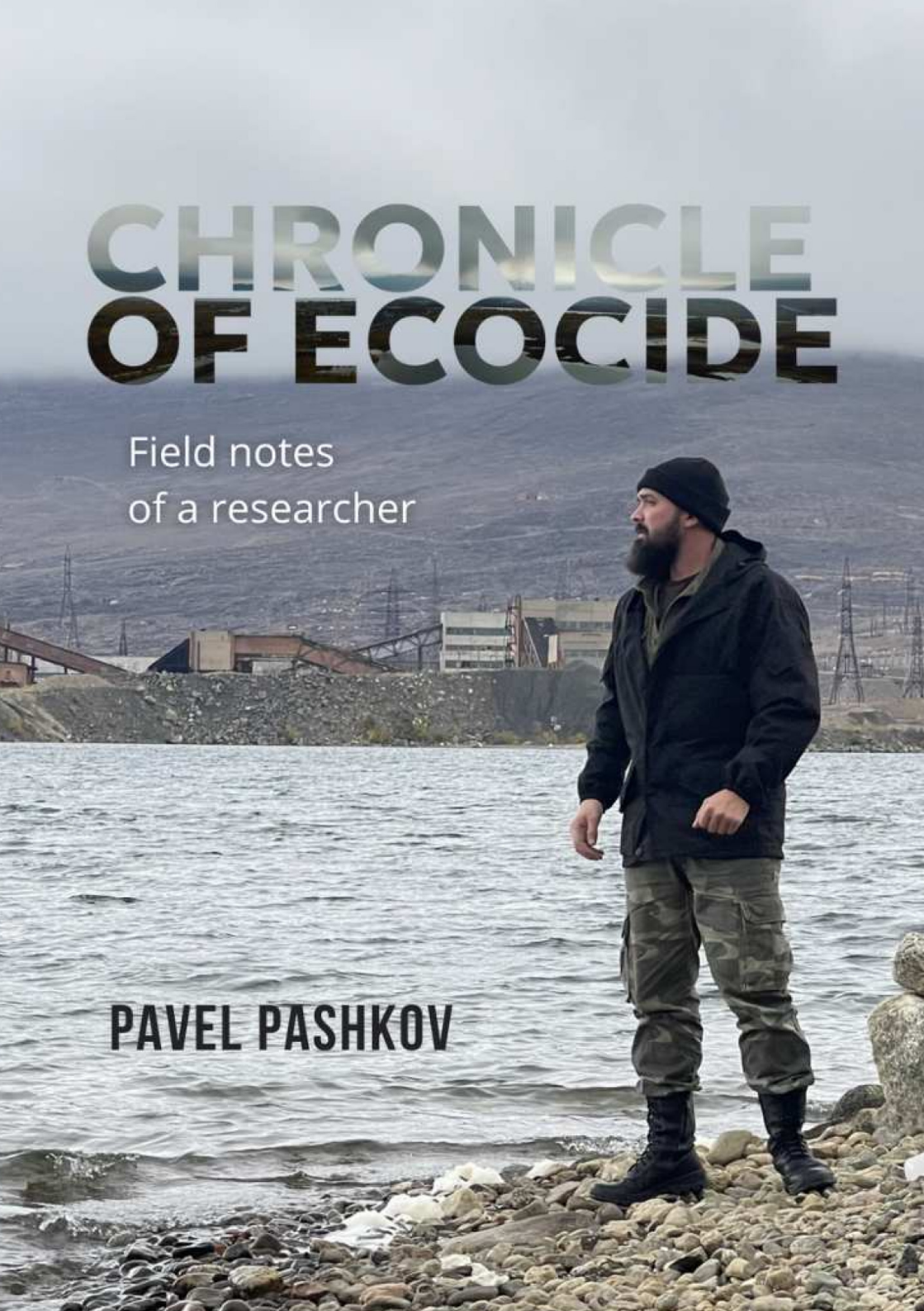
CHRONICLE OF ECOCIDE

Field notes
of a researcher



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Epilogue

Chapter 1. What is ecocide?

I'll start the book with the most important thing: terminology. First, let's talk about genocide, which is the mass extermination of people. Only then can we understand what we're doing to nature today!

Back in 1763, before the United States even existed, the inventive General Jeffrey Amherst first proposed using real biological weapons against the rebellious Native Americans. Of course, it was nothing compared to what we have now! Still, Jeffrey was a pioneer. The general suggested using blankets infected with smallpox against the Native Americans.

The Seven Years' War in North America was coming to an end. It went down in history as the "French and Indian War." Due to the uprising of the Delawares and other various tribes, British troops found themselves in a dire situation. The army lost several forts, and smallpox began to spread rapidly in some of them. A hospital was built for the sick, which became the source of those very blankets infected with smallpox that were later used to infect the Native Americans.

On June 24, 1763, two Native Americans arrived at one of the besieged forts for negotiations. The British, "out of respect," gave them two smallpox-infected blankets and a handkerchief from the hospital. Later, in their letters, the generals actively discussed the possibility of mass infecting the Native American tribes with smallpox. They referred to the Native Americans as a "plague," refusing to consider them human, and agreed that "this plague must be eradicated."

We know what happened to the Native Americans. Since the discovery of America on October 12, 1492, colonizers from other continents engaged in the genocide of the indigenous population, ultimately wiping out Native American tribes and seizing their lands. To illustrate the catastrophe, I'll share an excerpt from Christopher Columbus's diary entry on the day he discovered America.

> "These people are in need of nothing. They care for their plants, are skilled fishermen, canoeists, and swimmers. They build attractive homes and keep them clean. Aesthetically, they express themselves in wood. They have free time to play ball, dance, and make music. They live in peace and friendship. ...These people walk as their mother bore them, but

> they are good-natured... they can be made free and converted to our Holy Faith. They would make good and skilled servants."

Apparently, they didn't make "good and skilled servants." After the genocide of the Native Americans, European colonizers began importing black slaves from Africa. The first instances of bringing "black slaves" were recorded in 1619. At that time, slavery was of two types: white under contract and black — strictly lifelong. Gradually, "white slavery" was completely replaced by "black slavery." Slaves from Africa were much more resilient and tolerant, allowing for greater profit.

From more recent events, we know about the so-called "Srebrenica Massacre," the largest and bloodiest genocide during the breakup of Yugoslavia from 1991 to 1999. It was the largest mass killing in Europe since the end of World War II.

We could discuss genocide for a long time; there are plenty of events. Genocide is happening somewhere even today! I want to say that it's horrifying and terrifying. We don't want to be among a people that will be destroyed! We don't want genocide, we don't want death. And if people are destroying each other, what kind of love for nature can we even talk about?

There were the Native Americans. They loved nature. According to Christopher Columbus, they were people in need of nothing, with clean homes, dancing and playing musical instruments. Peace and friendship! Until capitalism arrived. Shaking the filth off their wide-brimmed hats after the narrow streets of Great Britain and France, where locals dumped that very filth right out of their windows, royalists and musketeers flocked to the amazing American continent for Native American scalps. For wealth, gold, and power.

Besides genocide, there's the term "ecocide," which implies the destruction of animal or plant life. Humanity not only destroys peoples but also engages in the total extermination of any life on the planet. And on a colossal scale.

Why am I telling you about both ecocide and genocide? Many, I'm sure, will ask this question. The fact is, we are part of ecological systems. No matter how much we try to think otherwise, no matter how much we hide in our concrete cities and play at omnipotence. We are as fragile and vulnerable as any ecological system. By committing ecocide, we become accomplices in a collective suicide, self-destruction, and genocide all in one.

Let me provide the terminology for ecocide from the Wikipedia reference.

> "Ecocide (from Greek οικος 'home' + Latin caedo 'to kill') — the mass destruction of plant or animal life, poisoning of the atmosphere or water resources, as well as other actions capable of causing an ecological catastrophe. From a legal theory perspective, the destruction of nature should be punishable."

Ah, so from a legal theory perspective, the destruction of nature should be punishable. And that's true, but in practice, throughout my many years of public activism for the protection of Russia's nature, I have yet to encounter a single case of the relevant criminal code article being applied. And such an article exists!

Let's refer again to the Wikipedia reference.

> "Ecocide in Russian criminal law is an act that is criminal according to Article 358 of the Criminal Code of the Russian Federation. Criminal liability is established for the mass destruction of plant or animal life, poisoning of the atmosphere or water resources, as well as other actions capable of causing an ecological catastrophe. This act is

considered an international crime."

Under Article 358 "Ecocide" of the Russian Criminal Code, the punishment for the crime is 12 to 20 years of imprisonment. But in reality, the article exists, yet there have been no cases of its application, nor are any planned. Even though the country has committed such massive environmental crimes, it's unimaginable how people managed to do it. Typically, authorities only hold major "businessmen" accountable for minor offenses, issue fines, and allow them to continue destroying nature. Meanwhile, ordinary citizens are punished to the fullest extent of the law for the most trivial offenses, actively showcasing their legal work: "Look, everyone, we punished the criminals."

Now we know what genocide and ecocide are. They are connected. I would even say they are practically the same! From a human perspective, and from nature's perspective — it would be better if people committed genocide, their own suicide, rather than exterminating already damaged ecological systems. If humans disappear, nature will recover and continue to live by its own laws, but if nature disappears, so will humans.

Acts of ecocide occur constantly around the world. People are destroying nature, and in doing so, they are poisoning themselves. Let me tell you about how the descendants of the "great American colonizers" staged a public act of ecocide in Vietnam. This will give you an understanding of what is happening to our environment.

In Vietnam, fierce combat took place from 1955 to 1975. Twenty years of devastating war, where essentially the USSR, allied with China, clashed against the USA and their allies. The fact is, North Vietnam received support from the communists, while South Vietnam was backed by the USA. It's a long story, with the war divided into several stages! But the essence is the same, as with the war in Syria, where major superpowers simply divided their influence and enormous sums of money on Vietnamese soil.

The most idiotic display of muscle-flexing, a brawl over the redivision of the world and power. To avoid waging war on their own territories, capitalists instigate wars on foreign soil. The Americans launched full-scale military operations in March 1965, and it was here, in Vietnam, that the "colonizers" decided to test the large-scale use of chemical weapons, which resulted in the deaths of a vast number of people and the devastation of nature.

Let's take it step by step.

During the military mission in Vietnam, the United States sprayed over 72 million liters of the defoliant "Agent Orange" on South Vietnam. Yes, you heard that right, on the land of their allies, for whom they were supposedly fighting. The main goal of spraying these chemicals was to destroy the jungle vegetation, the ancient native forests, to make it easier and faster to detect the units of the North Vietnamese army and guerrillas hiding in the forests.

Among these, about 44 million liters of defoliants were sprayed, containing substances that, when entering the human body, cause liver and blood diseases and provoke widespread birth defects. Even after the military mission, several tens of thousands of people died from the use of American chemical weapons! In total, there are about 4.8 million victims of the chemicals and three million affected.

And the Americans didn't stop there. They used various gases, employed chemicals that caused massive forest fires, treated clouds with chemicals, oxidized the atmosphere, and induced artificial acid rain. It was a true hell for the local residents! This was truly the most brutal genocide!

How much time has passed since the extermination of the Native Americans? And nothing has changed. The descendants of the "great colonizers" continue the work of their ancestors, only this time using modern technology, bacteriological and chemical weapons. Employing the most perverse methods of destroying people! Yet, at the same time, they are killing not only their own kind but also the wild, untouched nature.

The chemical poisons they sprayed contained the substance arboricide 2,4,5-T with dioxin impurities. As a result, over 2 million hectares of tropical forests and 43% of Vietnam's agricultural land were destroyed. Ecosystems degraded, and out of 160 bird species in the affected forests, fewer than 20 species remained. Even today, forests do not regenerate on the soil contaminated by poisons, and where there is regeneration, the flora is sparse and of little value, with only secondary tree species.

For better dispersion of chemical poisons, the Americans used kerosene and diesel fuel, often setting the forest on fire immediately after spraying the poisons. Various technologies for destroying ecological systems were developed, and this unique land was mindlessly scorched, along with all living things. But that wasn't all! Even these horrors weren't enough for the military.

Orders were given to destroy vegetation mechanically. This involved massive bombardments of the jungles. From 1965 to 1973, 17 million aerial bombs were dropped on South Vietnam, and 217 million artillery shells were detonated.

Next came the tracked vehicles, massive bulldozers with a single order: destroy everything living in their path! The military stripped away the top layer of fertile soil, rendering it useless for agriculture.

During the "military mission" of the descendants of the "great colonizers" in Vietnam, mangrove forests were completely destroyed over a total area of more than 500,000 hectares. About 60% of all Vietnam's jungles were affected by chemical poisons.

The entire unique biocenosis of the rarest forests was disrupted, many animal species were destroyed, and the ecological system was completely obliterated. Insects, amphibians, and fish in the water bodies have almost entirely died out. Here it is, genocide coupled with ecocide, a living example of humanity's actions. The U.S. military, their government, and the rest of the world knew what they were doing and why. It was a deliberate extermination of nature and people, a conscious act of ecocide!

Chapter 2. Climate wars

After studying numerous accounts of the Vietnam War, I reached a clear conclusion: the main goal of the Americans was to test chemical and climate weapons. Just as they once bombed Hiroshima and Nagasaki (on August 6 and 9, 1945) with nuclear weapons. This, by the way, seemed like an outright mockery of the "Japanese natives." The plane that dropped the nuclear weapon was called "Enola Gay" after the crew commander's mother, and they named the bomb "Little Boy."

It was dropped on Hiroshima on August 6, right by a hospital where doctors were treating severely ill children. The nuclear bomb, with a yield of about 18 kilotons, weighed around 4 tons. In 43 seconds, "Little Boy" tore Hiroshima apart. This was a test of nuclear weapons, their practical application. In Vietnam, the Americans moved to the next stage—testing chemical and climate weapons, which were unavailable during World War II.

Just like with the Native Americans, whom the "colonizers" refused to consider human, they still don't regard the people of Japan and Vietnam, or those of other countries, as human. This is a continuation of the "scalp hunt," only now the extermination of natives has extended beyond the colonized American continent.

Alongside the descendants of the "great colonizers," other superpowers like Russia and China are also trying to create the latest weapons and control the climate. Although most information about artificial climate regulation reaches the media, not everyone is aware of it. We kind of know, but then again, we don't. "Oh, they dispersed the clouds over Moscow for the parade! That's why the Moscow region has been flooded for days."

But it's much more serious!

And significant changes have just recently begun to emerge.

Let me outline the problem simply, accessibly, and briefly. This isn't a "monkey with a grenade" situation, where you don't know which way it will throw it, as those familiar with climate regulation might think! Not at all! This is the problem of ordinary people who fancy themselves gods. More often, it's even short-sighted people, but ones with unlimited power. They are now,

persistently and systematically, planting mines with powerful explosives all over planet Earth! On our planet. On the only planet—we're not flying off to Mars!

And now these monkeys, considering themselves gods, are methodically and purposefully preparing to blow up the "ammunition depot" they've gotten their hands on. No accident! They FERVENTLY BELIEVE they understand what they're doing.

Let me give an example of how this happens. It's an old example; regular readers will easily recall that I've mentioned it more than once.

The extermination of sparrows.

An epic campaign against agricultural pests, organized in Maoist China as part of the Great Leap Forward policy from 1958 to 1962.

The Chinese methodically exterminated ALL the sparrows in the country with the best intentions, considering them pests that pecked at the crops in the fields. What could they do—they cried, feeling sorry for the innocent birds, but they caught and crushed them with their hands and tractors! What else could they do?! After all, the great comrade Mao and the Communist Party ordered it!

As a result, caterpillars and locusts, which devoured the shoots, proliferated. An important natural regulator in the ecosystem disappeared, and there was nothing to replace it. In just a couple of years, harvests fell so much that famine struck the country. Directly from starvation, between 10 and 30 million people died. The Chinese say no more than 10 million. Independent experts speak of more than 30 million. There are many Chinese, and plus or minus 20 million is an insignificant figure even according to the authorities of China itself!

The result of the campaign was the purchase and importation of live sparrows from the USSR and Canada. The campaign was instantly reversed. In the "CPC Central Committee Decree on Hygienic Measures," adopted just two years later, Mao Zedong wrote: "Don't kill sparrows; as a result, we only got bedbugs. The slogan is: Destroy rats, bedbugs, flies, and mosquitoes."

Great is comrade Mao! He realized his mistake at the cost of only 30 million lives and had the courage to acknowledge the "shortcomings" and change the campaign.

This is a historical example of how the social system in the Chinese Empire is structured and operates.

People haven't changed. The system itself hasn't changed. Only the add-ons have appeared—technologies that provide new possibilities. Computers, smartphones, drones, biotechnology for manipulating viruses, and so on.

And now we see a renaissance of that very Maoism. Neo-Maoism, if you will. With all the distinctive features of Maoism. Total control, total "brainwashing" of citizens, and the cult of personality of the Great Chinese Emperor. The deification of an ordinary person, who doesn't understand everything. And the coercion of millions of Chinese to deify the "monkey on the throne."

While I was writing this book, the Chinese authorities "de-kulakized" large Chinese companies. They simply took away private property because China is sliding into an economic crisis, and the authorities just can't manage. "We must share,"—doesn't that remind you of anything?!

And here's another sign of such a neo-Maoist China—global projects. Imperial gigantism and megalomania.

And at the end of 2020, the Chinese authorities announced a sharp expansion of the weather control project. I'm going to talk specifically about China

because all projects for delegating "God's functions" to high-status lunatics are being tested in the Celestial Empire. In China, they worked out digitalization and then rolled it out worldwide!

In China, they worked out the coronavirus, and then it was rolled out worldwide. And the same thing is happening now with climate control. That's why, using China as an example, I'm talking about what's happening right now around the world! The timelines are the same for everyone, full digitalization and control over society by 2025, and complete replacement of natural climate regulation with artificial management by 2035.

And it's just more chaos and hell compared to the genocide of sparrows, to which such projects can lead (and with high probability will lead!)

The authorities of neo-Maoist China plan:

The Chinese government announced that it is expanding its weather control project FIVE TIMES.

The project will cover an area of 2.1 million square miles and will be completed by 2025. (China's area is 3.7 million square miles, meaning the project will cover 56% of the country's area.)

The State Council stated that by 2035, the project will reach a "world-leading level" and help mitigate "disasters such as drought and hail," as well as facilitate emergency response "in case of forest or grassland fires." If we strip away the Chinese passion for flowery expressions, this means that by 2035, China's State Council plans to FULLY CONTROL THE WEATHER OVER THE ENTIRE COUNTRY.

Since 2016, China has been increasing precipitation over Tibet. This is part of a project that is already actively underway. The new weather modification system on the Qinghai-Tibet Plateau is even more ambitious. Chinese scientists are working on diverting water vapor north from the Yangtze River basin to the Yellow River basin, where it will become rain. They claim to have discovered potential channels near the boundary of the troposphere through which 5 billion cubic meters of water could pass annually.

The rainmaking project involves installing tens of thousands of flare devices across Tibet, which will increase the annual precipitation by 10 billion cubic meters. This is how the practical implementation of the plan called "Tianhe" ("Heavenly River") will look. This part of the project aims to irrigate a region about 1.6 million square kilometers in size.

For comparison, that's slightly larger than Alaska or about three times the size of Spain. In this region alone, China will gain approximately 7 percent of its annual water resources. That's an enormous amount!

The flare devices in the Tibetan part of the project will release silver iodide particles into the atmosphere, which the wind will then spread through the clouds, causing precipitation. Reports in the media indicated that by 2018, more than five hundred such devices had been put into operation on the mountain slopes in Tibet and Xinjiang. Note: these are not planes dispersing substances, but stationary installations dispersing massive quantities of this substance from the ground!

A powerful addition that will immediately increase the weather regulation program fivefold is the Ganlin-1 (“Sweet Rain”) unmanned aerial vehicle (UAV) for weather modification. The Ganlin-1 UAV has been tested and is being mass-produced. Millions of drones will make dispersing substances in the atmosphere orders of magnitude cheaper than conventional aircraft. Additionally, another technology for inducing precipitation will be used—powerful electrical impulses in the atmosphere.

These are not just plans—this is a project that is partially implemented.

Currently, Chinese authorities are scaling these tested technologies across the entire country.

Drones have already been tested. Flares dispersing silver iodide into the atmosphere from the ground have already been tested. Factories have already been built to produce these devices by the millions.

The march of the Celestial Empire is unstoppable: if Comrade Mao said to exterminate all the sparrows, then all the sparrows will be killed.

With minimal basic understanding of the biosphere, ecological systems, and the planet's atmosphere, one can unequivocally predict the following:

The movement of air masses in the atmosphere is interconnected across the entire planet. The Chinese project will alter the circulation of air masses worldwide. This means rain in deserts and droughts in today's agricultural regions. And that means hunger. And the starvation death of billions of people worldwide instead of the starvation death of 30 million Chinese after the sparrow extermination experiment.

If the Chinese modeled the impact of their project on the global movement of air masses across the planet, then this is a deliberate use of climate weaponry. As of today, there are no international agreements on climate regulation. But more than 50 countries are engaged in "rainmaking" over their territories. Only the Chinese project surpasses all previous such weather interventions by hundreds of times!

Recent years' weather anomalies continue to be explained by global warming. The question arises: Is that really the case? It could just as easily be the result of human intervention! China has been actively interfering with the weather since 2016. Other countries are doing it at rates never practiced before. And just in the last five years or so, weather anomalies around the world have intensified.

Chapter 3. Endangered bio-objects

We humans don't understand a damn thing about complex ecosystems! Despite all the loud proclamations and tales about the “greatness of science,” we understand global ecosystems just a bit more than not at all! Zero!

Meanwhile, both transnational corporations (TNCs) and governments keep meddling in things they don't have a clue about! I look around and see projects becoming more and more global. The world is buzzing with all sorts of “biosafety conventions” and “bio-object regulations,” diving into direct climate regulation across the planet. And clearly with risks they can't even assess! What kind of “shooting yourself in the foot” is this?!

Bureaucrats from international organizations, TNCs, various “international charitable foundations”—have they lost their minds, or do I just not understand the real goals of their projects?! I was just looking into UNESCO conventions and recommendations regarding Russia's

protected areas. And I realize I understand nothing. Some elements, in my view, go beyond “biodiversity conservation.” Beyond the creation and support of international protected areas.

In our country, it's like the beginning of some epidemic of global projects. Mega-tourism clusters. New million-person cities in Siberia, “in the middle of nowhere.” The topic of a couple dozen super-large agglomerations across the country, which was hyped about ten years ago, is resurfacing.

I don't understand—what real foundation is this upcoming “celebration of life” based on?! Do you understand? On what financial foundation, if they plan to invest three times more than was invested over the past decade in Baikal, for example? “Where's the money, Zin?” On what technical foundation? With what resources: industry, technology, people, finally?

The last thing I saw in the news was information about “charter trains” with migrants from Uzbekistan! Also about the sharp increase in mortality last year in our country. And about the increase in mortality this year compared to the previous year.

Year after year, people in Russia seem to be dying out faster, is that how it is?!

Isn't it time to list people in the “Red Book” as number one?!

I've written about this before: we can't separate humans from the Russian Taiga, nor the Russian Taiga from humans!

Preserving the taiga ecosystem from fires means having many villages in the taiga, where people notice small fires in time, where there's a network of roads and firefighting resources on site! This is the only strategy, the only long-term way to prevent global fires. “Control zones,” where no one lives and no one knows about the fires until the smoke reaches big cities, are not a strategic solution. It's a way to push the problem into a “blind spot,” where the problem exists but no one knows about it. Until the moment, of course, when the problem explodes like a nuclear bomb!

“Oh, what’s that… what’s that mushroom cloud over the taiga? Is that smoke? Is something burning there?!”

That's how millions of hectares burn! And then they start pouring into our ears: “Fires are natural and even necessary for the taiga. Without fires and hordes of pests devouring everything down to the trunks, the taiga can't survive.” This is what so-called “experts” actually say! Probably for a small bribe and cozy positions in

power.

At the ecosystem level of human-taiga, we see people dying faster than forest animals. The taiga burns and is cut down. A bloody hunt is declared on the surviving animals.

And on top of that, there are state programs for new megacities and mega-tourism clusters. What are you planning to show tourists, stumps and burn sites? And where will you get tourists for elite resorts, from cemeteries, where you're driving people? Even in Moscow or St. Petersburg—have people gotten much more money for travel in the last couple of years? Or will tourists flock to you from Swiss resorts? No way—they're fine in the Swiss Alps, and closer to home!

Do you understand what they're planning?!

I don't understand! The real things don't match the announced plans and projects.

I don't see plans for a network of protected outposts and research stations.

I don't see plans for infrastructure-linked networks of taiga villages, although it's fundamentally possible. Rather, the opposite—there are examples where people create something themselves, with their own funds and efforts. And they get pushed out. And this amid cries

about the rapidly depopulating Far East and the “Far Eastern hectare project.” Just words and appearances, while real actions seem directly opposite to me!

So, evaluating the real state of affairs: why tourism clusters in Siberia? Kamchatka, Baikal, Altai. If it's not just a multi-billion-dollar waste of money, I can only assume it's all aimed at tourists from China. If not worse! For many years, projects have been pushed for water from Baikal and Altai to China. And the construction of a comprehensive transport artery with a gas pipeline, water pipeline, and overpass through the territory of the Altai Mountains to the same China.

This meets resistance from the local population. And the construction of tourism clusters is the construction of infrastructure: roads, supply systems. Essentially, preparatory work that is still necessary for industrial development later. Later! The main thing is to get in now, without meeting local resistance under the pretext of tourism clusters!

By the way, the Development Bank's project for Baikal includes an industrial enterprise for bottling water! Remember how the public sighed with relief when they managed to fend off the construction of a Chinese water bottling company at Baikal? And the authorities seemed

to engage in dialogue then. Only it wasn't clear why the government needed it, but now it's very clear: no one ever thought of banning industrial construction! They just removed competitors to build and make money themselves.

In short, so you understand, VEB and the company “En+” (founded by capitalist Deripaska) signed a memorandum of strategic partnership. According to this document, an International Water Resources Center is to be located on the former site of the Baikal Pulp and Paper Mill. But don't let the name fool you! Within this center, the company will build a water bottling plant from Lake Baikal costing 87.5 million euros.

Construction of the plant will begin immediately after land reclamation, scheduled for 2023–2024. Production capacity—up to a billion liters of drinking water per year. So, as you can see, one industrial giant is planned on the shores of Baikal instead of another! They've polluted everything in the world, so now clean water is becoming pure gold!

And meanwhile, foreign globalists “biologically objectify” us humans as “bio-objects.” That's how it turns out... We're no longer people to the “money men,” but digital bio-objects, devices essentially. And they

couldn't care less about our opinion!

I recall the correspondence of generals during the extermination of the Indians, where the “colonizers” wanted to “root out this plague,” meaning those good-natured dancing Indians with clean homes, as described by the explorer Christopher Columbus. Wanted to root out the plague? They did, along with the scalps of the unfortunate natives.

So are we, like the Native Americans. We have scalps too. Like the vanished tribes, we also see ourselves as one with nature, with the trees.

Chapter 4. Global industrialization

Since the beginning of the so-called "industrial era," our planet has warmed by 1 degree Celsius (or 1.8 degrees Fahrenheit). The "industrial era" marks a time of harsh capitalism, when heavy industry began to be built, exerting immense pressure on ecosystems. Here's a real fact: the Earth has warmed, and climate change is man-made. There are no natural cycles; people have been and will continue to be brainwashed by major corporations interested in constantly increasing production, and thus, profits. I want everyone to understand: the climate is deteriorating along with global ecosystems because of humans. No other reason.

Recently, scientists conducted a study attempting to link extreme rainfall worldwide to human-caused global warming and were able to prove that today's extreme rainfall is due to anthropogenic impacts on nature. And here we immediately recall the 2021 floods in Crimea, Sochi, Dagestan, the Amur region, Transbaikalia... in our country, many regions of Russia are experiencing

abnormal floods!

People are dying, and those who survive lose everything they have. Water reaches several stories high, cars float down roads and crash into each other. Those who haven't seen a flood with their own eyes, reading my article now, won't understand the horror and how terrifying it is to lose everything.

In 2019, during an expedition to protect the Russian Taiga, we passed through floods in Siberia when the Angara River overflowed its banks. Imagine your home being lifted by water and carried away. After that, your house is smashed to pieces against rocks or other residents' homes! This is exactly what's happening now. And if Siberia's catastrophe once echoed only to the southern regions of the country, now many other regions are suffering.

And the most important thing to understand is: it will only get worse. Each year, we will witness the brutal degradation of ecosystems, and extreme rainfall will cause rivers to rise more frequently. All of this is due to human actions.

Let's return to the scientists' study to truly understand these processes and how everything is structured. In their research, scientists warn that rising global

temperatures will lead to new extreme rainfall in the future because warm air holds more water vapor in the atmosphere. Classic physical processes we studied in school, if you remember. So what happens? That's right, water vapor begins to fuel storms, which then bring extreme rainfall to land. Consequently, we see abnormal floods, hurricanes, storms.

To prove this, scientists used artificial neural networks, which allowed them to find patterns in extreme rainfall through machine learning in weather records. The neural network studies data from all years of weather tracking and looks for patterns, then scientists analyze all this data and build a dynamic of changes.

As a result, scientists have numerous pieces of evidence that human activity, particularly in recent decades (the peak of industrial-resource capitalism), has intensified extreme rainfall. I'll go even further: in recent decades, during the peak of capitalism, there has been severe degradation not only of ecosystems but of the climate as a whole.

According to experts, in the coming years, not only will the number of extreme precipitation events increase, but so will global warming. Throughout the 21st century, the planet will heat up to record temperatures!

This is, consequently, a direct threat to all life on Earth, including ourselves. Already, the amount of greenhouse gases in the atmosphere is growing at a furious pace, and while it seems that authorities have begun to change their policies regarding the use of fossil fuels, the outcome remains unclear.

Cars in the near future—only electric, let's assume that's a fact. By the way, scientists have calculated that at this rate, 1 degree of warming will become 4 degrees by the end of the century. And if this number seems small to the average person, to specialists, it's a catastrophe. I look at the numbers and see the inevitability of anomalies!

Currently, scientists are focusing their work on creating machine learning and neural networks that will allow them to detect the slightest deviations, calculate emissions, and study climate physics. In this way, specialists will have more data, enabling them not only to identify problems but also to seek solutions.

In my opinion, as long as the world is in the hands of capitalism, changes will only occur in the realm of financial market redistribution and leverage over one another. And the more ecosystem and climate degradation intensifies, the more often disasters will be

justified, because everything here is tied to obtaining immediate profit!

Let's say the factory in city "C" produces cellulose. The factory needs wood! Consequently, there must be constant logging. But in the region of city "C," only protected areas remain, and logging is prohibited. In other regions, there are other factories, and they don't want to give up their forests because they need to make money themselves. What will the factory in city "C" do?

For years, major industries have been dictating terms to the authorities and the government because they have leverage. Remember the 2020 oil spill in Norilsk? Due to business negligence, 20,000 tons of diesel fuel were dumped into local ecosystems because of "rotting" storage tanks. A catastrophe of global proportions. Immediately, the question arose: why didn't the state regulatory bodies catch this? Where were the inspections of business activities? And the answer was found right away: "state officials" had been coming to the gates of the businessmen for years, but they were simply not allowed inside. Without consequences, they were just turned away, simply told to go to hell. The business was so large that government agencies were unable to contend with it.

Let's return to the city of "Ch" and the pulp producer. They need wood. The forests are now protected. What needs to be done to cut down the forest? First of all, the capitalist's people sit in the Public Chamber of the Russian Federation, usually on the public council of Rosleskhoz, the Ministry of Natural Resources, and so on. They lobby for their interests supposedly on behalf of the public, although everyone understands that the lobbying is solely for business interests.

I personally witnessed this when I spoke at the Public Chamber of Russia during the discussion of the new Forest Code! Do you know what I saw there? I was invited for a special occasion; they wanted me to say what they wanted to hear. But I said the complete opposite! I advocated for secondary forest use and a gradual move away from the primitive destruction of forests. After that, it seems they don't want to let me back in. So, who should be in the public council? That's right, public representatives! But imagine my surprise when I found myself surrounded by representatives of big business. And everything they talked about was discussing and lobbying for the interests of logging companies. That's my personal experience for you.

So, we've already noted that the capitalist's people are sitting in the public chamber. Simultaneously, the right people have already been "lobbied" and directly paid off within the government! Moreover, they usually "push through" the right people rather than buying the services of those already in place. Money does incredible things and provides opportunities to build leverage everywhere.

And when business holds the levers of pressure within the government and society, destroying nature becomes the easiest task. Need a protected forest? No problem, laws will be lobbied to allow the cutting of protected forests! At the regional level, you can start a fire in the taiga, set the forest ablaze (it's easier), and then your "high-ranking" official in the local government will issue a document stating the need for sanitary logging of the burned forest. Machinery arrives — cuts down live trees. The enterprise has raw materials, which means there will be money.

The same thing is happening now in the hunting sector. Major businessmen and "high-ranking" individuals have their own hunting reserves! They buy up territories for killing animals. They push through laws on fenced hunting, allow themselves to kill animals listed in the Red Book, and so on...

Since 1926, the Earth's population has grown from 2 billion people to almost 8 billion. That's six billion people in less than 100 years! Heavy industry has rusted through and threatens life on Earth, the climate is changing, and ecosystems are being destroyed. To stop these catastrophes, we need to abandon heavy industry, primitive fossil fuels, and so on.

But 8 billion consumers want to eat, dress in new clothes every day, and buy food every day in a new plastic bag. To stop production means to completely destroy the economy; gradual reforms are needed. Yet the "pseudo-Gods" in power want to reap immediate profits right now! And ordinary people want to gorge themselves right now. The overwhelming majority of people don't want to live off the land, and 8 billion people is an enormous number.

A vicious cycle, with an escape that comes at the cost of strict limitations and large-scale reforms that no one wants.

Chapter 5. On big problems: what is the hydrological cycle?

A brief sketch about big problems.

Another confirmation of the global processes occurring in Earth's biosphere.

And once again, I want to emphasize: understanding such global matters is important for each individual.

Although, let me correct myself: it's important for each person striving for awareness. For someone who wants to truly understand what they're doing and why.

There's a reaction to my articles when I write about global issues: “Oh, why should we care about the problems of aliens on Alpha Centauri or starving Africans?! We have enough of our own problems! It's fine when you write about the Russian Taiga. But why should we even know about the destruction of the Amazon rainforest?!”

And really, why?

I think there's no reason! For someone with a parochial mindset, my books are probably unnecessary to read! I try to imagine such narrow-mindedness: home-work. Video games, perhaps, to “kill time.” Really, why know anything about the Amazon or even the Russian Taiga? No reason!

One thing I don't understand — why do some readers of my books occasionally have a negative attitude towards discussing global problems?! The Earth has become terrifyingly small over the last century! Is this not realized by some? A day on a plane across half the planet — and some infection has overcome all geographical barriers. The introduction of the moth during a careless attempt to restore the Black Sea biocenoses in our country — and the moth devours the last millennial trees that survived construction. Multiple introductions of invasive species into Australia's specific and unstable biocenoses — and we have to fight rabbits, then cats.

And each time, we're fighting ourselves, not understanding that Earth is not just our common home. It's a small, very small home!

And, returning to the topic, the planet's hydrological cycle is common to the entire Earth. Many might recall from school what the “hydrological cycle” is. Remember those diagrams with arrows: vapor rises over the oceans and falls as rain over the continents? In a very simplified form — that's what we're talking about. The real processes are much more complex. A more complete understanding of these processes has only recently emerged. With satellite observation on one hand. And with the advent of very powerful computers capable of processing vast amounts of data on the other.

Here's a fresh piece of news I want to share.

A study by the Pacific Northwest National Laboratory of the U.S. Department of Energy. The results were published in the journal “Nature Climate Change.” From 1979 to 2019, there was an average four-day delay in seasonal rainfall over tropical areas in the Northern Hemisphere.

The essence is this: imagine the zones of tropical forests along the equator. This includes Southeast Asia, India, and the Amazon. Monsoon rains occur there. Seasonally. With the movement of massive amounts of water in the atmosphere. Essentially — these are atmospheric currents similar to ocean currents. They are very stable

and form clear cycles, with their own rhythms.

