THE CONCEPT OF TERRITORIES OF COMPLETE ECOLOGICAL TRANQUILITY

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Concept of Territories of Full Ecological Tranquility (TFET)

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Contents

Introduction

Part 1. Environmental problems and scientific justification

Part 2. The inefficiency of the existing nature reserve system

Part 3. Ecological Revolution

Part 4. The essence of the Concept of TFET

Part 5. Kamchatka Refuge

Part 6. TFET Economy

Part 7. International cooperation and the TFET Union

Part 8. TFET - A necessity for all humanity

Appendices

Introduction

The world is witnessing an extremely severe conflict between Humanity and the Biosphere, one that has already entered a destructive and, in some places, irreversible stage. In just the past few years, meta-reports and studies by international groups of scientists have been published documenting the impact of human activity on all of the planet’s ecosystems. These include the sixth mass extinction of species, the disappearance of tree and plant diversity, and the loss of millions of years of evolutionary history. Of the nine planetary boundaries, humanity has crossed six in recent decades, two more are in the red zone, and only one has not yet been breached. These are objective scientific assessments.

The existing global protected-area system is ineffective, cascading species extinctions continue, and governments, acting together with transnational corporations, openly lobby for even greater destruction of protected natural territories. Some states, under the pretext of humanitarian problems, have openly announced the mass killing of wild animals within existing protected areas, as seen in Namibia, Zimbabwe, and Botswana. In doing so, they are creating an extremely dangerous precedent and demonstrating the complete degradation of nature conservation worldwide.

My name is Pavel Pashkov, and I have dedicated my life to studying global environmental problems and fighting for wildlife.

Drawing on my personal experience in wildlife protection, as well as my study of extensive scientific evidence from around the world, I propose the implementation of a plan to create global Territories of Full Ecological Tranquility (TFET).

These territories will serve as refuges for flora and fauna from humanity, making it possible not only to prevent the sixth mass extinction of species on the planet, but also to address virtually all major environmental problems, including by mitigating future climate catastrophes.

The purpose of creating TFET is to provide refuges for nature where all species can exist under conditions of minimal human impact, ensuring the recovery of biodiversity and the preservation of key ecosystems.

In my view, this is the only possible solution to global environmental problems, not only for the protection of Earth’s Biosphere, but also for preventing the collapse of our civilization in the future.

Part 1. Environmental problems and scientific justification

Let us examine the general picture of what is happening to Earth’s Biosphere and the impact humanity is having on it. There are many scientific studies, but as a rule, no one pays attention to them! We are all well aware of the global destruction of ancient forests, the collapse of biological systems, and the pollution of oceans, seas, rivers, and lakes. But only a few people understand the true scale of the catastrophe.

In my Concept, I will present several scientific studies in order to bring the work of specialists together into a unified picture of the ongoing ecocide.

Justification one. Scientific research on the biotic regulation of climate by natural ecosystems.

Natural ecosystems — meaning ecosystems undisturbed by humans — are being destroyed all over the world. Fewer and fewer such places remain. There are many studies worldwide on the importance of protecting natural biological systems, but one of the most important and fundamental is the work of Russian scientists on the biotic regulation of climate by old-growth forests and natural ecosystems. The research was conducted by Anastassia Makarieva, Candidate of Physical and Mathematical Sciences, and Victor Gorshkov, Doctor of Physical and Mathematical Sciences and Professor at the Department of Theoretical Physics of the B. P. Konstantinov Petersburg Nuclear Physics Institute of the Russian Academy of Sciences.

The specialists are the authors of the concept of biotic regulation of climate by natural ecological systems. In 2006, the journal Ecology and Education published their

scientific article titled “Rivers. Will they flow forever on Earth?”

In their work, the scientists explain the importance of preserving undisturbed ecosystems in order to maintain climatic balance and water cycles. In addition, they examine the importance of biodiversity for ecosystem stability. They warn that declining species abundance inevitably leads to the degradation of natural processes, including the water cycle. Human pressure causes rivers to disappear and creates abnormal droughts, which we are now witnessing around the world. In other words, scientists warned us about this decades ago!

