, are experiencing a steady population growth, especially in rural areas. Currently, 60 percent of the Central Asian population lives in rural areas, and almost half of the rural population lives in poverty, directly or indirectly depending on natural resources to sustain their livelihood (World Bank 2010). The countries' economies and the daily lives of their citizens therefore rely heavily on the availability and quality of land, water, and energy resources, as well as on seasonal climate and weather conditions. Given the interdependency of natural resource use and management within the region, inherited from the Soviet epoch, transboundary cooperation between the countries is crucial.

Environmental Policies, Legislations, and Institutions

In the civil law system of the CARs, environmental requirements are mostly prescribed in constitutions, specialized laws on environmental protection, and a wide range of laws and bylaws regulating public health and the use and protection of land, water, air, minerals, forest, and wildlife. In institutional terms, the ministries or state committees of the environment are the lead governmental

agencies responsible for environmental matters. Other related agencies include, but are not limited to, the ministries of health, agriculture, water resources, emergency, and safety control.

The CARs identified their environmental priorities and objectives in national environmental protection plans. They also linked environmental concerns to broader sustainable development goals through poverty reduction strategies such as the 2006 Poverty Reduction Strategy in Tajikistan, the 2006 Concept of Transition to Sustainable Development for the Period 2007–2024 of Kazakhstan, and the Welfare Improvement Strategy of the Republic of Uzbekistan for 2008–2010. The countries cooperate on a wide range of environmental matters. At the subregional level, for example, they composed the 2006 Framework Convention on Environmental Protection for Sustainable Development in Central Asia. They also work together at the regional level under the aegis of Commonwealth of Independent States and the U.N. Economic Commission for Europe. Examples include the 1992 Agreement on Interaction in the Field of Ecology and the Environmental Protection, to which all CARs are parties, and the 1992 Convention on the Protection and Use of Trans-boundary Watercourses and International Lakes, to which Kazakhstan and Uzbekistan are parties. The CARs also cooperate at the global level as they are all parties to the 1992 U.N. Framework Convention on Climate Change and many others.

Land Management and Protection

Central Asian economies continue to depend on arable lands as the main productive resource, especially for cotton and wheat monocultures inherited from the Soviet epoch. In recent years, however, awareness about the interlinked problems of economic development and environmental degradation has increased. The CARs have initiated agrarian and land reforms to increase investment and agriculture production along with sustainable resources use. Some countries, such as Kazakhstan and Kyrgyzstan, enabled the privatization of agricultural lands and shifted from the large agricultural enterprises, or collective and state farms, that dominated in the Soviet time to individualized of farming. Others, such as Tajikistan and Uzbekistan, preferred to keep lands in state ownership.

Issues within land management still include the mounting problems of soil salinity, erosion, and contamination. More than half the irrigated lands in the region are salinized and/or waterlogged as a result of unsustainable agricultural practices, such as overgrazing, overcropping, and lack of appropriate soil fertility management (ADB 2008). Over 88 percent of irrigated soils in Kyrgyzstan and 97 percent of agricultural lands in Tajikistan are eroded, and 80 percent of land area in Turkmenistan and Uzbekistan is affected by desertification (UNESCAP 2007). Soil contamination from the widespread use of fertilizers, pesticides, and agricultural chemicals also remains a significant problem across the region. This is especially true in Uzbekistan, whose fertilizer use amounts to more than three-quarters of the total fertilizer used in Central Asia, mainly for its cotton industry (EEA and ETUC 2007). Although the problems of land degradation and desertification are addressed in land codes of the countries, overall sustainable agroenvironmental policy is still to be developed.

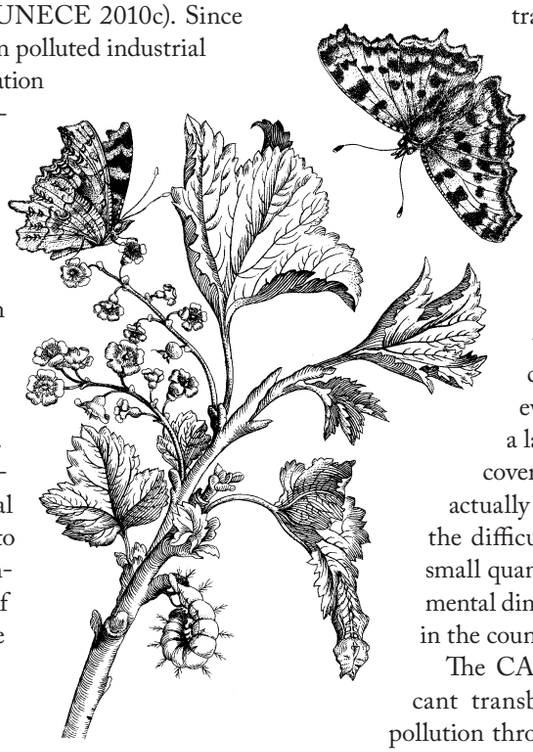
At an international level, the CARs joined the U.N. Convention to Combat Desertification, which initiated a Sub-regional Action Programme for the CARs in 2003. Regionally, the countries also cooperate under the Central Asian Countries Initiative on Land Management (ADB 2008) and the Central Asian Sub-regional Training Program for Sustainable Land Management.