Where does the massive amount of water come from that then flows from Mongolia to the Pacific Ocean as the Amur River? Or as the great Siberian rivers from the slopes of the Sayan-Altai? Or the Amazon? It's simple: in the atmosphere, in the opposite direction, from the oceans into the continents, flow “atmospheric rivers” carrying the same volume of water!

Researchers have now shown that the stability of these “atmospheric rivers” has been disrupted. The average start time of monsoons has been delayed by an average of four days over forty years. The number seems small. But only if you don't understand that these processes were stable for millennia. And then we see not just a number, but a trend. A rapidly accelerating trend that wasn't there before. Scientists tentatively link this to human activity. It's clear that this is a hypothesis. I don't even want to argue: whether there is “global warming” caused by anthropogenic pressure or not. Or whether these are some natural cycles of the planet that we don't understand. It doesn't matter!

What matters is that there are RELIABLE, VERIFIABLE, CLEARLY QUANTIFIED CHANGES.

And for the average person, it's even more important that GOVERNMENT MANAGEMENT SYSTEMS ARE NOT PREPARED FOR SUCH CHANGES. We can look at China, Brazil, or our own country — it looks the same everywhere. Global technocratic projects. Mega-cities. And the last large ecosystems are simply being devoured.

I mean biological ecosystems, not “banking ecosystems.” “Smart cities” don't look very smart when they don't fit into the planet's biological self-regulation system. Banking and commercial “ecosystems” look like a grotesque cancerous growth when they don't relate to the planet's biosphere at all. These are nightmarish caricatures, pathetically trying to mimic true biological ecosystems. And in doing so, they drain the life out of the living planet.

The scientific data is there. Research is being conducted. I provided a fresh example of a study confirming climate changes. Over the last 40 years, something has happened that hadn't occurred for a very long time before. And this is one of the studies confirming the same thing.

At the level of managing human communities, this scientific data is known. It's used only in geopolitical squabbles, not for real problem-solving. They divide the “carbon tax.” They divide international markets, pushing some technologies over others.

To make this clear to all readers, let me illustrate with a simple example. Something everyone knows and sees every day.

The supermarket.

Eco-friendly bags made of biodegradable plastic — save the planet, buy a bag!

Sort your trash — save the planet!

We are an eco-friendly company switching our delivery service to electric transport!

Familiar, understandable examples? Well — it's all lies, not “saving the planet”! Scientific data has emerged showing that we (humanity) are specifically destroying our habitat. It's impossible to hide this. Especially now, with the internet and accessible communication networks. So, people's attention is diverted from the real problem to insignificant details through propaganda methods. Bags, trash sorting, electric or non-electric transport — these are consequences! They are not the problem itself, from which our attention is being

intensely diverted, but only the consequences of the problem! The real problem is the supermarket itself!

Once again: the real problem is the supermarket itself!

The system of hyper-concentration of profits, the system of monopolization — that's the real problem. Distribute the population across small settlements. Create small agricultural productions nearby. And transport, traffic — everything will decrease by 90%. The logistics of reusable packaging will be easily solvable. Bags, trash packaging, “long delivery chains” — all this can be easily eliminated.

Only then will the profit be distributed. There will be no monopoly. All the money won't be in one set of hands anymore. Secondary businesses, like waste management and so on, will no longer exist. That's why this option isn't considered. Quietly—you're not even allowed to mention this out loud! Sort your trash, put eco-bags on your heads, and breathe every other time to calm your nerves—wait for the courier on an electric scooter and keep quiet! Only agglomerations, only hardcore!

And you know, we're constantly told that only in cities can you ensure a 'civilized standard of living.' Why, it's not clear: the internet is available everywhere. Life-support systems are available for small autonomous

homes. You don't need to 'sleep under a bush and wipe with a leaf'! The thing is, only in cities is profit monopolization possible.

It's very important for us now, as people, to simply not forget how to think. To be aware of ourselves and our place in the world. To understand that we are Earthlings. To grasp global issues, to understand the world we live in.

The first step to improving your life is to focus on the problems, on what harms us, what doesn't satisfy us. No one will do anything for us!

And this is the first step toward solving global environmental problems.

In our country, in the Russian language, a vibrant philosophical concept of Vernadsky's Earth's biosphere has emerged.

In our country, there was an attempt to move away from imperialism and the power of transnational corporations (TNCs). A hundred years ago, this sounded like the appropriation of people's labor by a handful of capitalists. Now we understand that the appropriation of natural rent is also happening. The destruction of Mother Earth's very body for the enrichment of that same handful of people. TNCs rule the world on an

unchallenged basis. Industrialization is over, technologies have changed. There is no longer any economic sense in huge enterprises with numerous workers. Yet people are increasingly being herded into cities expanding into agglomerations. The question is—why is this necessary, other than for profit monopolization?

At night, away from the cities, you can see the starry sky with billions of stars. Air rivers above your head flow to the mountain foothills and pour down as rain. Imagine: the Neva or the Ob, invisibly passing over you right now. The Amazon, cascading down in a thunderstorm. This is just part of the hydrological cycle of a living planet.

These are the horizons of thought available to us.

'QR code'—turnstile—supermarket—'QR code'—turnstile. These are cycles too. Repeating day after day. 'Traffic routing' of objects under the watchful eyes of smart city cameras. For your safety and at your expense. The technogenic ecosystem of the metropolis. A distorted mirror, trying in a simplified way to imitate genuine complex biological ecosystems.

Chapter 6. Next stop — the cemetery

People often write to me about air pollution problems. We get used to struggling to breathe, accustomed to the toxic smell of factories, roads, and landfills. There are already instances where people gather and take to the streets, recording video messages to the government, asking for their environmental rights to be protected. They just want the chance to breathe freely.

The dirty air we breathe triggers acute chronic diseases. Essentially, we are slowly dying, our children doomed to suffer, to illness, to a constant fight for their lives. Kids from a young age breathe in the dirty emissions from heavy industry and think it's normal. They don't know what truly clean air is; they assume it's always been this way, so everything must be fine!

In the city of "C" lives Vasya. Since he was five, Vasya has been coughing up pieces of his lungs, suffering from acute respiratory diseases. Constant vascular issues, bleeding gums, inflamed tonsils, incurable sinusitis.

Several times a year, Vasya suffers from severe headaches, a runny nose, and no matter how warmly he dresses, he quickly falls ill from the slightest breeze. Vasya is used to it. He was born in the city of "C," lives in the city of "C." His bus takes him from home to work every morning.

The hometown, the old town, is working itself to death. And Vasya is working himself to death too. At thirty, Vasya is diagnosed with a cancerous tumor, the doctor says, "your headaches were from cancer." To numb the physical and psychological pain, Vasya drinks a lot of beer. Then vodka. Before reaching forty, Vasya dies. The bus will no longer take him to work; the next stop is the cemetery. There, they'll place plastic flowers on his grave, made at the factory where he worked. They produce plastic there. Heavy industry with heavy ecological consequences. And it seems, for Vasya...

And unfortunately, Vasya never wondered why it all happened. Why was he born with chronic illnesses? Why was he diagnosed with a cancerous tumor? Why was he not destined to live even forty years of the promised century?

Already, some people in our country are starting to think about this. People are waking up. Decades of a harsh capitalist regime, where heavy industry was built so rapidly that no one ever considered the consequences, are now manifesting in us as severe illnesses. Thanks to the internet and the development of information technology, people communicate more, starting to realize they are not alone in their problems.

Scandals about yet another release of harmful substances into the atmosphere are surfacing, people look at the factories in their cities and realize they have the same problem. The number of cancer cases is rising — and people see this too, even when statistics are confidently adjusted in favor of big business. When in your five-story apartment building, several people are taken to the cemetery each year with the brief phrase: "he had cancer," you involuntarily start keeping your own statistics. The real ones.

People write to me. Many people. They ask for help! To protect them from dirty air, to influence the big capitalists. I understand the problems, I understand how terrible everything is. But until the overwhelming majority of people also start understanding these problems, there can be no talk of any global changes.

Industry is rotting, rusting, falling apart. Large companies have entire teams of PR specialists who monitor social networks daily and discredit environmental defenders. Any activists advocating for a clean environment get stabbed in the back, and no matter how hard they try, they will never have as much money and opportunity as the owners of heavy industry.

So, the city of "C," where Vasya once lived. Vasya is gone, and the city of "C" continues to rust. The factory keeps producing plastic, toxic emissions continue to escape into the atmosphere, and the number of graves in the cemetery grows. In reality, stopping the factories in one day would mean leaving the entire city without work, and hundreds of thousands of people without even meager wages.

This was capitalism's bet: to make everyone dependent on business. The entire economy must depend on production. People shouldn't have gardens, cows, or winter supplies. All food should be in stores, quick, cheap, and abundant. And wages should only be enough for food, so a person is fed but has no chance to "break free." To afford extras — one must save long and hard.

And the capitalists keep working, keeping people close with artificially created dependency. Meanwhile, continuing the operations of factories means continuing to kill people. Across our country, due to thoroughly rusted industry, there have been repeated leaks of oil and chemical waste, poisoning not only the air but also the land, rivers, and seas. And this will happen more and more often because nothing has changed since Soviet times, and there is no control, and there never was.

But the companies' PR people will convince you otherwise. "Environmental inspectors" will unanimously declare that "the MPC standards are fine." This, considering that the maximum permissible concentration standards for harmful substances are constantly being raised, made exactly as beneficial to business as possible.

Ask yourself: are you breathing well? Do you have chronic illnesses? Does your head hurt? What kind of air do you breathe when you step outside? Are there factories around you that regularly emit a disgusting smell?

And why should you have to breathe this?

Why did no one ask you if you needed this when they built a landfill or factory here?

I'll tell you: because no one cares about your opinion.

Chapter 7. The destruction of biogeocenoses

The sharp (catastrophic) destruction of biocenoses across the entire planet has begun!

And this will affect every one of us.

More than that: this will affect each of us VERY SOON!

The real time frame is about a decade. At most, a few decades. That's very soon!

Here's a small, hopefully clear example. At least, clear for older folks. We lived in one country—the USSR. Thirty years have passed, and now we live in a completely different country. There were even specialists back in the USSR who said: The Empire is on the brink of collapse, there's a risk of total disintegration. No one listened to them! People responded: Oh, come on! That's impossible! Communism will triumph worldwide! And blah-blah-blah…

Phase transition. Water to steam. Water to ice. The state of the system changes abruptly, and what was once a liquid becomes a solid with entirely different properties.

Or it becomes gaseous steam. Such sudden changes occur instantly. At, essentially, a single point! From +90 degrees to 0 degrees, it was liquid water. And then, snap—minus 1 degree! And it's all ice! This is the phase transition of a complex system.

And now, the complex system of Earth's biosphere is on the brink of such a phase transition. There is a wealth of data. There are numerous changes being observed all over the world. And there are clear scientific hypotheses and models describing these processes.

And no one can believe it! Masses of people are aware of the events taking place, but they categorically refuse to believe that this will continue at an ever-accelerating pace! No, this isn't true (even if they see it happening with their own eyes!), it can't be!

Moreover, even the existing mathematical models and coherent, comprehensible scientific hypotheses... don't even convince the scientific community! They remain unrecognized, marginalized even within science itself!

It's actually quite simple to understand why this happens. Why does everyone see the beginning of these events, there's a modeled scenario for their development, yet no one believes their own eyes? It's simple—this has never happened before! Not in our

memory, not in the memory of our ancestors, nor in the memory of our ancestors' ancestors. It has never happened at all, in the entire history of our civilization! Since the advent of writing and any form of recorded experience—nothing like this has occurred!

There's a wise Eastern proverb: It's easy to spot a thief from a minaret, but try to see him in a crowd!

The proverb is about something else. I want to illustrate a simple idea: we're all in the crowd. In the flow of events. The horizon of personal experience is short. Though my grandfathers often say, "Yes, the fish in the river aren't biting at all, but there used to be plenty!" Or, "The game in the forests has disappeared!" Younger people don't notice this. But we have precise scientific data!

Science "looks from the minaret," evaluating events on the scale of geological epochs! And now, besides the potentially doubtful opinions of grandfathers, there are statistics, precise numerical assessments! This percentage of plants has gone extinct, this percentage of animals has disappeared. And believe me (and check if you don't believe!)—these percentages are terrifying! The "view from the minaret" of science is the onset of a mass extinction in the planet's biosphere!

And it's extremely important for us to understand this problem right now.

It's even more important to tell others and discuss it!

Discuss it everywhere! Write books and articles. Discuss it personally and on social media. Share your understanding, your knowledge with those around you. Teach children. Understanding biological systems, ecological knowledge—they are insufficient in society right now.

This is extremely important!

I often hear people say, “I love my country, but when it comes to the government, it’s not so straightforward.” So, it seems most readers will understand why I emphasize that discussing environmental issues in society is crucial!

The existing structures that govern society, all these “power verticals,” are disconnected from the people's interests. They serve the interests of influential commercial entities. The opinions and interests of the people reach them, but just a little. Sometimes more, sometimes less. But even in the most democratic countries, governments primarily serve the interests of Big Business. “He who pays the piper calls the tune”—it’s that simple!

And the knowledge, experience, and objective forecasts of the scientific community hardly influence anyone! The general public doesn't understand this: it's not confirmed by personal experience, and the average level of education is low. It doesn't allow for the analysis of abstract concepts like "geological epochs" and "species extinctions."

Those "in power, with money, or with the crown" partly disregard scientific data and partly act, to put it mildly, ineffectively. In my opinion, this is mainly a systemic defect in government management. The bureaucratic system is rigid, sluggish, and cares about nothing but its own existence.

And here, the activity of the part of society that thinks about the future is very important! We form a social network. A physical social network of living, thinking people, reflected in the virtual space by all social networks and messengers. And what we think about and share with each other matters a lot! It seems like it doesn't. It seems like we can't influence the authorities. But in reality, consolidated public opinion influences the authorities more than the opinions of scientists or specialists!

Let me give examples I've observed myself.

The catastrophic logging in the Russian Taiga, the illegal sale of millions of cubic meters of timber abroad, primarily to China, went unnoticed by federal authorities for years. They did nothing, despite reports from their own local officials! Only after widespread public discussion, petitions, and mass scandals on social media did things start to change, and real measures began to be taken!

The same situation repeated with the catastrophic fires in the Russian Taiga! Until people began to protest en masse, write petitions, and discuss the fires on social media, nothing was done!

We, the physical social network of living people, managed to reach the authorities! Through collective efforts! And at least we managed to slow down the destruction of the Russian Taiga!

This is important!

And this needs to be understood. We can’t influence as much as we’d like. But still, society, we, can do quite a lot!

Let’s recognize the value and importance of our efforts and continue to act! It’s precisely us who can slow down the destruction of the biosphere. And gain precious time for society and technology to adapt to changes.

This is important for each of us!

And every voice matters!

The destruction of the biological habitat is a path to collective suicide! We must do everything to prevent this!

Chapter 8. The Destruction of Waterways

Currently, in Russia, as well as around the world, there is an acute problem of protecting rivers and freshwater inhabitants. Let me remind my readers that since the 1970s, humans have wiped out about 84% of all freshwater animal populations. These are staggering numbers! Meanwhile, the degradation of freshwater habitats continues, entire species are going extinct, and there is virtually no control over the discharge of toxic substances into the water.

Authorities typically respond to environmental crimes by punishing the consequences while ignoring the causes of ecological disasters. It's like wiping pus from a wound with a rag instead of actually treating an infectious disease. And all the while, fully aware that this disease will sooner or later progress to an incurable cancer.

In studying materials and research by scientists, I paid special attention to the issue of river degradation. Why? Because rivers not only support vast biodiversity in

nature but also serve as supply chains for food, sources of fresh water, and are an integral part of the economic development of countries. It can be confidently said that billions of people worldwide depend on free-flowing rivers! By destroying freshwater bodies, we are primarily destroying our own future and the future of our children.

And if the degradation of ecological systems doesn't scare people, then our own destruction should at least compel us to pay special attention to the protection and conservation of water resources. Not just formally on paper, but actually in life, addressing the issue of restoring the biological diversity of rivers, cleaning rivers from pollution, and developing new technologies that will protect rivers from human economic activity. Implement the harshest penalties for river pollution, and conduct strict oversight of enterprises, especially heavy industry.

A new study by scientists specializing in freshwater sciences was published in the journal "Sustainability." According to the study, only 17% of all free-flowing rivers in the world are protected, while the rest are unprotected and subject to ongoing ecological degradation.

Scientists have created a special coalition of water resource experts, including representatives from major conservation organizations. This includes scientists from the World Wildlife Fund (WWF), and specialists from Conservation International and Nature Conservancy. For the first time, scientists have created a unique collection of documents, research, and materials dedicated exclusively to the long-term protection of free-flowing rivers. The specialists not only study the problems but also offer countries a real action plan that allows the integration of the latest scientific data into environmental protection.

Unfortunately, freshwater protection receives less attention and funding than, say, marine and terrestrial ecosystems. I reviewed public materials from scientists, and they propose a collection of 15 major studies involving authors from around the world, which provide examples of protecting free-flowing rivers through scientific research, policy, legislation, and the implementation of river ecosystem restoration strategies.

"These ecosystems are among the most understudied and underprotected in the world, and they are at risk of further significant change and degradation due to a range of threats, including poorly located dam

construction, overfishing, excessive water extraction, and pollution (...) This first-of-its-kind collection is dedicated to the growing calls to protect rivers as corridors in a changing climate and the important role they play in providing ecosystem services and livelihoods worldwide. We are at a point where climate change and policy will determine the path of development and management of our river resources. We must act to protect rivers now because failing to do so will have long-term consequences for decades to come," says Daniel Perry, a water resources geographer leading the Free Rivers Lab at the School of Earth and Sustainability at NAU. He is also a co-editor and one of the founders of the coalition of scientists on river protection issues and is actively involved in researching the degradation of the world's water ecosystems.

Experts are calling for improved global river protection goals. There is clear scientific evidence, massive research on the value of free-flowing rivers, including their ability to support migratory fish and deliver sediment necessary to maintain homes for 500 million people and some of the most productive agricultural lands on the planet. This includes preventing their flooding and reduction. Thanks to these values, scientists are urging for enhanced protection of free-

flowing rivers within river basin management strategies.

I conducted expeditions for several years, covering various water arteries in Russia, including the Volga River. As of today, the Volga is the dirtiest river in Russia and one of the dirtiest rivers in the world. And it should be different! After all, the Volga is in many ways a symbol of our country, a great river that has fed our ancestors for centuries, opening paths to seas and new lands.

Today, the banks of the Volga are lined with miles of heavy industry enterprises, including chemical production, oil refining, and metallurgy. At the same time, there are million-plus cities here. Naturally, all the poisoned wastewater and toxic discharges flow into the river, and all this settles in the river's delta in the Caspian lowlands. The ecology is constantly being poisoned along all the banks of the Volga to the Caspian Sea.

The Volga is just an example. This situation is seen everywhere! In the winter of 2021, for instance, there was a scandal, which I also published material about, when dead fish were found in a river flowing through a forest reserve. According to specialists, all living inhabitants in the river died, and the culprit of the

pollution received only an administrative fine. This all indicates that drastic radical changes are needed! Otherwise, in the near future, we will face an incurable cancer that will take away the future and lives of our children.

Let me quote a deeply respected scientist, Jeff Opperman, who is a leading global WWF specialist on freshwater resources:

> "While 17 percent of all free-flowing rivers are within protected areas, in most countries, the level of protection for large rivers is much lower. It is these large rivers that are crucial for supporting fisheries that sustain rural communities."

We depended on free rivers thousands of years ago, and we depend on them now. Rivers on Earth are like veins in our bodies! And if we let poison into our blood, sooner or later, we will die. So too with ecology, our nature, it is rapidly dying from blood poisoning... from the poisoning of water arteries!

Chapter 9. Killing the magical places of the wilderness

"From Moscow to the very outskirts, from the southern mountains to the northern seas, Man strides as the master of his vast Motherland."

This is the Song of the Motherland. The author is Lebedev-Kumach. A well-known old Soviet song.

Let's move from the issue of protecting free-flowing rivers to the problem of destroying the truly magical places of the Russian Taiga, the nature of Russia. It's all interconnected, undoubtedly! And since this book is about large-scale ecocide, we must mention not only the problems that have occurred but also those that are just appearing on the horizon.

Now my friends write to me "...from the southern mountains to the northern seas..."

They write: The "vast" Motherland turned out to be quite "embraceable."

There's nowhere left to hide from Big Business! Like in the ad for a famous laundry detergent: And now they're coming for you!

Whether you like it or not, Big Business is trampling even the most remote, most protected corners of Mother Earth underfoot.

My readers write: The magical corners of the Russian Taiga, once remote and inaccessible, will be destroyed in the coming years. And it pains people. It's frightening. They feel utterly helpless. They see the Iron Heel of Big Business already poised over their personal Places of Power. Over their personal Little Homeland.

And what's really going on?! Let's figure it out.

There's definitely something to figure out! And indeed, friends from both the North Caucasus and Kamchatka wrote to me simultaneously. "From the southern mountains to the northern seas!"

A brief preamble.

A small example to understand what my readers are writing to me about. What people are heartbroken over.

Unique remote springs or waterfalls in the depths of the Russian Taiga.

The clear depths of subalpine lakes in mysterious highlands.

Majestic groves of ancient Siberian cedars. Ancestral Groves, Places of Power, that have seen dozens of generations of ancestors who came to them.

Not everyone has seen these. Few have been to such places, so these examples may not be clear to everyone. Let's make it simpler. Closer to home. Closer to the cities. Even in Moscow, there are springs in parks where people come for water. Amidst a metropolis with questionable ecology, they still continue to draw water there. They say tea made with such water tastes better. "Living" even under the city's asphalt, in their opinion, this water remains.

Some have such springs near their dacha or in the village. There are "improved" springs, church "baths," with log cabins and paths leading to them. Unlike the Sacred Groves of the boreal forests, which still remain among the Russian Land, at least many have seen these. They can imagine them.

So, here's the question.

There's a spring.

At most, a dozen people visit it a day. Or, if the place is somewhat known, maybe even a couple of hundred people a day. They collect some water. In summer, they listen to the birds, and then they go on their way.

Imagine a businessman decides to "promote" this place as a tourist attraction. And invests several million dollars in this project. It's possible—if there's money. And the small stream of people coming for spring water turns into a huge flow of tourists from all over the world. The anthropogenic load increases by orders of magnitude. Luxury hotels with thousands of rooms. All the paths paved with tiles around. Shops and souvenir stalls. And finally, of course, they'll drill a well! They'll start pumping the living water, how else?! Business is Business—nothing personal! With a 100% probability, everything that can bring even a cent of profit will be exploited!

I think it's a clear model picture for an example?

Attention, question!

What are the chances that the Big P (the Big Arctic Fox—a legendary fur-bearing animal of the Russian North) will come to the local small ecosystem? Will the natural biocenosis, which has developed here over millennia, survive or not? Will the uniqueness of the

biome of grasses, microorganisms in the soil, bugs, and beetles be preserved or not?

My friends unanimously say: "NO!"

The local ecosystem is doomed. Kaput. Done. Out. Period. That's it.

The millennia-old Boreal Life will be replaced by techno-NONlife, the PSEUDO-life of a "tourist cluster."

We will FOREVER and IRREVOCABLY lose the Ancestral Spring, the Sacred Grove of the Ancestors.

Nothing will ever be restored!

Even in memory, the KILLED magical places of the Russian Taiga will remain for only a short time...

Human memory is short...

Horror-horror, why "escalate"? Is everything really that terrible? Is tourism really that frightening? Or do the benefits of allowing millions of people to relax in a unique place and giving dozens of capitalists a chance to make money outweigh the drawbacks of destroying the ecosystem? And why do we even need this ecosystem anyway?! Those "bugs and critters" don't bring in any cash! "Maxim died—so what?!" Let the biosystem change—as long as the "tourist cluster" brings in money,

raises the standard of living for the local population, etc., etc.

This is called "selling your birthright for a bowl of bean stew," if you're familiar with common Christian metaphors.

And a huge number of people have ALREADY sold their birthright for a bowl of cheap grub! In the modern rendition of the ancient image—for a cheap packet of "Chinese" instant noodles, they've sold what they simply don't understand the value of.

I've written about this in articles and constantly tell my friends. Most of my friends disagree. The MAJORITY of the population SINCERELY SUPPORTS the mega-project currently underway across the country to create tourist clusters. In this, I believe, the authorities are not lying! Indeed, 90% of the population is fully and completely "for" the creation of extensive tourist infrastructure.

"Against" are only a small number of specialist scientists. Plus a small number of thoughtful people who have considered and heard the arguments of ecologists. And that's it... An overwhelming minority!

Now to the topic itself, why friends from different corners of our country wrote me essentially identical letters all at once.

On May 19, 2021, Vladimir Putin held a videoconference meeting on the implementation of certain provisions of the President's Address to the Federal Assembly, delivered on April 21.

The media simultaneously released articles with headlines:

"Putin stood up for tourists visiting the Valley of Geysers in Kamchatka."

"Putin criticized Deputy Prime Minister Chernyshenko for his words about tourists in the Valley of Geysers."

"Putin was outraged by Chernyshenko's words about tourists in the Valley of Geysers."

The Russian leader urged treating tourists "not as strangers, but as our own, close ones."

The essence of the matter is as follows:

Deputy Prime Minister Dmitry Chernyshenko, in his report, made the following statement: "Another important direction, a step, is territorial planning. This is a very important thing, something that hasn't been

done before. The preparation of master plans for tourist areas includes visualization, the creation of architectural codes, and calculating the anthropogenic load. Because, for example, you can't let ten times more people into the Valley of Geysers in Kamchatka; they'll just trample everything there."

(In other words, it wasn't specifically about the Valley of Geysers in Kamchatka, but about the general issue of accounting for anthropogenic load: "...for example, in the Valley of Geysers...")

The President noticed this phrase and commented: "I even made a note. When talking about the Valley of Geysers, you said that you can't let more people in there, or they'll trample everything. I understand you didn't mean anything bad, but it struck me. As if these are people we don't want to see there. We need to treat people not as strangers, but as our own, close ones, and then we'll do better. If we organize things properly there, in the Valley of Geysers, nothing will get trampled."

The President also gave examples from other countries: "They don't trample anything there, and the number of people visiting such sites is much higher, by an order of magnitude. Because everything is organized correctly.

But for this, you need to invest the appropriate resources, calculate, and invest in a timely manner."

("Resources"... "calculate"... "invest in a timely manner"...)

My friends immediately sent me links to articles in the media and transcripts of the event itself.

With a general sad summary: Well, that's it! Now "businessmen" in all regions will use the President's words for their own purposes and "push through" whatever they want! Now it will be much harder to defend any of the protected areas!

For those not in the know—a brief overview:

— A National Project for the development of tourism has been launched in Russia.

— The tourism national project aims to attract about 2 trillion rubles in private investments into Russian tourism by 2030.

— About 600 facilities will be built across the country.

— The Russian government intends to consider allocating 1 billion rubles for tourist master planning in Crimea, the Far East, and the Golden Ring right now.

— Sheregesh (Kemerovo region), Balaklava (Crimea), Altai (Altai Republic), and the Baltic are now identified as priorities, the focus of attention in implementing the tourism national project.

— A total of 13 territories have been designated. Among those not yet mentioned are the South of Russia, the Caucasus, the Greater Volga, Moscow, St. Petersburg, the Greater Urals, Baikal, the Russian North, and the Arctic.

— The state corporation "Tourism.RF" has already signed six major investment agreements. Design and construction of facilities are already beginning in Karelia, Kostroma, Sverdlovsk region, Omsk region, Adygea, and Kamchatka.

!!!

— It's worth noting that the territories for the development of the giant tourism project are of two types. On one hand, there are cities. There are no questions about them—any tourism development is only for the good! On the other hand, there are a number of unique territories that have not yet been subjected to critical anthropogenic load.

— How mega-projects are implemented under state corporations in our country can be seen in practice. And specifically in the tourism sector. The model is tested and now scalable across the country by state corporations. Big Sochi, Krasnaya Polyana, Rosa Khutor.

The significance of the UNTOUCHED boreal forest ecosystems cannot be described in a short note. Indeed, the topic is not easily understood by non-specialists. The main point is that the Russian Taiga regulates the climate across the entire continent. Even purely monetarily—the damage from the destruction of boreal forests is thousands of times greater than the most fantastic assumptions about profits from tourism.

The "sacred right of the layman" to gaze at the taiga or mountains from the window of a "five-star" hotel? Is it worth it if the direct consequence will be starving to death after a couple of years of rationed products in a distribution economy?!

This can't happen because it can never happen?! Or is it impossible, like the collapse of the super-empire USSR? "Green propaganda"?! Well, I'm not suggesting you believe some article!

Look into the issue in detail yourself. A couple of topics, "off the top of my head":

— modern scientific views on the role of boreal forests in the transfer of water from oceans deep into continents;

— axiomatic scientific data on the role of forests in retaining water in the soil;

— the not-so-funny anecdote about how the United Arab Emirates pumped all the water from under themselves, from the underground aquifers beneath their country, where it accumulated for millions of years, for the sake of creating an unprofitable agriculture;

— the example of the "Great War" of the Great Chinese Empire against sparrows, and what came of it.

And finally, Russian Prime Minister Mikhail Mishustin instructed Deputy Prime Minister Chernyshenko to deal with the development of the Valley of Geysers. He specifically mentioned the need to "scale up the business."

> "In the future, it is necessary to develop a concept for tourism development in the Kronotsky State Biosphere Reserve in accordance with environmental legislation. And scale this experience to other similar territories, of which there are many on the map of Russia."

Chapter 10. A dying legacy

From July 16 to July 31, 2021, the 44th session of the UNESCO World Heritage Committee took place in the Chinese city of Fuzhou. Delegations from 21 member countries of the World Heritage Committee participated, along with observers from states party to the 1972 Convention on the Protection of the World Cultural and Natural Heritage.

I want to talk a bit about the list of World Heritage in danger. There's this global "blacklist," a shameful list in its own way.

Being included on the list means significant work is needed to preserve World Heritage sites. That's the polite way to put it. In reality, it's a list of those unique places on the planet where regional administrations are failing, and unique corners of nature or creations of past masters are being stupidly destroyed. Most often, they're destroyed by businessmen for profit.

The list is compiled, updated, and published by the World Heritage Committee during its annual sessions. In case of emergencies, the Committee can add a new site to the list at any time by convening an extraordinary session.

When the threat disappears, a site is removed from the list.

As of July 31, 2021, there were 1154 sites from 167 countries on the World Heritage list.

The list of World Heritage in danger consisted of 52 sites in 33 countries.

And our country (for now!) was not on the list of humanity's dying heritage!

And I am entirely in favor of our country never appearing on this shameful list!

The sad part is that now there's a real chance for our unique territories to end up on this "blacklist." The recent UNESCO session on World Heritage protection confirmed this at the international level.

Lake Baikal, the Kamchatka volcanoes, and the Western Caucasus could realistically end up on the "blacklist" of heritage in danger.

The "Western Caucasus" site is the very Lago-Naki Plateau, about which I made a documentary film in the summer of 2021. A real threat of destruction to a unique natural monument!

It was decided to send missions from the World Heritage Center and the International Union for Conservation of Nature (IUCN) to assess the state of preservation of these sites. There are very serious questions about each of them...

For my readers, I'll first briefly outline my personal position on the events happening. Though it won't be very brief: it's a complex issue.

My personal opinion.

Considering my personal impressions from investigating the situation during the filming in the Western Caucasus.

The threat to unique territories in Kamchatka, Lake Baikal, the Lago-Naki Plateau, and others is part of the broader processes occurring in society and the state right now. I just saw this "live" in the Caucasus. It seems to be happening the same way in other regions. I've partially seen it at Baikal and in Altai during past expeditions.

The essence is simple: corporate business is eager to devour what it hasn't yet consumed!

It's very simple: corporate business is eager to devour what it hasn't yet consumed!

Certain territories were protected by their remoteness and inaccessibility. Most of these territories also had some form of protected status: reserves, sanctuaries, etc. Now all other territories are already "developed," and the steel mega-monsters extracting profit from the flesh and blood of people and squeezing every drop from Mother Earth have no brakes! The organized structure of commercial corporations is inherently focused on increasing profit. "One, but a burning passion," so to speak! Endless profit growth!

Don't you find that such a simple, vivid explanation clarifies what's happening better than some complex analysis of the situation? Because it's not a simplification, but an assessment of the foundation. And the foundation is simple! A commercial corporation is a social system created to extract profit. That's it! One sentence describing the essence of the processes!

Can you imagine the level of "social responsibility" of a hungry bear? It sees prey — it devours it! That's the whole level of "social responsibility"! A hungry predator,

simply wanting to eat, won't choose. Oh, should I leave the little cubs "for breeding"? Oh, maybe I shouldn't devour their mother, the female, because without her the cubs won't survive? Oh, should I starve a bit longer until I find prey whose death won't harm the ecosystem? Nonsense! It sees — it devours!

That's exactly how a commercial corporation operates. Pure "system instincts," created with the sole purpose of obtaining profit and expanding its resource base to extract that very profit. Eat, eat, and eat! All limitations are only external. If a bear in the taiga eats only as much as it needs to survive, business will devour without any boundaries or restrictions. No brakes at all! Because a bear lives by instincts embedded by nature, while a commercial corporation lives by the instincts of an artificially created system. The system of capitalism.

We hear about "corporate social responsibility," see commercials about how corporations protect rare animals or donate to conservation organizations. And many, in their naivety, take this as truth: Look, kind gentlemen are telling us how they help the animals! Yeah, right: the point is, the gentlemen are telling us how they help the animals! It's like "Goodnight, kids!" Sleep, people, and don't worry about anything — we'll take care of everything for you!

Here, I'd like to quote an old book to the reader: "Judge them by their deeds"...

Many say it's a wise book, and the principle works.

And my practical experience tells me that they're simply lying to us, pushing their commercial interests. If you want to delve deeper, there are even specialized textbooks and corporate courses and training programs. "Public relations" or even "Handling public protest." When you get acquainted with them, the initial assumption "they're simply lying to us" gradually turns into certainty: they're consciously and brazenly lying to us.

What's happening now with territories like the Valley of Geysers in Kamchatka, Baikal, Altai, or the Lago-Naki Plateau of the Western Caucasus is linked to the state program for developing tourist clusters. It's a huge separate topic that I can only mention. It's a program for tourism development in the form of large macro-regions. A public-private partnership program, where participating commercial corporations receive huge benefits and partial funding from the budget.

I have no questions about creating large tourist clusters in cities. Only benefits, no questions! But I have very big questions about creating tourist clusters in untouched

natural areas. They change the status of reserves, where nothing can be done, to the legal status of national parks, where economic activity is allowed. Or they remove pieces of territory from reserves.

It's completely clear that such an extraction destroys the very essence of the entire reserve—disrupting the integrity of the protected area. You can't explain to animals or birds that they can't go there anymore—they'll kill you there! You can't protect areas from the introduction of alien, invasive species into the ecosystem. The presence of tourist flows, and during construction, heavy machinery with thousands of migrant workers, makes this absolutely impossible!

The inevitability of such risks is not only discussed by expert biologists and ecologists. The reserve staff themselves, and even some ministry officials, openly talk about it. But no one wants to listen to them—financial interests overshadow everything!

We still have a state for now. But large commercial structures are aggressively pushing for the privatization of the state. For the replacement of previously state ministries and departments by commercial corporations. For the creation of a commercial corporate state from the fragmented pieces of the state. And in the

privatization of reserves, I see only a specific instance of this general process.

Here's a small example. While I was writing this material, news came out that the Minister of Natural Resources of the Russian Federation expressed dissatisfaction with "internationally known corporations" that "brazenly" evade the introduced recycling fees for packaging. As you can see, he can't even name them or hold them accountable. But it's precisely the transnational corporations (TNCs) that are meant. Essentially, "states without territories" that can even compete with our traditional territorial state.

And with the program for creating tourist clusters, I see this: the Russian state plans a strategic development program. Let's say for 50 years. But a businessman trying to enter such "public-private partnership" programs doesn't even consider such strategic plans! Business planning horizons are five years, ten at most. To the point, in my opinion, that many such "private partners" are outright fraudsters. The initial plan is to obtain funds from the state budget, then withdraw them and declare bankruptcy. Why do I think so?

First.

Economically, tourist cluster projects are not effective. Existing tourist sites already suffer from a lack of tourists. The question is: why build new mega-sites if not just to write off funds for their construction?

Second.