The central discovery in the work of the Russian scientists is the forest biotic pump. In the study, the specialists explain the concept of a “biotic pump,” which maintains the terrestrial water cycle through undisturbed forest ecosystems. The destruction of the last ancient forests disrupts the biotic regulation of climate, causing water loss and desertification in continental interiors.

According to the scientists, preventing catastrophic consequences requires an urgent reassessment of humanity’s impact on natural biological systems. The remaining undisturbed forests must be preserved, and degraded areas must be restored.

This is necessary for the survival of all humanity!

But despite the scientific evidence, no meaningful changes are being made in this direction. Ancient forests continue to be destroyed, forest fires are increasing every year, and climate disasters are becoming a recurring and intensifying cycle.

Several decades have passed since the publication of the Russian scientists’ findings, and today we are witnessing precisely the consequences they warned us about: abnormal droughts, climate disasters, declining groundwater levels, and forest fires. We also see that this leads to even greater human intrusion into wildlife and even greater destruction of the last remaining ecosystems!

Justification two. The scientific study “Living Planet Report 2024” on the 73% decline in wildlife populations worldwide

Until recently, no large-scale scientific assessments of the global decline of wildlife populations existed. Such studies have only recently begun to be consolidated and published. In 2024, scientists from around the world working with the World Wide Fund for Nature (WWF) released the Living Planet Report 2024.

Experts from around the world worked to produce a global assessment of the state of wildlife from 1970 to 2020, published in the Living Planet Report 2024. The analysis was based on data from more than 35,000 monitored populations representing 5,495 vertebrate species from every continent. The results showed that the average size of monitored vertebrate populations — mammals, birds, fish, reptiles, and amphibians — declined by 73%.

Scientists identify the main causes as habitat destruction resulting from deforestation and agricultural expansion, as well as overexploitation through hunting and fishing, and climate change. Freshwater ecosystems have suffered the greatest impact from human activity, with monitored populations declining by 84% since the 1970s. The decline is even more severe in certain regions. Latin America, for example, has experienced the greatest loss of monitored wildlife populations since 1970 — approximately 95%.

An earlier report covered the period up to 2018. Its authors also stated that pressure on ecosystems continued to increase and that no meaningful positive change was taking place. In 2018, for example, humanity consumed 70% more natural resources than Earth was capable of regenerating within a single year. This trend continues to worsen at an alarming rate from year to year!

Seven years passed between the publication of WWF's Living Planet Report 2018 and the Living Planet Report 2024, as calculated at the time this Concept was being prepared in 2024. During that period, the situation deteriorated further, while measures adopted by the international community to protect global biodiversity failed to affect the crisis. In only seven years, monitored wildlife populations declined by a further approximately 4%.

In reality, humanity is now fighting to preserve only a small fraction of the last viable wildlife populations. This is a catastrophe.

Justification three. The scientific study "Mutilation of the tree of life via mass extinction of animal genera" on the extinction of branches of the tree of life.

Scientists agree that Earth's Biosphere is currently experiencing the sixth mass extinction in the planet's history. But whereas previous mass extinctions were

caused by global catastrophes, today the global catastrophe is us — human beings, humanity itself.

I would like to refer to another scientific study conducted by Stanford University and the National Autonomous University of Mexico. The study, titled “Mutilation of the tree of life via mass extinction of animal genera,” was published in the Proceedings of the National Academy of Sciences in 2023.

The scientists report that human activity is causing vertebrate species to disappear hundreds of times faster than they would under natural conditions. The analysis presented in the study shows that the crisis may deepen even further.

The authors found that the problem is not limited to the extinction of individual species. Entire genera — whole branches — are disappearing. The researchers describe this as the “mutilation of the tree of life.”

The scientists assessed extinction at the genus level and analyzed available databases from recent years. They studied 5,400 genera of terrestrial vertebrates,

representing approximately 34,600 animal species. Their findings show that the extinction rate of vertebrate genera is 35 times higher than the average rate over the past million years. Over the past five centuries, human activity has triggered a surge in genus-level extinctions. The scientists called this “biological annihilation.”

