

## **EVOLUTION OF THE NATURE USE MANAGEMENT SYSTEM (FOR TRANSITION TO SUSTAINABLE DEVELOPMENT) IN RUSSIA**

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### **Summary**

This article describes the background, current state and future of nature use public management in Russia in terms of the transition to sustainable development. The first part gives a brief historical review on the state of management of forest, mineral and land resources. The second presents and analyzes the current status of nature use public management. It reveals major shortcomings in the management system and their origin. These drawbacks are as follows: lack of strategic functions in the total public management system; low status of nature use and environmental protection management bodies in the multi-level structure of public authorities; a sectoral approach to nature use management; lack of a complex approach in the decision-making process relative to nature use and environmental protection; ineffective distribution of responsibilities over public management levels (federal, regional and municipal); insufficient and ineffective application of economic tools.

The third part deals with the authors' vision of the main areas for improving the existing system of nature use and environmental protection public management, which imply the following:

- development of an institute of public property in natural resources taking into

account potential distribution of property rights among the Russian Federation and regions;

- restructuring and reformation of the nature use public management system in order to overcome the sectoral approach and to provide complex and system managerial functions that would elevate the status of natural resource and environmental protection authorities;
- rational distribution of powers in the field of environmental protection and nature use public management among different level authorities;
- reformation of natural resource accounting and economic valuation systems as well as taxation and budgetary systems to increase rental income and simultaneously reduce other tax rates;
- increasing budget expenditures on natural resource and environment protection.

## 1. Historical background

### 1.1. Forest resources

The nature use management system in Russia has a long history. The evolution of forest resource use management is of great interest in terms of rational nature use as this domain has been carefully addressing environmental safety and sustainable development issues for a great many years.

The first historical documents on forest management in Russia date back to the reigns of Ivan III and Alexis (*Aleksei Mikhailovich*). Forest management was started up by Peter the Great. According to his edict in 1719, forest management fell under the authorization of the Admiralty Board (*Admiralteiskaya Kollegia*) since Peter's main concern was to use forest primarily as a source of shipbuilding materials. The Admiralty Board consisted of eleven offices, among which there was the waldmeister's service designed for forest use management. In addition to the Chief Forest Manager (*ober-waldmeister*), local Forest Managers (*waldmeister*) were appointed in St. Petersburg, Moscow, Kazan, Voronezh, Ryazan, Bryansk, Novgorod, Smolensk and Murom.

A notion of forest ownership was first mentioned in the legislation introduced by Peter the Great. Prior to that, for centuries forests had been considered common property. Peter I put in force a strict prohibitive law system fixing cruel punishments for various violations: from heavy fines to penal servitude for life and even capital punishment. In particular, Peter's law of 1703 prescribed the death penalty for felling within 33 miles of big rivers and within 13 miles of small ones. Apart from its austere character, Peter's legislation was indicative of certain 'environmental focusing'. It was aimed both at forest protection and at its rational use. The legislation specifically directed that operational forests be divided into annual cutting areas and forest farming be implemented in southern provinces.

In 1782 Catherine II issued an edict that declared forests the unrestricted property of their possessors. Taking advantage of the unlimited right of ownership, woodland proprietors conducted depredatory lumbering, and the state voiced no concern about the reclamation of devastated forests and protection of the existing ones.

Paul I made an attempt (though rather feeble) to turn back to the initial legislation

introduced by Peter I. The institution of the Forest Department is associated with the name of Paul I. It was a new central body intended for forest management that was originally incorporated in the above mentioned Admiralty Board. The Forest Department was later transferred to the Ministry of Finance and after that it was passed to the newly set up Ministry of State Realities.

The Forest Code of 1893 ranged forests, in terms of ownership, as state, common and private property. State forests, in their turn, fell into state-budget (*kazennye*) ones and those of special purpose (allotted to state-budget factories, fortresses, cities lacking municipalization, colonists, monasteries, etc.). Common forests were subdivided into those owned by church, educational and charitable institutions, urban and rural communities, etc. Private forests were within the jurisdiction of the Crown Land Office (*udel'noe vedomstvo*), Cabinet of His Imperial Majesty, persons belonging to the Emperor's House, nobility and other classes.