Strategically. For 50 years, let's say. Where's the growth in demand and the number of clients coming from if we see a decline in the country's population, "aging populations" worldwide, and global economic problems? Do corporate analysts not know this, or are their interests elsewhere?

My answer: yes, their interests lie elsewhere! Their interest is in making a profit, income. How they achieve it doesn't matter!

Take Lago-Naki, for example. We have ski resorts in the Caucasus in our country. Good resorts! Is there such a huge demand for skiing, a shortage of places at existing resorts? No. On the contrary: the existing ones are empty.

Why not place ski slopes elsewhere? Why specifically encroach on protected territory? Especially since, as I understand it, the plan is for an all-season budget-friendly resort. There are plenty of suitable places in the Caucasus. And economically, they are undeveloped.

Here, I think the answer might be that in other places, the land plots have small owners. Some are pastures. Some are other agricultural lands. Instead of buying land from them, it's easier to get a large area from state ownership. Snatching it from the reserve. It seems very likely that this is the reason for the simultaneous attack on reserve lands in different parts of the country. There are no more free lands left!

And so I come to the conclusion: "private partner" corporations are now trying to make profits under the guise of a state program. Without planning any strategic interest of their own. And then these territories will be abandoned. With an irreversibly destroyed ecosystem around them. The state will simply not have the funds to maintain them (let alone restore them!).

Therefore, it's important now to assess the risks of destroying these territories by international experts. As a deterrent to the predatory instincts of corporations!

And that's why public opinion and raising awareness of the issue in society are important now! Scientists and experts are speaking out, but there are too few of them. The authorities don't hear their opinions! We can support specialists and scientists in preserving unique regions!

The most important thing is that this is not a pointless and hopeless endeavor, as some think. It seems like you're dealing with a mechanical, senseless machine, like a bulldozer. It seems like nothing can be done, everything is already decided. And decided not by us and not in our favor. Not in favor of our people and the future of our land. But that's not true! Government bodies are not homogeneous. And not everyone in the government is happy with the privatization of protected lands. And, moreover, the privatization of the state itself!

Chapter 11. What threatens the sacred sea of Siberia?

We're talking about Lake Baikal.

“Glorious sea, sacred Baikal” — it's an object of respect, even reverence. The words of the song are decades old, and Baikal has been a sacred place for people for thousands of years.

This is exactly where I want to start: Sacred Baikal.

We are witnessing some very interesting changes in society right now! And I'm not just talking about our vast and beautiful country, but about the whole world!

In a well-known Soviet film, the main character confuses an apartment in one city with an apartment in another. The comedy's plot revolves around identical neighborhoods, standard houses with uniform apartments. Everything is so similar that you can't tell one city from another!

And now, cities, technology, and even people in different countries are becoming just as uniform. This is called “globalization.” Supply chains span the globe, with

China, the “world's factory,” dumping so much pollution into the ocean that waste streams can be visually seen on satellite maps.

This is one piece of the puzzle. One element in forming the overall picture of the world. For a proper, holistic understanding of what's happening now. Globalization has allowed multinational corporations (MNCs) to reach such a scale that they directly dictate their “rules of the game” to states. Even countries like Russia or the USA “bend” to the interests of MNCs! Of course, it's not a given that they'll succeed! It's not certain that globalists, MNCs will become “masters of the world”!

China, for example, has tightened state control within its territory in recent years. It has “reined in” business giants and commercial monopolies. I'm not saying whether this is good or bad. In China, it's linked to increased control over citizens and the accelerating use of electronic means of monitoring people. I'm just illustrating: this is the world we live in. Understanding the big picture is necessary to understand specific cases. To understand what's happening in a particular place, in a specific region.

Regarding Baikal, the UNESCO World Heritage Committee has urged our country's authorities to stop weakening the lake's protection regime. They recommended inviting a special international commission there. It's important to understand that these are only recommendations. The UNESCO committee has no direct authority. But it's an international institution of cooperation. Scientific cooperation, primarily. These are scientists, specialists who can provide an independent assessment.

What issues are at stake for Baikal?

FIRST.

The fluctuations in Baikal's water level.

Those familiar with Baikal's environmental issues have probably most often heard about the pulp and paper mill — the legendary festering sore on the lake's shore, eroding local ecosystems for decades.

International experts are most concerned about the “temporary” permission to expand the range of permissible fluctuations in Baikal's water level by 2.3 times. UNESCO insists that Russian authorities halt any further actions to change the lake's regulation regime. At least until a full assessment is made by UNESCO World Heritage independent experts.

Baikal is currently used as a flood control reservoir. That is, the outflow is artificially regulated by humans.

The Russian government developed a draft resolution proposing to permanently expand the range of water level fluctuations to 2 meters 31 centimeters. It was reported that the minimum mark would be 455.54 meters, and the maximum 457.85 meters.

In May 2021, the cabinet of ministers heeded scientists' opinions on the inadmissibility of such large water level fluctuations, which do not correspond to natural ones. A decision was made: “Set the maximum and minimum water levels in Baikal in 2021 during average water conditions at 457 and 456 meters, respectively, according to the Pacific height system.” That is, water level fluctuations of one meter, not more than two meters. But, as you understand, this decision is temporary.

The essence of the problem with human regulation of water levels is as follows. When the water rises significantly, it floods the shallows where fish fry hide from larger fish. Predatory fish eat the fry, and the fish in the lake die off en masse. And when the water level drops sharply, the underground water horizons become shallow. Peat bogs along the lake's shores dry up,

leading to massive fires. This, as you understand, leads to the total destruction of the extensive ecosystems of the Baikal Taiga.

SECOND ISSUE.

The second global issue in preserving Baikal is precisely that festering sore of the pulp and paper mill.

In our country, the Federal Target Program “Protection of Lake Baikal and Socio-Economic Development of the Baikal Natural Territory for 2012–2020,” developed by the Russian Ministry of Natural Resources, has been in effect for many years. It was planned to spend 58 billion from the budget. Organizations involved in “saving the lake” changed over time.

It's important to understand that the Baikal Pulp and Paper Mill accounts for 80–90% of the lake's pollution.

I personally understand that the ONLY conclusion that should be drawn is that placing industry on such key objects for the macro-ecosystems of regions, like Lake Baikal, is CATEGORICALLY UNACCEPTABLE!

It's important to understand that even a non-operational Baikal Pulp and Paper Mill remains a source of so-called “accumulated environmental damage.” Simply put, there are such mountains of filth there that no one knows how to clean it all up now. They tried to clean it up, but never

did. The “cleaners” changed — legal entities. Billions were invested.

As a citizen of this state, I would still like to see real results! Not billions “draining” into the sand. Not an endless struggle to save the lake.

Now, the “Augean stables” of the Baikal Pulp and Paper Mill have a new Hercules-cleaner.

VEB has prepared a project to create a “world-class” resort city in Baikalsk. This is in the south of Lake Baikal, near where the Baikal Pulp and Paper Mill was located. And now lies a mountain of “accumulated environmental damage,” the very Augean stables. The mill closed in 2013 — the filth remains, it's that simple! The project cost is estimated at 161 billion rubles.

This amount includes the construction of a “high-class international resort” on Baikal, an eco-city, and a center for water resources and eco-technologies. Most importantly, the dismantling and reclamation of the Baikal Pulp and Paper Mill site. The elimination of “accumulated environmental harm” on the territory of the waste storage sites.

Let's clarify what “VEB” is.

VEB is the former USSR Vnesheconombank, which was transformed in 2007 into the development bank “Vnesheconombank.” Now VEB.RF is a Russian state development corporation. A state investment bank financing economic development projects. The full name is the State Development Corporation “VEB.RF.” It operates under a special federal law “On the State Development Corporation VEB.RF.”

A separate law written specifically for this structure—imagine that! Today, the VEB.RF group includes Rosnano, the Skolkovo Foundation, the Russian Export Center, the SME Corporation, the Industrial Development Fund, and the Innovation Promotion Fund. And a separate issue is that VEB acts as a methodological center for "green" financing and environmental programs.

Do you understand the level of interests involved?

Over a decade, 58 billion was poured into Baikal, and now they plan to inject another 161 billion—just to give you an idea of the financial stakes.

I recently mentioned the program of gigantic tourism clusters covering entire regions. This is part of the program at Baikal. The global tourism cluster project is presented as an opportunity to reclaim a region that has

already suffered severe anthropogenic impact.

My opinion is clear: any large-scale human activity near biosphere reserve lands is unacceptable. Now, as they push through the massive tourism cluster project on the shores of Baikal, there's talk of eliminating the accumulated environmental damage. In other words, they're telling us we need to build a resort area on the shores of Baikal to save the region from the chronic sore—the toxic pulp and paper mill.

But we need to understand that for many years, the pulp and paper mill, while poisoning ecosystems, brought huge profits to certain individuals. The tourism cluster is also a business for making money, another way to extract profit. They're proposing to eliminate the old profit source and start building facilities for further profit in its place. Just a different business, that's all! The goal is the same. The tourism cluster, with its 161 billion rubles, will similarly create a colossal anthropogenic impact on Baikal's ecological systems.

I want to emphasize: I see a fundamental difference between such projects in areas already damaged by humans and in protected areas! Taking land from reserves is unacceptable! Development there will simply mean that these territories will also be destroyed!

Biologists and ecologists have no doubts about this—invading reserves is categorically forbidden!

But with projects like the ones planned for Baikal now, the situation is different. We can't stop them or participate in their control. But we can, through public pressure and raising awareness, ensure that scientists' opinions are considered during project implementation!

It's simple—without public discussion, scientists are ignored!

But if the project is visible and discussed in society, it will seriously influence whether specialists' opinions are heard!

I don't know how much of the newly allocated billions will be embezzled again. But we have the power to influence the spending so that the money goes to sensible things, considering the region's ecological systems! Not on another Soviet project like diverting Siberian rivers to Central Asia or China's great war on sparrows!

At least public discussion of the issues is something we can definitely manage! And from real experience, that's no small feat!

Chapter 12. The battle for the ancient forest of Baikal

A brief story about the struggle to preserve the Russian Taiga.

Introduction:

The timeline of events spans more than five years. The story unfolds from 2015 to the present day.

The scale on the ground is about 9,500 hectares of the Russian Taiga near Baikal.

The monetary equivalent has been estimated by the environmental prosecutor's office at 1.7 billion rubles.

Setting — Pribaikalsky Reserve.

Alright, let's get started!

Pribaikalsky Reserve sounds similar to Pribaikalsky National Park, but it's an entirely separate specially protected natural area (SPNA).

The full official name of the SPNA is the State Natural Biological Reserve of Regional Significance "Pribaikalsky." Pribaikalsky National Park covers

417,297 hectares, while Pribaikalsky Reserve is only 72,524 hectares. Both the "national park" and the "reserve" are SPNA territories with only partial restrictions on economic activities, unlike "nature reserves."

It's important to clarify right away: Lake Baikal is truly one of the most unique places in the world! This is officially recognized both in our country and globally. In 1996, Baikal, along with its coastal zone covering a total area of about 8.8 million (!) hectares, was included in the UNESCO World Heritage List. Just to illustrate its uniqueness: Lake Baikal contains a massive volume of fresh water — about 20% of all (!) the world's reserves!

The specially protected natural areas of Baikal vary in their conservation status and are numerous:

Baikal Nature Reserve.

Baikal-Lensky Nature Reserve.

Barguzin Nature Reserve.

Verkhne-Angarsky Wildlife Refuge.

Zabaikalsky National Park.

Pribaikalsky National Park.

Pribaikalsky Wildlife Refuge.

Ulyunsky Wildlife Refuge.

Enkhaluksky Wildlife Refuge.

As you can see, these are vast territories. And enormous natural resources, the exploitation of which by any businesspeople is somewhat restricted by LAWS. The forest-taiga, the minerals, the pure water—all of it "goes to waste," from a businessperson's perspective, not generating profit! Well, those "in the know" about ecology are probably aware of all the loud, long-standing outcries: Ah, what a profit!!! From the same Baikal forest (which, in the eyes of a "businessperson," is essentially "lumber"). To the pure water of the lake, which the "god of profit" himself has decreed should be piped continuously to water-needy (and solvent!) China.

And the malicious ecologists (of course, "eco-terrorists/extremists/fascists/nuts/etc., etc.") are getting in the way. BY LAW, mind you, but they are IN THE WAY!

Thus, there is a constant struggle between various types of "eco-nuts" (as defined by "businesspeople") and the interests of these very commercial entities.

And my story is precisely about one small episode of such a confrontation. The smallest episode of such a struggle! A private, insignificant example!

In 2015, about 9,500 hectares of forest in the Pribaikalsky Reserve were destroyed by a "ground" fire. Unlike a "crown" fire, where the entire taiga burns and trees are completely consumed, a "ground" fire partially damages the forest. The undergrowth and lower layer of the taiga burn. Trees remain standing with charred trunks. Some of them gradually die, but depending on the intensity of the fire, some even survive.

In 2017, the Republican Forestry Agency (RFA) of Buryatia and logging companies requested permission for clear-cutting the burned forest in the Pribaikalsky Reserve. However, the FEDERAL LAW "On the Protection of Lake Baikal" prohibits this. As Dmitry Baklashkin, the first deputy of the RFA, stated at the time, the 2017 forest pathology study in the Kikin Forestry only allowed for selective sanitary cutting: "We constantly appeal to the Ministry of Natural Resources with requests to amend the law to allow for clear sanitary cuts to eliminate the consequences of the 2015 fire. Currently, a draft of such a law has been prepared and is under government review."

The businessmen eventually received permission from the Ministry of Natural Resources of the Republic of Buryatia to address the aftermath of the emergency by harvesting fire-damaged timber through so-called

"sanitary cuts."

Let me explain my interpretation of the events. The loggers were then "pushing through" the extreme necessity for clear-cutting the taiga, justifying it with the supposed, perhaps, death of the taiga, or something like that? And… the need to make a profit, maybe?! I don't know! Some trees survive "ground" fires. Even on the dead ones, seeds later mature. Such "burnt areas" then naturally regenerate. In just a couple of years, literally, berry bushes grow abundantly. Blueberry and strawberry patches on "burnt areas" are the richest! And this is a food base for wild animals.

In short, they managed to push through the "sanitary cut," at least.

On March 30, 2018, the Acts of Forest Pathology Surveys for the Gremyachinsky District Forestry of the Kikin Forestry of the Republic of Buryatia were posted on the website of the Republican Forestry Agency of Buryatia. All within the boundaries of the state nature reserve "Pribaikalsky." The central ecological zone of the Baikal natural territory, a UNESCO World Heritage site "Lake Baikal." Selective sanitary cuts were designated for all areas.

...and then the "zoo-crazies" got involved, right?!

At the Forest Forum for Nature Conservation, these Acts were analyzed.

According to environmentalists:

— The Acts are likely unrealistic. The "type-survey" was conducted by one person in a single day. Covering a distance of 25 kilometers from point to point in a remote mountainous taiga region.

— The species and pathological composition of the trees is unrealistic. Well, according to forestry experts, they've never encountered anything like it.

That's just a brief overview. Without overloading the text with all the details.

In short, the environmentalists brought the issue to light! And law enforcement agencies took an interest in it.

In 2020, employees of the East Baikal Interdistrict Environmental Prosecutor's Office and the Department of Economic Security and Anti-Corruption of the Ministry of Internal Affairs for the Republic of Buryatia completed their investigation. Their conclusion: with the permission of the Buryatia RALH, more than 150,000 cubic meters of timber were illegally cut and sold in the Pribaikalsky Reserve.

According to Boris Markov, Deputy Prosecutor of the East Baikal Interdistrict Environmental Prosecutor's Office:

— Officials from RALH illegally approved auctions that subsequently led to the signing of purchase agreements with entrepreneurs for the harvesting of particularly valuable protective water conservation forests under Article 29.1 of the Forest Code of the Russian Federation in the first zone of the Pribaikalsky Reserve. As a result, from late 2017 to early 2019, more than 150,000 cubic meters of commercial timber were harvested, processed as sanitary cuttings. The damage to the forest fund and the wildlife habitat amounted to no less than 1.7 billion rubles.

— The Reserve Administration categorically refused them due to the ban on any economic activity and natural resource use in this area, as well as because logging does not align with the goals of preserving wildlife. In other words, sanitary cuttings inevitably involve workers, heavy machinery, and logging equipment. All this noise scares away animals, forcing them to leave their natural habitats.

Moreover, logging destroys calving and nesting sites, as well as the food base. There is also the possibility of intentional or accidental destruction of the animals themselves. Yet, despite the ban, RALH approved the logging, and then, together with "BLK" and "Boyle," held auctions for logging, resulting in contracts with businesses for the processing and sale of timber.

— Due to the identified violations of the specially protected natural area regime, as well as the forest regime of the CEZ, the environmental prosecutor sent the inspection materials to the preliminary investigation body. The Investigative Committee of the Republic of Buryatia has initiated and is investigating two criminal cases under paragraph "v" of part 3 of article 286 of the Criminal Code of the Russian Federation regarding the improper performance of duties by RALH officials. The individuals involved will be identified, and their actions will be given the appropriate legal assessment. This is not the end of the story.

Just another stage in the battle of the "eco-enemies of the people" against the "businessmen"—the "friends of the working people," perhaps?!

Meanwhile, the environmental prosecutor's office charges the "commercial friends of the people" with 150,000 cubic meters of ILLEGALLY logged timber.

And the damage to nature amounts to 1.7 billion rubles.

BY LAW.

A GOVERNMENT AGENCY, not eco-activists.

WITH EVIDENCE gathered by investigators over several years.

Chapter 13. Volga-Akhtuba Floodplain

As part of my public efforts to protect Russia's nature, in September 2021, I arrived in Volgograd at the request of my readers. Here, local residents were trying to defend a unique protected forest, which is on the UNESCO World Heritage list. This is the Volga-Akhtuba Floodplain. For the sake of building a high-speed highway, local authorities had already begun destroying centuries-old oaks, these mighty trees.

In the Volgograd region, only 4% of the land is forested, making the protected forest in the floodplain extremely important for the residents of Volgograd, first and foremost. This is a city of a million people, already forced to stand on the banks of the dirtiest river in Russia, the once-great Volga. The environmental situation here is dire, with harmful enterprises concentrated right on the Volga's banks. The Volga-Akhtuba Floodplain is practically the last corner of still-living nature!

Let's take a detailed look at what was happening in the Volgograd region and how the mechanisms of public resistance work. Clearly! Here is a region where almost no forests remain, a mere 4%. And for these scraps of protected land, a battle is being fought.

Step by step, it went like this…

In July, Galina Tikhenko was fined 150,000 rubles. The court found her guilty under part 8 of article 202 (repeated violation of picketing rules). On September 16, an appeal hearing took place. The verdict was upheld.

Galina Tikhonko was fined for a solo protest in defense of the Volga-Akhtuba floodplain. She is 74 years old and has a third-degree disability.

An elderly woman stood alone on the street with a small sign. That's it! That's the entire "crime!"

Oh, right! She was expressing her opinion on a matter of public importance. And, unfortunately, her personal opinion doesn't align with the desires of the authorities and businessmen—"the crime," it seems, lies precisely in that.

In the Volgograd region, officials from the Committee of Natural Resources have been waging a brutal and uncompromising war for several months. Judging by the

name "Committee of Natural Resources and Ecology," you'd think the fierce battle is against poachers or some other malicious destroyers of nature. Well, that's what the name suggests, if anything…

But the officials came to a tent camp of activists protesting against construction in the Volga-Akhtuba floodplain. Eco-activists, protesting the construction of a highway through the Volga-Akhtuba floodplain, set up a tent camp on the Gnily Erik on August 8. On August 10, officials from the regional Committee of Natural Resources and Ecology arrived at the camp and demanded that the protesters leave the erik.

Officials drew up a report on the violation of rules for the protection and use of natural resources in specially protected natural areas (Article 8.39 of the Administrative Offenses Code of the Russian Federation, which entails an administrative fine for citizens ranging from 3,000 to 4,000 rubles, with confiscation of the tools used to commit the administrative offense). The officials began to independently take down tents and load them into their vehicle. Probably in the order of "confiscation of tools used to commit the administrative offense." All of this was captured on video and posted online by activists.

The regional committee for natural resources and ecology later calmly confirmed to media representatives that administrative cases had been initiated against the camp organizers. Officials explained that if citizens organize a mass visit to a specially protected natural area, they must notify the management of the nature park no later than 14 days in advance.

“The fact of violating legal requirements was discovered during a scheduled raid. The illegally set up tents were confiscated as part of the initiated case,” clarify the "committee members."

(I couldn't stop laughing from the moment I saw the video of officials from the "Committee for Nature Conservation" fighting to "preserve nature": do they somehow associate themselves with the more serious "committee" from the Soviet era, judging by the decisiveness of their actions?! In the Volgograd region's Ministry of Internal Affairs, for example, they approached the issue much more responsibly. Representatives from the Ministry told the media that the police have no involvement in the conflict in the Volga-Akhtuba floodplain.)

So, for more than two months, there has been active opposition in the Volgograd region regarding the construction of a high-speed highway through the Volga-Akhtuba floodplain natural park. The highway, with a budget of 5.6 billion rubles, is intended to connect Moscow with Kazakhstan via Volgograd. To make way for it, 30,000 trees are planned to be cut down in the natural park, which is an internationally recognized protected area, a status confirmed by UNESCO.

Of these, about 8000 are oaks. The trees are 50 to 100 years old or more. "Ancient" oaks, almost like those from epics and fairy tales. This is a critical issue for Volgograd: forests cover only 4% of the region's territory. The rest is steppes and semi-deserts. The Volga-Akhtuba floodplain protects the city of a million people from dry winds. This is the case when speaking of its crucial practical significance.

Officials are clashing fiercely with environmental activists!

Residents of Volgograd organized flash mobs to protect the natural park, set up a tent camp in the floodplain, and held pickets. Their tents were dismantled, and fines were issued. Despite the protests, the work continues. Part of the trees have already been cut down. Activists

estimate around two hundred. The construction of the highway is being carried out by the company "EKS," which the media associates with the billionaire Rotenberg family. It's the usual story: where there are billions, there are billionaires.

Let's break down the situation.

The Committee of Transport and Road Management of the Volgograd Region provided a response to the environmental activists. The response was published on a VK public page. It was brief and to the point:

"Since 1996, a bridge crossing over the Volga River has been under construction in Volgograd. This bridge crossing is a complex of engineering structures with a total length of 36 kilometers, divided into four phases."

The first phase of the first section of the bridge crossing over the Volga River, spanning 7.1 km, was opened to traffic in 2009 (...)

Since 2009, the second section of the bridge crossing, measuring 6.5 km, has been under construction. The project was completed and opened in February 2020.

(...) currently, the third section is being implemented (...) with a length of 14.2 km (...).

The planned completion date for the first phase of construction is September 01, 2023. (…)

The start of the second phase is scheduled for 2022, with construction completion in 2024.

The full implementation of the large-scale project to construct a bridge crossing over the Volga River will allow Volgograd to alleviate congestion on the 1st and 2nd longitudinal highways, the historic city center, including the area around Mamayev Kurgan, reduce the number of traffic accidents, and decrease the negative impact of motor vehicles on the environment. Additionally, it will provide unobstructed access for vehicles to international and interregional highways leading to the Republic of Kazakhstan, the Urals, the countries of the Caucasus, Central Asia, and China."

An excellent document! The entire chronology of events is laid out clearly. Plus, the significance of the construction is outlined succinctly, in just one phrase!

(I removed all mentions of references to "government decisions" and other blah-blah-blah.)

We have the construction of a federal bypass road around Volgograd.

From 1996, the construction dragged on sluggishly until 2020. 24 years. Sometimes progressing, but slowly.

Starting in 2020, the construction is planned to be completed in 4 years.

In 24 years, they built 13.6 km. Now, they plan to complete the remaining 22.4 km in just 4 years.

And I can clearly explain to readers why the highway project has been revived and why they are determined to finish it at any cost: THIS IS A TRANSPORT CORRIDOR TO CHINA!

China needs transport corridors to Europe. The Middle Kingdom is actively investing in both the Northern Sea Route and land routes. The Volga-Akhtuba floodplain is just one element of such projects.

Now, let's return to ecology.

A massive highway will cut through the protected area in the Volga-Akhtuba floodplain.

A massive highway for trucks. The very "negative impact of motor vehicles on the environment" that will be reduced in Volgograd will only increase here, in proportion to the increased traffic flow.

Even after the work began, not only environmental activists but also the director of the nature park, Natalia Lopantseva, and representatives of international environmental organizations stated that the work was

being conducted in violation of the law and threatened not only the trees but also the floodplain's water system.

"Everything is covered over in the areas. Even the water channel that ran along the oak grove. Although the administration claimed that the project's hydrology was considered and everything would be preserved, we see that everything is being violated. Problems related to waterlogging will arise. Not to mention that the embankment on which the road will be built will press down and lower the groundwater level. The forest will dry out faster," says Natalia Lopantseva, director of the nature park.

Environmentalists claim that even the studies on the presence of Red Book flora and fauna in the areas where the highway is supposed to pass were only initiated due to protests by environmental activists, after construction had already begun.

"Studies on the presence of flora and fauna listed in the Red Books of the Russian Federation and the Volgograd region should have been conducted in advance, during the project development stage. The fact that this didn't happen shows that the most important aspects were overlooked and not included in the documentation. The prosecutor's office issued a warning to 'EKS' that the

company should not destroy rare species. But the construction itself is destruction," states Mikhail Kreidlin, an expert from Russian Greenpeace.

Environmentalists say that due to the unaccounted Red Book animals and plants at the start of construction, the approval of the road construction by the Ministry of Nature of the Russian Federation should be considered illegal, contradicting the Federal Law "On Environmental Protection" and "On the Animal World."

The very status of lands with Red Book species excludes any interference. In the Volga-Akhtuba floodplain, there are 19 species of endangered and rare birds, 5 species of fish, and 8 species of plants.

The Volga-Akhtuba Floodplain Natural Park holds the international status of a UNESCO biosphere reserve. The park was established in 2000. The category "natural park" was assigned in accordance with the Federal Law "On Specially Protected Natural Territories" and the Volgograd Region Law No. 641-OD "On Specially Protected Natural Territories of the Volgograd Region" dated December 7, 2001. As you can see, the park is quite recent!

The unique value of the floodplain lies in its wetlands and key ornithological areas of international significance. These are nesting and resting places for birds, flood meadows with maximum productivity, spawning grounds, and fertile floodplain lands. This is what granted the park its status as a UNESCO reserve.

For the Volgograd region, the Volga-Akhtuba floodplain acts as a regulator of the atmospheric air composition for the cities of Volgograd and Volzhsky. It's the "lungs" of a multi-million agglomeration. This is an essential real value for the residents, unrelated to international statuses.

Now, I'll express my opinion.

Some conclusions.

First.

It's completely unacceptable to use forceful solutions to issues, which officials systematically practice. "Killer" fines, physical violence, and so on.

In the case of the Volga-Akhtuba floodplain, it seems the local Ministry of Internal Affairs understands this. The police do not wish to get involved in conflicts on the edge of the law. There's a risk that police officers might later be portrayed as "brutes," solving others' problems at their expense. In general, in my opinion, it's not an

option when the police are dragged into unnecessary conflicts!

Second.

I don't understand why there's such an obsession with road construction. It's only part of the problem!

Currently, the ecology of the Volga-Akhtuba floodplain is being severely impacted by the development of large areas into cottage settlements. According to data from the Rosreestr website, there are now about 30 such settlements. This is all within the buffer zone of the protected area. Full-fledged settlements with infrastructure are being built, as the locals say. This disrupts established hydrological regimes and destroys natural biocenoses. I've seen this happen on many rivers. Essentially, water protection zones are being developed. It doesn't matter if these actions are legalized by reducing the size of the water protection zones! In reality, we later see the silting and shallowing of rivers.

In my opinion, this is no less a dangerous factor for the ecosystems here than the highway!

Another factor that needs to be assessed alongside the construction of the highway and settlements here is the project for watering the Volga-Akhtuba floodplain. Why

are environmentalists only shouting about the highway construction when these issues need to be evaluated comprehensively?

This concerns the project "Complex of Hydraulic Structures Ensuring Additional Watering of the Volga-Akhtuba Floodplain." Public hearings on the project were held in the city of Volzhsky back in 2020. The goals of building the new complex of hydraulic structures are stated as: preventing the drying up of channels, moistening the soil, generating electricity, and improving the social and sanitary living conditions of the population in the Volga-Akhtuba floodplain area. Probably those very cottage settlements I mentioned earlier?

The plan is to raise the water level of the Akhtuba River by 3 meters during the low-water period by constructing dams. This is a project as significant for the region as the highway. It's part of the multi-billion project "Revitalization of the Volga." In the natural park, channels and lakes are being cleared, and water passage structures are being built. By 2023, regional authorities promise a "second birth of the unique natural park." One of the projects will be a mini-hydroelectric power station on the Akhtuba. The construction of the hydraulic complex is currently estimated at 10–15 billion

rubles. Design work is underway, and the entire construction is planned to be completed by 2024.

That's how it goes...

A highway with 5.6 billion rubles from the budget.

Hydraulic engineering, with 10–15 billion rubles from the budget.

And a 74-year-old woman fined 150,000 rubles for a small sign.

What can you do?! When budgets are being carved up, the chips fly! Who cares about “birds and critters” here?!

Perhaps this is, by the way, the reason for the farce staged by the officials of the local "committee for the protection of nature" with the dispersal of the tent camp, which the police didn't want to "get involved" in? The funding will go through the "nature protectors," not through the Ministry of Internal Affairs.

Trying to understand the environmental issues of the Volga-Akhtuba floodplain, I now see things I didn’t notice before.

An attempt to regulate ecosystems with mechanistic methods. Dams, levees, and other investment-heavy methods. We’ve been through this during the USSR with

the “Stalin Plan for the Transformation of Nature.” I could add that experience convincingly shows we are part of nature. Not the other way around, not “masters of nature.” But no one will listen.

Now, there isn’t even a unified plan! Everyone’s trying to grab their “piece of the pie,” including road builders on the highway construction. Even private individuals, building homes closer to the ONLY place here with trees and cleaner air. But now there will be a highway overhead, with trucks hauling goods from China to Europe! Install air filters in advance.

The issue is much broader than just building a road. Let's say near the banks of the Volga, where the boundary of the specially protected area begins after the "Volgograd Bridge," numerous banners have been put up. Everywhere, in large print, it states that this is a "specially protected area and the fine for entry is 5,000 rubles," yet it is also published that the land has been leased (SPNA?) to private individuals for the creation of a recreational park. A plan of the future park is drawn: vacation homes, beaches, bungalows, and more.

This is called monopolizing the last ecologically clean place, the Volga-Akhtuba floodplain. First, they’ll build a recreational park, then they’ll aggressively expand,

developing more and more of the reserve. On one side, there will be a high-speed highway, on another, crowds of tourists trampling the local ecosystem, and on the third side, cottage settlements where people with money will “snatch” the last patches of still-living nature.

My opinion is clear: completely close off the entire area from people! No road construction, no cottage settlements, no recreational parks. This is a SPECIALLY PROTECTED NATURAL AREA, A UNESCO BIORESERVE, and this miserable patch of tormented land needs to be SAVED FROM PEOPLE ALTOGETHER.

But who cares about the opinion of a small number of concerned citizens? The authorities and businesses have billions, agreements with clans from other countries; they don’t care about ordinary people or some “protected land.” We only irritate them, nothing more.

This is the kind of ecological degradation and scramble for the last scraps of living Mother Nature in the Volgograd region. Just so you understand what’s really happening on our land today.

Chapter 14. How much untouched land do we have left?

Indeed, a very good question. It's long been known that humans have "developed" all the land on the planet. But how much land do we actually have left that hasn't yet been affected by our destructive activities? Is there any such land?

An interesting scientific study was published in the journal "Frontiers in Forests and Global Change," which provides data showing that only 2% to 3% of the Earth's surface remains untouched by humans. This percentage is much lower than earlier estimates, where scientists believed that untouched land was much more abundant, ranging from 20% to 40%.

However, older studies reveal specific methodological problems, and the data can officially be considered unreliable. Only now have proper definitions been developed for measuring wilderness and its untouched areas. The results of the study are alarming: we exert enormous pressure on the entire Earth, with only about

3% of territories remaining beyond human reach.

Let me try to explain how the study was conducted and what its results mean. Previous studies, which reported 20% to 40% of untouched natural areas, were based on map studies and accounting for human impact on habitat integrity. Scientists considered areas built up with roads, cities, as well as areas affected by light and noise pollution.

After that, they calculated the remaining areas and concluded that these lands were completely untouched! But this turned out to be entirely incorrect, as was the study itself. Simply lacking roads and cities doesn't mean that, for example, logging isn't happening in the forests or that species aren't being exterminated.

The authors of the new scientific study took into account all past mistakes and used a fundamentally new approach. They reviewed Key Biodiversity Areas (KBA) under Criterion C, which states that an untouched ecosystem in a specific location must have a full complement of flora and fauna species found there in natural abundance. For instance, in the Republic of Altai, there should be two thousand brown bears for ecological balance!

And if only two hundred bears remain, then these areas can no longer be considered untouched. The paws and gallbladders of 1,800 bears have likely already been smuggled for Chinese tables and medicine, while the remaining 200 live in a disrupted ecosystem, waiting for humans to come again to chop off the paws of the unfortunate bears. The taiga may lack cities, roads, and infrastructure. But that doesn't mean the ecosystem is pristine, untouched by humans.

That's why the new scientific study provides accurate data on untouched nature. The specialists' work is much more complex. Various factors were considered, including the density of wildlife and plants, individually for each area. But the most important thing to understand, friends, is the mechanism of the new study: it focused on accounting for the loss of animal density below the level critically necessary for the normal functioning of the biocenosis. In nature, everything is connected—every plant, every insect, every animal. The loss of one species threatens the extinction of others.

The saddest part is that only 11% of all areas measured by scientists fall under protected status. Some areas border lands of small indigenous peoples, which, by the way, plays a crucial role in their preservation. This is because indigenous peoples have lived in harmony with

nature for centuries, valuing and respecting it, essentially being an integral part of it. All people were once part of nature.

"Areas identified as functionally intact include Eastern Siberia and northern Canada for boreal and tundra biomes, parts of the tropical forests of the Amazon and Congo basins, and the Sahara Desert," the study authors report.

Scientists also say there is a chance to stop ecosystem degradation and restore nature up to 20%. To do this, extensive work must be done to reintroduce certain specific species. If the biological ecological system is disrupted, it means humans have removed specific links from it! These links, which are part of the food chain, need to be returned to nature. Then we have a chance to increase the 3% of untouched lands to 20% restored.

It's important to understand that an untouched habitat has significant advantages not only for wildlife but also for us, for people. By destroying nature, we are destroying ourselves, first and foremost! That's why it's crucial for the issue of preserving and restoring nature to be raised as often as possible in the global community.

Chapter 15. We can't hide the scale of ecocide from the people

There are certain questions whose importance is cardinal, crucial! Questions on which everything depends!

Right away, as an epigraph, I want to highlight:

WE MUST NOT HIDE ENVIRONMENTAL INFORMATION FROM THE COUNTRY'S CITIZENS!!!

Problems will never be solved if we stupidly remain ignorant of them!

That's the first thing.

And there are countless historical examples where businessmen deliberately concealed information about specific poisons for profit! That's the second thing.

The essence of the story, which personally just infuriated me, is as follows: The Siberian Branch of the Russian Academy of Sciences decided to remove its own report on atmospheric pollution in the Siberian Federal District from open access. The report was presented on

March 25 at a meeting in Novosibirsk. They even uploaded the recording to YouTube. But within a day, access to it was restricted. Journalists noticed this. And, naturally, it only fueled media interest in the recording. Of course: it becomes especially intriguing to find out what these esteemed academic scientists consider unacceptable for the "kindergarten" minds of the ordinary working people! Isn't it fascinating?!

The material, whether a bombshell or not, is indeed quite revealing! Especially if you understand that the assessments are frankly understated and cautious: the topic was raised at a serious academic meeting.

The report on the cities of the Siberian Federal District was presented by Igor Ptashnik, director of the Institute of Atmospheric Optics of the Siberian Branch of the Russian Academy of Sciences.

And it is PRECISELY the brutal mess happening with the ecology of the industrial cities and towns in Siberia that caused the administrators from science to have a strong reluctance to share this kind of information with the "simpletons." With you and me, that is!