When one species disappears, other species within the same family may sometimes partially assume its role in the biological system and continue performing necessary ecological functions. But humanity is destroying entire branches of genera, depriving ecosystems of essential components that no remaining species can replace. Restoring such ecosystems may require tens of millions of years of evolution.

The disappearance of even a single genus can trigger a chain reaction of disasters for humanity. And people cannot wait millions of years for evolution to rebuild the species lost from ecosystems. During that time, the habitat upon which all of us depend is collapsing.

Justification four. The scientific study “Mammal diversity will take millions of years to recover from the current biodiversity crisis” on the millions of years required to restore animal populations.

In 2018, a scientific study was published on mammal extinctions and the loss of evolutionary history. According to the researchers, more than 300 mammal species have already been completely lost, resulting in the destruction of more than 2.5 billion years of evolutionary history. It can only be restored through a new process of evolution, as animal lineages create a new history in the development of the planet.

This is the sixth mass extinction — and humans are its cause.

The researchers note that despite all existing conservation efforts, current extinction rates exceed the background rate that existed before human pressure on the Biosphere. Even if extinction rates were reduced to

the level of current human pressure, restoring lost evolutionary diversity would still require millions of years.

The study was conducted through phylogenetic analysis, which measures the uniqueness of evolutionary lineages. The findings show that restoring mammal diversity would require at least 5–7 million years, even under the most favorable conditions for the formation of new species.

Some species, such as the aardvark, are the only living representatives of their entire orders, and their extinction would cause an even more devastating loss to global evolutionary history.

The authors emphasize that protecting species with unique evolutionary histories must be a priority. Urgent measures are needed to protect such species; otherwise, the consequences for ecosystems will be irreversible, and recovery will take millions of years.

Justification five. The scientific study “Global Protected Areas as refuges for amphibians and reptiles under climate change” on the survival of populations inside and outside protected areas.

An international study led by Tel Aviv University showed that far more animals will disappear outside protected areas than within them. The scientists analyzed amphibians and reptiles inhabiting protected natural areas throughout the world. They were interested in the effects of climate change on protected territories.

The results demonstrate the global importance and decisive role of protected areas in preserving biodiversity. The researchers used scenarios involving climate disruption caused by human activity.

The conclusion is clear: under climate anomalies, more animals will survive within protected areas than in unprotected territories. To make this clearer, I would like to quote Professor Meiri, the lead author of the study:

“In this study, we collected distribution data for more than 14,000 species of amphibians and reptiles — about 70% of known species — to conduct a global assessment of the conservation effectiveness of protected areas in the age of climate change using species distribution models. Our analysis showed that approximately 91% of the amphibian and reptile species we studied are protected to some extent within protected areas, and that this proportion will remain unchanged under future climate change. Moreover, species protected within reserves will lose a smaller proportion of their ranges inside protected areas than outside them. Therefore, the proportion of species found within reserves is expected to increase.”

“We project that more than 300 amphibian species and 500 reptile species included in our study will become extinct because of climate change in the coming decades, and probably hundreds of additional species for which we lacked sufficient data for modeling. Our study highlights the importance of protected areas in providing refuges for amphibians and reptiles despite

climate change, and identifies regions where too few nature reserves exist to conserve biodiversity more effectively worldwide."

"At the same time, it is important to remember that despite the relative optimism emerging from this new study, the models still predict extremely high rates of species extinction and habitat loss as a result of climate change. Protected areas do protect the animals living within them, but nothing is guaranteed."

This scientific study demonstrates the importance of protecting and expanding protected areas in order to preserve wildlife throughout the world. This is especially important under the growing anthropogenic pressure of humanity.

Justification six. The scientific study “The synergy between protected area effectiveness and economic growth” on the ability of protected areas to support both biodiversity conservation and the economy.

