



# Environmental consequences of COVID-19 on the global and Russian economics

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## Abstract

In the article, the environmental consequences of COVID-19 are divided into three groups: negative, positive and ambiguously interpreted. Over the coming years, we can expect a weakening of the attention of the state, business and the population towards environmental issues, a decrease in environmentally oriented costs, redirection of cash flows to maintain or prevent a significant drop in the material standard of living. Among the conditionally positive consequences of COVID-19 and the associated economic crisis, one can single out a short-term reduction in the environmental impact, awareness of the increasingly urgent need for an early change in the export-raw material model, and the requirement for international coordination.

## Keywords

COVID-19, environment, standard of living, economic crisis, individualization of consumption, pollution, tourism

**JEL codes:** O1, Q01, Q50, Q58

It is quite difficult to assess the impact of COVID on the environment, as a large number of problems are intertwined in this issue, the trends of which are not easy to predict. We will try to perform such an analysis, including economic aspects. We divide all the environmental effects of COVID into three groups: negative, positive and ambiguous.

## Negative effects on the environment

To assess negative consequences, it is reasonable to consider the behaviour of consumers. Analysis of such behaviour can be done within the “quality of life” approach, which includes three components: financial well-being (income, wages, etc.); social characteristics (educa-

tion, health, etc.); ecological component (clean environment, ecologically clean products, clean water, recreation, enjoying beautiful nature, etc.). When a certain level of income is achieved requirements for balancing all three components increase, so do requirements for the ecological factor of life (Kuznets curve) (Bobylev 2017). It is obvious that the economic crisis associated with COVID will strike a powerful blow to financial welfare: the decline in production or the closure of enterprises and organizations in the public and private sectors will result in a fall in income, an increase in debt, problems with mortgages, an increase in unemployment, etc. All this will have a negative impact on consumer behaviour towards environmental quality of life. Once in a situation of shortage of money for the very subsistence, the population will not think about purchasing more expensive environmentally friendly food and water, purchase/rent housing in ecologically clean areas (for example, in Moscow, the difference in the price of accommodation/rent between the net western and south-western areas on the one hand and the ecologically disadvantaged south-eastern areas, on the other, can reach 20-30%), etc. I.e. in the coming years there will be a tendency to minimize the requirements of the population to the ecological component of the quality of life, which will lead to a decrease in sales volumes in various markets with significant environmental emphasis.

Apparently, there can be a kind of “individualization” of consumers. This can be expected, for example, in the transport sector. Environmentally friendly phenomena such as the increasing role of public transport, the growth of car sharing, the expansion of electric vehicles can face obstacles in the form of fears of the population to become infected with COVID and various viral analogues in case of pandemics or a significant spread of morbidity. Transport pollution can also be associated with the desire of the impoverished population to use their own cars with cheap unecological gasoline, increase in numbers of second-hand and obsolete vehicles. It is also possible to expect a reduction in visits to the public dining network (restaurants, cafes, etc.) due to epidemiological concerns, which, however, may be accompanied by an increase in domestic food volumes and food delivery from the same catering networks and stores.

Increasing poverty can lead to an increase in legal violations in the environmental area. If there are not enough funds for maintaining even a low standard of living, then poaching, illegal hunting, fishing, cutting down of trees will increase.

The tendency to reduce environmental costs in the coming years will be observed both in the state and in a significant part of businesses. The state will turn away from environmental projects as the funds will be directed mainly to maintaining the income of population and employment through salaries, pensions, benefits. Therefore, the national project “Ecology” will only partially be implemented. A similar policy of environmental neglect will be pursued by many private organizations to stay afloat, especially those working on domestic consumption and demand. For export-oriented companies, environmental priorities will remain. It is especially worth noting that a large-scale technological reform of the Russian economy, a kind of technological revolution associated with the best available technologies (BAT) and started on January 1, 2019, will be at risk (Skobelev 2019). The introduction of BAT should significantly reduce the environmental impact in the country. Now, however, businesses that have not welcomed this reform should be even more opposed to technological change with environmental priorities, justifiably attributing such behaviour to the crisis, falling demand and lack of funds.