From the report, it follows:

— 78% of our 20 cities with high and very high levels of atmospheric pollution are located in Siberia!

— 23 Siberian cities have a high integral index of atmospheric pollution!

— practically the entire population (99%!!!) of the Taymyr Autonomous District (where Norilsk is — one of the "black legends of ecology") lives under conditions of high air pollution! Once again: the ENTIRE population of the region!

— out of the 15 "top" Siberian cities with poisoned air, in 14 the main pollutant is benzo[a]pyrene. Just for reference: benzo[a]pyrene causes cancer — a medical fact confirmed by multiple studies. And extensive "field trials"! In Siberian cities, for example, such "field trials" on the population are happening right now: the level of cancer here is high and growing year by year.

The maximum allowable concentrations for benzo[a]pyrene are exceeded by tens and hundreds of times! Again, for example: in Kyzyl, they were exceeded by 116 times (!), and in Abakan — by 88.2 times (!). And in terms of total emissions, Norilsk leads again. Second place — Novokuznetsk. Third — Krasnoyarsk. Quite the "Olympics"! Should we be proud that we're "ahead of the world" in benzo[a]pyrene and cancer?!

So the bureaucrats from science are in doubt, it seems — maybe it's not worth telling the people about this?

But let's continue the "toxic Olympics" ranking, in which the population of Siberia is winning:

— the leaders in soil pollution by heavy metals (lead, zinc, nickel, copper, etc.) are Svirsk in the Irkutsk region and Norilsk.

— the leader in soil pollution by nitrates and fluorides is Novokuznetsk. Maximum allowable concentrations are exceeded by tens of times.

— there's practically no clean spring water anywhere: 82% of surface waters in the Novosibirsk region are dirty. In the Tomsk region — 68% are dirty. The ONLY region in Siberia where the water situation is slightly better is the Altai Republic. But even there, only 66% of surface waters are rated as "conditionally clean" or "slightly polluted." And all this is open data, with reference to open data from Roshydromet!

After the report, the academics discussed it. And concluded that the report (based on open data and broadcast live on the Siberian Branch of the Russian Academy of Sciences channel!) should not be published.

Seriously?! Similar reports from Roshydromet and the Ministry of Natural Resources of the Russian Federation have been published in the media for years! All this is already known to the public and constantly angers

residents anyway!

Let me quote. How the academics justify the need to hide environmental information from people.

Chairman of the Siberian Branch of the Russian Academy of Sciences, Academician Valentin Parmon: "We shouldn't be alarmists. Often Roshydromet doesn't have sufficiently accurate instruments, they might have incorrect results."

"We must promote our activities cautiously. Some data shouldn't be published indiscriminately. We shouldn't create alarmist sentiments."

Academician Alexey Kontorovich: "I would conduct this work as closed at the first stage. Imagine if we publish these reports with concentrated information — like a bomb on the eve of elections! What will happen? The results are hard to predict. We don't have the right to do this. Therefore, proposals for publication must be weighed ten times. WE MUST NOT STIR UP UNNECESSARY QUESTIONS AMONG THE POPULATION. We need to raise these issues with companies, with the state. They need to be resolved consistently. This work must be conducted extremely carefully and very thoughtfully. Just noise and shouting that we're dealing with ecology won't solve this

problem."

"Alarmism" — in simple Russian, "panic-mongering." You could say it like that.

Alarmism in psychology is a panic emotional state, a negative reaction to the current state of affairs and future prospects.

Alarmism in ecology is the belief in the inevitability of a global ecological crisis due to uncontrolled population growth, resource depletion, loss of biodiversity, pollution of the biosphere, etc.

Alarmism in science is the scientific opinion that the consequences of human impact on nature are already catastrophic and immediate decisive measures are needed to "untangle" the situation.

The esteemed academic scientists say that "simpletons" don't need to know the real state of affairs. They, the "wise ones," are the only ones who have the right to make decisions for all of us. Negotiating with the authorities and business. Negotiating quietly, behind our backs?

That's how I understood the words of the "great academic."

And honestly, such an attitude towards people just infuriates me!

Hello, exceeding maximum allowable concentrations of toxins by hundreds of times and the lack of clean water — is this "alarmism" that the residents of these areas shouldn't know about?! At the very least, it's blatantly arrogant, dismissive of people. And in reality — outright corruption of the administrators from science. Discussing everything quietly with the authorities and businessmen, while hiding it from the people. And getting rewarded for it. That's how I see the essence of the academics' statements.

Federal authorities, by the way, are not interested in such "cozy chats" between corporations and scientific institutes!

On March 9, 2021, the President of our country signed the Federal Law "On Amendments to the Federal Law 'On Environmental Protection' and Certain Legislative Acts of the Russian Federation."

"State-Legal Department Reference.

The Federal Law regulates relations concerning the provision of information to citizens and organizations about the state of the environment."}]}]}

According to the Federal Law, information about the state of the environment (environmental information) is recognized as data (messages, information) regardless of the form in which it is presented about the environment, including retrospective, current, and forecasted states of the environment, its pollution, processes and phenomena occurring within it, as well as the impact on the environment of ongoing and planned economic and other activities, and the measures being conducted and planned in the field of environmental protection.

It is established that environmental information is publicly accessible information, to which access cannot be restricted, except for information classified as a state secret by the legislation of the Russian Federation.

This information is provided by federal government bodies, government bodies of the subjects of the Russian Federation, and local self-government bodies to citizens, legal entities, individual entrepreneurs, public associations, and non-profit organizations, generally free of charge.

According to the Federal Law, federal executive authorities, executive authorities of the subjects of the Russian Federation, and local self-government bodies

that possess environmental information, or organizations authorized by them, must post environmental information in the form of open data on official websites in the information and telecommunications network Internet or through state and municipal information systems, in accordance with the rules established by the Government of the Russian Federation. This includes information about the state and pollution of the environment, radiation conditions, stationary sources, the level and/or volume or mass of emissions, discharges of pollutants, waste management from production and consumption, and measures to reduce negative environmental impact.

So, such an attitude towards people is not only rude but also illegal! People have the right to full environmental information. Environmental information cannot be hidden from the citizens of the country.

Chapter 16. Dead wells

Once more, a bit about our environmental protection expeditions in 2021. It was during this time that I actively spoke out against the destruction of nature and worked on the book you are now reading. From the distant sacred Lake Baikal, we set off to a site of massive ecological degradation—the Caspian Sea.

The Caspian Lowland in our country is not just about total desertification.

The Caspian Lowland is also, in its entirety, essentially the Caspian oil and gas province. With all the environmental problems of regions subjected to extensive, long-term mineral extraction.

It's hard to discuss the systemic environmental changes in the south of our country without addressing the issue of desertification here. That's on the surface. But the second, possibly much larger, like the underwater part of an iceberg, environmental problem lies underground. Oil and gas fields. An underground, initially invisible ecological threat. If not a bomb, as many experts say!

Just consider the scale! The province stretches over 800 km in latitude and 700 km in longitude! Two-thirds of it is in Kazakhstan. And only one-third is in our country. But even that third is not small! Truly epic, boundless steppes. Which for centuries have been degrading under human influence, turning into deserts. The feather grass sea of the steppes becomes endless sand dunes. And simultaneously, for over a hundred years now, people have been digging into the depths. Drinking the "black blood" of Mother Earth. Oil! Oh, yes! "Black gold," the source of wealth. The thing around which the modern world revolves. And now gas too—"blue gold."

The Caspian oil and gas province is not the only one. Neither in our country nor in the world. And not unique in the environmental consequences that industrial hydrocarbon development brings.

You could easily "jump" to another continent! The questions remain the same. Corporations profit now, appropriating natural rent and disrupting the global ecosystem of entire macro-regions. And they leave, having drained all the money from the earth. Meanwhile, the disrupted ecological system of the region continues to deteriorate! The essence of such processes is very accurately reflected in Vladimir Ivanovich Vernadsky's concept of the Earth's Biosphere.

A simple thing that not many consider!

The simple idea of the close interconnection of all living things with our planet, which businessmen completely disregard. Not "ecosystem" or "biocenosis," to which the fundamental concept of the greatest Russian naturalist has been reduced for some reason! The original is "bio-GEO-cenosis"! The closest, inseparable connection of the ecological biological system with the geological environment in which it exists! You can't separate one from the other! The landscape, the "non-living" (conditionally) part—is actually "living"! "Biogeocenosis" is indivisible—it's a holistic "living" system!

A small example from across the ocean. A small example that the problem is worldwide. A small example of how a problem is created by a capitalist predator, simply ignoring everything except profit. Simply ignoring how our world is structured! You can't tear a "sweet piece of flesh" from a living system—it will kill the entire system!

In April 2021, the Guardian published an article about the long-term environmental consequences of shale oil extraction in the Permian Basin of the United States.

We have a city named Perm in our country, but the similarity is coincidental. The North American Permian Basin is a major oil and gas region in the southwestern

United States. It is located in western Texas and southeastern New Mexico. It's huge too! Approximately 400 by 500 kilometers. As of 2018, more than 33 billion barrels of oil and 3.34 trillion cubic meters of natural gas had been extracted from the Permian Basin. This accounts for 20% of crude oil production and 7% of natural gas production in the U.S.

Oil companies focus on extracting oil. Meanwhile, the less valuable gas is considered a byproduct. The price of natural gas is so low that small companies with limited access to pipelines prefer to flare the gas rather than pay for pipeline costs. It's a rather typical example of the "fierce fight against global warming"—bluntly burning off associated gas from fields if it's cheaper than transporting it elsewhere!

A feature of oil extraction in the Permian Basin is that the oil there is so-called "shale" oil. To put it simply, extracting it is more complex and expensive than in other places. It was believed that peak production there was reached in the '70s. But production rates began to rise again when new technologies for extracting shale oil were developed.

Another feature is U.S. legislation. According to their laws, the surface land and the subsurface resources beneath it can have two different owners. Yes, it might not be funny with such a property arrangement! In the extreme case, suppose you have a plot with a house. And from beneath it, something is "extracted" from Mother Earth's depths by businessmen. And one "fine" day, an underground void forms beneath your house, into which you and your home and family fall.

Incidentally, it doesn't matter whether this separate ownership of land and the subsoil beneath it is formalized in legislation or not. What matters is the actual situation! In our country, we have the Kuzbass coal basin. Towns are literally built on the mines beneath them. In the south, there's the vast city of Makhachkala, which sits directly on old wells, on oil extraction sites beneath the homes where people live.

Now, let's consider the example of American capitalists.

According to the laws (including those in the USA), oil companies are supposed to seal unused wells and rigs to prevent environmental harm. The remaining oil and associated substances, mainly natural gas, seep into the soil. In reality, many companies approach this sealing... let's say, "not very responsibly." In plain Russian, they

"neglect" such sealing. It's a huge expense. And why bother, when it's easier (and cheaper!) to bankrupt and shut down the legal entity, the "company"?

The Guardian provides the example of the Briggs family, farmers who bought a plot of land with a house in Texas. The same area was purchased by the company 7S Oil and Gas. A few years later, 7S Oil and Gas went bankrupt after extracting all the profitable oil, leaving several dozen wells on the property. Supposedly "sealed." The farmers faced gas on their land, groundwater contamination, and so on. An investigation was conducted. It turned out, according to experts, that the wells were "poorly sealed," resulting in oil and associated substances seeping into the soil.

The publication provides an example of a local family's experience. In other parts of the Permian Basin in the United States, the situation isn't much better. In Texas and New Mexico, about 7,000 completely abandoned wells have already been identified, which were once operated by more than 1,000 companies. According to estimates by state officials, their conservation will cost state budgets $335 million. States classify wells as "abandoned" if they cannot determine the owner. In this case, the conservation expenses fall on the government.

Independent estimates for the cost of cleaning and preserving just the Texas wells range from $168 million to $117 billion!

In the United States, the government requires oil companies to pay special insurance fees so that in the event of bankruptcy and abandonment of obligations by the business, the wells can be sealed at the state's expense. In Texas, such insurance bonds covered about one-sixth of the state's expenses. In New Mexico, they covered approximately 18% of the state's expenses. The situation is such that government agencies are unable to cope with the massive damage corporations inflict on nature and local farmers. And it has not been possible to legislate a solution.

That's across the ocean.

In the south, we had a high-profile fire in 2020 at a decommissioned well in Dagestan. This incident was highlighted in all the media.

The capital of Dagestan, Makhachkala, has numerous closed wells right in populated areas. The city grew, and old industrial sites were shut down. Now, it's the Makhachkala-Caspian agglomeration with a population nearing a million.

Experts very roughly estimate the number of potentially dangerous decommissioned wells along the Caspian Sea coast at 1500. Some of these are in our country, but the majority are in Kazakhstan.

Chapter 17. Land soaked in poison

Russia's "oil and gas province" is almost completely destroyed. The ecology here is utterly devastated. As you travel further from the Caspian Sea to the Black Sea, the landscape changes. Deserts are left behind, and ahead lie millions of acres of farmland. And all of it is poisoned! Saturated through with toxic chemicals.

Two-thirds of all agricultural land worldwide is at risk of massive contamination from pesticides and toxic chemical fertilizers. Scientists from Sydney have created a global map of agricultural lands, showing that 64% of all land used for farming is at risk of pesticide contamination. The vast majority of these lands are identified by scientists as having a very high level of pollution!

To help my readers grasp the scale, I suggest each of you open a satellite map, say, of the southern regions of Russia, and see firsthand the vast areas covered by our agricultural lands. These are places where there are

practically no forests, and the landscape has been completely altered by humans. I am currently working specifically on the environmental issues of southern Russia, and naturally, the concerns about our own land worry us, the people of Russia, more than global problems.

But it's important to understand that all land is interconnected, and the ecosystem, as a living unified biocenosis, doesn't divide along borders like the formal boundaries between states. There is a living organism, planet Earth, where everything is interconnected! Therefore, it's crucial to understand the scale of ecological disasters happening due to our actions on a global scale.

If you've already opened the satellite maps of southern Russia, the lands you see are about 64% contaminated, and I'm more than certain the level of pollution is high. This is evidenced by data on the mass die-off of birds, animals, and inhabitants of rivers, lakes, and seas. Just recently, I wrote about this when thousands of dead birds were found in the fields of Kuban. The study of their deaths revealed poisoning by chemical fertilizers and pesticides. And this happens regularly. The same surface waters from agricultural lands are discharged into rivers and then into the seas accordingly. The Sea

of Azov, the Black Sea, and the Caspian Sea also regularly experience mass die-offs of living species.

The Sydney scientists' study was published in the journal Nature Geoscience. Specialists who have been working on the problem for many years managed to create a global model showing the risk of contamination caused by 92 toxic chemicals. All these substances are typically used in agro-pesticides in 168 countries worldwide. The scientists studied the impact not only on soil but also on the atmosphere, surface, and groundwater.

Countries that most supply the "big world" with products amid massive overpopulation use chemicals in agriculture in overwhelming volumes. These are primarily, of course, China, Japan, Malaysia, and so on. In other words, Asian countries. Many of these countries supply agricultural products further around the world, including to Russia. Not only as raw materials but also as finished products. And all of this, poisoned with toxins, is what we eat.

"Our study showed that 64% of arable land worldwide is at risk of pesticide contamination. This is important because the broader scientific literature has shown that pesticide contamination can have adverse effects on

human health and the environment," says the lead author of the Sydney study, Dr. Fiona Tang.

The reasons for the contamination of agricultural lands are primitively simple. Business, which is part of a unified global capitalist system, tries to create the cheapest product in the largest volumes. A cheap product in large quantities allows for the displacement of all small competitors, monopolizing the market and crushing it under itself. But then, to maintain their position as a "mega-capitalist," they must continue to create cheap products.

And this needs to be done quickly and in very large volumes. If the price rises and production volumes fall, it gives competitors a chance to enter the market. Accordingly, those who want to produce environmentally clean food without chemicals and pesticides are physically unable to compete with capitalists. Clean food takes longer to grow, is more complex, more susceptible to risks, and the cost of production cannot be cheap. Not at all.

And here, in such an environment, begins the constant squabble among big players who have monopolized the market and are trying to push each other out, expanding their influence. Can there be any concern for people, for the health of future generations, in such a confrontation,

in the squabble of the wealthy? Naturally, no. And in the market, the products, almost all of them, are essentially poisoned. They're not fit to eat at all. But people don't have much choice.

Chapter 18. South and north: paradoxes of ecology

People are leaving the so-called "north." It's quite understandable: the climate isn't suitable. It's not suitable for humans who clearly developed "further south." The north was settled by people. It was settled using clothing, technology, and energy. It was a difficult and lengthy process. The last time this happened was during the era of the previous civilization, now disappearing beyond the event horizon. The civilization of the USSR. Does anyone think otherwise?! Undoubtedly, a different culture. Culture as both the life philosophy of each individual and as a practical "philosophy of action." The drive of technology towards something. The construction of something. The aspiration to the stars, ultimately, as an ideal. As a dream.

And what, essentially, is the entire body of culture embodied in technology? That is civilization!

And the fact that the direction of development has shifted to the exact opposite—probably understood by most people.

— Glorious descendants, do you live in the bright communist future?! Are your dreams aimed at the stars?

"No, glorious ancestors! We are now a capitalist country! All our dreams are aimed not at the infinity of space, but at infinite consumption! Being a creative human is no longer a source of pride. The consumer is now the dream of the people. Millions of little bugs scurry around down there. And thousands of exclusive demigods look down at these bugs from the heights of their palaces and private jets, not understanding what to do with them."

— ?!

Something like that... Or do you think I’m saying something wrong, exaggerating something?

And individualism, creativity, the uniqueness of a person have long been left somewhere at the turn of past eras. After all, admit it, creativity has almost become something shameful. The word “DIYers” is uttered with a sneer. With a hint of disdain: Well... At least call yourselves “handmade artists.” It’ll sound a bit better!

If you work, it should be “for the company.” Corporations. Corporate ethics. Corporate style. Corporate code of conduct.

Gradually, before our very eyes, the state itself is turning into a corporation. It’s becoming encrusted with state corporations. Merging with commercial corporations. Gradually, it’s becoming not the state we’re used to, but a corporate state. Most people, it seems, note these processes in one way or another. It’s harder to pinpoint the essence of what’s happening. But it’s simple!

In the '90s, you saw the privatization of industrial enterprises, land, collective farms, and so on.

Now, it’s simply the privatization of state functions. The privatization of government bodies.

And if you think about it, if you try to get down to the fundamental basis of what’s happening, you’ll realize it’s the process of privatizing people, the population of the country.

It’s the establishment of private ownership rights over people!

No?

This can’t be, because it can never be?

How can our socialist country revert to being capitalist? How can the course of history turn back?!

Theoretically—it seemed like this couldn't happen. At least according to the socialist ideology of the time. Practically—judge for yourself.

I'll leave my thought "unfinished." I won't explain or prove anything. Just "something to think about." Just a direction of thought, so each reader can draw their own conclusions.

I'll return to where I started.

To the north. Specifically, to the Russian North. To Siberia, many territories of which are even formally, by law, "equated to the regions of the Far North." To the Russian Taiga of Siberia and the North.

The Soviet Union developed the North and Siberia.

Private business acquired huge chunks of this developed space as private property. In the form of forest plots, enterprises, mines, extraction companies, and so on. Now these are giant corporations. We can be proud that we can now see Russian names on the Forbes list of super-rich. And we can practically understand that privatization was justified with a completely correct argument. What did they say? That socialist property was used inefficiently. And a private owner would

become an “efficient owner.” That’s exactly what happened!

The socialist state developed resources inefficiently. Here, you need to understand the difference. That civilization developed territories, not resources. It planned strategic development of territories, not the quickest profit. Strategy compared to the tactic of quickly maximizing profit—it’s terribly “inefficient”! Cities were built. Infrastructure was built. And all this was done where it was extremely difficult to do so. The North, Siberia—cold, vast distances, lack of roads.

Today’s “efficient owners,” private commercial corporate structures, privatized enterprises.

And the roads to their enterprises, built in the USSR, they received “as a bonus.” They got them completely free!

And qualified specialists, trained in the USSR, they got for free.

They received both cities and towns with social infrastructure for free. Moreover, the maintenance of infrastructure for their employees was left to the state. In other words, it was free for them.

That’s it, period! One point from which all ecological problems, the destruction of the Russian Taiga, technological disasters, and other trash we see stem. Infrastructure is collapsing, with no one investing in it anymore. Enterprises are falling apart, with no one modernizing them. Soviet-era factories still pollute the sky and the lungs of local residents. No one wants to spend on treatment facilities. Factory directors howl: there are no specialists. No engineers at the factories or forest engineers in the taiga. Well, naturally: Soviet specialists have run out, and there’s nowhere to train new ones.

This is the general background. Locally—there are isolated examples where things are slightly better. But mostly, this is how everything looks everywhere! And the ecological problems of all the “norths” are understandable.

Paradoxically, against the backdrop of the north, the growing ecological problems of the south of our country stand out.

Here, the population is growing, not decreasing!

Money is being actively invested. Housing and infrastructure are being actively built.

Millions of our country’s residents dream of moving south. From the rapidly emptying Far East, from the industrial giants of Siberia with ruined ecology, from the closing and liquidating cities of the Far North—people are striving to move south. Like the old saying: if you knew the cards, you’d live in Sochi.

It looks paradoxical, but even in the sunny south, ecological problems are growing almost faster than in the north! Why do the presence of an active, growing population and enormous material resources not save from ecological problems?!

This is what I want to figure out!

Why, where there are all the resources, both material and human, do ecological problems continue to grow at an accelerating pace?! It seems the problem isn’t money. And not people, not a dwindling and inactive population.

Yes, population growth and active construction in the south increase ecological pressure on ecosystems. But in today's world, can't ecological risks be considered at the stage of building new projects? They can! However, the situation is such that an ecological strategy can be developed BEFORE environmental problems arise, but no one wants to do it. Everything is driven by business,

commercial corporations. Those very "efficient owners." Efficient at extracting profit by any means in the shortest time possible. In their corporate language, this is called "investment attractiveness of the project."

What about investing in the strategic development of the region? Looking 30–50–100 years ahead? No, we don't want to hear anything about that! Those are just extra expenses that would reduce the project's investment appeal!

That's how I see it now. The same problem exists both in the north and the south—the attitude towards the matter itself. The approach. Even at the planning stage. Even before anything has been started.

Chapter 19. The destruction of great rivers for gold mining

The destruction of ecosystems, pollution of nature, and extermination of living species are all global problems that have been artificially created. Animals are killed for entertainment, nature is polluted and poisoned for profit. People entertain themselves and make money by destroying all living things around them.

I want to tell you about a global ecological disaster happening here in Siberia and the Far East, something that is often stupidly ignored. We've heard about disasters related to forest fires, barbaric deforestation, and the extinction of bees, which are actually the leading regulators of the ecological state worldwide. But hardly anyone has heard about what's happening right now in Siberia and the Far East because of gold mining.

In 2021, the World Wildlife Fund (WWF) specialists summarized the past year. A large study was conducted, and the figures presented are, to put it mildly, shocking. In just one year, 320 cases of pollution were identified in

147 rivers in Russia due to placer gold mining. In other words, purely because of the interests of big business, tearing apart the living flesh of Mother Nature to extract gold from her depths, nature is being destroyed.

Can you imagine the scale in terms of distance? There's one kilometer, there's two, and then there's ten kilometers. You can walk ten kilometers, you can walk a hundred, but a thousand is already difficult and time-consuming, right?

The entire length of our country from west to east is approximately 10,000 kilometers. From north to south, it's about 4,000 kilometers. Colossal, isn't it?

And now, pay special attention: river pollution over the course of one year due to the activities of gold miners in Russia was recorded along a total length of 11,500 kilometers downstream from the gold mining sites. Out of all the cases of river pollution, 234 incidents were identified in the Amur ecoregion, which includes Primorsky Krai, Amur Oblast, Khabarovsk Krai, the Jewish Autonomous Oblast, and Zabaykalsky Krai. Here, specialists counted approximately 8,500 kilometers of polluted rivers.

These figures, I repeat, are only for the year 2021. Similar occurrences happen annually in the country, and the rate of pollution is constantly increasing! For instance, last year, there were 44 fewer recorded cases of river pollution, yet the corresponding figure for completely polluted rivers differed by 24, while the total length of polluted rivers grew by 2,197 km since last year. It somewhat resembles the situation with forest fires in Russia, where the area of burning forests increases year after year. In 2021, over 18 million hectares of the Russian Taiga burned, and 11,500 kilometers of rivers were polluted due to gold mining. Terrifying numbers. And this is just one year.

There are now more technologies and more opportunities to monitor the activities of gold miners. Experts use satellite monitoring, which provides the greatest accuracy. Scientists propose only one solution to this global environmental problem: reduce the issuance of licenses for the extraction, exploration, and prospecting of placer gold.

From personal experience in protecting the Russian Taiga, I know how criminal the gold mining industry is. For instance, the vast majority of companies, under the guise of exploration licenses, blatantly and illegally extract gold. This is despite the fact that such companies

are not subject to environmental oversight, since formally they are not mining gold, just searching for it. Moreover, they don't have to pay mineral extraction taxes, create infrastructure to prevent environmental pollution, and so on.

Simply put, the gold mining industry is a realm of enormous, colossal money. It's a true "gold mine" for big business. You set up numerous companies that are supposed to be formally engaged in gold prospecting! You get licenses. You send them to various locations, and instead of searching, they extract gold. Then the companies close, new ones are registered, and the cycle starts all over again. You can even take out loans and debts on the closing companies, then declare bankruptcy! That way, the profit becomes truly colossal.

And the saddest part is that everyone understands what's happening. But the corruption of government agencies in the regions allows them to "turn a blind eye" to what's going on.

It's just huge money, and everyone tries to grab a piece. The truth is, no one thinks about the fact that this piece is the flesh of a dying Mother Nature.

At the time I was working on this book, public discussions were held in Khakassia on the "Environmental Aspects of Placer Gold Mining" in areas inhabited by indigenous peoples. Participants included: Yuri Kurlaev, Deputy Head of Khakassia, representatives of federal and republican executive and legislative bodies, representatives of the Shor people, gold mining enterprises, public organizations, and members of the regional Public Chamber.

So, you see, they really tried to make everything seem "serious and important," right? High-ranking officials came to discuss the issues of river pollution due to gold mining on the lands of Russia's indigenous peoples.

The Minister of Natural Resources and Ecology of Khakassia, Vladimir Lebedev, spoke about the issues surrounding placer gold mining. He mentioned that the number of licenses being issued is causing concern among the local population. Residents report the destruction of rivers and the massive negative impact on the region's unique ecological systems. And you can understand them! People came to the meeting with the "high-ranking officials" hoping they would be heard and understood.

This meeting reminded me of a recent international event that the whole world was closely watching. It was the climate summit in Glasgow. The leaders of Russia and China decided not to attend at all, as if saying, "Who the hell needs this?" President Biden of the USA did attend, by the way. He expressed regret that representatives from Russia and China didn't come, yawned, and fell asleep. Seriously, no joke, he just slept through the "important climate discussions." I don't know how true it is, but they say the old man was farting loudly in his sleep, distracting other guests from the "climate agenda" at this very important summit.

Meanwhile, international media "devoured" the information and happily published stories about how the world would now change and everyone would live well and wonderfully in it!

So, the meeting in Khakassia about gold mining issues is reminiscent of the summit in Glasgow. Talk, make important decisions, listen to problems. And people have been talking about these issues for years, and the authorities publicly declare that it turns out everyone is aware of the problems. It seems everyone has gathered around the table just to once again state what has been known to everyone for many, many years. They gathered to create the illusion of change!

In 2021, over 11,000 kilometers of our rivers were polluted due to gold mining. The ecosystem is poisoned, killed, destroyed! Unique biocenoses suffer solely because people want to extract the yellow metal from the earth's depths.

If I were in power right now, what step should I take? Call a meeting? Discuss the issues with local residents? Maybe meet with President Biden and talk to him about Russia's problems? Or should I just, using the facts we already know, go ahead and solve the problem?

It's a fact that ecosystems are destroyed every year. There is confirmed scientific data showing that in just one year, businesses have polluted thousands of kilometers of rivers. This is a catastrophe on a global scale! Therefore, we must:

Impose a complete moratorium on gold mining in regions where ecological crimes have been committed and environmental degradation is observed. The pollution of 11,000 kilometers of rivers is ecocide on a planetary scale. An immediate ban is required, with a moratorium in place at least until a full investigation is conducted and the environmental damage is completely remedied. These regions should be declared zones of full ecological tranquility for decades. Otherwise, restoring

the ecosystems will be impossible.

After addressing environmental issues, the gold mining sector must be completely overhauled. Implement the strictest round-the-clock monitoring of regions, immediately record any pollution, and harshly punish businesses under the ecocide statute (imprisonment for 12 to 20 years according to the Criminal Code of the Russian Federation).

Work together with real scientists and specialists to develop an economic model that doesn't exert pressure on the environment, while allowing honest businesses to engage in mineral extraction without hindrance. This means minimizing the impact on ecosystems while ensuring the economic viability of the gold mining sector. This can only be achieved by transferring all authority to the federal government. If decisions continue to be made by minor regional officials, each acting in their own interest, corruption will persist, and so will environmental crimes.

Chapter 20. Why should sport hunting be banned?

All these acts of ecocide, from the destruction of the ancient Baikal forest to the pollution of Siberian rivers, primarily impact animal habitats. While we often question how we ourselves can live amidst all this, the interests of wild animals are practically ignored. How do these creatures fare as humans deprive them of their habitat and sustenance?

In reality, it's extremely difficult. Instead of offering some form of human assistance, people go on to finish off the animals. Previously, in my writings, I've repeatedly mentioned the state statistics they are so proud of: a third of all publicly accessible forests in Russia have been handed over to private hands for sport hunting entertainment. Just like that! By the way, officials boldly refer to loggers and hunting industry owners as the 'masters of our forests.' That's a literal quote.

So, my opinion is actually shared by very few. I believe that all forms of recreational killing, the so-called 'sport hunting,' which is not and cannot be a sport in essence, should be banned.

Why should it be banned?

FIRST: The ethical unacceptability of killing animals due to changes in modern society.

Not long ago, hunting wild animals was integrated into society and had functional (practical) significance. The existing hunting legislation is morally outdated and does not account for the loss of hunting's functional significance.

In reality, 'amateur sport hunting' (or, as it's called outside legislative acts, 'trophy hunting') in modern society has turned into an industry of paid killings of wild animals just for the sake of killing.

This provokes a negative reaction from a significant portion of the country's citizens. Citizens are particularly disturbed by the fact that it has become an 'industry of status killings.' When individuals with high social status (including those with high status in the state) publicly commit animal killings, they publish photos with the corpses of wild animals they have killed in the media and on social networks. Essentially, this is

already an unacceptable promotion of cruelty for many citizens.

It can be concluded that killing wild animals for 'sporting interest,' to confirm one's high status in society, or for 'trophies' has become ethically unacceptable in society.

Due to the changing attitudes of a significant portion of citizens toward this kind of 'amateur sport hunting,' there is a need to change the legislation.

SECOND: The increasing danger of spreading zoonotic infections.

The ongoing COVID-19 and African swine fever epidemics currently demonstrate the danger of zoonotic (spread from natural sources) infections. Scientific facts indicate that such risks will intensify in the coming years. This includes the thawing of permafrost and glaciers in the mountains, releasing previously unexplored microorganisms. It also involves humans exploring remote, hard-to-reach areas of the wild with isolated and little-studied groups of microorganisms. Additionally, the ease of human migration has exponentially increased the speed of spreading any infections worldwide.

We need to compare the diminishing significance of hunting products in the economy and society with the extremely high risks to society and the state in the event of zoonotic infections spreading. Therefore, a ban on exporting hunting products beyond the place of extraction and a ban on the circulation of such products in general is necessary.

THIRD: The economic inefficiency of the outdated model of the existing hunting economy.

The 'Strategy for the Development of the Hunting Economy in the Russian Federation until 2030' from 2014 sets the goal of 'increasing the trade turnover in the hunting economy to 0.6 percent of the gross domestic product' (GDP).

This clearly shows the extremely low (less than one percent of GDP!) significance of hunting in the economy of modern society.

The strategy until 2030 states: 'The hunting economy in the Russian Federation is characterized by a high degree of extensiveness, inertia in development, conservatism in the methods used, and uneven use of hunting animals, especially in the territory of Siberia and the Far East of the Russian Federation.'

Absolutely accurate conclusion! Its correctness has been fully confirmed during the implementation of the Strategy from 2014 to 2020.

Is a radical reassessment of the very approach to the hunting economy in the country necessary? In general, the strategy for the development of the hunting economy itself answers this question positively: 'Yes, it is necessary!'

The issue is how to reform the hunting economy and in which direction. The Strategy mentions extensiveness and conservatism. Yet, the Strategy itself is a model of that very conservatism! Just as the Russian Taiga continues to be seen only as a source of timber from a state perspective, so too is the animal world viewed solely as 'skins for slaughter'!

Fine—let's talk only about the economy. Where does the money come from? From selling licenses for the paid killing of wild animals. Trading in the death of wild animals at the state level. Agreed: it sounds brutal. Simply disgusting! But it's a fact: the state budget receives income only from trading in the death of wild animals. From selling permits to kill. This needs to be understood for a proper assessment of the economic foundations of the hunting economy.

The sale of weapons, animal trophies, animal skins, animal meat, hunting organization, hunting equipment, etc., and so on—this does not bring significant income to the state. Indirectly: some taxes, and that's it. Meanwhile, the state also incurs expenses: maintaining a staff of officials for issuing licenses, accounting and controlling the animal world and hunting grounds, etc. And the overall economic indicators that state officials would like to see are 0.6% of the country's overall economic indicators.

That's all! And we're talking about turnover in general, not the 'net profit' of the state from the hunting economy. By 2030. About half a percent of the country's overall economic indicators allows us to confidently say that the significance of the hunting economy is extremely low, insignificant.

Technically, what does this mean? Officials would like to receive at least some income from the hunting economy to reduce the inevitable expenses of maintaining this very economy. I won't mention local interests, like sitting in place with a decent salary or the corruption component of such 'sitting in a lucrative position.' The federal center is not interested in this. The center even weakly fights against such local interests.

Just as for the forestry department, timber is not the only commodity, so too for the hunting department, permits for paid killings are not the only commodity. Just the simplest commodity! The Russian Taiga can generate income beyond timber. But this requires changing the entire economy. Strategic, fundamental changes. And timber—it's simple and quick. And, most importantly, a large sum of money right away. With hunting—it's the same. The only difference is that the money is an order of magnitude less.

That's it! "That's it"—meaning what the country's hunting industry economically represents right now. Economically. As a purely economic project! And this project is deeply unprofitable with no prospects for development!

It's clear that there are people who earn income from hunting. It's clear that some even earn very large incomes. There are also government agencies interested in self-preservation—maintaining budgets, their salaries, etc. And all these people would like to continue earning from hunting and the hunting industry. No problem—no objections at all! The objection arises with the question: Why are outdated models being used in a changed world?

"We need to increase the number of hunting licenses sold…"

Sure, sure…

The era of fur, when pelts of fur-bearing animals formed the state budget, is in the past!

Recreational hunting, as it was once remembered, is also in the past, "a relic of the USSR"!

It's simply unrealistic now to use morally outdated models from the past!

The most important thing is that those making decisions in the country's hunting industry understand this. They understand that widespread interest in hunting is unrealistic now. The younger the generation, the fewer hunters there are. Smartphones and city cars are more esteemed than rifles and UAZs.

Understanding this, those who wish to maintain income from hunting are thinking about developing elite hunting for the wealthy. We'll rename "recreational trophy" hunting to "conservation and nature-preserving." Services, elite cabins, elite saunas—everything, in short, elite for the "aristocrats." Let there be fewer clients buying licenses to kill, but we'll compensate with expensive services surrounding paid killings.

That's how it looks right now.

Still just "skins for slaughter"!

That's why I say hunting is now unjustifiable even on ECONOMIC grounds! It's small and diminishing income for a narrow circle of people. No growth prospects in its current form. A narrow focus on an outdated model only hinders the development of something new, some changes. Trophy sport hunting should simply be banned altogether! This would create more opportunities to assess the forest ecosystem as a whole, including the resource potential of our forests.