In 1913 forests ranked, with respect to ownership, as follows: 47% - state-budget forests, 4% - crown (*udel'nie*) forests, 33% - private forests, 10% - those of peasant communities, and 6% - others. Nearly all the forestry regulations (since the end of the eighteenth century) were directed at state-budget forests, and only the laws of 1867 and 1888 reflected attempts to protect at least the most important (in the view of the state) forests.

At the start of the twentieth century forest central management was exercised by the Forest Department of the Ministry of Agriculture and State Realities. The Department incorporated a special forest committee in charge of forest management technical issues.

In provinces state forest management rested on special agencies for state realities management. Such agencies were set up either in each province or to cover several provinces. Governors had full delegated authority over forest resources. Local management of state forests was performed by foresters with subordinate assistants and so-called forest conductors. For administrative purposes, forests in each province were divided into large forest areas (*lesnichestva*) managed by foresters, medium sections (*ob'ezdy*) guarded by mounted guards and smaller sections (*obkhody*) guarded by forest rangers. Foresters were united in a so-called corps, having been originally a military unit but since 1867, a civil one. The corps was headed by the Director of the Forest Department. The law governed in detail all matters concerning rational forestry planning, tree nurseries and replanting, forest protection, economic activities in state-budget forests and gaining profit thereof. A special license system was introduced to prevent unauthorized cuttings and any illegal forest use. A license was issued for each felling operation, valid over a defined period. There were independent licenses for lumber rafting and land transportation.

In 1888 Alexander III ratified the Statute on Forest Conservation aiming at two principal targets: prevention of forest devastation and encouragement of forestry advancement. Direct forest protection administration in provinces was bestowed on newly established forest protection committees headed by a Governor. All forests were grouped in two categories: protective and non-protective. The former included forests protecting railroads, highways, mail transport roads, cities, settlements, etc. from blowing (including littoral) sand; protecting coasts from washouts, degradation and ice drift damage; and forests growing on mountain slopes. Attributing forests to the protective pool was on the decision

of the forest protection committees, being 56 in number by 1897. Out of the total woodland area under the action of the Law on Forest Protection (1888) 1.5% was occupied by forests acknowledged as protective (in 1897), 1.4% as watershed-protecting, and 19% as those subjected to lumbering under so-called short-term plans of economic activities.

Exemption from state and local land taxes for protective and planted forests became an incentive for forest farming. Other incentives, e.g. financial bonuses, honoraria, free supply of planting materials, and discounts, were also practiced. At the end of the nineteenth century, state budget expenditure on the protection of private forests was about 100 000 rubles annually without considering support of the numerous agents of the Forest Protection Department.

The end of the nineteenth century was marked by the adoption of a new instruction on lumber supply, that was intended for further promotion of the lumber industry. It became an overall collection of instructions and rules on lumbering, removed bureaucratic barriers to lumber sale and extended foresters' rights. Over the same period the procedure for lumber tenders was simplified, especially regarding site selection and timing, thus bringing about better conditions both for peasants and lumber industrialists'.

The advancement of the lumber industry resulted in growth of state revenues from forest resource use. For example, in 1893 state revenue from forestry had been about 22.4 million rubles (forestry expenditure being 6.5 million rubles, or 29% of the revenue), but in 1912 the revenue had increased to 87.9 million rubles (27.2 million rubles expenditures, 30.9%). Revenues from state forests were 2% of the state budget.

## 1.2. Mineral resources

As for mineral resources and the mining industry, there was no special body in charge of these matters at the end of the eighteenth century. Various functions in this field were exercised by the Great Treasury Office (*Prikaz Bol'shoi Kazny*), Siberian Office (*Sibirskii Prikaz*), Cannon Yard (*Pushechnyi Dvor*), Armory and Embassy Office (*Posol'skii Prikaz*) (dealing with the invitation of foreign specialists for ore prospecting) and, starting with the 1660s, the Grand Palace Office (*Prikaz Bol'shogo Dvortsa*). The edict issued by Peter I (1700) set up the Mining Office (*Prikaz Rudokopnikh Del*) for the management of ore prospecting, mining specialists training, etc. The Mining Board (*Berg-Kollegia*) was founded in 1719. The formulation of Russian mining legislation started during the reign of Peter I with the adoption of the Mining Privilege (*Berg-privilegia*), i.e. an act that endowed the right to free mining activities on state and private lands. Moreover, the extraction of minerals on private lands was defined as a state privilege, and a landlord could either use the preferential right to the mineral resource development or receive 1/32<sup>nd</sup> of the profit from the mineral resource development on his land. The same principle was then employed in the Mining Regulation (*Berg-reglament*) of 1739.