According to scientists, protected natural areas can conserve biodiversity without harming local economies. This is probably one of the most controversial issues, because nature protection is always discussed in terms of supposed damage to the existing economy. In the study “The synergy between protected area effectiveness and economic growth,” researchers challenge the widespread belief that biodiversity protection restricts development.

In 60% of cases, economic conditions near protected areas were the same as or better than in areas without protection. At the same time, around half of all protected wildlife territories were able not only to conserve natural resources and biodiversity, but also to

support economic growth.

The central objective of the authors was to emphasize the importance of finding solutions that make it possible to preserve biodiversity while developing the economy.

Justification seven. The scientific study “Advancing EDGE Zones to identify spatial conservation priorities of tetrapod evolutionary history” on the need to protect only 0.7% of the world’s land in order to save one third of unique animal species at risk of extinction.

Scientists note that protecting only 0.7% of the Earth’s land surface would make it possible to preserve one third of all evolutionarily unique and globally endangered tetrapod species.

The researchers identified 25 key “EDGE Zones” where evolutionarily unique species facing global extinction are highly concentrated. They found that almost all of these territories are under intense anthropogenic

pressure.

At the same time, only 20% of the identified EDGE Zones are protected. In other words, only a fraction of the required 0.7% of the world’s protected land is currently being safeguarded. The scale of protected areas must be increased fivefold in order to protect even one third of endangered animal species.

Justification eight. The scientific study “Conservation Imperatives: securing the last unprotected terrestrial sites harboring irreplaceable biodiversity” on preventing the sixth mass extinction on Earth.

On June 25, 2024, one of the largest scientific studies on the importance of identifying and protecting wildlife refuges in order to prevent the sixth mass extinction on Earth was published. The researchers identified 16,825 sites that are currently unprotected but contain rare animal species, many of which are at risk of extinction.

These sites occupy 1.22% of Earth’s land surface. The scientists state that protecting these zones is critically important for preventing the extinction of many animal species.

According to the researchers, protecting these territories would require approximately $146–228 billion with 90% probability. Almost all of this money would be spent on purchasing or leasing land for conservation and removing all human economic activity from those territories.

It is especially important that 38% of these sites are already located within 2.5 kilometers of existing protected areas. This means that the cost of protecting them could be significantly reduced.

The researchers emphasize that these areas must be designated urgently in order to prevent the sixth mass extinction. Without immediate and targeted action, many rare and unique species may disappear from the face of the Earth in the near future.

Justification nine. Half of the world’s plants are at risk of extinction.

According to global scientists and the 2023 report “State of the World’s Plants and Fungi 2023,” half of all plant species are at risk of extinction.

More than 200 scientists from 102 institutions in 30 countries worked on the study. More than 350,000 plants from across the planet were examined, including more than 100,000 species threatened with extinction.

This large-scale meta-analysis highlights the ineffectiveness of the existing protected-area system and reveals the true scale of the global ecological crisis.

According to the scientists:

1. In the near future, humanity risks losing up to half of all medicines because of plant extinctions, creating a critical threat to all human civilization.

2. Approximately 45% of all plant species on the planet are already at risk of complete extinction.

3. Plants that have not yet been described by science are also at risk: three out of four such species may disappear from the Earth in the near future. Scientists propose that newly discovered plants should automatically be classified as threatened until proven otherwise.

Every year, scientists around the world discover approximately 2,500 new plant species, not including fungi. According to mycologists, only 155,000 fungal species have been formally described, while the total number may reach 2.5 million.

At the current rate of study and classification, it could take up to 1,000 years to describe all fungal species.

We still know almost nothing about the complexity of the world around us, yet we have already managed to nearly destroy it.

Justification ten. One in three tree species worldwide is at risk of extinction.

In October 2024, an update to the IUCN Red List presented a global assessment of the state of the world's trees. More than one thousand scientists from different parts of the world contributed to this enormous meta-analysis. According to the findings, one in three tree species worldwide is at risk of extinction.