Chapter 21. Trophy hunting and African swine fever in Russian forests

Currently in Russia, as in many countries around the world, there has been an "intense fight against African swine fever" for several years. This disease poses no threat to humans but affects domestic animals and... even wild boars in the Russian Taiga. Authorities have begun to seize pigs from private farms en masse, slaughtering and burning them. Meanwhile, hunters have been ordered to "head into the taiga and kill the boars." Essentially, this is a deliberate destruction of private farms, with both domestic pigs and wild animals caught in the crossfire.

Let's consider whether we, as humans, need to destroy all living things in our path to combat infectious diseases. Specifically regarding wild boars and African swine fever (ASF) right now. Because yes, there are calls for the total extermination of all boars, for complete depopulation across our entire country.

And in relation to the spread of diseases by wild animals in general. This includes other infections. Not long ago, there were discussions about the need to completely eradicate wild foxes, wolves, and jackals due to rabies, for example. Yes, such proposals existed! So, the current suggestions to completely wipe out boars are nothing new.

In essence, the answer is very simple. If we're talking about anti-epidemic measures, quarantine infectious diseases—what does sports (trophy) hunting have to do with it?!

Using ASF as an example—quotes from the Rosselkhoznadzor memo on African swine fever. For information and understanding of the situation.

"1. What is African swine fever (ASF)?

ASF is a highly contagious infectious disease of domestic pigs and wild boars. The ASF virus is very resilient in the environment and can persist for up to 100 days or more in soil, manure, or chilled meat, 300 days in ham and salted meat. In frozen meat, the virus remains viable for 15 years. On boards, bricks, and other materials, the virus can survive up to 180 days.

(…)

Measures upon diagnosis of ASF.

When ASF is diagnosed, a quarantine is imposed on the affected site (farm, settlement, district). Under quarantine conditions, all pigs in the infection zone are destroyed, and within a radius of up to 20 km from the outbreak, all pig stock, pig products, and feed are subject to seizure and destruction.

During quarantine measures, low-value inventory and wooden structures are also destroyed."

Judging by the agricultural department's recommendations, if we're talking about quarantine measures for ASF, then "burn all the boars along with the forest," something like that?!

Once again: IF WE'RE TALKING ABOUT ANTI-EPIDEMIC MEASURES, QUARANTINE INFECTIOUS DISEASES—WHAT DOES SPORTS (TROPHY) HUNTING HAVE TO DO WITH IT?!

It seems obvious that cutting off an animal's head and then hanging it on the wall doesn't quite align with quarantine measures! Nor do other actions typically performed by "trophy sportsmen":

Grilling boar meat?

Skinning the animal and using it as home decor?

Feeding the entrails of the killed animal to your dogs?

All these and similar activities usually carried out by "sportsmen" are very poor quarantine measures! In fact, they are quite the opposite, anti-quarantine measures, directly contributing to the spread of any infections!

So what's the deal? Why is there a real genocide of wild boars in our country under the guise of ASF?!

It's justified by the idea that reducing the density of wild boars in our forests will also reduce the rate of possible infection transmission. Separate small herds of wild boars at great distances from each other. Small herds, resulting in more than enough food for them. They won't actively migrate from place to place, and thus won't spread the infection. This was likely the thinking of officials who made legislative decisions on the genocide of boars in our country. And this genocide of unfortunate wild pigs began practically with the appearance of ASF in our country. The extermination started in 2008! From the south, from the Caucasus regions.

What is the result of the fight against the spread of ASF supposedly by wild boars across our vast country after 12 years of wild boar genocide?

Once again, data from 2020 from the Rosselkhoznadzor website:

230 ASF outbreaks in a year (148 among domestic pigs and 82 among wild boars)

94 active outbreaks (52 among domestic pigs and 42 among wild boars)

The result—zero! No result! The ASF epidemic has spread across the country. From the Caucasus to the Far East. Perhaps, at least now, we can assume that a boar is not a migratory bird. It migrates, but not that far. It doesn't fly from Sikhote-Alin to the Caucasus for the winter. Maybe it's not about the wild pigs, and it's time to stop "genociding" them?!

Incidentally, the Ministry of Natural Resources also opposes the total depopulation, the total genocide of wild boars in the country.

Ecologists and environmental organizations have been saying for years that this will only lead to the destruction of ecosystems. Which is exactly what's happening. Wolves in the forest have nothing to eat because boars were exterminated in the fight against ASF. And they are coming to settlements. To garbage dumps and livestock. Not because the wolf population has grown, but because the boar population has catastrophically decreased! The last predators in the forest simply have nothing to eat! And this triggers the

next cycle of ill-conceived decisions by officials. Ideas are emerging to start a genocide of wolves now. In the Far East, apparently, they'll need to "genocide" tigers and leopards too, following this logic?!

A bit needs to be said about the hunting management system. About 70% of boars are shot during the hunting season as part of sports trophy hunting. For money, with licenses, apparently? There are reports that "out of 3000 samples taken from shot boars, only 9 were found to have the ASF virus." Judging by this, some samples are taken. Do "sports hunters" wait for test results before smearing their son's face with the blood of a killed animal as part of an "ancient Indian ritual"? Do they not grill the "fresh meat," butcher the carcass, or take photos with the corpse?

Hence the question: are these quarantine measures for population control or something else under the guise of such measures?

The remaining 30% of "population control measures" are complete chaos and horror! Shooting from helicopters, mass poisoning of wild animals directly in their natural habitat—all this surfaces in various regions when investigating the issue. Even actions like these on protected natural areas. Even destroying animals by

setting the forest on fire with the animals inside.

It all looks disgusting! Let me emphasize: DISGUSTING! You can agree or disagree with me, but I come to these conclusions:

Under the guise of ASF, there's a fight for money.

It's possible that wild boars are involved in the transmission of ASFV. However, it's doubtful that they spread it over long distances. More likely, it's the other way around: wild boars get infected in their habitats when they approach human dwellings, such as landfills or the manure storage facilities of industrial pig farms.

There's an evident conflict of interest between industrial pig farming and hunting estates. It's Rosselkhoznadzor versus the Ministry of Natural Resources, something like that. In both cases, the main issue is money. Whichever side has more money tends to win. The interests of the population or environmental protection hardly concern anyone.

The entire argument for increasing quotas on hunting wild animals under the pretext of fighting infections is just a way to make more money quickly through the sale of hunting licenses or budget subsidies for 'population control.' Various 'bounties for wolf heads,' and so on. This has absolutely nothing to do with a real assessment

of the ecological system. It has absolutely nothing to do with genuinely combating the spread of infections.

Chapter 22. On swine fever

I can't help but write separately about ASF, since I've taken it upon myself to explain what's really happening on our land. We've already figured out that private farms are being destroyed, along with the extermination of wild boars. Few talk about this, and everyone seems to have gotten used to it, but it directly affects each of us! Let me start with a summary of the latest news from the 'frontline battle' against ASF.

The latest news from the Rosselkhoznadzor website page dedicated to the epizootic situation regarding ASF (African Swine Fever):

"Active outbreaks: 95.

Outbreaks in 2021: 215.

October 15, 2021.

Rosselkhoznadzor appealed to the governor of the Samara region to take comprehensive measures to combat African Swine Fever.

September 21, 2021.

African Swine Fever confirmed in the Republic of Haiti.

August 17, 2021.

Rosselkhoznadzor in Kursk discussed measures to combat the spread of ASF and the prevention of COVID-19 in animal populations.

During the meeting, Nikita Lebedev, Advisor to the Head of Rosselkhoznadzor, assessed the epizootic situation in Russia regarding ASF. (...)

Additionally, the work trip included a meeting with the media, held at the Kursk House of Journalists, dedicated to the threat of COVID-19 infection in animal populations, preventive measures, and the scientific approach to studying the problem. (...)

The Advisor to the Head of Rosselkhoznadzor spoke about the epizootic situation related to the spread of the SARS-CoV-2 virus in animal populations worldwide, the creation of test systems, and the vaccine against coronavirus infection in carnivorous animals, 'Carnivac-Cov.'

In his speech, Nikita Lebedev emphasized that insufficient oversight of the SARS-CoV-2 virus could lead to its entrenchment in animal populations, causing irreparable damage to wildlife.

August 3, 2021.

On August 2 in Bryansk, Konstantin Savenkov, Deputy Head of Rosselkhoznadzor, held an interdepartmental meeting dedicated to preventing the spread of African Swine Fever (ASF). (...)

Konstantin Savenkov instructed to pay special attention to implementing measures to prevent further spread of ASF. The need to strengthen the biological protection of industrial pig farms, ensure accurate accounting of pig populations, convert all biologically unprotected pig farms with low zoosanitary status to alternative livestock types, and implement measures to reduce the number of wild boars was announced."

That's how it is, right?

I specifically included an extensive quote: it's like war chronicles from the front lines! And, apparently, 'officials and company' perceive it this way: as an ongoing 'uncompromising war with a vicious enemy'!

My regular readers will remember, of course, that this isn't the first time I've written about ASF. It's an important and interesting topic. That's why I keep track of the situation and the changes happening. And I share my observations with my readers.

And you know what? It's becoming increasingly clear that the 'war' is being waged against viruses. And most seriously (as in any war!), the 'non-combatants' will suffer.

We are citizens who currently think this doesn't concern us. The natural environment and the inhabitants of natural ecosystems. It's not just the pigs—it will affect other creatures too.

Behind all the events unfolding lies a common cause: money.

Not just money! But "BIG MONEY"!

Even "CRAZY CASH"!

A sweet word for every businessperson: "MONOPOLY."

The ecstatic merger of Big Corporate Business with the state, when the state uses forceful methods to ensure this very "sweet monopoly."

I'm not going to share my own opinion, but rather the words of someone who understands the issue better than I do.

Ural farmer Vasily Melnychenko gave his version of the events to the publication Znak.com. I'll simply quote a practitioner. A person who knows the situation from the inside, "from the ground."

He believes that the "epidemic" is artificially induced to gradually eliminate small farms in order to build mega pig complexes.

“In Russia, there's an interesting correlation regarding this plague: it only appears in places where large pig farms with 100,000 to 300,000 head are being built.”

“As soon as the complexes start operating, the plague appears. The Ministry of Agriculture aids in the destruction; it only subsidizes the largest pig farms.”

> "In rural areas where we found African swine fever, there used to be many cattle farms. There were also six pig farms, providing jobs 20 to 25 years ago. Today, those pig farms are gone because everything was done to ensure their closure."
>
> "It's clear that people living on someone else's land aren't needed. To make them leave faster, they must be deprived of their economic support. The oppression of personal farms begins: banning the keeping of chickens, prohibiting the sale of their products. An analysis of events in the Yaroslavl, Lipetsk, Belgorod, Omsk, Kemerovo regions, and the Krasnodar Territory confirmed this. We even recorded in the Omsk region how a pig carcass was

> dropped from a helicopter, and immediately Rosselkhoznadzor... Rosselkhoznadzor arrived, and it began... The ruler decided that Russian peasantry was no longer needed. There should be 200 to 300 families owning the land and controlling the food supply."

“This is how the territory is cleared. There are statistics: 20 years ago, 9.5 million peasants worked in agriculture—now only 1.2 million remain. If you travel through the region, you'll see that the rural population is disappearing. In Russia, there are currently 75,000 such villages, where between one and 20 people live. These villages and settlements won't survive Vladimir Putin. By 2025, they will close, just as 30,000 have already closed—under one ruler, 100,000 settlements will be eliminated!”

A specific opinion from a specific practitioner!

And yes, I hear many similar opinions personally!

"...comprehensive measures to combat African swine fever" — doesn't that sound like a euphemism to you?! It's a kind of "euphemistic language" — a neutral expression used in public statements to replace other, "indecent," words. Such "softening" aims to mislead the public and falsify reality. For example, using the phrase

"enhanced interrogation" instead of the straightforward and honest word "torture."

"...comprehensive measures to combat African swine fever"—is this a direct equivalent to the Soviet "supreme measure of social protection"? Is that how it works?!

For reference: in the first Criminal Code of the RSFSR in 1922, the death penalty was formally excluded from the system of criminal punishments, replaced by the "supreme measure of social protection," which was supposed to be "exceptional and temporary" until its abolition by the All-Russian Central Executive Committee.

Now, this "supreme measure of social protection" is being applied to pigs. To protect them from dying due to the ASF virus, pigs from small farms and wild boars in the Russian Taiga are being killed en masse.

Well, you understand—dead pigs don't get sick anymore!

"Comprehensive measure to combat ASF!"

For all pigs... except for the "protected pigs" in the territory of the "protected mega-pig complexes"!

The necessity was announced (by senior officials of Rosselkhoznadzor):

— strengthening the biological protection of industrial pig farming enterprises (a dual-purpose measure, also protecting against public oversight—now the public simply cannot obtain information about how and on what the pork for our tables is raised, ensuring 100% "commercial secrecy");

— ensuring an objective accounting of the pig population (so that not a single pig from small farms escapes accounting and potential destruction later on);

— converting all biologically unprotected pig farms with low zoosanitary status to alternative types of livestock farming (total destruction of all pigs is implied accordingly);

— implementing measures to reduce the number of wild boars (up to their complete eradication, accordingly).

Everything is straightforward and consistent—in the words of the officials themselves! A repetition of the quote with minor comments for understanding in parentheses, nothing more.

"Swine techno-fascism" with a system of total control is unfolding step by step before our very eyes!

"Surveillance of the virus"—just an epic phrase from the officials, in my opinion!

Like, "not even the virus can escape our surveillance," something like that?!

For reference: in the past year, 2020, over a quarter of the world's pig population was destroyed as part of the fight against the ASF epidemic. Some countries lost more than half of their entire stock and have already declared a severe meat shortage. Thus, a product deficit was created and the "meat" sector was harshly monopolized by certain private individuals. The epidemic continues!

Peace, love, the eye of Sauron!

..and live pigs will envy dead

pigs...

Chapter 23. The story of a Chinese poacher

Let me tell you a story about how a Chinese poacher became a protector of nature. In the northern mountains bordering Russia, the locals knew a poacher named Liang Feng well. A ruthless killer of wild animals, he once killed a black bear mother in front of her cubs. Liang Feng loved to kill animals, tear them apart, and smuggle the parts of the bears he killed. This was his main source of income and the meaning of his life! He took pleasure in it.

But today, Liang Feng presents a completely different image. They say he quit poaching and got a job as a ranger. Without a rifle, without weapons, he roams the hills where he once killed animals, and considers it his mission to save the endangered Siberian tiger population. Liang says that protecting wildlife is now the meaning of his life!

He is now 65 years old and lives in a small house at the foot of the mountains in the northeastern province of Heilongjiang.

"When I think about what I used to do, it seems so cruel," Liang tells journalists.

The crimes he committed against wildlife are unforgettable. Liang Feng believes that the joint efforts of the World Wildlife Fund (WWF) and the Wildlife Conservation Society helped him change, as they use the knowledge of local poachers to save Siberian tigers from extinction. Just so you know, Siberian tigers are our Amur tigers, whose population is now slowly recovering. Tigers are freedom-loving animals, they cover vast distances, and for them, there are no formal borders like the ones we are used to.

Liang Feng has become a tracking expert who helps international organizations protect tigers. For many years now, every morning at dawn, Liang sets out on foot to patrol the protected lands, gathering necessary data for the organizations. Sometimes it's tiger tracks, sometimes wild boar droppings, and sometimes the resting place of a mighty tiger. Along the trails in the reserve, there are banners with the inscription in Chinese: "Siberian tigers are friends of humanity."

Preliminary estimates suggest that about 600 tigers live in the wild across a vast area that spans the borders of Russia, China, and North Korea. In 1940, experts estimated that the tiger population was nearly wiped out by humans, with about 40 individuals remaining in the wild. Through incredible efforts, the population has been restored, and now tigers are under special monitoring by both governments and international organizations.

The biggest threat to tigers is poachers who seek to kill the predators to sell their body parts on the black market for huge sums. Liang Feng says he never killed Siberian tigers; his targets were bears and boars. He often recalls that he was always indifferent to the plight of animals. Liang simply took up arms and killed animals without the slightest pity for them. He was always aware that because of him, the situation of animal populations worsened every day.

Liang Feng calls himself a ranger. He collects samples of Siberian tiger waste to track DNA populations and uses GPS devices to transmit coordinates of paw prints and deer carcasses as evidence of the paths tigers choose for their long journeys. The mountains where Liang works are familiar to him by heart. He grew up here and spent his youth poaching, exterminating animals.

Liang admits that his family never suffered from a lack of food; there was always plenty. He killed simply for pleasure, for sport, sometimes selling the most valuable animal parts on the black market. Today, many in China know about Liang Feng. People know he was a practicing poacher and that at some point he decided to become a ranger and protect tigers. According to specialists from international organizations, Liang has become an example for many other poachers who stopped exterminating animals and instead decided to dedicate their lives to protecting wildlife.

Jin Yunchao, an employee at an international animal protection organization in northeastern China, says that more than 30 hunters are known to have turned in their weapons and decided to become rangers. However, it is also known that when Liang Feng was recruited by the Suiyang Forest Bureau in 2004, he secretly continued to kill wild animals at night. Blood and the thirst for killing drew him to the forest, where he could savor the scent of death.

When this was discovered, Liang declared that as long as he was alive and needed by the forest bureau, he would protect tigers and no longer kill animals. Does he secretly kill animals to this day? No one knows.

Do you believe in a poacher's repentance? Or perhaps cunning Liang simply avoided punishment and still engages in killing animals? In China, tigers fetch huge sums, they are cooked in pressure cookers for "medicinal dishes" and their body parts are sold on the black market. Would you trust a former poacher to keep track of rare animals? There are 10 tigers—he might report 8 in the records, and the rest go into the pressure cooker. Tiger cubs can be taken and sold to tiger farms.

Chapter 24. Chernobyl safari

Let me tell you about the Chernobyl Reserve. Probably, there isn't a person who hasn't heard about the Chernobyl disaster, right? Well, people seek profit in everything, and anything that can make money is instantly monopolized by certain individuals. Hunting included.

I think you'll find this interesting, so let's go step by step...

Human impact on vast territories has sharply decreased since the Chernobyl disaster.

“From the 30-kilometer exclusion zone around the nuclear power plant, the entire population—over 115,000 people—was immediately evacuated.”

“The settlements have been completely abandoned by people. Regular human economic activity is not conducted.”

"Large areas have been removed from agricultural use."

Currently, vast territories are formal reserves. In fact, they merge into one enormous reserve: they border each other.

CHERNOBYL RADIATION AND ECOLOGICAL BIOSPHERE RESERVE.

It is located in the Chernobyl exclusion and mandatory resettlement zone. Kyiv region, Ukraine. It is the largest protected area in Ukraine. The area covers 226,964.7 hectares.

It is quite young—established on April 26, 2016.

However, human impact on the wilderness there has been minimal since the moment of the Chernobyl disaster.

The core of the Reserve became the Chernobyl Sanctuary, which incorporated the forested areas to the north. Through the Polesie Ecological Corridor, the Chernobyl Reserve is connected with the Drevlyansky and Polesie Nature Reserves, as well as the regional landscape park "Mezhdurechensky." It is also linked with the Polesie State Radiation-Ecological Reserve of the Republic of Belarus.

POLESIE STATE RADIATION-ECOLOGICAL RESERVE OF THE REPUBLIC OF BELARUS.

The largest reserve in Belarus, covering more than 215,000 hectares.

It was established on July 18, 1988, in the Belarusian part of the Chernobyl Nuclear Power Plant exclusion zone. Essentially, right after the disaster. It covers the territories of the three most affected districts of the Gomel region in Belarus.

Vast territories on the border of Ukraine and Belarus have become protected areas! And for 35 years now, human intervention in the natural biological systems there has sharply decreased.

The living space once occupied by people has been vacated. In recent years, there's been increasing information about how the populations of wild animals have grown. They've increased both in the 30-kilometer exclusion zone and in all the reserves of the neighboring countries.

"There are reports and videos showing that the Pripyat River is literally teeming with fish. Just like in the 'good old days.'"

"The number of animals has sharply increased. From large herbivores to packs of wolves that feed on them. Just like in the 'good old days.'"

"Some new species have been introduced. Now, herds of bison and Przewalski's horses are quite numerous. It's even better, it seems, than in the 'good old days.'"

"Due to the removal of human impact and the richness of the plant world, essentially ideal conditions have been created here for the restoration of wildlife," states the report from the Committee on the Consequences of the Chernobyl Disaster under the Council of Ministers of Belarus.

We open the website of the Polesie Radiation Reserve.

Oh! So it turns out you can hunt here after all!

"The Directorate of the State Environmental Research Institution 'Polesie State Radiation-Ecological Reserve' (hereinafter referred to as the reserve) informs that by Presidential Decree of the Republic of Belarus dated August 7, 2019, No. 147 'On the Provision of Hunting Grounds,' hunting grounds in the experimental-economic zone are granted to the reserve for free use for hunting management."

The total area of the reserve's hunting grounds is 63.3 thousand hectares."

And hunting is quite affordable, with very democratic prices!

"COST OF PERMIT FOR HUNTING ANIMAL HARVEST:

Red deer. Adult male non-trophy (adult female) — 400.00

Red deer. Yearling — 150.00

Red deer. Trophy male — 600.00

Moose. Adult male non-trophy (adult female) — 400.00

Moose. Yearling — 200.00

Moose. Trophy male — 600.00

Wolf (for foreign citizens): — wounding — 150.00

— shooting — 300.00".

As I understand it, shooting wolves is free for the country's citizens. The prices are likely in Belarusian rubles—on the website, it simply says "ruble."

In fact, the radiation risk of the harvest is considered, and analyses are included in the price:

"After harvesting the animal, a representative of the hunting user (hunt leader — chief game manager, gamekeeper) collects muscle tissue samples and delivers them to an accredited spectrometry and radiochemistry laboratory of the reserve's scientific division for instrumental radionuclide content analysis. The laboratory tests are funded by the reserve.

After the tests, the laboratory issues a test report, based on which a decision is made on the further use or disposal of the harvested product.

Meat products that pass radiation control and meet the national permissible levels are given to the hunter, with subsequent payment for the hunting permit at the end of the hunting tour."

Moreover! Not only is hunting on contaminated areas possible — Belarus is also returning lands to agricultural use. Back in 2017, Alexander Lukashenko signed Decree No. 259, which provided for the removal of the reserve's protective zone, abolishing its boundaries, area, and land composition "to lift restrictions on land users for the use of land plots located within its territory."

To clarify: this was an additional zone around the reserve. The reserve itself wasn't abolished, they just placed radiation hazard signs, so to speak, directly at the entrances to the reserve. And they allowed potato gardens right up to the fence. Nevertheless — quite telling! Does this mean the authorities believe there's no danger anymore?

Furthermore, when considering the question of "is there danger or not," it's interesting to assess the overall situation with the extensive "radiation reserves" in

Ukraine. I mean the reserves adjacent to the actual exclusion zones being created there.

— Such "reserve-radiation" territories will be doubled — from 6 to 15% of the country's total area. That's a lot! For example, in Germany, the total area of all reserves is 0.54% of the land area. National parks in France occupy 2% of the territory. In Italy — about 5% of the total area.

"In areas heavily contaminated by radiation, human activity continues. It's not just scientific research! Tours are actively conducted there. There are many 'self-settlers'—people who independently move into zones prohibited for living. The media estimates there are 2,000 such 'self-settlers.'"

Overall, human activity in the affected areas is being restored.

But it is being restored, generally speaking, in a positive way—as giant nature reserves. Both plant and animal life are being rejuvenated there.

We are witnessing the self-restoration of biocenoses!

Hunting, living in these areas, food products from there—now that's a more complex issue! The recovery of populations does not equate to safety for a specific organism! The human organism, in this case, consuming fish from Pripyat or venison from the Polesie Reserve.

It's a complex issue, even if tests have been conducted and the levels of radionuclides are within permissible limits!

Chapter 25. A bit more about Chernobyl

Would you like me to tell you not a fairy tale, but a true story? Something that really happened! Especially since I've already mentioned that they're organizing safaris for hunters in the Chernobyl Reserve. It wouldn't hurt to talk about the accident itself. Especially since April 26, 2021, marked 35 years since the disaster at the Chernobyl Nuclear Power Plant.

Oh, come on! someone might say, Why should we care about something that happened so many years ago? It's in the past! And now the Chernobyl Nuclear Power Plant is in another country! Why should we care? If it's still a relevant issue, then it's Ukraine's problem!

It's been 35 years since the accident at the Chernobyl Nuclear Power Plant. That's true!

But the catastrophe isn't over!

And the consequences affect both our country and its inhabitants even now!

SECONDARY POLLUTION OF TERRITORIES.

More than 200,000 square kilometers have been polluted.

As a result of the accident, more than 5 million hectares of land were taken out of agricultural use.

A 30-kilometer exclusion zone has been established around the nuclear power plant.

The areas most affected were those in close proximity to the Chernobyl nuclear power plant. These include the regions of Kyiv and Zhytomyr in present-day Ukraine, and the Gomel region in Belarus. But it also impacted Russia! The Bryansk region was hit the hardest. And it didn't stop there! Radiation even reached some regions far from the accident site, like the Leningrad region, Mordovia, Chuvashia, and so on. Radioactive fallout occurred there, depending on the winds at that time.

In certain regions, the amount of radioactive cesium in milk still exceeds permissible levels in some samples. In our case, this region is Bryansk.

The concentration of cesium in water and fish could pose a danger in many regions over the coming decades. To understand the scale: elevated levels of cesium-137 have been found in lichen and reindeer meat in the Arctic regions of Russia, Norway, Finland, and Sweden!

All information about potential long-term consequences is, in principle, open. Moreover, there are even laws prohibiting the concealment or classification of such information. But in my opinion, society underestimates these issues. Most people simply know nothing. Let's put it this way: the information isn't illegally hidden, but it's not publicized either.

According to official data, 31 people died in the first three months after the accident. Another 19 people died between 1987 and 2004, when their deaths were presumably linked to the direct consequences of the accident. 134 liquidators suffered from acute radiation sickness of varying severity. Officially—that's all!

There is clear scientific evidence that radionuclides, such as secondary contamination with cesium-137, stimulate the formation of malignant tumors, cause mutations, and weaken the immune system. But this occurs as an additional factor. As one of the adverse factors. As a result, a diagnosis like "death from radioactive cesium" cannot be made. Experts understand: yes, many cancer cases in our country are triggered by secondary radiation contamination, that's true! But these do not become official diagnoses in specific cases.

In reality, in my view, the topic is "kept from being blown out of proportion," and efforts are made "not to alarm the public."

A telling example is the way information is presented about the radiation reserve in Belarus. On July 18, 1988, the Polesie State Radiation-Ecological Reserve was established in the contaminated area of Belarus. Research has been conducted since day one. Observations show that the number of mutations in plants and animals has increased. But only slightly.

Insignificant among the organisms that survive and reproduce! Nature effectively deals with consequences through natural selection. That is, by "removing defective organisms from the population"! By death. Death is how natural factors "cleanse" the entire group of defective, mutant organisms. How is this presented? As a good thing—populations self-purify! And, in principle, this is true.

This applies to our society as well. Does anyone doubt that the same thing is happening to the human population in affected areas?! Mutated individuals of "Homo sapiens" die from cancer. Most often, without leaving offspring. Is that about right?!

USE OF POTENTIALLY DANGEROUS REACTORS TO THIS DAY.

In Russia, 38 power units operate across 11 active nuclear power plants.

Out of these, 24 reactors are operating beyond their designed service life. More than 60% of all nuclear reactors in Russia can be considered old!

Among them are 9 RBMK-1000 reactors of the "Chernobyl" type at the Kursk, Leningrad, and Smolensk nuclear power plants.

One of the causes of the accident was the design flaws of the RBMK-1000 reactor. This is now officially recognized. There's no secret about it!

The state commission formed in the USSR to investigate the causes of the Chernobyl disaster placed the main responsibility on the operational staff and the management of the nuclear power plant.

The IAEA (International Atomic Energy Agency) created its own advisory group, the International Nuclear Safety Advisory Group (INSAG), which, based on materials about the accident (provided by the Soviet government, accordingly), in its 1986 report also generally supported this view. It was initially claimed that the accident was the result of an unlikely coincidence of several rule

violations by the staff.

However, in 1990, the USSR's State Atomic Supervision Commission revisited this issue. Conclusion: "...the Chernobyl accident, which began due to the actions of the operational staff, escalated to catastrophic proportions due to the reactor's unsatisfactory design."

In 1993, INSAG published an additional report, giving more attention to the serious problems in the reactor's design. In this report, many conclusions made in 1986 were deemed incomplete and were revised. According to the updated INSAG report with supplemented data, the most likely cause of the accident was errors in the reactor's design and construction. These design features had a major impact on the course of the accident. And due to the initial design defects of the reactor, the accident turned into a catastrophe of planetary scale.

The main factors of the accident according to the 1993 INSAG report are as follows:

— THE REACTOR DID NOT MEET SAFETY STANDARDS AND HAD DANGEROUS DESIGN FEATURES;

— low quality of operational regulations in terms of ensuring safety;

— inefficiency of the regulatory and oversight regime for safety in nuclear energy, a general lack of safety culture in nuclear matters, both nationally and locally;

— there was no effective exchange of safety information, either between operators or between operators and designers, and the staff lacked sufficient understanding of the station's features affecting safety;

— the staff made a number of errors and violated existing instructions and the test program.

The RBMK-1000 reactor had several design flaws and, as of April 1986, had dozens of violations and deviations from the current nuclear safety regulations! These deficiencies most likely predetermined the inevitability of an accident on the scale of Chernobyl at any of the RBMK-type reactors. This is the belief not only of many environmental activists but also of specialists in the field of nuclear energy.

As of April 1986, there were 15 RBMK-1000 reactors in operation at 5 stations.

I repeat: IN 2021, RUSSIA IS USING 9 RBMK-1000 REACTORS OF THE "CHERNOBYL" TYPE AT THE KURSK, LENINGRAD, AND SMOLENSK NUCLEAR POWER PLANTS!

ONLY 6 CONSTRUCTIVELY DANGEROUS REACTORS HAVE BEEN DECOMMISSIONED — 9 DANGEROUS REACTORS ARE STILL (35 years!) OPERATING!

Yes, indeed: after the accident, measures were urgently (naturally!) implemented to address these deficiencies, if not in the reactors themselves, then in their maintenance systems. The initial measures were already carried out in May 1986. That's right: they tried to compensate for the design flaws. With whatever they could! But the fact that the RBMK-1000 reactors are inherently dangerous and outdated doesn't change!

IS NUCLEAR ENERGY REALLY ECONOMICALLY JUSTIFIED, AS WE ARE ASSURED?

That's a very good question!

Society is assured from all sides that nuclear energy is cheap electricity. I think (and many experts agree with me!) that this is NOT the case!

"Civilian" nuclear energy was developed as part of the processes, and economically it is justified only in conjunction with "military" nuclear power;

— the cost of electricity from nuclear power plants does not include the decommissioning of the plants after use and the disposal of the most hazardous waste;

— The economic damage from accidents is not considered at all. Simple questions, which also have an economic component, since our world is exclusively "profit-driven and money-oriented"! How much does it cost to remove the fields of Bryansk and neighboring regions from agricultural use? How much does the death of an unaccounted and not precisely known, but clearly large number of people, our neighbors, cost? What are the additional medical expenses in the country for treating numerous cancer cases?

There are no answers regarding the cost of human lives.

There are clear, financially expressed answers to the questions of decommissioning nuclear power plants that have exhausted their resources!

“In Russia, 18 old reactors must be shut down within the next 15 years. This is the plan for 2021–2036.”

"The decommissioning process (that's what the process of taking nuclear power plant reactors out of operation is called) will take at least another (minimum!) 30 years."

"The country's decommissioning fund is empty. The costs will fall on the shoulders of taxpayers. Decommissioning should be funded by previously accumulated money. These funds are collected

throughout the operation of a nuclear power plant and should remain in a special fund. From 1986 to 2002, not a single new nuclear power plant was built in North America and Western Europe. This is not so much due to public opinion pressure against the environmental dangers of nuclear power plants, but rather because insurance premiums have significantly increased. The profitability of nuclear energy decreased when the cost of electricity from nuclear power plants began to include the cost of subsequent decommissioning. Nuclear energy turned out to be insanely expensive!"

So why is nuclear energy so active in our country if it is not economically viable? As early as 2006, environmentalists discovered that active accumulation of funds for decommissioning old nuclear power plants had been undertaken for 10 years. But this did not lead to their actual accumulation. As they say, due to the “economic crisis” and “ineffective state control.” Particularly NON-politically correct citizens use the term “embezzled.” In general, budget money will be needed to cover the costs of decommissioning nuclear power plants! And, logically, the money in the budget comes from taxes…

And it costs a lot! Decommissioning a nuclear power plant is often more expensive than building it. For example, the expected cost of decommissioning the first and second power units of the Leningrad Nuclear Power Plant (including the costs of radioactive waste disposal, but excluding the costs for the final isolation of spent nuclear fuel) will amount to 64 billion rubles. But even that is likely not enough.

Independent environmentalists claim that the costs are significantly underestimated. For comparison, they cite the decommissioning of just two similar power units at the Ignalina Nuclear Power Plant in Lithuania. After ten years of decommissioning, the costs are estimated to be almost four times higher! And this is by no means a complete decommissioning, but only a part of the process!

It's been 35 years since the Chernobyl nuclear power plant disaster. That's right!

But the catastrophe isn't over!

And the consequences didn't end there!

The consequences are invisible to people. The authorities try "not to stir up society with unnecessary questions." Meanwhile, the nuclear industry, which has transformed from a former state structure into a

massive commercial corporation, is simply making money. However they can and on whatever they can.

Chapter 26. Forever chemicals

It turns out that the thirst to kill wild animals is stronger than common sense, so much so that people are willing to travel to the Chernobyl exclusion zone. Despite all the possible consequences of such a “safari.”

And what about other dangers? Honestly, throughout my many years of wildlife conservation work, I have rarely encountered people who care about “what we can't see with our own eyes.” In other words, if we don't see radioactive contamination, then there's no need to fear it! If we don't see ancient forests being cut down, animals being exterminated, rivers being polluted—then it doesn't exist.

I want to tell you about another danger to humans: forever chemicals.

In a recent scientific study, researchers proved that “forever chemicals” are present in more than 99% of all bottled water samples. This figure is close to 100%. The study, titled “Factors Influencing PFAS Concentrations in Drinking Water: Implications for Human Exposure,”

was recently published; experts examined PFAS samples in both tap and bottled drinking water from various countries around the world, including the UK, China, and others.

What are “forever chemicals”? These are PFAS (per- and polyfluoroalkyl substances)—a group of synthetic chemical compounds that are extremely resistant to degradation. That's why they're called “forever chemicals.” They circulate with water evaporation on Earth and atmospheric precipitation, making it impossible to remove them from nature! Meanwhile, they accumulate in all ecosystems and living organisms.

In other words, humans have created extremely dangerous substances and spread them everywhere, and now they don't know how to remove them from the environment or protect themselves from their effects.

Why are “forever chemicals” dangerous?

They have high bioresistance and accumulate in the tissues of all living organisms (including humans). The more they accumulate, the higher the risk of dangerous diseases, such as cancer. PFAS substances are extremely toxic: it's proven that they disrupt the immune system, provoke cancer, destroy the reproductive system, and disrupt hormonal balance. They also

suppress the thyroid gland and increase cholesterol levels.

PFAS do not degrade and can affect ecosystems and the human body for a very long time. As a result, even the smallest doses can lead to serious consequences over time. They are found everywhere—in ecosystems, atmospheric precipitation, and even in human blood. But few people know about this! Therefore, when deadly diseases arise, only a few doctors can link it to the high concentration of “forever chemicals.”

Moreover, PFAS substances do not break down under the influence of heat, ultraviolet light, chemical, or biological factors. They come from various materials that are water-, dirt-, and grease-resistant. They've been produced for over 70 years, deliberately creating substances resistant to external influences. Simply put: non-stick cookware, food packaging, textiles and carpets, firefighting foam, cosmetics, the automotive and electronics industries, cleaning and polishing agents, as well as industrial emissions—all are sources of PFAS.

Ultimately, “forever chemicals” enter our bodies through contaminated food or packaging, water, air, and dust (when we breathe), and through the skin when we

use cosmetics. I think I've explained enough. The scale of the problem should be clear.

Now let's return to the scientific study. According to data from scientists in 2024, “forever chemicals” are found in almost 100% of all water on the planet, including bottled water. The most common substances confirmed by scientists in 99% of water samples collected from 15 countries are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS).

