

Global environmental ratings as an instrument of environmental policies: what factors determine the rank of Russia?

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Systems of global environmental rankings have emerged as a result of the escalating need for revealing the trends of ecological development for the world and for certain countries and regions. Both the environmental indicators and indexes and the ratings made on their basis are important for the assessment and forecast of the ecological situation in order to tackle the global and regional problems of sustainable development and help to translate the research findings into policy developments.

Data sources for the global environmental ratings are most often the statistical information accumulated in databases of the international organizations (World Bank, World Resources Institute, FAO, WHO, etc.) These data are highly reliable and well-comparable that makes the ratings very objective. There are also good examples of using data of sociological polls, information from social networks, etc. The global environmental ratings are produced by the international organizations (World Bank, World Resources Institute, the UN Environment Program), non-governmental associations (WWF, Climate Action Network Europe (CAN-E), Germanwatch Nord-Süd-Initiative, Friends of the Earth, World Development Movement), research structures (scientific centers of the Yale and Colombian universities, the Oak-Ridge National Laboratory, the New Economic Foundation), and also individual experts, news agencies, etc.

Thematic (sectoral) ratings cover various spheres from availability of resources and anthropogenic impact on environment components to nature protection policies and perception of environmental problems. The environmental indicators cover all parameters important for understanding the current ecological situation and the trajectories of its development (the DPSIR model, i.e. drivers, pressures, state, impact and response). Complex (integral) ratings are based on environmental indexes which are combined measurement tools using a complex of aggregated indicators based on a wide range of primary data allowing to record and measure various environmental phenomena and characteristics. The main difficulty of information aggregation into environmental indexes is the weighting of initial data. The principal requirement to such measuring system is its informational completeness and adequacy of parameters for the representation of economic, environmental and social components of sustainable development. The analysis of indexes and systems of ecological ratings showed their efficiency, so the application of indicators and integral indexes can become a basis for scheduling the strategic changes in natural and socio-economic systems. Indicators provide an objective picture of the state of various spheres of economic activities and allow understanding the key environmental, economic and social problems and planning for their solution, thus paving the way to introduce scientific developments and public perception into policy-making.

The comparative analysis of the ranks of Russia in global ecological ratings showed that in terms of the per capita potential of biocapacity and availability of resources Russia advances many countries of the world. Among the environmental problems the most actual are the development of low-carbon power production and the use of renewable energy full in line with the SDG 7 (Affordable and Clean Energy). It will not only reduce the environment pollution, but also contribute to slowing the rates of climate change (the SDG 13 Climate Action).