In percentage terms, this is approximately 38% of the world's tree species. Scientists assessed 166,061 species, of which 46,337 are threatened with extinction. This is more than twice the number of threatened bird, mammal, reptile, and amphibian species combined. It must be understood that every tree species is a center of interspecies relationships for all the interconnected plants and animals that depend on it, from the smallest organisms to the largest. The extinction of one tree species becomes a death sentence for all species that rely on it.

Justification eleven. Humanity has crossed six of the nine planetary boundaries.

In 2023, an updated assessment of the planetary boundaries framework was published by an international group of scientists. According to the new findings, humanity has already crossed six of the nine planetary boundaries, and Earth is now far outside the safe operating space for humanity.

Twenty-nine scientists worked on the study. According to their findings, two of the three remaining boundaries — ocean acidification and atmospheric aerosol loading — are approaching the threshold. Only stratospheric ozone depletion remains within safe limits.

The planetary boundaries framework is currently one of the most respected scientific assessments of the threshold values governing the critical processes that have maintained stable conditions for human life over the past 10,000 years and made modern civilization possible.

This scientific work provides another strong argument for the urgent establishment of Territories of Full Ecological Tranquility (TFET) throughout the world.

Justification twelve. Humanity has exceeded Earth’s sustainable carrying capacity

In 2026, a new scientific study titled “Global human population has surpassed Earth’s sustainable carrying capacity” was published. The authors analyzed human population trends from 1800 to 2023 using United Nations demographic data and ecological models of population growth. The study showed that, beginning around 1962, continued growth in the human population was accompanied by a steady decline in the rate of growth. Eight years later, in 1970, humanity exceeded Earth’s biocapacity for the first time — consuming more resources and producing more waste each year than the planet’s natural systems were capable of regenerating and absorbing. Since that time, humanity has continuously lived by depleting Earth’s natural capital.

According to the authors’ calculations, based on the historical phase of sustainable human population development, an ecologically sustainable population under the current structure of consumption could be approximately 2.35–2.5 billion people. Today, more than eight billion people live on Earth. The authors also calculated that if the current demographic trajectory continues, the global population could reach approximately 11.7–12.4 billion people between 2067 and 2076. However, this would not represent a sustainable population level, but rather a maximum demographic threshold maintained through the continued depletion of natural resources. Climate and ecological crises may disrupt this trajectory much earlier.

Thus, this study provides scientific justification for our Concept and the need to establish Territories of Full Ecological Tranquility (TFET): Earth is no longer capable of sustainably supporting not only the future human population, but even the current one, without a

radical transformation in the way humanity uses land, water, energy, biodiversity, and other natural resources. Human civilization has already exceeded the limits of the Biosphere and continues to exist by destroying the natural systems that sustain life itself.

Justification thirteen. Only the last large fragments of natural taiga remain in European Russia

As early as 2001, Russian wildlife conservation specialists published a study titled “Intact forest landscapes of Northern European Russia.” For the first time in Russia, scientists and conservation experts systematically analyzed general geographic maps and high-resolution satellite imagery in order to identify large taiga territories that had been minimally disturbed by industrial logging, roads, and other forms of human economic activity.

The study found that the total area of the remaining large intact forest landscapes in Northern European Russia amounted to 31.7 million hectares — only 13.8% of the forest zone of European Russia. By that time, no large intact forest landscapes remained in the southern regions of the forest zone. The last natural taiga forests survived mainly in the northernmost and most inaccessible areas that industrial development had not yet reached.

The authors emphasize that the taiga is not simply a collection of trees. It is an integrated natural complex that includes forests, wetlands, rivers, lakes, floodplain meadows, mountain tundra, and other interconnected ecosystems. Destruction is caused not only by direct forest clearing, but also by the fragmentation of natural territories by roads and industrial infrastructure, which severs the ecological connections between different parts of the landscape.

According to the researchers, at least three quarters of the forests in the taiga zone of European Russia could already be classified as secondary forests — forests that developed after severe human disturbance. Even where tree cover appears to have recovered, the natural structure of the forest ecosystem, habitat diversity, soil processes, and species composition may remain disrupted for many decades or even centuries.