In the reign of Catherine the Great it was replaced by the opposite principle that envisaged an exclusive property right of a landowner to his land and all minerals and metals therein. This principle was enacted in the Manifesto of 28 June 1782 and served as grounds for both regional and special acts, e.g. the Private Gold Mining Charter of 24 May 1870, Oil Fields Rules of 3 June 1892, etc. Anyhow, along with the above, 'mining freedom' declared by

Peter I remained extant in Russian legislation chiefly due to the influence of outside law, specifically the Code Napoleon. Peter's ideas were laid in the basis of the Rules for Mining on State Lands of 2 June 1887 and other legislation.

The Mining Board was abolished with the advent of ministries at the beginning of the nineteenth century and respective functions were placed on the Mining Department of the Ministry of Finance. In 1874 mining management was transferred to the Ministry of State Realities (after 1894, the Ministry of Agriculture and State Realities). In 1882 the Committee for Geology was instituted within the Mining Department of the Ministry. The Department was again passed to the Ministry of Finance for a short period in early 1905 and to the newly set up Ministry of Trade and Industry in October 1905.

### 1.3. Land ownership

At the turn of the century, land tenure issues were within the jurisdiction of the Ministry of Agriculture and State Realities. Land relations featured a diversity of ownership forms. In 1877 land of European Russia was categorized, in terms of ownership, as follows: state lands, peasants' allotment plots (*nadely*), private and crown (*udel'nie*) lands.

State lands were distributed very unevenly across the country. In northern provinces, state lands prevailed dramatically (e.g. Arkhangelsk province - 97.7%, Vologda province - 82.9%, and Olonetsk province - 70.9%), yet in the majority of other provinces the share of state lands varied from 1 to 10%, and only 0.6 and 0.2% in Poltava and Estland provinces, respectively.

Crown lands were instituted by Paul I to secure the Imperial family's capital "for all times". They were located in 28 provinces of European Russia, but particularly in Kostroma (22.6%), Novgorod, and Saint Petersburg provinces.

Another land category was in the ownership of institutions and juridical persons and comprised lands belonging to church, monasteries, cities, various public societies, institutions and the Cossacks. They constituted 3% of the area of European Russia.

Private lands distributed, according to classes, as follows: the nobility (109 000 estates)-68.4%, merchants - 13.4%, peasants - 13.1%, and a lower middle class (*meshchane*) - 2.7%.

The establishment of the Soviet state initiated a new phase in the formation of a national nature use management system—appropriate for the conditions when all basic natural resources became "all-nation" (state) property. The decrees "On land", "On forests", "On mineral resources", "On socialist land development", "On fish resources", and "On protected areas (*zapovedniks*)" were adopted.

In theory, there was an opportunity to organize a management system that would provide rational, i.e. cost-effective and environmentally safe, nature use, but in the course of the first 5-year plans the state focused primarily on industrialization, consolidation of defense and building a so-called material-technical base of socialism and, later, communism. Labor and other resources were looked on, primarily, as means for attaining the above principal

goals. The efficiency of their achievement was ensured by the low cost of all consumed resources. These priorities governed the resulting nature use management system, specifically, excessive centralization, predominance of sectoral concerns and lack of economic tools of management. Long-term functioning of the system created conditions for large-scale and, to a great extent, economically inefficient and environmentally threatening nature use.

Environmental problems, which existed in all industrially developed regions of Russia and areas around individual industrial facilities, were attributable to inefficient production and the scale of national economic development over many decades, as well as the absence of democratic institutions and almost absolute suppression of regional and local government bodies as independent authorities.

The situation was exacerbated by the sectoral approach to the natural wealth tenure and the 'free natural resources' concept in economic activities. In economic and institutional contexts, the main reason for the above conditions and prerequisites causing and aggravating environmental and economic problems were the ownership relations that existed in the country for almost seven decades (and, more recently but probably to a greater degree, large-scale privatization).