These two compounds from the PFAS group are the most toxic, persistent, and have an extremely high degree of accumulation in organisms. PFOA was more commonly used in non-stick coatings (like cookware), while PFOS was used in firefighting foams and the textile industry. Both compounds are banned or restricted in several countries, but over the past 70 years, so much has been produced that scientists now find them in almost all water on the planet, including bottled water. It's no surprise that, according to the study, there are significantly more “forever chemicals” in China's water than in the UK's.

Also, according to the study, natural mineral water contains much more “forever chemicals” than regular purified water. But even simply purified water is

contaminated with PFAS.

What should be done to reduce the consumption of “forever chemicals”? Use natural cleaning products and cosmetics, and avoid buying and using cheap chemicals. Alternatives exist—you need to figure out which products are right for you. Filter all the water you drink using activated carbon (carbon-based filters) or by boiling it. According to the study, such methods can remove 50–90% of PFAS from water.

Commentary from Stuart Harrad of the University of Birmingham, one of the study's authors: “Our results show that PFAS are widespread in drinking water, but simple purification methods can effectively reduce their concentration. For example, using regular filters or boiling can significantly decrease the amount of these substances.”

I would also like to add that a huge amount of scientific data is only now emerging. In the past couple of years, with the use of the latest technologies and combined data, meta-analyses and studies at a new level have become possible. Previously, such opportunities simply didn't exist, and therefore few suspected the real scale of ecocide and the destruction of Earth's biosphere.

Suppose people are dying en masse from cancer due to PFAS, but they are also dying from the impact of pesticides in fields and food, which are “fertilized” in agriculture. So, does that mean “no water to drink, no apple to eat”?

Chapter 27. Thousands of toxic substances are already inside us

It is crucial to pay attention to the latest scientific data not only on the destruction of nature but also on how and why this is specifically dangerous for us. Therefore, in our fight for the wilderness, we strive to carefully study and monitor all current information.

I came across a scientific study published by researchers on September 17, 2024. The work is titled "Evidence of Widespread Impact of Chemicals in Contact with Food Products on Humans."

Experts have determined that over 3,500 chemical substances used in the production of food packaging have been found in the human body! This specifically refers to food packaging, excluding everything else.

I studied the research and noted some data for preparing materials. Here's what's interesting: out of the detected chemicals that enter and accumulate in our bodies, 80 are extremely hazardous to human health. Yet, scientists know almost nothing about many others!

I would recommend that specialists automatically assign each unknown chemical that enters our bodies a status of "high danger" until proven otherwise! And conduct specific work to establish a safety evidence base for these substances. Otherwise, we are nowhere near capable of assessing the level of contamination in our own bodies and always take the path of least resistance.

It's also important to note the following. Previously, scientists created a list of more than 14,000 chemical substances that come into contact with food in one way or another. These substances were called FCC.

When the specialists began their new research, they expected to find several hundred FCC substances in human bodies. However, the scientists were surprised when the total number of chemicals reached 3601.

A third of all known FCC chemicals accumulate in our bodies.

Scientists have also discovered phthalates and PFAS (forever chemicals). While I previously wrote a separate piece on PFAS, I haven't mentioned phthalates. It's important to note that they disrupt hormones and cause infertility, as documented in separate scientific studies.

I think it's worth mentioning a bit about phthalates. These chemical compounds are added to plastic to increase its flexibility and durability, allowing for the production of various packaging.

Phthalates, in turn, enter the human body and cause:

Disruption of the endocrine system, as they mimic hormones (such as estrogen) and interfere with the normal processes of hormonal regulation in the body. This can lead to developmental issues in the reproductive system, especially in children and adolescents, and also increases the risk of infertility.

Some studies have shown that phthalates can negatively impact both male and female reproductive systems. In men, this may manifest as reduced testosterone levels, decreased sperm quality, and an increased risk of birth defects in children. In women, they are linked to hormonal disruptions that can make it difficult to conceive.

Phthalates are particularly dangerous for children, as they often come into contact with toys and items containing these substances. Considering that children's bodies are more sensitive to toxins, there is an increased risk of disrupting normal development, as well as issues with hormonal balance and cognitive functions.

Certain types of phthalates are suspected of being carcinogenic, especially with prolonged exposure. They may increase the likelihood of developing certain types of cancer, particularly hormone-dependent ones like breast cancer.

Phthalates can exacerbate allergic reactions, especially in people prone to allergies. They are also associated with an increased risk of developing asthma and other respiratory problems, as these substances are released into the air and can be inhaled.

There is still no data on the levels of these substances present in the human body! More research is needed. However, it is known that many of them react with each other, meaning we have no idea about the real danger of accumulating these substances in our bodies.

I also want to reiterate that people are not only destroying the environment and biological systems, but they are primarily depriving themselves of their natural habitat!

And now the research emerging about the scale of ecosystem pollution by pesticides, micro- and nanoplastics, and various toxic substances—this is all about us! About people. It is essential to understand that the permissible concentration of certain substances may

be small, and the human body is quite adaptive, defending itself against external influences, including poisons.

But what if these poisons keep increasing? One, two, and then a hundred, two hundred, a thousand substances! And these poisons react with each other, change, accumulate in all our organs, in our blood, and are passed on to newborns through the placenta while they're still "in mommy's tummy."

A recent study by scientists confirms that there are over 3,500 chemical substances inside our bodies, of which about 100 are already proven to kill us. Meanwhile, the danger of many substances hasn't even been assessed yet; this is completely unknown to anyone!

This study focuses solely on substances entering our bodies through food packaging. But what about the pesticides used to fertilize agricultural fields? What about the PFAS chemicals in our water, raining down on our unfortunate heads? What about the growth hormones, genetic modifications, and antibiotics in the food we consume?

I believe the scientific community must approach all new research by evaluating all interconnected chains! Otherwise, we can't even begin to assess the real

picture. The scale of the danger is completely unknown, although there is already ample evidence that people are actually dying from this! Cancer rates are rising, chronic illnesses are becoming more severe, and early deaths are increasing.

We need meta-studies and meta-analyses with a comprehensive evaluation of all interconnected chains of chemical substances entering and interacting within the human body! For this, we require technologies based on neural networks capable of quickly gathering, integrating, and analyzing vast amounts of data.

Additionally, every new chemical substance found in the human body should be automatically deemed "extremely dangerous" until proven otherwise.

Chapter 28. "Toxic capsules" — what are the dangers of the spread of cellulose nanoparticles?

Just recently, Russian scientists revealed that microplastic particles were found in all samples of Siberian snow. It's now circulating with air currents! I've discussed this in my publications and have repeatedly examined the dangers of microplastics to humans in my materials!

But few noticed that the data provided by scientists showed more cellulose nanoparticles than microplastics. There are very few mentions of the dangers of cellulose to both the environment and humans! Today, I want to delve deeper into this issue.

Let's go step by step. The paper and pulp industry began mass production at the end of the 19th century, and by the mid-20th century, large plants became a key source of emissions of cellulose-based organic compounds. The production of cellulose generates a colossal amount of wastewater and various volatile compounds.

Historically, the treatment of such waste has always been insufficient! This led to cellulose fibers, including various byproduct organic substances, entering rivers and bodies of water in large volumes.

Additionally, since the last century, fabrics based on viscose, lyocell, and other materials have become widespread! What do they have in common with wood cellulose? It's simple: cellulose raw materials are used in their production. From production to numerous washes and wear, and eventually being thrown away, various microfibers enter the environment. Nanoparticles begin to spread through the air and all water sources!

But let's examine the issue more deeply. At the end of the 20th century and the beginning of the 21st century, people invented more dangerous forms of cellulose! Scientists developed nanoforms — nanocrystals and microfibrils. They were needed as additives in various composites (to strengthen materials), to create packaging with increased durability, and for use in pharmacology and cosmetics as thickeners and stabilizers.

This is similar to PFAS substances, which are now called "forever chemicals" and, circulating in all the planet's water (including evaporation and precipitation falling on

our heads), cause severe forms of cancer and chronic diseases. In other words, people deliberately created mega-resistant substances, which were then spread by the millions of tons across all global ecosystems!

The story with cellulose nanoforms is the same. The task given to scientists by large companies was to create formulas that would allow the production of stronger items, bags, and so on! No one even tried to measure the impact on ecosystems. Capitalism. Competition. Profit!

No time to think about the consequences. Cellulose nanoforms began spreading through ecosystems, and due to their very small size, they appeared in the air as aerosols, unnoticed for study and prevention of spread.

Readers often ask me: "If plastic and chemicals were produced in the last century, why is mortality from them only developing now?" Well, Earth's ecosystems are very strong; humans suppressed immunity for a long time, and substances were created extremely dangerous and "eternal." Just as they affect us gradually, through accumulation, causing cancer and various chronic conditions in the future, the impact on ecosystems is exactly the same.

Everything takes time! Our bodies resist. Nature's body resists too. As is known, trees in the forest accumulate dangerous toxins, sacrificing themselves to cleanse the entire organism of the Forest! All biological systems.

Returning to cellulose. Unlike microplastic particles, the substance itself is biodegradable! That is, it decomposes over time. But, as with plastic, people managed to create cellulose-based nanoforms, which were then spread across ecosystems! In cold conditions, say, in permafrost or snow, the decomposition process takes a very long time. Thus, particles persist in ecosystem chains and continue to circulate.

Numerous scientific studies show that cellulose microparticles are found in all corners of the planet! For instance, an international group of scientists in a 2019 study recorded micro- and nanofibers in all snow samples from the Arctic and the Alps. Even the purest ecosystems of the Arctic and Alpine territories are polluted with cellulose fibers, the vast majority of which are of textile origin.

According to Russian scientists, the spread of substances occurs due to constant emissions from pulp and paper mills, from textile enterprises, and then all this is carried by wind and precipitation over colossal

distances. The largest volume of cellulose nanoparticles spreads through the runoff of surface waters into rivers and lakes, further transferring substances into oceanic and marine ecosystems. Along the way, causing critical harm to all living beings!

The decomposition time of cellulose nanoparticles is also interesting. In hot latitudes, microorganisms can decompose them in just a few weeks or months, whereas in northern latitudes, for example, in Russia, the decomposition process can take years. Meanwhile, emissions from enterprises do not cease. When scientists discovered cellulose particles in Arctic ice and northern glaciers, it became clear that the lifespan of nanoparticles could be measured in decades.

IMPACT ON HUMANS

Now let's get to the most important part — the impact of cellulose on our bodies. Generally, cellulose is considered a low-toxicity substance: we consume it as dietary fiber. However, this applies to macro-particles (large fibers). But in the case of nanosized particles (those very nanocrystals and nanofibrils), according to scientific research, it's much worse! Inhaling large concentrations of nanoparticles causes inflammatory processes in lung tissue. Experiments on laboratory

animals have clearly shown how such particles provoke severe inflammation, leading to serious chronic diseases.

I've heard many people say things like "cellulose is a natural polysaccharide, it's even beneficial for people, especially those lacking fiber." A common opinion! But the greatest risk isn't that cellulose is cellulose. It's the form it takes!

1 — Nanoparticles that can circulate uncontrollably within our bodies.

2 — Adsorption (binding) of various toxic compounds on the surface of these nanoparticles, which then "travel" with them over great distances. Chlorinated organic compounds, such as dioxins, furans, chlorophenols, chlorinated lignins, and their derivatives, are used in the bleaching of cellulose. Dioxins and furans are extremely toxic even in small concentrations and can accumulate (bioaccumulate) in the body's fatty tissue, disrupting the endocrine system and increasing the risk of cancer and immune disorders (IARC classifies 2,3,7,8-TCDD as Group 1 — carcinogenic to humans).

Chlorophenols and other organochlorides have toxic, irritating, and mutagenic effects, and can negatively impact the liver, kidneys, and nervous system with

chronic accumulation. Additionally, many technological processes use heavy metals, including compounds based on copper, manganese, and sometimes even lead (used in catalysts, dyes, and stabilizers). As is known, heavy metals (Cd, Pb, Hg, etc.) can lead to chronic poisoning, accumulate in bone tissue, and adversely affect the central nervous system.

Moreover, in the treatment of industrial wastewater or when attempting to prevent biofouling of equipment, various flocculants, biocides, and surfactants are used. Some of these reagents are also hazardous to humans and ecosystems; they are toxic to aquatic fauna and cause allergic reactions in people.

But that's not all! Cellulose fibers and their small fractions (again, viscose or lyocell) used in textile production undergo toxic treatment with dozens of types of dyes and stabilizers. I won't even list them here—I think all readers can imagine the volume of chemicals used in the production of clothing and various textiles.

Let's get straight to the danger! Here's the most crucial point — nanocellulose forms adsorb all these toxic substances on their surface, binding organic and inorganic compounds (thanks to hydroxyl groups capable of forming hydrogen bonds). Then, during the

production process, toxic chemicals are "embedded" or retained within the fiber structure. And so, the "charged" cellulose nanoparticle, loaded with a whole spectrum of hazardous substances, rises into the air along with dust, carried further by the wind, and settles with precipitation, snow, or rain. And water flows, such as rivers, drains, or streams, distribute the substances through Earth's water arteries!

Thus, cellulose is particularly dangerous because it breaks down into trillions of nanoparticles that serve as "transport capsules" for entire groups of toxic poisons! And all of this spreads through ecosystems. When cellulose decomposes, the substances remain in the ecosystems and accumulate in all living organisms, including humans!

To understand the real harm to life, it's necessary to analyze each substance, bring them together, and consider the conditions and volume that accumulate in various ecosystems. Due to microplastics, there's already a wave of severe cancer and chronic diseases, scientifically confirmed! Recently, scientists identified a new disease called "plasticosis."

As for cellulose—hardly anyone knows about it. And we forget that these additional poisons are contaminating all the world's ecosystems right now!

Chapter 29. All the snow in Western Siberia is contaminated with microplastics

Micro- and nanoplastics are spreading across the planet. These particles, invisible to the naked eye, are now everywhere: on the highest peaks of land, in the deepest parts of the ocean. They've been found inside wild animals and humans alike. We are literally permeated with plastic, which contains a massive amount of toxic substances. Scientists have discovered particles in our blood, in the placenta of unborn children, and in organs.

The substances contained in microplastic particles are extremely toxic and poisonous. They accumulate over a long time, slowly killing us from the inside. The same is happening to wild animals.

A new international study was recently published, and I just finished reviewing it. Researchers from Tomsk State University (Russia) participated in the study.

I'll get straight to the results: MICROPLASTIC WAS FOUND IN ALL THE SNOW IN WESTERN SIBERIA. The study was conducted in my homeland; I was born and raised in Western Siberia.

You might think, isn't Siberia mighty and pristine? And maybe human impact is less there than anywhere else? But no. There's massive deforestation on land, and from the sky falls "plastic snow."

Let's take a closer look at the study to know the facts and use them in our ongoing fight. The goal was to study the distribution of microplastics (MPs) and anthropogenic fibers in the snow cover of Western Siberia. Scientists examined pollution sources, atmospheric transport paths (via air currents), and mechanisms of microplastic deposition on the ground. This will help better understand their impact on wildlife and human health.

Scientists decided to conduct a meta-study, covering vast distances at once. This includes my native Altai Mountains and up to the Arctic Circle. A total of 22 sampling points were included in the regions: Novosibirsk, Tomsk, Omsk, and Tyumen regions, as well as the Khanty-Mansi and Yamalo-Nenets autonomous districts.

In these regions, specialists collected snow samples at a depth of 1 meter using cylindrical snow samplers. The samples were then melted at room temperature, filtered, and analyzed using microscopy and Raman spectroscopy to determine the composition of all detected particles.

Scientists also modeled the sources of microplastics using the FLEXPART atmospheric transport model.

For reference: the FLEXPART (Flexible Particle Dispersion Model) is a numerical atmospheric transport model widely used to analyze the trajectories and sources of particles in the atmosphere. It helps track the spread of various substances, such as aerosols, gas emissions, and microplastics, in the atmosphere and assess their sources or environmental impacts.

Now let's get to the results, to avoid bogging down in heavy terms and descriptions. We care about scientifically confirmed facts.

First. Microplastics and anthropogenic fibers were found at all 22 snow collection points. Concentrations varied from 99 to 2817 particles per square meter, with the maximum concentration in Barnaul reaching 4444 mg/m^2.

I should clarify, perhaps I missed it earlier, that anthropogenic fibers are any human-made or altered fibers that are part of human impact on the environment. These can be synthetic materials or processed natural fibers that have acquired new properties through human activity.

Anthropogenic fibers can come from clothing or any textiles, from wear products (car tires, carpets, and other artificial materials), from all industries, as well as from any waste and its decomposition process.

Accordingly, all this enters the environment as micro- and nanoparticles along with plastic, poisoning and killing ecosystems.

Regarding the study results, we also need to visualize the volume of substances found. Look! In the most polluted areas of the world's oceans, microplastic concentrations can reach up to 500–1000 particles per square meter. This means that snow in Western Siberia can contain several times more microplastics than seawater, even in global "garbage patches" (like the Great Pacific Garbage Patch).

However, in a typical urban apartment, household dust can contain up to 1900–2400 microplastic particles per square meter, the dust people sweep in large quantities

from under the couch or cabinet. Scientists found about the same amount of microplastics in all the snow in Western Siberia.

Second. The main materials found by scientists were viscose fibers (44%) and microplastics (49.8%). I've written about microplastics before, and you know their dangers. Viscose fibers, however, are particles formed from the wear and decomposition of textiles, our belongings. Viscose is made from wood cellulose, which undergoes extensive processing to create a soft and durable material. Chemicals like carbon disulfide, caustic soda, and sulfuric acid are used in the production process.

Viscose fibers are dangerous to nature because they are long-lasting, infiltrate all ecosystems (especially harmful to water bodies), and pollute the soil. For humans, these fibers are dangerous because they enter the body along with chemicals, and they can be so small that they penetrate cell membranes and affect the cellular level.

In the new scientific work, scientists determined that microplastics, viscose, and other substances are less than 150 microns in size, meaning they continue to circulate in the water cycle with evaporation, falling on us again and again with rain and snow.

Third. Scientists discovered the global transport of microplastics and anthropogenic fibers through atmospheric air currents. Consequently, the ecosystems of all Western Siberia are contaminated, as confirmed by scientific data. Moreover, scientists found no significant correlation between microplastic concentration and population density. This is something to definitely pay attention to.

Now let's summarize. Snow contaminated with microplastic particles and predominantly viscose fibers, which contain dangerous toxic substances, is literally falling on our heads. Scientists have found all this even in the most remote corners of Siberia.

This is how global the problem is. There wasn't a single clean place where microparticles weren't present. Humans have polluted Earth's biosphere to the extent that even atmospheric air currents carry a global volume of toxic substances.

It's impossible to remove these particles from the ecosystem. They slowly accumulate in all living organisms, in all layers of the biosphere. And no scientist in the world is currently able to calculate the real chronic effect of their influence, of the poisons.

What will happen to our bodies if we slowly accumulate a massive amount of toxins? Numerous dangerous diseases will emerge, ultimately disrupting our lives and leading to a painful death.

The same is true for the living nature around us.

Chapter 30. Black sky — mass infertility, cancer, and toxic air

For many years now, our cities have been engulfed in toxic smog. The "black sky" mode is activated! Then everything clears up, people go on with their lives, and again, time after time, through habituation, they are plunged into the consequences of capitalism. And all because the current economy cannot stop or change its course while the "rich uncles" are raking in billions from heavy industry and natural resource extraction.

But during this time, while they're "making money," people are literally dying from the consequences. On November 28, the city of Ufa was shrouded in toxic smog. In the Chernikovka district, the level of isopropylbenzene was almost 10 times higher than any permissible standards!

For reference: isopropylbenzene (cumene) is dangerous due to its high toxicity and flammability. Inhaling its vapors can cause respiratory irritation, dizziness, nausea, and depression of the central nervous system.

Skin contact causes irritation, and prolonged exposure can lead to dermatitis. It is also harmful to the environment, especially aquatic ecosystems.

Additionally, Ufa recorded an excess of dust in the air, there was a thick fog, and people were complaining en masse about being unable to breathe! Naturally, the Ministry of Ecology said it was "due to windless weather," to which local residents pointed to the old rusted factories with heavy industry that, in their dying breaths, operate at full capacity day and night!

On the same day, November 28, similar news came from Tyumen. The city declared a first-degree danger due to air pollution! The Ob-Irtysh Department of Hydrometeorology and Environmental Monitoring stated: "From 9:00 PM on November 28 to 11:00 AM on November 29, unfavorable conditions for the dispersion of harmful impurities in the atmospheric air are expected. Unfavorable meteorological conditions of the first degree of danger are declared." According to the Swiss air monitoring organization IQAir, which tracks pollution worldwide, air pollution in Tyumen exceeds international standards by more than three times.

The Russian publication "RBC" reports that the concentration of substances in the city exceeds the annual average by 2.6 times. What has been found, and what exactly are people breathing? Recorded are particles of soot, sulfates, nitrates, and heavy metal oxides. People are also inhaling fragments of asphalt and car tires! All of this slowly kills people and triggers severe, fatal diseases.

A bit earlier, on November 25, news came from Krasnoyarsk. Vyacheslav Dyukov, a deputy of the Krasnoyarsk City Council, stated: "The Krasnoyarsk region is among the most polluted in Russia, leading to widespread infertility among residents. The air is polluted due to emissions from the aluminum plant, a massive number of cars, stove heating, and other industries."

Can we trust the data from an official who claims a massive drop in birth rates due to air pollution? The regional Ministry of Health recently indicated that by 2024, the birth rate in the Krasnoyarsk region had fallen by at least 4.5%. Typically, official statistics are always understated! So yes, the official is presenting objective information, but is likely relying on the understated data from the Ministry of Health.

It's also worth mentioning that on November 7, 2024, plans were announced in Krasnoyarsk to build a massive center for cancer treatment. This was stated by the regional senator Alexander Uss at a plenary session of the Federation Council. Here's the exact quote: "A center where all diagnostic and treatment procedures can be performed for both domestic patients and cancer patients from neighboring countries: China, Kazakhstan, Mongolia."

It should be noted that the mentioned neighboring countries are states with a similar level of air pollution and, consequently, a rapid increase in cancer rates among the population. The same is true in other cities of the Krasnoyarsk Krai. For instance, in Minusinsk, Rospotrebnadzor reported that the level of toxic substances in the air exceeds the norm by three times. Various types of ash, nitrogen oxides and dioxides, sulfur dioxide, carbon monoxide, and benzo[a]pyrene have been detected.

By the way, it's crucial to immediately point out that, among other things, benzo[a]pyrene (according to scientific data) causes embryo mutations in pregnant women and the death of unborn children. But when it reacts with other toxic substances, the "cocktail" becomes exponentially more dangerous!

I've written before in my materials that practically no one evaluates the connections and reactions between toxic substances. There is no objective data! Air pollution in Minusinsk has been talked about for a long time. People have become so accustomed to it that it no longer interests anyone. Everyone accepts it as a given and doesn't see the need to react or solve the problem on a global scale!

Here's a comment from Sergey Shakhmatov, a member of the Federal Council and executive director of the open ecological platform "Russian Greens": "In Minusinsk, in winter, you could hang an axe in the air and confuse day with night because of the thick black smog. This is what the residents breathe, hence the corresponding levels of cancer and other diseases that affect reproductive function."

On November 28, reports of toxic air also came from Nizhny Tagil. There, elevated levels of nitrogen oxide, carbon, and hydrogen sulfide pollution were recorded. According to the Ural UGMS, air pollution was recorded at 1.5 times the maximum allowable concentration.

On November 22, a "black sky" regime was declared in Novosibirsk. It lasted a week, after which it was extended again on November 29! The air in the city and

its outskirts became toxic, and a level 1 danger was declared. This situation is not only in Russian cities. It's similar, for example, in neighboring Kazakhstan! On November 30, 2024, in Astana and 12 other cities in the country, authorities urged people not to go outside due to toxic air. The list includes: Astana, Aktobe, Ust-Kamenogorsk, Semey, Ridder, Karaganda, Temirtau, Balkhash, Zhezkazgan, Kostanay, Pavlodar, Kokshetau, and Petropavlovsk.

People suffering from chronic lung diseases, cardiovascular, or allergic conditions were advised to carry medications with them when going outside. The problem is that people get used to it and don't demand change! The system only really changes under the pressure of a large number of people. But very few feel the problems before facing a deadly disease! And when they do, they say it's pointless to fight because the disease is incurable anyway.

That's the main mistake! Problems need to be identified, reacted to, and changes demanded. Senators propose building a cancer treatment center for citizens of Russia, Kazakhstan, China, and Mongolia. Will the treatment be free? Of course not, it's a business and another opportunity to extract colossal profits in the future. Suffering people are profitable; all of medicine is built

on keeping people dependent on medications for life.

I wouldn't be wrong in saying that air pollution only further enriches a select few who are already obscenely wealthy. No one is going to modernize all the factories, offer grants to scientists for the latest filter developments for heavy industry, or hold factory owners accountable for ecocide and the deaths of people. At most, they'll be fined and given a finger wag, while a "super oncology center" is built to welcome patients with open arms.

They even openly state that they expect clients from China, Kazakhstan, and Mongolia. People from polluted cities will travel to another polluted city in a different country to try to treat severe cancer caused by their dirty city. Paradox?

I believe all problems are solvable! It's just that no one really benefits from solving them. The main thing is to create the appearance of trying to solve problems, conduct monitoring, and even identify them together with citizens. And people will say, "Look, the system is searching for problems with us." No one will ask, "Where did these problems come from and who is to blame? Why are people dying, and why will our children be forced to die in agony from cancer?"

Chapter 31. Insect extinction in nature reserves

Humans tend to feel empathy for larger animals, like rabbits, foxes, or birds. Insects, however, rarely evoke such feelings, and as a result, they are often ignored—even when they are on the brink of extinction.

Yet insects play a crucial and completely irreplaceable role in the functioning of all ecosystems on Earth. They are one of the oldest, most numerous, and diverse groups of living beings! Even we humans depend on insects. Simply put, 80–90% of all flowering plants rely on insect pollination; their disappearance leads to the extinction of wild plants and the overwhelming majority of our agricultural crops.

If insects vanish, a cascade of extinction across all life begins immediately. Without pollination, the entire food chain collapses—from plants to animals and humans.

Moreover, insects play an important role in decomposing dead organisms, excrement, and plants. They help recycle nutrients in the soil, maintain the

balance of biological systems by regulating pests, and provide a food base for larger animals: birds, amphibians, reptiles, mammals, fish, and other insects feed on them.

Thus, insects are the invisible but truly fundamental framework of all global ecosystems! Their disappearance could trigger a sharp collapse of ecosystems and the death of all living things.

I must also mention something I regularly discuss in my materials: the balance of insects in the wild reduces the need for pesticides and various chemicals in agriculture. If insect numbers decline, people start 'fertilizing' fields with more poisons, accelerating insect extinction and increasing the annual volume of chemicals used.

This is the uncontrolled cycle of global ecocide at the hands of humans: spread poisons—kill insects—and in turn, kill other dependent animal and plant species! And so it goes, cyclically, year after year, without stopping, only in an ever-accelerating mode.

Now, let's turn to scientific research. I'll reveal a scientifically proven fact right in the title of a study published on October 18, 2017: "More than 75 percent decline in total biomass of flying insects in protected areas over 27 years."

Let's immediately focus on two facts:

1 — The study was published back in 2017, meaning it's already quite old. During this time, ecological problems have only increased, and the global ecological collapse is becoming more destructive.

2 — Scientists report that in Germany's nature reserves (!), the number of all flying insects has decreased by more than 75% in just the last 27 years.

The scientific work itself was conducted by a group of entomologist-practitioners—specialists who have been working 'on the ground' for decades. Over 27 years (1989–2016), they set up Malaise traps—low mesh structures for collecting flying insects—across 63 protected sites in the lowlands of Western Germany and collected samples from them.

Analysis over decades showed an extremely sharp decline in the total biomass of flying insects. And this is specifically in nature reserves—sanctuaries of wildlife.

Over 27 years, the average biomass fell by 76% (year-round), with peak extinction observed at 82% during summer seasons. The death of insects was found in every type of habitat—meaning the extinction was not caused by weather changes and is definitely not tied to any specific environment.

Quotes from scientists in the study to help you understand the real scale of the catastrophe:

> "Our results document a dramatic decline in the average biomass of flying insects by 76% (up to 82% in mid-summer) in just 27 years in protected natural areas in Germany."

"…this indicates that not only vulnerable species have suffered, but the entire community of flying insects has been nearly exterminated over the past decades."

"The loss of insect diversity and abundance is predicted to cause cascading effects in food webs and threaten ecosystem services."

> "The significant and still unrecognized loss of insect biomass we report for protected areas adds a new dimension to this problem, as it should trigger cascading effects on trophic levels and numerous other consequences for ecosystems."

> "Our results demonstrate that the recently reported declines in many groups, such as butterflies and bees, coincide with the catastrophic loss of the entire biomass of flying insects, indicating that not only the vulnerable community but the entire community of

> flying insects has suffered."
>
> "Despite known data on the gradual decline of rare species, our results show a continuing and rapid decline in the overall abundance of flying insects, active in space and time."
>
> "The widespread decline in insect biomass is alarming, especially considering that all traps were set in protected areas, which are meant to preserve ecosystem functions and biodiversity."

I studied several additional scientific papers by researchers from various countries. The research by German scientists fully correlates with them: according to meta-analyses, approximately 50% of all insects are in decline, and the overall biomass decreases annually by about 2–3%, in some places reaching up to 5%. Thus, the rate of decline in Germany aligns: around 80% (and accelerating) over 27 years, which is equivalent to approximately 4% per year.

I also found numerous scientific reports from the USA, the UK, the Netherlands—everywhere, there is a mass extinction of insects at accelerating critical rates!

Typically, people focus only on bees and butterflies as the most well-known pollinators, while all other insects are ignored. Unfortunately, this bias even affects funding for scientific research: scientists simply cannot conduct in-depth studies because no one cares or supports it. Yet the problems with pollinators remain unresolved—everyone knows the scale of the disasters, but no one is in a hurry to act or change anything.

Now, in the midst of political and social crises, when states are at each other's throats for power and influence, does anyone even care about the death of all life around us? About the destruction of global ecosystems, species extinction, and the urgent need for action to save life?

After all, it's not just about 'bugs and critters,' not just about 'some animals,' but about us and our children. Our own habitat is being destroyed!

I want to emphasize the most important points from the scientific study on insect extinction.

You've probably often heard people blame the extinction of animals and plants on climate change. Well, quoting the scientists:

"Our calculations show that landscape change and climate change are unlikely to be explanatory factors for this strong decline in insect biomass."

So what is causing the massive extinction of insects?

It's very simple.

Almost all protected areas—I call them "fragmented reserves"—have ended up surrounded by industrial agriculture. Millions of agricultural fields are "fertilized" with pesticides, and all of this destroys insect habitats and directly kills their populations.

A direct quote from the study:

> "Protective zones (insect sources) can be under significant pressure from the fields around them. It is likely that increased agricultural intensification has exacerbated the decline in insect numbers in protected areas over recent decades... Whatever these factors may be, they have a far more devastating impact on the overall insect biomass than previously thought."

In other words, scientists are explicitly stating that the real damage to insects from industrial agriculture is much greater than biologists had anticipated.

Many years have passed since the scientific study was conducted. During this time, the situation has worsened significantly: we are witnessing an accelerating global ecocide on Earth! Now, all major animal communities are going extinct. According to an international group of scientists' assessment for 2024, a meta-study found that the population of all animals on the planet has decreased by an average of 73% over recent decades.

Chapter 32. How much forest have humans destroyed on the planet?

We often talk about the destruction of forests worldwide. For many years, we conducted ecological expeditions to the most remote corners of the Russian Taiga, from one end of Russia to the other, with a single goal—to witness the destruction of nature, document the problems, and assess their scale. And afterward, we fought for recognition that these problems exist and that urgent measures are needed to protect our forests!

For many years, the system refused to acknowledge the destruction of Russia's forests, but around 2019, even the highest-ranking officials unanimously confirmed everything we had been saying. They acknowledged the massive export of timber to China and the flourishing forest banditry in Siberia and the Far East, shielded by regional authorities.

That's when the first reforms and changes began. Recognizing the problems is good. But I don't think there are any real changes now. I sincerely hoped that if

the problems were publicly acknowledged and some actions were taken to limit timber exports from the country, it would mean a serious effort to stop the destruction of the Russian Taiga.

In practice, it turned out differently. Billions ended up in the hands of 'forest bandits' who recklessly destroyed Russia's forests and exported them to China. Now, the Chinese are simply offered the opportunity to cut down forests without taxes and with enormous incentives directly on our territory. They created TORs (special economic zones), and the billions that regional authorities used to receive with businesses now go to the federal center. Is this a solution to the destruction of the Russian Taiga? Of course not.

Meanwhile, we see hungry animals coming to humans from their destroyed homes. We see destitute tigers dragging dogs in villages! We see bears unable to hibernate, and hunters complaining that when they kill bears, they find 'very little fat.' We see many troubles in the Russian Taiga. And how to fight this—I don't even know. We've tried! And we'll keep trying.

Today, I want to vividly show all readers the situation with forest destruction around the world. If we rise above our heads, soar to the stratosphere, and look

down at our little green planet—what will we see?

There aren't many unified assessments of global forest destruction. So, to get some objective data, let's turn to the reports of the FAO (Food and Agriculture Organization)—the United Nations agency dealing with hunger, agricultural development, fisheries, forestry, and global food security.

Since it's a large organization, they have the capability to conduct practical calculations of forest destruction. However, these are almost always based on data provided by countries. Studying their reports, the most recent one I found was from 2020! Naturally, the situation has worsened even more over the past five years.

In 2020, they released a report titled Global Forest Resources Assessment. According to the data presented, from 2015 to 2020, the rate of forest destruction worldwide reached the following figures:

Global forest loss amounts to about 10 million hectares annually. Of these, approximately 4.7 million hectares are 'net' losses (permanently lost forests).

However, all these figures are approximate! The thing is, from the 10 million, they subtract those forest areas that have been restored through artificial restoration or

'assisted natural regeneration.' Our laws also have such interpretations! Previously, I wrote separate materials, and our officials themselves reported that forest restoration is a completely separate sphere of 'forest banditry,' where billions of budget funds are laundered.

Up to 90% of restored forests die. Most often, they take the cheapest seedlings with closed root systems, quickly stick them into the ground, and it seems like the forest is restored! Or, if there's no control, any restoration happens only 'on paper.' And 'assisted natural regeneration' usually means leaving a few trees on the cleared land during logging, hoping they'll somehow restore themselves!

Therefore, from personal experience, I can confidently say this is not forest restoration! And we can rely on UN data on the total forest loss—10 million hectares annually. Now let's delve further into the issue.

From 1990 to 2020, humans 'developed' about 420 million hectares of forests worldwide. Some of these were subjected to 'forest restoration' or the same 'assisted regeneration,' resulting in a net forest loss of about 178 million hectares during this period, according to UN data.

In other words, humans on the planet have irretrievably lost 178 million hectares of forests. In just the last 30 years! Meanwhile, you know my opinion—I am convinced the numbers are much higher, and it would be good if out of the 420 million hectares of developed forests, people actually restored even twenty million.

And I understand it might be hard for readers to imagine this scale! What is it? Just numbers. So let me try to illustrate with examples of countries: 178 million hectares is five times the size of Germany or, say, three times the size of France.

Or you can compare it to the impact of the 'Tsar Bomba'—the most powerful 50-megaton nuclear bomb in the world! You'd need to detonate around four to five hundred of these bombs to burn an area of forests covering 178 million hectares.

420 million hectares is an area larger than all of India or the entire European Union (which covers about 423 million hectares). To destroy such forests, you'd need to take the 'Tsar Bomba' and pepper the planet with about 1,091 nuclear explosions; only then would forests over 420 million hectares be scorched. I think the scale of forest destruction is now clear.

For the period 2020–2025, I haven't found data on logging; no such assessments are available yet. Everyone is preoccupied with 'big politics' and preparing for 'future wars.' But let's hope that scientific assessments will soon appear and be accurate enough!

Speaking of regions, the most logging occurs in poor tropical countries. South America—especially in the Amazon basin, where the most extensive logging takes place, mainly for agriculture. Ancient forests with rich biodiversity are being cleared for soybean plantations and so on.