It is particularly revealing that 87% of the remaining intact forest landscapes consisted mainly of low-productivity forests that were almost unsuitable for sustainable forestry. On 56% of these territories, timber reserves were so limited that industrial development could have proved economically unprofitable once the costs of road construction and timber transportation were taken into account. In practice, this meant destroying the last natural landscapes for the short-term extraction of resources that had accumulated over centuries and could not be restored within a comparable period.

The study also showed that removing these territories from industrial exploitation would not have caused a significant decline in overall timber-harvesting volumes. In Karelia, the Komi Republic, and the Arkhangelsk and Perm regions, the intact forest landscapes and their immediate surroundings accounted for less than 5% of regional timber harvesting. In other words, the last natural taiga forests were being destroyed not to secure an essential supply of resources, but to perpetuate an extensive model in which, after previously developed forests had been depleted, industry moved on to the next untouched territories.

The authors concluded that the identified forest landscapes should become part of the ecological framework of the North as territories capable of long-term self-maintenance. Until final decisions could be made, they recommended that these areas be immediately set aside, with industrial exploitation of natural resources and the development of transportation infrastructure prohibited.

This study provides direct scientific justification for the creation of Territories of Full Ecological Tranquility (TFET). Protection must extend not to isolated forest parcels or arbitrary administrative categories, but to large, continuous natural complexes together with their wetlands, rivers, lakes, soils, and all internal ecological connections.

Part 2. The inefficiency of the existing nature reserve system

Today, we have a scientific evidence base demonstrating the global destruction of wildlife throughout the world. The sixth mass extinction of species is underway, entire branches of evolutionary lineages are being wiped out, while virtually no places remain in the wild where biodiversity can preserve its populations from human pressure.

Humanity has dealt a devastating blow to ecosystems, suppressing the immune system of the Biosphere. Nature is highly adaptive and capable of withstanding all kinds of change, including climate anomalies. But we are stripping nature of its defenses and denying it the time needed to recover and protect itself.

A vivid example can be found in the scientific findings of Russian researchers who studied the biotic regulation of climate by natural ecosystems. According to their work, ancient forests draw moisture inland from the oceans and distribute it across terrestrial ecosystems, including by replenishing rivers and sustaining the circulation of essential moisture. However, only intact forest ecosystems — old-growth forests undisturbed by human activity — are capable of performing these functions. Yet instead of protecting the last ancient forests, despite having reliable scientific evidence in hand, governments and businesses continue moving in to cut down what remains. Deliberately, for short-term profit, they destroy ancient forests, including by reducing the protection status of protected natural areas and legalizing clear-cutting within them.

For example, Russia has Lake Baikal and the ancient forests surrounding it. For a long time, this globally unique region was under federal protection as the world’s largest reservoir of fresh water and as a refugium for wildlife. But in 2023, the authorities, with

the support of federal ministries, lobbied for legislation legalizing the clear-cutting of ancient forests.

This happened even though scientists had warned us about the unacceptable nature of such actions several decades earlier!

Meanwhile, the consequences we were warned about are already emerging throughout the world. The biotic regulation of climate has been disrupted, while drought, desertification, and abnormal heat are intensifying. Climate anomalies are becoming increasingly frequent, the scale of forest fires grows every year, and millions of hectares of forest are literally being burned to the ground.

So why can we not stop? Why continue trying to destroy the last wildlife refuges?

I spent a long time studying the existing protected-area system in Russia, personally visiting the most remote nature reserves and witnessing forest clear-cutting and the devastation of ecosystems. After that, I began studying protected-area systems around the world, in

different countries. Everywhere I see exactly the same actions by governments and businesses: they destroy local ecosystems, then move on to protected lands and begin actively reducing their conservation status, literally cutting protected territories apart piece by piece.

The existing protected-area system consists of fragmented remnants of natural wildlife habitats. Everything between them is relentlessly exploited. This includes, for example, blocking the migration of animal species from one area to another. When a protected area is surrounded on all sides by privately controlled hunting grounds, this can even create a commercial interest in forest fires. Human-caused fires are set within protected areas, forcing animals to leave protected lands and enter the surrounding hunting grounds, where they are later killed for “trophies” by hunters who call themselves sportsmen.