The transition to low-carbon development and renewable energy seems to be stalled worldwide. The huge fall in prices for traditional energy resources (oil, gas), which was also facilitated by COVID, in the conditions of crisis and recession of the world economy objectively

supports traditional economic development. Given the enormous cost for States to combat COVID and the world-wide increase in public budget deficits, it is also possible to predict a decline in attention to the transition to sustainable development, implementation of the UN Sustainable Development Goals, combating climate change in most countries of the world.

Thus, in general, it is possible to expect in the next few years a decrease in the attention of the state, business and population to environmental problems, a reduction in environmentally oriented investments, a re-orientation of financial flows to maintain or prevent a significant decline in the financial standard of living. We can just hope that this will not last long, and in a few years environmental issues will be more important for the country and the world.

## Positive effects

The long-term consequences include a new mental awareness of the place of man on Earth. The feeling of power of our civilization, power over nature has been broken by COVID. Many theories about Gaia, the Earth as a living being have been remembered and appeared. And COVID is just an “immune response” to the environmental horrors that humans create. It has become clear that tens of thousands of complex chemical and biotechnological compounds produced annually by the economy, their often unpredictable synergistic effect, a full range of harmful environmental pollution and destruction of nature – their consequences cannot be adequately predicted by man, and accordingly, man has not learned and will not be able to learn to combat this. COVID has demonstrated this weakness. Our, as it turned out, weak and unstable civilization should fit into the ecological capacity of the biosphere and not exceed it, as has been the case for the last 20-30 years.

Among the conditionally positive consequences of COVID and the associated economic crisis, perhaps, the principle one for our country is: there is an obvious need for an urgent change of the economic model. “We can’t live like that anymore.” The decision makers themselves have been speaking about it for 10-12 years already. The deadlock and instability of the existing anti-ecological raw-materials-export model based on degradation and depletion of the country’s natural capital, high pollution, is obvious. However, the model has not been changing. This was well demonstrated by the impact of the oil prices collapse in March 2020 on the fall of the ruble (it was among the two most sagging currencies in the world) with all the following heavy consequences for the population and the economy. The idea that it is necessary to withdraw from the oil addiction has been spoken of for a long time, but illusions (supposedly strengthening the non-oil orientation of the economy) or lack of political will retain the status quo. According to estimates of the Government of Russia, the National Welfare Fund in conditions of low energy prices will suffice for 2-3 years. If the model of development is not changed, the consequences of the next crisis can be even more severe for the country.

It is quite clear what to do, these theses have been repeatedly expressed by decision-makers and the scientific community: diversification, modernization, innovation, development of science-intensive and high-tech activities with high added value, transition to an environmentally sustainable model of the economy. From the point of view of ideology and concept, in our opinion, the old Concept of long-term development of the country (2008) was successful despite over-estimated target indicators. Whatever the name of the new model: the digital economy, knowledge economy, sustainable economy, industry 4.0, etc., one thing is obvious – the new economy will have a much less environmental impact compared to the modern raw material model.

Positive environmental consequences include the likely decrease in pollution in the coming years. The economic crisis, restriction or closure of enterprises, reduction of transport activity due to high gasoline prices in conditions of falling demand and living standards can improve the state of the environment. Russia faced a similar situation in the 1990s. At the same time, it is also possible that due to the pandemic many enterprises in knowledge-intensive and infrastructure sectors will decline or go bankrupt while polluting activities will survive. Russia has also experienced such way of “primitivization” in the 1990s and 2000s.

An undoubted ecological good for the country and the whole planet can be the rejection of risky energy projects in the Arctic, in northern regions, territories with permafrost. Vast regions of our country unaffected by economic activity are an important stabilizer of the sustainability of the planet’s biosphere. With low oil prices, the transformation of the energy market into the buyer’s market in the conditions of excess supply of traditional energy, it would be an economic adventure to heavily invest in new regions with huge production costs. There is a need in real energy-efficient restructuring of the economy, in which up to half (!) of all energy resources can be saved by fairly simple and cheap technologies; it is recognized even in government programs.