Natural resources, along with nearly all other realties, were in common ownership, i.e. there was no need to evaluate their individual components as they belonged 'to everyone'. Under this principle, a rigid centralized system for management of the national economy was generated, including all natural resources.

At the same time, the large-scale appropriation of natural resource rent by individuals resulting from a tremendous privatization campaign posed an even greater danger. Regions were deprived of any natural resource property located on their territory, and, as a direct follow-up, regional administrations lost real power in nature use management.

The situation was made worse by the fact that, with the total authority concentrated in the 'center', it was impossible to put all natural resources under a single management facility, and nature use management was therefore carried out through a sectoral principle.

Hence the delegation of state authority over natural resources to various levels of local government (in compliance with the distribution of property rights)—an objectively reasonable system—was substituted by a division of authority on parallel vertical lines, each of which independently controlled 'its own' resource throughout the country.

The Soviet nature use management system proved to be rather efficient in terms of resource production, particularly in mining. During the final years of its existence, the USSR became the world leader in output of most kinds of natural resources: this was presented to the society as an extremely important and positive achievement of the country's economy. This was very misleading as public management of natural resources largely ignored owner's obligations to care for his natural resource, and this led to serious environmental and economic problems. State nature use management bodies generally failed to perform the functions necessary for efficient enforcement of ownership rights of rational resource use and disposal.

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### Biographical Sketches

**Anatoli Shevchuk** was born in 1953. He started his activity in the field of nature use management in 1972 as a hydrometeorologist. He graduated from the Economic Department of the Moscow State University in 1981 with honors (Nature Use Economics), and was awarded a Ph.D. in Economics in 1986.

From 1988 to 1996 he worked for the USSR State Committee on Environment Protection, RSFSR State Committee on Environment Protection and the Ministry of Environmental Protection and Natural Resources and was successively appointed as chief expert, head of division and head of the Environmental Economics Department. Since 1996 till now he has been working for the Ministry of Natural Resources as head of the

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Dr. Shevchuk holds a position of docent at the Environment and Nature Use Management Chair of the State Academy of Civil Service at the Russian Federation President's Administration. He is also involved in the work of professional societies: as an Associate Member of the Russian Water Use Science Academy and the Vice President of a Nature Use Economics Section of the Free Economic Society.

Anatoli Shevchuk was directly involved in the preparation of numerous state legislative and methodological documents on economic tools for environmental protection and natural resource use, on complex cadasters and economic valuation of natural resources. He participated in the elaboration of the Drafts State Strategy of Russia's Transition to Sustainable Development and State Concept of Natural Resource Use, Reproduction and Protection, Draft Federal Law "On the natural resource use taxation system", and other documents.

Dr. Shevchuk is the author of a monograph and numerous publications on economic tools for natural resource and environmental protection management.

**Pavel Kasyanov** was born in 1963 in Moscow. He graduated from the Moscow Geology Academy in 1985 with honors (Engineer Diploma). From 1985 to 1993 he worked at the Central Research Institute of Economics and Information for Non-Ferrous Metallurgy, Environmental Economics Division, and was successively appointed as junior researcher, researcher, and senior researcher.

Simultaneously (1988 to 1992) he was preparing a Ph.D. thesis in Economics (in the field of natural resources and environmental protection) at St. Petersburg State Mining Technical School and was awarded a Ph.D. in 1993.

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For the last four years he has participated in the preparation of methodology for natural resource economic valuation, methodology for the National Environmental Action Plan (NEAP) and Regional Environmental Action Plan (REAP), in the efforts on NEAP and REAP practical development and elaboration of the Draft State Strategy of Russia's Transition to Sustainable Development and State Concept of Natural Resource Use, Reproduction and Protection, Draft Federal Laws "On state property in natural resources" and "On the natural resource use taxation system ", Draft Federal Target Program "Environmental Education of the Russian Population".

Dr. Kasyanov is the author of a monograph and a series of other publications on the issues of transition to Sustainable Development, on natural resource and environmental protection management; economic valuation of natural resources and property rights in natural resources.