So why can’t we stop? Why continue to destroy the last refuges of wildlife?

I have long studied the existing reserve system in Russia, personally visiting the most remote reserves, witnessing deforestation and the devastation of ecosystems. Afterward, I began studying the reserve system worldwide, in different countries. Everywhere, I see the same actions by authorities and businesses: they destroy local ecosystems, and then they move on to reserve lands, actively lowering their protection status, literally cutting off pieces of protected land.

The existing reserve system represents a mosaic of remaining patches of natural wilderness. Everything between them is ruthlessly exploited! This includes, for example, blocking the migration processes of animal species from one area to another. When a reserve is surrounded on all sides by private hunting grounds, it leads to commercial interest in forest fires. For instance, fires are deliberately started in reserves, forcing animals to leave the protected lands for the surrounding hunting grounds, where they are subsequently killed for “trophies” by hunters who call themselves sportsmen.

Part 3. Ecological Revolution

There is a well-known saying: “Generals are always preparing for the last war.”

These words are attributed to the outstanding British statesman Sir Winston Churchill. He was referring to a practical and entirely objective fact: when preparing for possible conflicts, military commanders rely on their past experience. In other words, they truly prepare for the “previous war,” because no experience of a future, possible war yet exists.

The meaning of the saying is simple and always relevant: in a changing world, models of action that were successful in the past most often prove unsuitable for the future.

Right now, the world is facing an ecological crisis. No one disputes its existence. The only questions concern the extent to which the ecological crisis is “man-made,” how much of it is caused by anthropogenic factors, and how much results from natural cycles or similar causes independent of human civilization.

At the same time as the ecological crisis, a socioeconomic crisis is also unfolding. Some speak of a new “technological paradigm,” while others speak of a “singularity” with entirely unpredictable consequences. In general, the existence of this purely human crisis is likewise disputed by no one. The debate and discussion concern only its causes and possible consequences.

Crisis (from the Ancient Greek κρίσις — judgment, verdict, decision; turning point) — an upheaval, a period of transition, a breaking point, a condition in which the existing means of achieving goals become inadequate, resulting in unpredictable situations.

In general, it is not difficult to assume that the ecological and social crises we are observing are actually parts of a single integrated process.

The proposed Concept of Territories of Full Ecological Tranquility assumes that the creation of such large-scale ecological reserve zones is a key action required to resolve the existing planetary crisis, which includes both a social (“human”) dimension and an ecological (“natural”) dimension.

The following facts form the basis for understanding and substantiating the proposed Concept:

1. Humanity has fully developed the entire planet.

2. A demographic transition is taking place, accompanied by a sharp decline in the rate of human reproduction.

3. Tools have emerged for processing vast amounts of information, making it possible to conduct observations and synthesize scientific data on a planetary scale across the entire history of scientific research.

Various solutions are being proposed to resolve the crisis whose existence is acknowledged by everyone. Yet none of these “solutions” truly resolves the problems for one reason: they are all based on past experience.

It is probably no secret that social systems contain certain structures of governance. In simplified terms, there are two main types of such structures: states and transnational corporations (TNCs), which function as “states without territory.” It is also no secret that states and TNCs are governed by a kind of conditional “board of directors.” The “employees of the enterprise” have only limited and largely formal influence. Nevertheless, they do have some influence — for example, through trade unions or by creating public demand within society.

This is extremely important for the following reason: all existing governing structures and administrations consist of professionals. These are people with specialized education who were trained to act in a particular way. The higher their rank within the system

of governance, the more administrative experience they possess and, as a rule, the older they are. A simple example helps illustrate this: journalists described the confrontation between Biden and Trump during the 2024 United States presidential election as a “wheelchair race.” Donald Trump was 78 years old. Joe Biden was 81.

This produces a contradiction at the foundation of every system of governance in every society: professionals are trained through the experience of the past, and during any crisis they continue to act in familiar ways, driving the crisis toward complete catastrophe.