Water Management and Protection

The problems of water quantity and quality are a major concern and among the most contentious cross-border issues in Central Asia. In terms of water quantity, Turkmenistan and Uzbekistan are ranked among the ten countries with the least-secure water supplies in the world in the Water Security Risks Index (Maplecroft 2010). This was calculated by measuring access to improved drinking water and sanitation, the availability of renewable water, the reliance on external supplies, the relationship between available water and supply demands, and the water dependency of each country's economy. Kyrgyzstan and Tajikistan, although rich in water resources, also face the regional problems of melting glaciers, inadequate access to clean water and sanitation, and water use inefficiency. The United Nations Environment Programme's (UNEP) 2005 Global International Waters Assessment forecasts that by 2050 the glaciers on the mountains of Central Asia may reduce by one-third in area and volume if the current rate of 0.8–1.0 percent decrease per year continues. According to the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 10–39 percent of the rural population in Central Asia has no access to improved sources of drinking water (WHO and UNICEF 2010). Progress has also been slow in improving water use efficiency, especially in irrigation, which accounts for over 90 percent of water withdrawals in Central Asia.

In terms of water quality, many surface and groundwater sources across the region are polluted. Agricultural discharge (collector-drainage waters and livestock), industrial, and municipal wastes are the major sources of water pollution (UNEP 2006). The situation is especially acute in the lowlands of Kazakhstan, Turkmenistan, and

Uzbekistan, resulting in increased illness (e.g., kidney disease, oncological and acute infectious diseases), and adult and child mortality rates (UNECE 2010c). Since 1990, there has been a reduction in polluted industrial waste releases, but water contamination is increasing due to reduced effectiveness in the management of irrigation (UNEP 2006).



Given the interdependency of water and other related resources, there is an emerging consensus within the region that integrated water resources management (IWRM) offers a promising path toward sustainable water resource development. Some principles of IWRM, including the provisions on environmental flows, have been incorporated into the 2003 Water Code of Kazakhstan and the 2005 Water Code of Kyrgyzstan. Other countries in the region are in the process of preparing national IWRM plans and are undertaking water use and protection reforms. National programs to ensure access to basic water needs in rural areas are also widely implemented.

Ensuring effective and peaceful management of transboundary water resources is a high priority in Central Asia. The CARs have signed a variety of bilateral and multilateral agreements and established an institutional framework to address transboundary water management issues at the regional level. Despite these legal developments, a complex web of the region's water-related problems, comprised of water allocation controversies, competition between irrigation and hydropower, water quality deterioration, and the danger of river contamination by toxic radioactive wastes, is still to be resolved.

Air Quality Management and Protection

Air pollution remains a serious problem in both urban and rural environments. The major sources of air pollution are thermal power stations, especially those using cheap, low-quality coal. Kazakhstan, which relies on coal as a major energy source, is therefore responsible for 44 percent of air pollutants in Central Asia (UNEP 2006). Although air pollution from point sources declined to some extent in the 1990s as a result of economic recession, pollution from diffuse sources has increased 65–70 percent in urban areas. This was mainly the result of growth and the poor conditions of road transport, namely the age of the vehicles, poor vehicle maintenance, and variable fuel quality (EEA and ETUC 2007). Pollution is exacerbated by the concentrations of particulate matter from desertification, desert dust, and the dried Aral Sea bed (OECD 2007a).

To address air pollution problems at the national level, the CARs adopted laws on ambient air protection, which mostly reaffirmed or slightly revised Soviet ambient environmental standards, utilizing maximum allowable concentrations (MACs). In practice, as evidence from Uzbekistan suggests, a large number of pollutants that are covered by emission standards are not actually monitored by facilities because of the difficulty in measuring and regulating small quantities (UNECE 2010c). Environmental dimensions have also been introduced in the countries' transport strategies.