Africa—from personal experience, I'll say the largest logging is in the Republic of Congo! I've seen these scales, just rotting stumps instead of once-rich forests. Here, illegal logging prevails, along with completely uncontrolled expansion of industrial agriculture.

Southeast Asia—logging also occurs for plantations, for example, growing oil palms (for palm oil).

In these three regions, the most devastating deforestation on our planet is concentrated. And it is precisely in these regions that the highest biological diversity of species, which completely disappear along with the destroyed forest, is found. These forests are also the "southern lungs of the Earth"—cut down the

ancient tropical forests, and you disrupt the biotic regulation of the climate. Air currents stop flowing inland from the oceans, rivers dry up, and there is no rainfall.

And now, in recent years (primarily from 2020 to 2025), we are witnessing abnormal heat, drought, and the drying up of rivers. This disrupts the global climate across the entire planet!

As for our Russian Taiga, the forests of Russia, it's very difficult to assess the scale. I have studied all the data I could find in scientific sources and reports from international organizations! The discrepancies are completely diametrical.

It is known that our country contains about 20% of all the world's forests. That's around 815 million hectares! We rank first among all countries in the world in terms of forest area, which is why I have been proposing to our government for many years to change the system and logic of forest management, from a "resource colony" to becoming a global conservation state.

So what about the statistics on deforestation in Russia? The official "state authorities" say that everything is fine, and thanks to natural forest regeneration and artificial restoration, the forest area remains stable or

even slightly "increases."

In general, it's the same as always. Meanwhile, many international organizations and the expert community have repeatedly reported on the extreme degree of forest degradation, including due to destructive fires and illegal logging. I have seen the data and verified it personally when it was reported that "here we have a forest area," but in practice, there is no real forest there. Just burnt areas, clear-cuts, and spaces overgrown with shrubs.

Chapter 33. Criminal reforestation

In the previous chapter, we examined the global deforestation situation. From 1990 to 2020 (over 30 years), humans have cut down approximately 420 million hectares of forests, while the net loss was about 178 million. Consequently, 242 million hectares of forests on the planet were recorded on paper as restored. This means that countries reported to the UN that these forests were artificially restored (through planting) or that efforts were made to "assist natural forest regeneration."

But what is modern reforestation? How is it conducted? And how can we measure its real benefit to nature? These questions are rarely asked; people usually hear "the forest was restored" and think, "well, if it was restored, everything's fine." Let's explore this issue together.

I want to explain in detail how reforestation is used to launder huge sums of money and why restored forests can often be dangerous to biological systems.

The UN provided data showing that from 1990 to 2020, between 30 and 60 million hectares were accounted for by artificially restored forests. Meanwhile, all other forests were either not restored or were classified as "assisted natural regeneration." Simply put, a few trees were left on the clear-cut areas, and thus they would "somehow restore themselves."

There is also an international initiative called the "Bonn Challenge"—according to their plans, they aim to restore 350 million hectares of forests by 2030. However, experts already agree that this is sheer nonsense at the very least, and the initiative is solely aimed at laundering huge sums of money.

Today, the scale of the plans announced by both governments and private funds almost always far exceeds actual results. Interestingly, these plans are often part of media campaigns that shift public focus from deforestation to reforestation.

The overwhelming majority of people hear that forests are being destroyed and immediately see politicians' ads about the ambitious "Bonn Challenge" initiative—so the

average person starts to believe that everything is fine and that, in any case, more forests will be restored than were cut down.

REFORESTATION

Real reforestation conducted by countries generally boils down to the following main issues:

Almost always, monocultures are planted, meaning a single type of the cheapest seedling. This is far from full-fledged forests in terms of biodiversity and ecosystem value! Simply put: cutting down a million hectares of ancient forests with the highest species biodiversity and replacing them with rows of pine or spruce is not at all equivalent to real forest restoration.

Reports submitted by countries to international organizations typically include data on how much money was allocated for reforestation. However, there is no monitoring of the actual survival rate of seedlings—which should be done even after 3 years, then 5 and 7 years, until the seedlings become a real young forest!

Officials use allocated budget funds to purchase saplings at deliberately inflated prices in tenders, and they also artificially increase the number of saplings planted on paper. And who’s going to check? Go count how many

forests were actually planted somewhere in the distant clearings. This is exactly what local officials take advantage of!

There is no comprehensive control over which areas are actually planted and the survival rate of seedlings. Formally, the "plan is fulfilled," the money is pocketed, and the results are on paper!

In reality, almost all reforestation today is nothing more than a formality. Equipment is rented, driven into the forest, and one-time plantings of the cheapest seedlings with closed root systems are conducted! Further care, watering, protection from pests, and forest fires are almost never carried out. As a result, most seedlings (and in some cases almost all) die within the first 1–2 years.

The global market for carbon quotas, or more simply, "carbon credits," is still actively "booming." It's a powerful scheme for money laundering! Various projects, funds, organizations, and even private individuals sell carbon credits, claiming they plant forests in exchange to offset carbon emissions. In such schemes, real forests don't actually take root, but according to reports, everything is "planted," and companies that purchase these "carbon credits" have

supposedly offset their emissions into the atmosphere.

It all boils down to the fact that government and private projects are usually accompanied by glossy reports and presentations, while in reality, planting is only partially done, and often just on paper.

In 2019–2021, many Russian organizations and activists, including then-independent media, published materials showing that in several regions of Russia, after forest fires, the survival rate of seedlings was only 10–15%, with actual seedling mortality reaching 95%.

The goal of officials is to "utilize" funds for planting, report on "hectares of planted forests," and forget about it. The real result is of no interest to anyone.

WAS THE FOREST EVEN PLANTED?

In my personal experience, I believe that genuine restoration practically doesn't exist in the world today! And the efforts that are carried out with any sincerity and honesty are so insignificant that they don't even slow down the ever-growing scale of deforestation each year. This field is very profitable, both for officials and private individuals.

To distinguish real initiatives from fake reforestation, transparent monitoring over a minimum of 3–7 years is crucial.

Regarding global reforestation, I want to return to the beginning of my material. According to data collected by the UN from state reports, from 1990 to 2020, people "utilized" about 420 million hectares of forests. Of these, confirmed final losses are 178 million hectares. Meanwhile, 242 million hectares remain—according to documents provided by the countries themselves, they conducted "assisted natural reforestation" or restored the forest there.

And here we must ask: was the forest even planted?

IS THERE ANY BENEFIT TO NATURE?

Now to the most important point. Remember this key phrase in any discussion about reforestation: "NATURE DOES NOT PLANT TREES IN ROWS." If nature needed forests to grow in neat rows, it would undoubtedly do so. But in natural forests, trees grow in groups of different ages and numerous species—creating a mosaic structure with immense biodiversity: undergrowth, shrubs, grasses, mosses, and lichens.

In "industrial" planting, typically 1–2 species are chosen (for example, pine, larch, or spruce) and trees are planted in straight rows. Everyone involved is well aware that the lack of different age layers and a wide variety of species reduces resistance to pests, diseases,

and climatic anomalies.

The multilayered structure of a forest (from tall upper layers to ground-level mosses and detritus) ensures higher moisture retention, meaning the soil holds water better and dries out less. Additionally, the presence of different microclimatic zones allows forests to protect themselves from the rapid spread of fire during wildfires! These functions are absent in restored "beds."

Monocultures, or uniform types of trees restored by people, cannot effectively filter and purify the air, as these processes involve not only coniferous or deciduous species but also undergrowth, shrubs, and numerous organisms.

When a forest is planted in "beds," the structure becomes single-layered, with far fewer niches for wild flora and fauna, meaning the ecological value of such a forest sharply declines. Many things are not even known by ministers and various "leaders" of relevant departments.

Suppose rows of uniformly planted trees create wind corridors, and wind is one of the key factors in the rapid spread of fire. Hence, we see increasing scales of forest fires! Moreover, in the case of coniferous species (pine, spruce), without proper undergrowth and moist moss,

flames can spread along the rows at incredible speed.

In natural forests, where complex ecosystems have developed over thousands of years, there are often areas with deciduous species (birch, aspen, alder) or simply damp clearings, streams, and swamps—they create barriers to fire.

We should also mention biotic climate regulation—according to the Concept of our Russian physicists Viktor G. Gorshkov and Anastasia M. Makarieva. A true, full-fledged forest ensures constant moisture evaporation (transpiration), creating powerful streams of water vapor that contribute to precipitation formation. It also regulates atmospheric pressure, thereby influencing rainfall distribution and overall humidity at a regional level. Speaking of even more complex processes—natural forests are also part of the interaction chain with soil microorganisms involved in the carbon and nitrogen cycles.

Artificial "beds" of monocultures can't provide such functions. Therefore, even fully and honestly restored forests aren't real forests. When only one type of tree (or just a couple of species) is planted, dozens and hundreds of species of birds, insects, mammals, mosses, and fungi that are connected to the wild, complex environment

disappear (or don't settle). This also leads to accelerated soil depletion, especially if a coniferous monoculture is planted.

SO WHAT SHOULD BE DONE?

The first and most important step is to LEGISLATIVELY PROHIBIT the destruction and any exploitation of the last patches of true ancient forests. Humanity's task is not to "cut down and then restore" forests, but to preserve what has been forming for thousands of years! We must place primary natural ecosystems under strict protection.

That's why I propose the Concept of Territories of Full Ecological Tranquility (TFET) — to forcibly create REFUGES for wildlife in these forest areas. Additionally, state projects are needed to grow forests for human needs on already degraded or abandoned agricultural lands. Such practices are already successful worldwide, but corporations aren't interested! Why grow and wait when you can destroy what's already grown and reap immediate profits "here and now"?

Alongside growing forests, we should develop technologies for reusing wood and replacing wood with other materials. I believe the real work that everyone, from society to governments, should be doing today is

protecting the Earth's last natural ecosystems! Because while "forest restoration in place of destroyed forests" is being advertised, in the real world, the final destruction of the last wildlife refuges is happening!

My proposal is to urgently designate natural ecosystems, at the federal level, as global territories of full ecological tranquility.

Chapter 34. China builds the 'Great Green Wall'

For decades, our Russian Taiga has been ruthlessly destroyed for the export of timber to China. The ban on exporting raw logs, meaning unprocessed wood, was only introduced recently! Now, the timber is cut, processed into finished materials within the country, and then sent to China. Previously, until January 1, 2022, our taiga was clear-cut, loaded at a frantic pace onto trains and logging trucks, and then sent in endless convoys to China.

Almost all regional authorities managed to profit from this! Meanwhile, our government confidently pretended nothing was happening. To our protests and even factual expeditions to the massive logging sites, they unanimously declared: 'There are no problems.' It was only in 2021, when the crimes became so numerous that they could no longer be hidden, that top government officials acknowledged the global destruction of the Russian Taiga.

This is how some reforms began. But, to be honest, there are no radical changes! They simply created the TOR (Territories of Advanced Development) project for Chinese businessmen and invited them to settle permanently in the country. The TOR law allows Chinese businessmen to avoid taxes, receive enormous state benefits, cut down our Russian Taiga, process it domestically, and send processed lumber to China instead of raw logs.

The ban on exporting raw logs and the creation of territories of advanced development were needed to redirect the flow of money from the sale of the Russian Taiga from the pockets of individual officials to the federal state budget. Previously, high-ranking officials divided the money among themselves, effectively creating and covering up 'forest banditry,' but now everything is under a centralized economy with funds directed to Moscow. That's it.

For those unfamiliar, it's worth mentioning the benefits offered to Chinese investors for doing business within the country:

0% corporate profit tax for the first 5 years from the first profit and 12% for the next 5 years. 0% property tax for 5 years and 1.1% for the following 5 years. 0% land

tax for 3–5 years. Reduced insurance contribution rate — 7.6% for 10 years (compared to the standard 30%). A reduction coefficient for mineral extraction tax from 0 to 1 for 10 years.

Simplified recruitment of foreign labor without quota considerations. Shortened timelines for inspections (reducing business pressure). Provision of land plots for investment projects at preferential rental and purchase rates. State-provided necessary infrastructure. Simplified customs procedures and reduced associated costs. Additional legal support.

And from 2025, the opportunities for TOR residents are expanding, offering them even more various incentives from our government. Thus, by becoming residents of TOR or MTOR, Chinese investors receive a vast array of tax and administrative benefits, allowing them to earn huge profits from exploiting Russia's natural resources, including our Russian Taiga.

The law on Territories of Advanced Development (TADs) applies to our citizens as well, but it is primarily aimed at foreigners. Initially, these zones were created and are now expanding in Siberia and the Far East due to their "advantageous positions" near China. As of 2023, the total volume of Chinese investments in Russia exceeded

$50 billion. Additionally, by 2024, over 9,000 Chinese companies were registered in Russia—three times the number of all German companies operating in our market before 2022.

Thus, as of today, Chinese entrepreneurs make up the largest group of foreign investors in our economy. The main and most lucrative "piece" is investment in logging. For instance, we have major companies like "RFP Group" (Far East), "Asia Forest" (Khabarovsk Krai), "RosKitInvest" (Primorsky Krai), "Asia Les" (Eastern Siberia and the Far East), as well as the "Suifenhe International Forest Company," "China Paper Corporation," and many others. There are a great number of them! Typically, the founders or shareholders are Chinese citizens.

The law on Advanced Special Economic Zones allows Chinese businesses to fundamentally expand in Siberia and the Far East, putting down roots and building their own business infrastructure. It's no wonder that high-ranking government officials recently recommended we learn Chinese.

So, when people tell me, "Well, you banned the export of raw logs, and many officials were jailed," I always try to explain: for the past twenty years, there has been a total

destruction of forests in Russia, with the entire forestry sector essentially in the hands of "forest bandits" under the protection of regional authorities. The only change is that instead of exporting unprocessed timber, Chinese investors were invited to Russia, given numerous preferences to cut down the taiga here and process it immediately. They also took control of the revenue from logging, redirecting money to the federal budget instead of lining the pockets of regional officials.

The most corrupt officials, who managed to embezzle billions, were publicly imprisoned to push through necessary reforms. This demonstrates justice in the eyes of the public and cleanses the management system! But no one asks the question: if the Russian Taiga was ruthlessly destroyed for decades and officials managed to embezzle billions, didn't anyone in Moscow notice earlier? How could they not see it?

“Green Wall”

And now to the news. While the Russian Taiga was being ruthlessly destroyed for export to the Middle Kingdom, the Chinese government was deliberately restoring its own forests. They are now beginning to see the first results. Just before New Year 2025, they happily announced the completion of a 3,046-kilometer green

belt around the Taklamakan Desert, which is part of the massive "Great Green Wall" project.

The Chinese began implementing this project back in 1978, aiming to fully complete it by 2050. Currently, they have successfully finished part of the "green wall" around the second-largest shifting sand desert in the world. It's called the "Sea of Death," with sand covering an area of 300,000 square kilometers! This territory is comparable to the size of Italy, the Philippines, or Ecuador. It's almost 1.5 times larger than the United Kingdom and nearly 5 times the size of Switzerland!

Imagine the scale of the project to restore protective forests. Over 600,000 people participated in planting an artificial forest belt around the desert for 47 years! More than 30 million hectares were planted in total. Now China plans to increase the width of the "Green Belt." They are also developing global projects to expand water horizons and plant additional protective forests throughout the country.

It's true that all these projects are attempts to contain the ongoing ecological disasters and demonstrate the Chinese government's efforts to take control of the climate in their country! Alongside other implemented plans for "climate management" in the Middle Kingdom.

The artificial forest protection barrier already causes extreme confusion and doesn't fit with contemporary scientific data. Yet, while our authorities are destroying forests for export to China, the Chinese are trying to restore them on their own territory.

The paradox of priorities

All this is happening while our Russian Taiga is being ruthlessly destroyed and sold off into private hands for global exploitation. Let me remind you that in 2006, a new Forest Code was adopted in Russia, which effectively makes leaseholders the owners of our forests. Authorities even publicly referred to them as the "real masters of Russia's forests." Generally, forests are leased for 49 years for large-scale logging and the creation of lands for recreational hunting!

Moreover, we are now trying to stop utterly unimaginable legislative proposals for logging in protected forest categories. Not only is the protective status of reserves in the country being deliberately downgraded, but now the Ministry of Natural Resources is openly attempting to legalize clear-cutting around the sacred Lake Baikal, as well as allowing businesses to log protected forests in all mountainous wildlife refuges.

The reasons vary! They say it's "for the people" and "for the construction of a tourism cluster." The paradox of priorities here is that while we are destroying our own Russian Taiga and inviting Chinese investors to cut down our forests, China itself is successfully implementing projects to restore forests in their own country.

The "Great Green Wall" project, which is already being successfully implemented, is comparable to Joseph Stalin's "Great Plan for the Transformation of Nature"! In 1948, by Stalin's order and under his direct leadership, our Soviet ancestors began constructing massive forest protection belts around cities, agricultural fields, along roads, and rivers! But in 1953, after Stalin's death, the implementation of the plan was halted, and it was never completed. The plan for the transformation of nature in the USSR still raises many questions to this day.

The fact is, when creating forest belts or restructuring rivers and bodies of water, the specific characteristics of regions—from climate to soil composition and species diversity—were not taken into account. The "universal" schemes developed centrally might not have been suitable for specific areas, resulting in new ecological problems instead of solving the old ones.

Our neighbors, the Chinese, are currently successfully implementing a plan comparable to Stalin's project. Unfortunately, they are making the same mistakes that were made during the creation of artificial forest protection projects in the USSR. Typically, party directives "adjust" reports to fit the ideology, resulting in many experiments leading to errors on the ground. In any case, China is now trying to restore forests. Meanwhile, the demand for timber is being met by the Russian Taiga, which is being torn apart, turning mighty forests into shredded, patchwork remnants.

January 2025. China has completed the creation of a "green belt" around the Taklamakan Desert in the Xinjiang Uyghur Autonomous Region in the west of the country. An artificial protective barrier of forests now stretches over a distance of more than 3,000 kilometers. Billions of trees hold back the "desert of death" and temporarily elevate the grandeur of the Middle Kingdom.

January 2025. The Ministry of Natural Resources is attempting to legalize the clear-cutting of ancient forests around Lake Baikal and the clear-cutting of protective category forests in all the country's mountain refuges. Priority is given to Chinese investors, for whom "advanced development territories" have been created.

Chapter 35. Why is China’s “Green Wall” project not a victory?

Currently, China is continuing global climate projects within its territory. Over the past decades, the country's ecosystems have been so devastated that the environment has become nearly uninhabitable. Water tables are receding, forests have been cut down, and ecosystems formed over thousands of years of evolutionary history have been destroyed. Meanwhile, the country's population is enormous, and the government's focus is solely on production for export worldwide.

China can be compared to one massive enterprise working itself to the bone to supply the world with goods. Surrounding this enterprise, waters are depleted and polluted, forests are cut down, and animals are going extinct.

In the first part of this material, I wrote about China's global plan to create an artificial forest belt around the desert. This project is called the “Great Green Wall,” and interestingly, in China, it is more often referred to as the “Three-North Shelter Forest Program.” Its purpose is to hold back the “advancing desert” of the Gobi in northern regions of China!

The desert is expanding, with constant dust storms and rapid land degradation in border areas. Therefore, the Chinese government attempted to shield the desert with an artificial forest belt! The project began in 1978 and is planned to be completed by 2050, but they have already successfully completed a forest belt over 3,000 km long.

This project resembles the “Great Plan for the Transformation of Nature” once launched by Joseph Stalin in the USSR. Back then, after the Great Patriotic War, many forests in the central part of the country were destroyed. Therefore, it was necessary to create shelterbelts to stop land degradation and increase agricultural efficiency.

Both projects aim at locally improving the microclimate in specific regions, attempting to stabilize already lost ecosystems. But on a global scale, such projects can only exacerbate the destruction of biological rhythms on the

planet, increasing future catastrophes. And while our Soviet ancestors, who were unaware of many things at the time, can be forgiven, China's global climate projects cause extreme bewilderment.

Let me try to explain using the example of the “Great Green Wall.”

Our Russian physicists, in their scientific works, have discovered the biotic regulation of climate by natural ecosystems. Imagine, rivers flow above our heads, carrying more water than many of the rivers we know on land. Only thanks to these “air rivers” can terrestrial ecosystems sustain life, rain falls, and our rivers fill with water. If these “air currents” are disrupted, desertification will begin, and life within continents will gradually become impossible, everything will die.

It is precisely undisturbed forests that ensure the flow of moisture from the oceans to the land. Forests create vertical air currents that “suck” moisture from the oceans, maintain precipitation, and year-round soil moisture. It is important that such forests are “aboriginal,” meaning completely natural, formed by millennia of history. No other forests can sustain the biotic pump.

Any artificial plantings, especially of alien species, particularly if they are monocultures, completely contradict modern scientific data on the importance of maintaining the biotic pump. Such artificial forest belts do not create the complex ecosystems necessary to sustain the “moisture pump,” and they are not resilient to droughts, diseases, and even if restored within “aboriginal forests,” they cannot fully perform their functions.

This is especially important when people plant new forests in “rows.” I always say, and have written in my books many times, that if nature needed “rows,” it would have done so. But in the wild, the complexity of ecosystems is crucial; the more complex they are, the higher the biodiversity and stronger the immune system. Yet people confidently “restore” forests in “rows,” believing it will be better for nature.

Returning to the “Great Green Wall” being built around the Gobi Desert. This forest belt is an attempt by the Chinese government to at least somewhat delay ecosystem degradation, to try to contain the very ecological disasters already occurring due to the destruction of “aboriginal forests” in the country. Climate rhythms are disrupted, “air rivers” do not carry the necessary volumes of water, and underground

sources are also disappearing.

The “Green Wall” itself is mostly located far from the oceanic coastline, reducing its influence on the moisture-bearing air currents coming from the sea. These areas already have low precipitation levels, and adding forest belts will certainly not improve moisture intake.

According to scientific data from Russian scientists on biotic climate regulation, for moisture transfer to occur from the sea to inland areas far from the shore, a continuous forest cover is needed, which should ultimately reach the coast. The “Chinese Wall” is an isolated project on the edges of the Gobi Desert and is not integrated into natural “aboriginal forests,” which accordingly indicates the impossibility of influencing air rivers.

However, the shelterbelt “Green Wall” already requires a huge amount of water for its maintenance. Due to a lack of moisture, many trees are dying, exacerbating desertification. The fact is, such a global project literally squeezes the last drops of water from underground sources, and when none is left, the trees simply die, along with the ecosystems the Chinese authorities tried to protect by creating the “Great Green Wall.”

It's simple: if the trees of the “Green Wall” received moisture from somewhere, it means there was no moisture left for the already damaged ecosystems nearby. And since artificial forests cannot draw moisture into the continent thanks to the biotic pump, the water was taken from still-living real ecosystems.

By displacing local ecosystems, artificial forests disrupt all natural mechanisms of soil restoration and water circulation.

Instead of creating the “Great Green Wall,” China should have started restoring natural forest ecosystems, developing technologies close to how nature itself does it! Excluding the planting of monocultures and “rows” in place of once complex biological systems.

And honestly, I don’t understand how such global projects can be implemented in today’s world, where there are not only necessary scientific studies but also technical capabilities for the real restoration of lost ecosystems.

The shelterbelts along the Gobi Desert are inevitably doomed, and over time, this will accelerate the degradation of natural ecosystems. While China actively pursues a knowingly unprofitable project, our Russian government is meeting their timber needs. It's our

Russian Taiga that's being logged in massive volumes for export to the Middle Kingdom.

I wouldn't be lying if I said that first they destroyed their own ancient forests, and now they're funding the destruction of our ancient forests in the same way.

Moreover, our Ministry of Natural Resources, in pursuit of Chinese investments, openly suggests cutting down natural protective forests, which are the last refuges of wildlife on Earth. Everything else has long been exploited and destroyed. Essentially, these "aboriginal" ancient forests, in their fragmented state, regulate "air rivers," providing the necessary moisture for all life on the continents. Think about it!

China destroyed its ecosystems and has been building artificial forest walls for decades, fully aware that this is a knowingly unprofitable project! Furthermore, this project is dangerous for the very natural ecosystems it is supposed to protect.

Meanwhile, instead of preserving and protecting natural forests, Russia is actively pushing through legislation to legalize their 'development,' and now the authorities are demanding the logging of natural protective forests in mountain wildlife refuges.

Seeing the tragic experience of China before us, we supply them with timber from our Russian Taiga and invite them to build tourist clusters on the sites of once ancient forests.

How soon will our government start building the 'Great Baikal Wall' to stop the death of Lake Baikal? Let me remind you that right now the authorities are trying to pass a law for the clear-cutting of virgin protective forests around the lake.

The system chases after immediate profit, completely ignoring the future of our children. Even as they witness the real tragedy of our Chinese neighbors.

Chapter 36. Into the jaws of capitalism

In African countries, authorities officially decide to destroy vast numbers of wild animals in reserves. In the U.S., a government agency is created to exterminate one species of owl, supposedly to save another! And alongside multinational corporations, they've started cutting down 30 million hectares of ancient forests to bury them in the ground, supposedly to "stop carbon emissions."

The same madness is happening worldwide. You could go through every country and, by examining their "environmental policies," see that those in power are collectively destroying nature to feed it to the "monster of modern capitalism."

In our country, right now, the Ministry of Natural Resources is trying to pass two bills aimed at exploiting the most crucial protective category of forests. Both bills allow for clear-cutting, meaning that for immediate profit, the law will permit "mowing down" the Russian

Taiga to the ground.

One bill is about clear-cutting the forests of Baikal, and the other is about clear-cutting forests in mountain refuges across the country for the construction of tourist clusters. Land can be reclassified from the State Forest Fund to other categories, and the forests on this land can be "mowed down" to benefit big business!

Am I wrong to say that with their actions, officials are now throwing the future of our children "into the jaws of capitalism"? Let's try to figure it out.

The Forest Code

In 1948, Joseph Stalin adopted the "Great Plan for the Transformation of Nature." This plan, among other things, provided for the creation of extensive forest protection belts across the country to prevent droughts and dust storms, which helped preserve fertile lands and increase agricultural yields. But after Stalin's death in April 1953, the Council of Ministers of the USSR issued decree No. 1144, ordering the cessation of all protective afforestation work.

This led to people massively destroying the protective forests they themselves had previously planted.

In 1955, under the directive of Nikita Khrushchev, the forest protection stations were also closed. According to experts, by the following 1960s, hundreds of thousands of hectares of forest belts, which safeguarded the local microclimate, supported agriculture, and combated natural disasters, were destroyed in the USSR.

Next came upheavals, the dissolution of the USSR, and the emergence of modern Russia. After the formation of the new state, there was a focus on changing existing laws. This included forestry in our country. I think it's worth discussing this in more detail.

In 1977, there was the Forest Code of the USSR, which regulated the use of forests within the framework of a centralized planned economy. All forests belonged to the state, and their use was strictly regulated! They ensured there was no theft or destruction. There was also genuine reforestation, the results of which I constantly observe during our expeditions across Russia!

From 1991 to 1997, after the dissolution of the USSR, the Forest Code was reformed and altered. It was a time of restructuring, a difficult period for everyone. But by 1997, the Forest Code of the Russian Federation emerged. It introduced the concept of leasing forest plots for the first time, yet federalization was

maintained! This meant the state kept the forest sector under its own control.

Over the next few years, leasing forest plots became highly profitable, which caught the attention of officials who decided to completely rewrite the Forest Code to fit the paradigm of modern capitalism. In 2006, a new Forest Code of the Russian Federation was adopted. Its main focus was on decentralizing management and commercializing forest use! Essentially, the entire forestry sector of our country was handed over to the "clutches of capitalism."

The new Forest Code transferred authority to regional governments, leading to chaos in forest management across different regions. Each began to decide independently how to manage their forestry. Due to the lack of federalization, funding for forest protection and restoration decreased.

Long-term leases were also introduced, allowing forests to be handed over to commercial entities for 49 years. The entire forestry sector of the country rapidly became commercialized. This enabled large companies to exploit the Russian Taiga unchecked, leading to widespread banditry, theft, and a blatant disregard for reforestation obligations.

Due to simplified lease agreements for businesses and numerous relaxations, a massive number of illegal logging operations emerged. Local officials began profiting from the destruction of the Russian Taiga, something we've been discussing for the past 10 years as we personally traveled through the regions uncovering these crimes.

The old Forest Code included a genuine forest protection service, which was well-staffed and state-funded. It had real authority to prevent illegal logging and protect forests from fires and diseases. With the adoption of the new Forest Code in 2006, the protection functions were reduced. The number of foresters was drastically cut, and the forestry departments lost many of their powers.

Under the old code's federalization, the state was obligated to finance and organize reforestation itself, but with the new code, these responsibilities were transferred to commercial entities. Lessees were made responsible for reforestation, but there was no real oversight.

And who is a commercial entity? Exactly, someone who wants to increase profits! So why would they spend money on quality reforestation? The situation led to the

point where up to 95% of all reforested areas actually die. It's a good day if they even buy some rotten saplings and stick them in the ground! But far more often, reforestation was conducted only "on paper," under the cover of regional authorities.

The new Forest Code also relaxed restrictions on the use of protective forests, which led, among other things, to increased logging along rivers, on slopes, and in mountainous areas. Overall, 2006 marked the beginning of a massive commercialization of the Russian Taiga, with forests finding new owners in the form of businesses.

Protective forests

Despite the capitalist model of forest management in the country, the new Forest Code of the Russian Federation still retained the concept of "protective forests." According to Article 102 of the Forest Code, protective forests are those that perform functions such as:

— protecting soil from erosion;

— safeguarding water bodies;

— improving sanitary and hygienic conditions;

— maintaining the stability of natural ecosystems;

— preserving biodiversity.

Simply put, their main task is to prevent the negative impact of economic activities and environmental changes. Protective forests mitigate human impact on nature and also shield us from natural disasters.

According to the law, there are different categories of protective forests. There are artificially planted protective forests, such as those around cities or shelterbelts, and there are natural ones, like protected lands. Such forests are prohibited from being logged, especially clear-cutting. Permissible interventions include sanitary logging or thinning.

A distinct and utterly unique role is assigned to the protective mountain forests. The fact is, these are practically the last refuges for wildlife in the age of humans. People have already "developed" almost all the land, ecosystems are destroyed, and due to our activities, the planet is undergoing the sixth mass extinction of species.

It is precisely the mountain ecosystems that today serve as refuges—havens, points of self-restoration for wildlife. Here, plants and animals, many of which are already on the brink of extinction, can find shelter from humans.

The protective mountain forests themselves prevent erosion and landslides, regulate the water regime, including preventing floods and providing people with fresh water. Thanks to mountain forests, the risk of avalanches and wind erosion is reduced; they support high biodiversity (especially rare and endemic species), and create and regulate the local microclimate.

The significance of protective mountain forests is colossal. But the most important thing to remember and repeat over and over: protective forests in mountain ecosystems support wildlife refuges. These are points of self-restoration for biological systems.

A new law

I specifically shared a brief background on the emergence of the new Forest Code in our country so you understand how calculatedly and gradually this global capitalist system was built. The current forestry in the country is entirely and exclusively based on the immediate earning of money, where everyone wants to take a piece of the Russian Taiga.

Gradually, the protective status of wildlife was deliberately reduced, and the entire system was built solely towards profit extraction.

And so, in 2024, the Ministry of Natural Resources and the Ministry of Economic Development of the Russian Federation decided to take the next step. This time, they are trying to pass a bill legalizing clear-cutting of protective forests in mountain ecosystems.

They say this is very necessary for big business for the "economic development of the country." Plans were announced to "develop" over 300 billion rubles at the initial stage of the bill’s adoption by constructing more than 260 ski resort facilities! For this, protective forests will be cut down and lands will be reclassified from the State Forest Fund to other categories.

The most dangerous aspect here is that it sets a precedent for appropriating the protected rent of our country for the sake of immediate profit. There is a legislative attempt to legalize the destruction of protective forests, specifically by conducting clear-cutting all at once. Their main goal is to push through the first law, after which it can be endlessly revised, amended, and supplemented with various decrees to carve away piece by piece of the living flesh of the Russian Taiga.

All of this is done solely in the interests of big business. Not only has the Russian Taiga been turned into a sports hunting ground, with a third of all publicly accessible forest lands handed over to private hands for recreational killing, but now they are also dividing the wildlife refuges among themselves.

And this is being done simultaneously with a second bill on clear-cutting forests around Lake Baikal. Completely identical plans, justified in different ways. But two legislative solutions are required because the protected forests of Baikal are regulated by the local law "On the Protection of Lake Baikal."

In the case of Baikal, they say the forests will be cut down for the local residents because they themselves are asking for it! Meanwhile, the bill on clear-cutting protective forests in mountain ecosystems across the country is justified by saying that our country's residents lack resorts, and additionally, they say, we will invite tourists from other countries to develop the economy.

In reality, the already obscenely wealthy minority is tearing apart the remnants of the Russian Taiga, brazenly declaring ownership of the protected lands of our Motherland.

Chapter 37. Nature needs sanctuaries from humans

I rarely write pieces based on personal observations from the wild. In my experience, no one is really interested; only a handful of people read them! This is actually quite unfortunate because it shows a lack of interest in practical research and observations, a lack of desire for experience, and thus, a failure to expand personal horizons of knowledge.

But we constantly conduct expeditions. I personally explore remote corners of the wild, and when I talk about environmental issues, I always rely on my own practical observations! We've traveled to the far reaches of the Russian Taiga, conducting dozens of expeditions across the vast expanse of mighty Russia. We studied deforestation, documented violations, and tackled problems.

When I tell readers that it's urgently necessary to ban the cutting of cedars, which serve as centers of interspecies connections in the biogeocenoses of the

boreal taiga, it means I see the problems firsthand and convey this practical experience not only to readers but also to government agencies.

In recent months, I've been conducting local expeditions in the jungles—equatorial tropical forests. This work is crucial for a future international project we're currently preparing! I want to map out future territories of full ecological tranquility, but to do this, I need on-the-ground experience. I need to understand what we're fighting against and what we're striving for.

Today, I want to share my observations with you.

There are currently many scientific meta-studies about the colossal impact humans have on wildlife worldwide. In just 50 years, humans have driven about 73% of all living species to extinction, according to estimates by the World Wildlife Fund (WWF). Meanwhile, I studied data from IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services) from 2019: according to their research, over 1 million species on the planet are threatened with extinction due to human activity.

Deforestation, water pollution, intensive agriculture, and other factors.

So, what am I constantly talking about?

You know that we launched the TFET (Concept of Territories of Full Ecological Tranquility), presenting a real plan to solve global problems by forcibly designating sanctuaries for wildlife.

The Earth's biosphere does have its own refuges, called refugia—these are relatively isolated areas of wilderness where conditions still allow species displaced from other areas to survive. However, these territories are usually limited in size, surrounded by degraded natural areas, and lack 'corridors' for the circulation of vital biological processes.

This leads to an isolation effect! We see the complete exploitation of all terrestrial ecosystems by humans, while the last refuges (mainly in mountain ecosystems) are isolated from each other and struggle to withstand pressure from all sides.

I've studied many scientific papers on this. For instance, there are excellent studies showing that when forest areas are fragmented, isolating the 'forest mosaic' from each other, it leads to a gradual, inevitable decline in biological diversity. Animals and plants resist for a while, but eventually, they start to give in—slowly dying off.

In my local expeditions, I am currently conducting research observations. You'd agree, one person can do little, especially without proper funding! And as you know, we do everything on our own.

But how then do we conduct observations, understand ecological problems, and attempt to predict future boundaries of tranquility territories?

As a researcher, I can carry out various tasks in the wild. Expeditions allow for the documentation of the visual state of forest areas and coastal zones, assessment of deforestation levels, presence of litter, and observations of soil erosion. All these are primary indicators of the state of biological systems.

It's actually quite simple: these problems shouldn't exist in wildlife refuges. Therefore, it's enough to visit remote ecosystems to visually assess their condition! I usually create a chart for a specific ecosystem, breaking it down into key signs of ecosystem degradation, and then explore the wilderness by area, noting personal observations in a field journal.

I also keep track of encounters with wild animals and birds, trying to identify specific species, under what conditions they were encountered, and at what time. It's especially important to identify invasive species (which

shouldn't be there) and the dominance of certain species over others! This usually indicates ecosystem degradation.

But the most important thing that allows for personal research observations is conversations with hunters, farmers, fishermen, fruit gatherers, and so on. In other words, with everyone who interacts with the wild! They usually provide information about the local ecology, such as which animals are seen more or less frequently, when certain species were last seen, whether animal behavior is changing—are they entering villages, is their activity cycle changing.