For the next few years, beautiful natural landmarks can breathe more calmly – tourist flows will clearly weaken due to lower incomes, fear of being lockdown in a foreign country. The purified waters of the Venetian canals are regularly shown to us on TV. The observed tourist press (even the special term “overtourism” appeared) led to the degradation of a huge number of beautiful places on our planet (Aleksandrova 2018). As an external sign of such a press – tens of millions of Chinese tourists around the world who suddenly found themselves in the middle class as a result of sharp growth in incomes and formed vast new tourist flows. It is estimated that the Chinese people spend about \$400 billion abroad annually. The tourists of our country also contributed to this process: the degraded area of Baikal and its jewel – Olkhon island – is only one of evidences. In the post-COVID era, the world needs to come up with new economic and administrative mechanisms to limit “overtourism”.

The reduction of the number of flights with their large greenhouse gas emissions can be also attributed to the positive environmental aspects of the reduction of tourist flows. A reduction in the number of hotels, public services and catering, transport trips, etc. can also be associated with the decrease in the environmental impact, variety of waste and pollution in tourist attractions.

An increase in the segment of online employment, remote work outside offices, at home, etc., can lead to a reduction in urban pollution. The decrease in travel, especially personal vehicles, has a favourable environmental impact.

Many of today’s environmental problems are global: climate change, transboundary pollution, marine and ocean pollution, biodiversity destruction, etc. The COVID pandemic has once again demonstrated the importance of bringing together and coordinating international efforts to address global challenges. No country will be able to stay aside.

## **Ambiguous environmental impacts**

Many of the environmental impacts of COVID are difficult to interpret. Let’s try to analyze from an ecological standpoint the rather obvious tendency of increasing the importance of separate living of people, which is connected with the trend of “individualization”. A person living with a family in a penthouse in the high-end Moscow City with a view of the Kremlin, in

the context of the COVID pandemic has much higher risks of falling ill compared to a resident of medium quality housing, but with a “second home” away from the cities or a landscaped cottage near the city agglomerations. (The number of persons with a lower risk of infection compared to urban residence should also include those permanently living in suburban cottages that do not have urban real estate). Hundreds of thousands of people, if not millions, have rushed out of big cities because of the threat of catching COVID. The status of “second homes” has changed. Dachas under the Soviet power or in the 1990s were in the vast majority auxiliary plots for the production of vegetables and fruits for the population to support their own consumption. In the 2000s such a need ceased, and they became something of recreational support during vacation, for recreation with children, residence of pensioners, etc. However, with the growth of prosperity in the early 2000s, cheap vacation in Turkey or Egypt or quite affordable for the middleclass vacation in southern European countries (Greece, Cyprus, Spain, Italy), the recreational significance of the “second home” in Russia has decreased. But suddenly COVID changed everything at once. Staying abroad and in Russian cities has become dangerous. For many people, dachas began to appear as islands of survival, full-fledged lockdown and restricted contacts with other people. Today, about half of residents of big cities have dachas (Skupov 2019) and according to estimates the total number of “second homes” is around 60 million (Nefedova et al. 2016). Already this year we can expect growth in demand for real estate near cities, especially megacities, an increase in the expenses of bringing summer dachas to comfortable winter standards. The attractiveness of buying property in other countries will reduce.

There are several environmental implications of this “country house” concept. Living in places with cleaner air than urban air is undoubtedly good for health. However, the increase in the number of people living in suburban areas can dramatically increase the environmental burden on such places (Khovavko 2020). We can see what Moscow region has turned into with the presence of numerous urban residents – piles of garbage in different places, including forests and fields, polluted rivers and reservoirs, the trampled and degraded forests, etc. Coordinated actions on nature protection, including economic and legal mechanisms on behalf of the authorities of urban and “peri-urban” settlements, are needed to prevent the environmental degradation of the territories around the cities. In economic theory and already in practice, the mechanism of payment for ecosystem services increasingly used in the world, may work here, but this is another topic (Bobylev 2019).

Some hypotheses concerning the environmental and economic consequences of COVID have been stated above. Obviously, there is a lack of available information for reliable scenarios, much less information on the timing and consequences of COVID. Nevertheless, it is obvious that numerous social and economic problems, the decline in the standard of living of the population, the need to quickly solve short-term problems will put away environmental issues, many of which are of the nature of long-term threats and risks, to the back. However, as the crisis is overcome (or at least some socio-economic stabilization arises), environmental issues will become acute and it would be good to know the possible answers to them already now.

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