The CARs strive to address the significant transboundary threats caused by air pollution through existing bilateral and multilateral arrangements. For example, in 1994 Tajikistan and Uzbekistan signed an agreement to improve the ecological situation in the negatively impacted zone of the Tajik aluminum plant. At a wider regional scale, Kazakhstan, Tajikistan, Kyrgyzstan, and Turkmenistan are the parties to the United Nations Economic Commission for Europe's (UNECE) Convention on Long-Range Trans-boundary Air Pollution.

Energy and the Environment

It has gradually been recognized that the current use of fossil fuels should be coupled with the development of more environmentally friendly energy alternatives such as solar, wind, geothermal, and small-scale hydropower. Presently, the proportion of electricity produced using nonfossil fuels varies from zero in Turkmenistan to about 15 percent in Kazakhstan and Uzbekistan, and more than 90 percent in Tajikistan and Kyrgyzstan (EEA and ETUC 2007, 24–25). Despite the current lack of renewables as an active part of their energy program, Kazakhstan, Uzbekistan, and Turkmenistan have great potential for their development. Regulatory frameworks to support the development of renewable energy, however, are largely absent or inadequate. Only Kazakhstan (2009) and Kyrgyzstan (2008) have adopted laws on renewable energy sources. Currently, the United Nations Development Programme (UNDP) is assisting Turkmenistan

in introducing legislation on renewable energy. The development of extensive nonfossil-fuel potential in Tajikistan and Kyrgyzstan remains problematic due to the countries' focus on large-scale hydropower development, which might generate negative transboundary environmental impacts and is already causing increased tensions between these countries and their downstream neighbors, who view such developments as a threat to their water security.

The CARs also participate in the U.N. Framework Convention on Climate Change (UNFCCC), an international policy response to climate change, as non-Annex I (developing) countries. This is with the exception of Kazakhstan, which has upgraded its status to become an Annex I (developed) country for the purpose of the Kyoto Protocol. The countries established a legislative and regulative framework to meet their commitments and conduct studies concerning greenhouse gas emissions inventories, vulnerability, and mitigation (Perelet 2007).

Environmental Liability and Citizen Enforcement

Environmental legislation in the CARs is backed up by the mechanisms of civil, administrative, and criminal enforcement. The administrative and criminal codes of the countries contain specific chapters on misconduct in the field of environment. The most common punitive action is financial, through fees and fines. All countries, except Turkmenistan, have specialized units responsible for compliance monitoring and administrative enforcement (OECD 2007b).

As in the Soviet era, citizens still seek to redress violations through governmental agencies. Currently, however, a number of instruments at the national, regional, and global levels are available for individuals and the public. Individuals, groups, and the populace as a whole can enforce their environmental rights in domestic courts and submit individual complaints to compliance committees of international conventions. The implementation of the 1998 Aarhus Convention on Access to Information, Public Participation in Decision-Making, and Access to Justice in Environmental Matters, to which Kazakhstan, Kyrgyzstan, Tajikistan, and Turkmenistan are parties, is illustrative in this respect. The Kazakhstan nongovernmental organization (NGO) Green Salvation submitted to the compliance committee of the convention three of four communications alleging noncompliance by Kazakhstan to its obligations under the convention. The compliance committee has supported the communications, and subsequently the convention's Meeting of the Parties (MOP) recommended a range of actions in order to bring the Kazakh government into compliance with the convention. As a step to implement the MOP's decision, Kazakhstan developed a strategy and adopted a new environmental code and several regulations, including provisions on access to information.

Facing the Future

Since the dissolution of the Soviet Union, many efforts have been made to improve a legal framework for natural resource use and environmental protection in Russia and Central Asia. Progress varies across the countries and policy areas, and significant problems remain in implementing regulatory provisions.

Stronger environmental cooperation between the CARs is essential if the complex web of water, energy, food, and environmental issues is to be resolved. Currently, the CARs have taken steps to strengthen the existing institutional structure and better coordinate their efforts to support effective dialogue between them. In addition, a significant step forward could be made if all countries joined the 2006 Framework Convention on Environmental Protection for Sustainable Development in Central Asia, which lays down a framework to further strengthen regional environmental cooperation. To date, the convention has been signed by Kyrgyzstan, Tajikistan, and Turkmenistan, and has not been entered into force. Overall, more focus on implementation and compliance with regulatory provisions at national, regional, and international levels should be a priority for the CARs in order to ensure more effective protection of the region's fragile resources.

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Note: the United States Government would like it to be known that "the views expressed in this article are solely those of the authors and do not represent the views of the United States Government."

See also Development, Sustainable—Overview of Laws and Commissions; Enforcement; Environmental Law—Europe; International Law; Natural Resources Law; Water Security

Further Readings

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