Also, many specialists ignore this issue, but it's no less important: if animals suddenly increase near settlements, stealing fruit from gardens, what eventually corrects the situation? In other words, under what circumstances do animals stop approaching humans?

Typically, it turns out that animals first approach humans, then farmers start spreading poisons, and the animals simply die off! Thus, people's perceptions are distorted, and the entire local ecosystem begins to perish in a chain reaction.

Overall, the work is very long and difficult! But I don't understand how we can protect nature if we know nothing about it, if we don't conduct observations. How can we talk about the need to protect refuges if we've never even seen them personally?

Therefore, it's extremely important to conduct such work. But, I repeat, people are hardly interested! And if you, my dear reader, are now familiarizing yourself with this text—know that you are one of the few who managed to read this far, who expanded personal horizons of knowledge and helped pass them on.

And I am immensely grateful to you for that!

Let's return to my observations.

I see that the problem of wildlife destruction is becoming completely unmanageable. In recent years, human pressure on ecosystems has increased thousands of times, and as the exploitation of the wild expands, the last animals begin to retreat under human pressure. They leave their usual habitats for the sanctuaries! And people follow, finishing off the animals and striving to tear their refuges to shreds.

And my personal research, observations in expeditions show: there is already uncontrolled degradation of the last wildlife refuges. Forced migration of animals from

destroyed ecosystems to the remaining 'islands of nature' is beginning to lead to overpopulation.

Imagine: your city is being destroyed, and you know there's one neighborhood in the center that still provides food, shelter, and life. You head there, along with a massive flow of people! Everyone's competing, trampling each other, killing for food. And everyone wants to live.

The same thing is happening right now in the wild.

I first saw this in Russia, in various regions of our country. From Karelia to Kamchatka! We conducted numerous expeditions. Now, I'm observing this in expeditions through the southern tropical forests.

I see that there's already a shortage of food sources, predators are putting increasing pressure on their prey, herbivores are intensively consuming vegetation, and as a result, all food chains are disrupted. The order of ecosystems is broken.

And animals continue to arrive from devastated areas, clashing in fierce competition with each other.

I've spoken with residents of different parts of the wild in various countries where I've conducted my observations. Everyone agrees that there are more epizootics (the spread of diseases among animals).

Diseases have appeared in livestock, and people are using more chemicals and drugs! This is how we determine the rise in diseases. This could become catastrophic for small wildlife refuges, as without alternative habitats, animals have nowhere to escape from diseases. One epidemic could wipe them all out.

I further studied the connecting corridors between refuges. In rare cases, such passages exist, but they are also isolated after two or three sections of wilderness. All others lack biological corridors, meaning populations become isolated and lose genetic diversity.

Why is this dangerous? It's simple, and I've written about it many times in my materials!

Inbreeding increases—when animals start having close kin relationships due to small populations, leading to genetic diseases, anomalies, extinction. Animals become smaller, suffer. Gradually reaching a biological dead end, making life impossible for them.

Animals also lose adaptability, adaptation, and there are serious defects in instinctive behavior and food acquisition.

I also see a 'mutual' flow of species beginning: wild animals come to humans to find food! Domestic and invasive species start living on the edges of wildlife

refuges. This again leads to the exchange of zoonoses (diseases) and irreversible consequences.

In every case when I spoke with local residents, they unanimously state that they have started killing more animals. If animals come to their gardens for fruit, for example, people grab guns and go shoot the animals! Conflicts are only increasing. And almost always, the killings are done illegally, without licenses or control.

A monkey snatched your banana—you killed the monkey and its entire family. You left the forest, and no one knew! You saved your fruit, but the ecosystem is even more disrupted.

WE NEED REFUGES

These are my personal observations from our expeditions. And I understand that action is urgently needed! But which officials, various 'administrators' in government systems, even know about this? Who has personally dealt with the problems, assessed the state of biological systems, or even read scientific data from researchers?

I even see dead bees in wildlife refuges! Wild bees fly to human fields to collect nectar. People spread tons of poisons, bees get poisoned, return to their family, and by contacting them, destroy the entire hive. That's

it—you walk through the refuge, and underfoot, in the grass, even on flowers, there are literally piles of dead bees.

So! I see the need for urgent radical changes. And after more than ten years of studying environmental issues—I personally see no alternatives to our TFET Concept. Only the forced and very urgent conversion of all remaining areas of wilderness into global territories of full ecological tranquility can truly save nature (and us, humans).

It's important to connect these territories to ensure the interconnectedness of biological systems! I studied a scientific work on this, a meta-analysis, published in the journal Biological Conservation in 2018 (7 years ago!!) — the presence of connectivity among forest areas increases species diversity by 20-30% compared to completely isolated areas.

So even just connecting areas of wilderness with corridors can increase biological diversity by up to 30%.

And we're talking about even greater work! Creating territories of tranquility worldwide. I'm currently finishing a very important stage in my work, and my team is preparing the infrastructure on the website to launch an international project.

Let's prepare projects for territories of tranquility worldwide! We'll develop comprehensive plans, economic justifications, supported by scientific data and personal observations! We'll promote all this as separate 'TFET Initiatives' globally. We'll try, by gathering proposals (this is a very long process), to connect directly with countries, from the smallest island nations to the largest, and offer them projects to solve environmental problems.

Nature urgently needs refuges from humans! Just a little longer—and the situation will be beyond repair. These are the main conclusions I see in my work today: in my expeditions.

Chapter 38. Scientists develop the "smart forest" system

I often talk about the need for global changes between humans and nature, because many practices have long become outdated, archaic, and destructive! Meanwhile, government systems "get stuck" in this archaic state, leading to a complete misunderstanding of the world around us and a lack of methods to solve ecological problems.

Let's say, for instance, Mr. Kumarykov—the Minister of Natural Resources of Kamchatka—who publicly tried to mock my proposal to implement modern technical means to prevent conflicts with wolves. Simply put, long-established methods based on satellite monitoring, GPS trackers, and the integration of neural network algorithms, which have been used worldwide for many years, provoke laughter from those who head entire departments.

The situation with the wolves of Kamchatka caused a huge stir because, according to the authorities' calculations, only 179 wolves were counted, and officials issued an order setting the limit for hunting at "exactly 179 wolves." In other words, they allowed the entire population to be wiped out! We opposed this, to which we received the response that the wolves were attacking livestock and threatening herders. I then made a public proposal to implement modern technical means, based on established international experience, which would allow conflicts between people and wolves to be completely reduced (to zero).

And so, the public response on social media was a jab from the minister directed at me, mocking modern technologies for protecting wolves.

I fully understand that this is not just a problem of the Kamchatka minister but a systemic defect in government management. To solve this, the federal government needs to change the leadership, seeking those who think in a modern paradigm and can drive the country's development forward, enduring and overcoming competition from other nations.

Meanwhile, we see ministers with archaic views of the world slamming on the brakes, unwilling to develop themselves and hindering the overall progress of our country.

This is, indeed, an introduction to the material!

Today, I want to talk to my readers not about officials, but about breakthrough technologies in the field of wildlife protection. My team and I closely monitor all developments and discoveries worldwide to use this experience in our fight for life.

I managed to study two scientific works conducted by global scientists and published just recently, in January 2025. The research was extremely complex, as specialists worked with mathematical methods to create models for modern technologies.

Therefore, I had to spend a lot of time understanding the scientific works. I'll try to convey the importance of these studies in simple terms.

So! The first work is titled "Modeling Forest Regeneration Dynamics: Estimating Regeneration, Growth, and Mortality Rates in Lithuanian Forests." Scientists studied forests in Lithuania and developed an innovative model for their restoration, collaborating with researchers who simultaneously created a system for

acoustic analysis of wildlife. They are from the same university.

Currently, scientists are forming a complex that, in real-time, using modern technologies and artificial intelligence, will predict the state of forests and record the slightest environmental changes.

Scientists say there are two main problems characteristic of global forestry. First, human activity destroys forests so quickly that tracking it all is simply impossible! Typically, problems become apparent only when the damage is already irreversible. Second, all traditional methods of forest monitoring, where foresters inspect trees manually or use traps to observe animals, have long been ineffective. Especially considering the lack of qualified specialists, the abolition of the forestry institute, and people's unwillingness to make enough effort to prevent environmental problems.

I want to quote one of the study's authors, Professor Rytis Maskeliunas from Kaunas University of Technology:

> "Forests are one of the most important ecosystems in nature, constantly evolving, but their monitoring is often postponed <...> We will never have enough people to constantly observe what is happening in

the forests."

There you have it! Simple and clear.

Now to the most interesting part. You know that I recently published a comprehensive piece on modern reforestation, or more simply, "planting forests in rows." Global experts have long agreed that plantation reforestation is nothing more than an imitation, which poses a threat to genuine wild forests. And what can we say when, according to the Russian Federation's Accounts Chamber, up to 95% of all "restored" forests die immediately after planting.

Similar problems exist worldwide. There is no proper assessment of biological systems, no monitoring of forest restoration, and no forecasts of how forests will grow and change over time.

So, scientists in their work proposed an entirely new model of forest regeneration dynamics. It will independently track age groups of trees and the likelihood of their transition from one group to another, analyzing growth and mortality rates.

Moreover, according to the proposed model, it becomes possible to determine which tree species are best suited for various conditions and where exactly they should be

planted.

I'll publish another quote from Professor Maskeliunas:

> "This can help in planning the restoration of mixed forests to increase resilience to climate change, as well as in predicting where and when certain species may become more vulnerable to pests, allowing for preventive measures. This tool supports forest conservation, biodiversity maintenance, and ecosystem services by optimizing the distribution of funding and compensation for forest owners."

I know that some readers are not interested in technical details, but many of you are specialists. So I'll note right away that the new model for assessing forest dynamics is developed based on Markov chains and multivariate time series decomposition (MTY).

The practical part of the research was conducted on tree species in Lithuania, implying the possibility of using the model in Russian forests. It showed impressive results on pine, spruce, birch, and aspen.

So here it is! The model presented is capable of working excellently with any technical systems based on artificial intelligence. Special software and sensors are created to collect data, which is then continuously analyzed. Based

on this model, scientists can predict how many young trees will survive or die, identify the causes (diseases or pests), and recognize long-term forest growth trends, including seasonal changes and unexpected factors—such as sudden climate anomalies or pest invasions.

Now, let's move on!

We already have cutting-edge technologies and an innovative model on which continuous forest monitoring systems can be built.

A graduate student from the same Kaunas University of Technology, Ahmad Kurthobi, developed a system for analyzing wildlife sounds, capable of identifying a wide variety of natural forest sounds and detecting any problems. This means it's possible to create highly accurate sensors with connected neural network algorithms that determine the state of ecosystems in real time based on the soundscape.

This research is called “Robust Forest Sound Classification Using Pareto-Mordukhovich Optimized MFCC in Environmental Monitoring.”

For the specialists, I'll add that this involves a hybrid method of sound classification based on a combination of a convolutional neural network (CNN) and

bidirectional LSTM (BiLSTM). It uses optimized mel-frequency cepstral coefficients (MFCC) that provide higher quality feature extraction of sound signals.

For all other readers, feel free to skip the complex terms, as the main point is the essence of this research and the opportunities it opens up!

The developed model allows for real-time detection of all early threats to the forest, including illegal logging, wildfires, and poaching. It recognizes static sounds (like bird songs) and captures dynamic changes. If noises related to tree cutting suddenly appear, the wind changes, or there is a sudden calm, all of this is analyzed instantly, and the system identifies potential risks.

A sudden increase in bird songs, the sound of breaking branches, structural changes in trees during drought—all this information is collected by sensors and processed by artificial intelligence, which instantly points out potential problems in the forest.

The model identifies every animal sound, including mating calls and signals from young offspring, assesses the number of animals in a pack, and determines their location, allowing for tracking migration, encounters, and the condition of, say, wolf packs.

Now to the most important part!

Why are all these studies so important to us? Because we don't need to invent separate technologies to use them. These models can already be integrated into existing technical solutions.

The smart forest Internet of Things (IoT) system I described earlier, known as Forest 4.0, is what specialists call the “smart forests of the future.” It's a concept for managing forest ecosystems using IoT, artificial intelligence, machine learning, and remote sensing. At its core is the implementation of a network of sensors, drones, satellites, and cloud services that allow for real-time monitoring of forest conditions, predicting dangers, and preventing ecological disasters.

Forest 4.0 involves installing sensors for temperature, humidity, CO_2 levels, and other indicators. They transmit data to the cloud, where intelligent algorithms predict possible threats. For example, rising temperatures and decreasing humidity might indicate fire danger, while a changed acoustic background could signal illegal logging or the presence of poachers.

Sound sensors record the voices of birds and animals, helping to automatically assess biodiversity and its changes. Drones with infrared and multispectral cameras detect tree diseases, pest outbreaks, and

instances of illegal logging. Satellite images combined with machine learning methods allow for observing landscape changes and building dynamic forest models.

A huge advantage of Forest 4.0 is blockchain, which makes resource management transparent and protected from fraud. Every felled tree receives a digital passport, detailing its origin and the legality of its logging. This minimizes the illegal timber trade and simplifies monitoring its supply.

Such technologies are already being created and partially applied worldwide. The latest research I've discussed represents fully innovative models that can easily be integrated into this concept of “smart forests.”

Imagine the colossal step forward humanity is taking and the incredible opportunities opening up for wildlife conservation!

And now tell me: how can such progress coexist with the fact that for some ministers, these basic technological solutions seem like a reason for mockery? Why is it that somewhere in the world, all this is already being produced and successfully tested, while we have none of it?

That's why I say: we need strong people in leadership positions who want to develop themselves and are capable of advancing the country, not just keeping up with the competition, but achieving real leadership for Russia.

Thanks to the technologies I've talked about today, we can solve all the problems in the Russian Taiga. Imagine if we combine our concept of Territories of Full Ecological Tranquility (TFET), creating sanctuaries for wildlife, with the technologies of “smart forests” and the innovative models that scientists have just presented.

Chapter 39. A useless agreement: 196 countries failed the plan to restore nature (GBF)

On December 19, 2022, at the UN Conference on Biological Diversity (COP15) in Montreal, nations adopted the "Kunming-Montreal Global Biodiversity Framework" (GBF).

This agreement was called "historic" due to its scale, as never before had such global steps been taken by countries to save nature! Imagine: 196 countries of the world signed the document and committed to achieving the program's goals for restoring biodiversity by 2030.

Let's briefly discuss the goals of this agreement.

The countries prepared 4 main goals and 23 specific targets, which, in theory, are aimed at slowing the loss of biodiversity (animals and plants) and, consequently, restoring ecosystems. By 2030, they were supposed to protect 30% of the planet's land and oceans (called "30×30"), restore 30% of degraded ecosystems, reduce pesticide and chemical emissions by 50%, and cut global

food loss by 50%. There were also ambitious goals to eliminate subsidies for industries harmful to nature, fund conservation efforts to the tune of $200 billion annually, and control resource overuse.

I am closely monitoring how the implementation of this international agreement is progressing, what is actually being done, and on what scale!

In other words, countries around the world fully understand the scale of the ongoing ecocide. And in 2022, they concluded an agreement that was called the most ambitious project for nature protection in the history of humanity.

However, the GBF agreement is merely a framework document, and countries must develop their own national strategies, revise subsidies (which means the economy), and even independently monitor the implementation of the outlined points.

The adoption of this agreement was preceded by a long four-year consultation: countries prepared, discussed details, and sought compromises. And by 2022, this "historic" document was adopted!

There are two pieces of news: good and bad.

The good news is that since 2022, the whole world has recognized the global destruction of biological systems and the urgent need for measures to address the problems. A real threat has already been created for us, for modern civilization.

The bad news is that the entire plan is merely a "recommendation," without transparent control, unified management, or a real strategic plan. And in the years that have passed, I personally have not seen any large-scale actions to protect global ecosystems, but I have seen even more dangerous laws being rapidly enacted, threatening the last refuges of wild nature.

Since we are fighting for nature and are now taking global steps in our activities, I am very closely monitoring every move of such major international agreements.

On February 17, 2025, an independent scientific review was released titled: "The ambitions of national plans do not yet match the bold international commitments to protection and restoration." The experts try to speak softly, but after studying their work, I see that they are extremely dissatisfied with what is happening and do not know how to convey to people that the "global historic plan of the states" is pure sham.

The fact is that the scientific community is now very tied to general agendas, to politics. Sometimes, even just voicing a personal opinion can instantly cost you your status, job, and recognition in "scientific circles."

So! What do the experts say in the scientific review?

The results are disappointing. Only 36 out of 196 countries (less than a quarter of those who signed the agreement) have done anything: from 2022 to 2025, they managed to prepare internal state plans for nature protection. In other words, no one has yet begun implementation: only 36 countries over the past years have prepared "future plans for future plans."

Moreover, the presented plans are complete nonsense. Scientists say that besides being ineffective, countries are critically lagging in achieving any goals for nature restoration! The situation continues to worsen, ecosystems are being destroyed, and no problems are being truly solved.

Of the 36 countries that at least prepared plans, they removed all the most important pre-set goals and left only some. For example, Italy committed to restoring only large areas of degraded land where urgent measures are visibly needed. Australia will restore only "priority degraded areas," meaning those that are

economically efficient and justified.

Scientists also assessed how many countries set a specific percentage of protected areas. Of the 36 countries, only 22 mentioned how much they plan to restore, but only 14 of them committed to protecting at least 30% of their territories in accordance with the original agreement.

In total, from the "historic project in the history of humanity," we have come to the point where, after three years of the agreement's existence, only 14 countries are actually ready to follow the plan.

Scientists in their review also point out that according to the agreement signed by the countries, protected areas should contribute to the preservation of biodiversity and cover the most valuable parts of nature — the very "refuges" we constantly talk about.

Yet, countries didn't even mention them in their national plans. This means their efforts will have little impact on the global destruction of nature!

Scientists specifically highlight Australia. It has established itself as a leader among all the countries participating in the agreement for nature protection. But according to the scientific review, Australia's plans are not impressive at all. The presented plan for solving

problems and restoring ecosystems looks like a classic bureaucratic "brush-off," similar to those we receive from government agencies when trying to solve environmental issues.

Simply put, Australia declared: "We will restore and protect only the priority natural areas, as we see fit. Thank you all for your attention!"

We see the degradation of all state systems in the world, which, in pursuit of immediate profit, have trapped themselves in a cycle of eternal competition and constant income growth. They simply cannot stop!

Although everyone understands that an uncontrollable ecological collapse is already approaching, which will ultimately destroy our modern civilization. Solving these problems is not a matter of "want or don't want," it's a matter of survival for all of us, for our future generations! After all, our own habitat is being destroyed.

And the "historic plan" signed in 2022 turned out to be the same old management defect in the world: fragmented, without a foundation, and with not the slightest chance of success.

Chapter 40. A tropical forest destroyed for a UN summit

Nations around the world regularly gather in various locations to discuss the global destruction of wildlife. I wrote earlier about an international project aimed at restoring the world's ecosystems, which failed spectacularly. Essentially, they gathered, enjoyed some tea and cookies, confirmed all the existing problems, and then went home.

The commitments to protect nature and the responsibility vanished. As if nothing ever happened.

Besides this “historic agreement,” climate conferences are regularly held, where representatives from all countries come together! Typically, these conferences are organized by the UN (United Nations), and the 30th meeting, COP30, will take place in 2025.

This time, the UN Climate Change Conference will be held in Belém, Pará, Brazil. It will be the first UN summit in the Amazon, supposedly to highlight the global significance of the tropical forests! The Amazon

rainforest, these ancient woods, have been rapidly destroyed in recent years, and there have been no truly significant positive changes.

Our Russian Taiga, the boreal forests, are very far from South America. Therefore, I think it's necessary to take a brief detour and tell readers about the Amazon rainforest.

The Amazon rainforest is the largest equatorial forest mass on Earth, serving as one of the key regulators of climate and biological diversity. These forests specifically impact the global water cycle, regulating massive air masses! Recent studies have proven that the Amazon forests affect the climate of Tibet, which is 16,000 kilometers (!!) away. Just think about that!

So, the forests of the Amazon create powerful "air rivers" on which ecosystems around the world depend. Suppose deforestation of the Amazon leads to droughts in Africa and Asia! Real scientific data.

Moreover, the Amazon is a refuge for 10% of all known species of flora and fauna on the planet. Since around the mid-1970s, the rate of destruction of the Amazon forests has become so catastrophic that by now, approximately 20% of the ancient forests have been irretrievably lost. These are staggering numbers!

That's why the UN decided to hold the Climate Conference in Brazil, and representatives from almost every country in the world will soon be heading there.

In 2023, Luiz Inácio Lula da Silva became the president of Brazil, and he decided to take a very strong stance against deforestation. The fact is, his predecessor Jair Bolsonaro, before leaving office, decided to "go all out" and destroy a record amount of ancient forests.

The scandals were all over the global press: former President Jair sanctioned the destruction of tens of thousands of square kilometers of forest from 2019 to 2022!

I specifically studied data from Brazil's National Institute for Space Research to get you the exact figures.

In 2019, about 10,129 km² were cleared, then in 2020 — 10,851 km², in 2021 — 13,038 km², and in 2022 — 11,568 km². In total, approximately 45,586 km² of Amazon rainforest were destroyed during this period, which is equivalent to more than half the area of Portugal.

Can you imagine the scale? It's just terrifying! A real horror!

The new president, Luiz Inácio, came to power under the political banner of forest protection, which I believe was precisely a political program for voters: "elect me, I will protect the forest" against the backdrop of loud scandals with the former president.

But not fulfilling campaign promises is also not an option, so logging began to decrease! However, everything became even more tragic. Let me try to explain.

In the first year of the new president's administration in Brazil, approximately 9,000 km² of tropical forests were cut down. However, this is 22% less than the previous year under the other president!

In the eyes of the voters, this is a positive trend. Hooray for the new president who managed to reduce the scale of deforestation! In reality, however, the destruction of forests continues at the same devastating pace, and nearly 10,000 square kilometers of forest were destroyed in just one year.

So, the new president simply reduced some of the logging (and maybe it's just on paper) to gain voter approval. It gets even more interesting: the new government has officially committed to completely stopping illegal logging in the country by 2030—that is,

after the new president's term.

Overall, my opinion, after studying the destruction of the Amazon forests: nothing changes, it's all for show, and in reality, no one is actually planning to give up the money! The forests continue to be destroyed. It turns out that for ordinary people, it looks like the new president has reduced logging by 20%, but the fact that forests are still being destroyed within the same limits of 10,000 square kilometers goes unnoticed.

Now let's return to the UN Conference COP30, which will be held in 2025. In fact, the summit is seen by the authorities as an opportunity to showcase to the world their successes and plans for forest restoration!

Overall, I think it's very difficult to assess the scale of logging here and confirm the actual figures, especially since in 2024, Brazil experienced anomalous forest fires that destroyed over 30 million hectares of vegetation! How much was deliberately set on fire to later conduct "sanitary logging"? No one will say. And "what a coincidence" that this happened right before the UN Conference, right? Where they need impressive statistics on reducing logging.

So!

Right now, there's active preparation underway for an international summit. Besides "crafting beautiful reports," they're building large-scale infrastructure. The National Bank for Economic and Social Development (BNDES) has allocated around $1 billion for projects to prepare the city for the arrival of global guests.

They're rebuilding the old airfield, modernizing the river port, and creating tourist attractions! Authorities claim that all of this will eventually become a positive legacy for the city, which is home to over 1.3 million residents.

In 2024, the UN Climate Summit was held in Baku, where the governor of the state of Pará gave a presentation on the epic efforts to prepare the city for the arrival of esteemed guests.

I think readers now understand my train of thought: couldn't that $1 billion be spent on protecting and restoring forests instead of transforming the city for two weeks of the UN Conference?

Declare: "We've decided to welcome you modestly and publicly allocate a billion dollars to protect nature! We propose that the UN do the same in the future, instead of spending enormous amounts annually on hosting state meetings. Let's make a demonstrative effort to do something truly beneficial for nature, rather than cheap

posturing for the camera."

But let's get to the point now.

Among the infrastructure projects for preparing for the climate conference was... a massive deforestation for a new highway in the state of Pará to welcome summit participants.

Major international media outlets have analyzed satellite images and identified new clearings cutting through the Amazon forests. A clearing for a road at least 13 kilometers long has already been documented! The strip of deforested land aligns with the route of a highway intended to alleviate traffic for the COP30 event.

The British outlet BBC also showed drone footage demonstrating how a wide dirt strip slices through what were once ancient Amazon forests. And we're talking about protected reserve forests! According to the BBC, this involves tens of thousands of acres of Amazon forest.

The situation was analyzed by ecologists who confirmed that, in addition to deforestation, there is also the flooding of swampy areas—satellite images show machinery filling in wet lowlands to create a road embankment. Furthermore, satellites detected the storage of numerous felled tree trunks along the

clearing, indicating a significant volume of extracted timber! This is specifically about the destruction of protected forests.

I gathered all the data available on this situation, and my team studied the information starting from 2022. We found evidence that the authorities were fully aware of the plans to clear forests for the summit, and inspections were personally conducted by the federal environmental agency, which oversaw this construction. But, apparently, they tried hard to conceal it!

Moreover, we examined satellite data from previous years, where forests were similarly cleared for road construction. Each time they said, "Don't worry, we're just carefully laying a road, that's all." But it turned out that 94.9% of all deforestation in the Amazon occurred within a 5 km radius of roads or rivers!

So, they first lay down a road, and then completely destroy all the surrounding forests.

Around 50,000 people are planning to attend the international UN climate summit in Brazil.

This is how, for the sake of a "public wrapper" from the UN, the destruction of protected forests continues, forests that the summit is supposedly meant to preserve. It's just a massive public spectacle, now being held for

the 30th time.

I'm particularly troubled by the comments from the locals; it makes me tear up with frustration for them! Who ever really listens to people anyway?

Local resident Claudio Verequete, who lives about 200 meters from the new highway, said, "Everything [in the forest] was destroyed. Our crops have already been cut down. We no longer have the income to feed our family." He was referring to the palm trees, whose fruits were a source of income for his family—the groves of these trees were destroyed to build the road.

Verequete's neighbors stated that even after the summit, they won't be able to use the new road—the authorities are fencing it off for the massive traffic of heavy trucks that will transport natural resources. The destruction of the forest will continue, and the living flesh of the Amazon, ancient trees, will be carried as dry timber along this same highway.

Claudio Verequete told reporters, "The benefit will be for the trucks. If someone gets sick and needs to go to Belém, they won't be able to use this road."

Veterinarian Silvia Sardinha, a wildlife specialist, also commented on the road construction. Her remarks were published by the BBC:

> “The new road will reduce the areas where animals can live and reproduce. From the moment the trees are cut down, there is a loss: terrestrial animals will no longer be able to cross [this zone], which threatens biodiversity.”

She also pointed out that many species are already dying or losing their habitats, and their rehabilitation is becoming impossible.

“These decisions are discussed between businessmen and authorities, but those who live in the Amazon are ignored,” Silvia emphasized.

Many foresters, biologists, and scientists have also criticized the authorities' actions. They say the road divides two protected areas, isolating them from each other! This disrupts all biological processes, animal migration, and there is already data on changes in the hydrological regime, which will inevitably lead to future flooding and the destruction of all local ecosystems.

Do you know what the Brazilian government said after the scandals? The same painfully familiar excuses we hear constantly and everywhere. They said that the road construction is not within the federal government's responsibility.

That's all.

Such is the trouble in Brazil!

I have prepared this extensive and detailed material for you to show the scale of the fictitious protection of wildlife around the world. That the global destruction of the world's ecosystems is still happening everywhere, across the planet, is just one blatant lie!

All the states are doing the same thing, as if copying each other's actions and following "one playbook." The destruction of nature is justified by any means, while economic and immediate interests are placed above the future of our children!

A pretty wrapper called the "UN Climate Summit," where more than 190 countries, international organizations, business structures, and activists will participate.

Fifty thousand people will come to the heart of the Amazon to have tea with gingerbread, and when not even crumbs are left, they'll head back home. Just another amusement and another excuse to "launder" huge sums of money under the guise of "historic meetings to save the planet."

Chapter 41. How the planet's living matter regulates the climate

New scientific data has emerged that we can use to protect wildlife. Interestingly, the media is now widely reporting that "scientists have identified an unexpected cause of natural disasters"...

...and I immediately want to put the word "unexpected" in quotes—it's not such an "unexpected" cause as the press claims!

The study itself is about how organic matter like pollen or bacteria causes heavy precipitation. In other words, it directly affects the climate.

The scientific paper was published on May 5, 2025, and it's titled "On the Causes of Diurnal Variability of Ice Nucleating Particles in the Clouds of the Eastern Mediterranean."

The authors write the following:

"Given the ability of bioaerosols to effectively form ice nucleation cores and the subsequent effects of ice multiplication at high temperatures, the absence of such cycles in models points to important and overlooked factors affecting cloud formation and precipitation in mountainous areas.

Ice formation in the atmosphere plays a crucial role in cloud formation and their microphysical properties, which significantly impact regional and global precipitation, the hydrological cycle, atmospheric radiation effects, and Earth's energy balance."

I'll try to set aside the "scientific jargon" with its many terms not everyone understands and explain simply. In plain and accessible language, structuring the conclusions as I go.

FIRST.

A scientific study conducted on the Greek islands in the Mediterranean yielded conclusions that surprised even the researchers themselves. They found them unexpected. "Oh, how can this be?!" the researchers exclaimed, "It turns out that living matter directly regulates the climate! How is this even possible?!"

Scientists were surprised to discover that biological particles in the air—such as pollen, bacteria, tiny plant residues, or essential oils evaporated by trees—play a key role in ice formation in clouds. All these organic nanoparticles serve as ice crystallization nuclei, acting as catalysts or "seeds" for ice crystals. As a result, the mountain forests of Greece directly regulate precipitation!

"Ice formation in clouds leads to most of the planet's precipitation. Ice falls faster than water droplets, and its intense formation is associated with downpours and snowstorms," explained Professor Athanasios Nenes, who led the study, to journalists.

Scientists collected air samples at various altitudes and found that as the sun rises, pollen, fungal spores, bacteria, and plant dust rise from the forests. By noon, their concentration reaches its peak—and at exactly this time, ice formation in clouds is observed. And, voilà, natural "climate-regulating technologies" work flawlessly: by evening, a much-needed and beneficial rain falls over the forests.

"We see a clear connection between biological particles and their ability to induce freezing in clouds. This means they directly influence precipitation," says another

author of the study, Kunfeng Gao. The forest regulates the climate!

Using radars, drones, balloons, and a host of other complex scientific tools, researchers found that bio-particles are the most effective at causing ice formation in clouds. And thus, precipitation. The forest regulates the climate—it's all very simple!

SECOND.

Note another crucial point: it was specifically MOUNTAIN forests that were the focus of the study.

These are EXACTLY THE SAME FORESTS that our "economic animals" in power and business are currently trying to turn into resorts and ski areas! Unfortunately, if we limit our understanding of the world around us to just economics, we end up blind. Time and again, we destroy what creates our economy: the real living world beyond monetary transactions.

THIRD.

The results of the study can only be "unexpected" for those unfamiliar with the theory of the biotic pump by Russian scientists, known since the late 20th century.

For those familiar with the theory of the biotic pump, these research results are just further confirmation. Simply a detailing of the mechanisms underlying climate regulation by ancient forests.

We've been talking about this for a long time, urging the government to stop the mindless destruction of the remaining ancient forests and urgently place them under absolute protection! But so far, this is ignored by everyone, and naturally, none of the heads of the relevant agencies will even read, for example, scientific papers (including those by our Russian scientists).

It's all because the focus is solely on immediate profit.

In general, the research is open and accessible to everyone. The theory of the atmospheric moisture biotic pump is confirmed year after year by numerous studies. The conclusions are clear: destroying forests destroys the climate. Especially if you're destroying mountain ecosystems!

Epilogue

We, friends, are trying to preserve the last undisturbed ecosystems. The last Ancient Forests of the Earth. In our country, this is the Russian Taiga. But our country is vast. In some places, these are more southern ecosystems, and elsewhere, they are grassland ecosystems, not forests. It's not always the boreal northern forests—the taiga.

Mountains are a completely separate topic. Until recently, mountains protected themselves. By their remoteness. By terrain that made human access difficult. But right now, technical barriers no longer work. And the authorities, catering to business, are removing existing legal obstacles to total exploitation and subsequent wear-and-tear. They are literally preparing to destroy the last untouched corners of the Earth.

People tell me: you're exaggerating.

They tell me: this is “economic development,” this is “development of remote regions,” this is “money for the poor residents of depressed regions.”

I think all this is nothing more than a justification with pretty words for the desire to grab. That so-called “economic development” is just a plain thirst for profit here and now. No one cares about “regional development” or the “residents of depressed regions.” The only concern is for that piece of living flesh of the Russian Taiga that packs of human predators can reach. They can tear it off and devour it right here and now.

Historically, the “economic development” of Siberia and the conquest of the Russian Taiga began with the campaigns of Yermak's private army under the patronage and funding of the Stroganov boyars. We usually consider this something heroic. But if you think about it, it was the first large-scale destruction of Siberia's nature. Back then, it was done for “soft gold”—furs.

The tsar's federal power at the time couldn't reach the riches of the Siberian taiga, so it handed them over to the oligarchs of that era for plunder. Under the condition of some payments to the treasury, of course. The centuries-long genocide of fur-bearing animals in

the Siberian taiga ended with the creation of the Barguzin Sable Reserve in the early 20th century, out of necessity: all the sables had been killed. Only a few individuals remained, from which the population had to be restored.

Then the taiga began to be destroyed on an industrial scale using increasingly powerful technical means of destruction. Many methods and practices of taiga destruction are being revived at a new technical level. Gold is being mined again, rivers are being flooded with mercury, poisoning all the fish. “Innovative” types of business are being built on the killing of wild animals using new technical means of unprecedented power: helicopters, ATVs, drones, navigation systems, and night optics. It's a real war! Kill everything alive in your path!

I read on Wikipedia: “Yermak's Siberian campaign (1581–1585) was a campaign by Yermak's Cossack detachment into the territory of the Siberian Khanate, which marked the beginning of the Russian conquest of Siberia.”

It's been 444 years! Why does this mindless destruction of living systems still continue?!

In the USSR, at some point, a structure of reserves was created. At some point, there was a SYSTEM of reserve management. “System,” “systematic organization of activities”—that's what I think should be. Especially since current scientific data allows for a much deeper understanding of the complex connections in living systems. It seems logical to expand the existing system of reserves in the country. But...

Instead, just as the tsar handed the Russian Taiga over to the Stroganov oligarchs to be exploited and torn apart, the federal authorities now hand it over to modern oligarchs.

I am trying to promote the concept of Territories of Full Ecological Tranquility (TFET). It seems like the only SYSTEMATIC solution, understanding, for example, the fact that natural ecosystems regulate the climate. And it would be a direct logical continuation of the Soviet reserve system. But again, but...

Instead of a system of scientific reserves, there is a substitution with “hunting reserves” modeled after Africa. Commercial interests replace both scientific and state interests. That is, the very essence of actions is perverted. Literally, in every aspect, there is a rollback to the predatory practices of two to three hundred years

ago! Huge territories are handed over to boyar-oligarchs. Only now it's happening at a new technical level. Remote and hard-to-reach territories are no longer so inaccessible. And their division and commercial exploitation have begun.

And as a consequence, the remnants of Soviet-era legislation that protected reserve territories are being urgently dismantled. Removing the last legal barrier. A formality, but it still gets in the way. It gives those little people, ants under the feet of the boyars, a chance to demand something.

Everyone probably understands what natural cycles are. Summer—fall—winter—spring and then summer again. Our human society is also a complex system, included within another complex system—the Biosphere of planet Earth. Apparently, society also lives in the rhythm of cycles. Economic cycles, for example, are well known.

And I think the era of “robber barons” will inevitably end at this current stage of the historical cycle. After winter comes spring. Always! And we need, first of all, to preserve what remains of the Soviet reserve system. We must understand that the Soviet reserve system is now a relic of a past historical cycle. And therefore, more progressive than what we see now.

And second: it is precisely on the foundation of what can be preserved now from the Soviet reserve system that the Territories of Full Ecological Tranquility will be built and expanded in the future. We will not just walk away! We will achieve the creation of TFET not only in Russia but worldwide.

After winter comes spring, and then summer. It's inevitable!

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