The solution to a problem is always born among non-professionals. Among, figuratively speaking, “students” — those whom no one would ever allow to govern under any circumstances. This contradiction explains why crises are so often resolved through revolutions: a painful and extremely costly path for society.

Revolution (from the Late Latin revolutio — “rotation, upheaval, transformation, return”) — a fundamental transformation, a sudden leap from one qualitative state to another. Revolutions may occur:

• in the political sense — a fundamental transformation in the life of society, a sudden change in the social or political system, occurring through either peaceful or violent means;

• in the economic sense — a major change in the way economic activity is organized, the emergence of new tools, an increase in productive forces, and a transformation of production relations (the Neolithic Revolution, the Industrial Revolution);

• in culture (a cultural revolution);

• in science (a scientific revolution);

• in technology (a scientific and technological revolution).

Thus, globalized society is currently undergoing an “ecological revolution.” The term “ecological revolution” is preliminary. It is highly approximate and is intended to emphasize the priority of the conflict between Humanity and the planet’s Biosphere — the dominant role of this Nature–Humanity conflict within the existing complex crisis.

Yet the institutions that govern societies, including scientific institutions, are not even capable of understanding this, because they are controlled by models of governance inherited from the past.

The purpose of the proposed Concept is to create opportunities for finding genuine ways to resolve the existing planetary crisis, as opposed to inherently unviable models based on the outdated industrial-technological, mechanistic approach.

Part 4. The essence of the Concept of TFET

The essence of the Concept is extremely simple: the integration of existing protected areas into conglomerates that are significantly larger in scale and operate under special legal and economic regimes.

In other words, several existing protected areas are combined, together with the territories between them and additional surrounding lands, thereby expanding them and forming new Territories of Full Ecological Tranquility.

Later in the Concept, this will be illustrated using the proposed Territory of Full Ecological Tranquility in Kamchatka as an example.

In fact, territories with special legal and economic regimes are already being actively created in Russia at the initiative of the state.

A territory of advanced social and economic development in the Russian Federation, abbreviated as TAD or ASEZ, is an economic zone with preferential tax conditions, simplified administrative procedures, and other privileges. Such zones are created to attract investment, accelerate economic development, and improve the quality of life. According to the original idea, they were intended to create “business conditions competitive with the leading commercial centers of the Asia- Pacific region.”

Such zones are created in sparsely populated regions of the country, including, and above all, in the Russian Far East. Therefore, the reference to the “commercial centers of the Asia- Pacific region” is not accidental. Designating territories within a country that offer the infrastructure and incentives needed to launch production is a widely used international practice for

attracting major foreign investment. The creation of such territories is even referred to as the “Chinese path” of economic development. Everything appears promising, and the idea looks good at first glance, but… why does it not work?

The answer is extremely simple: it is an outdated idea that worked under the conditions of twentieth-century Southeast Asia.

The idea of the “Far Eastern hectare,” under which people are given one hectare of land in remote parts of the country, would have been ideal for peasants in the nineteenth century, when a similar policy was partially implemented through the Stolypin agrarian reform.

In other words, what we are seeing today is an attempt to carry out a nineteenth-century-style “peasant reform” in a society where the social class of peasants no longer exists, while also attempting to expand industry by relocating enterprises to regions with surplus labor according to a twentieth-century industrial model, despite the fact that these regions are sparsely

populated and are certainly not inhabited by "hardworking Vietnamese workers."

The challenges of the future are now fundamentally different:

• Population decline combined with population aging.

• Growing public demand for health and an environmentally clean living environment.

• The transition from the second wave of globalization toward another stage of division into separate regions.

These are political and economic issues, meaning issues concerning only people and the functioning of human societies. But the most important challenge today is the transition from the paradigm of "developing nature" to recognizing ourselves as part of nature and adopting biospheric thinking.

Thus, the essence of the Concept of Territories of Full Ecological Tranquility lies in integrating the protected areas of all countries into conglomerates that are significantly larger in scale and governed by special

legal and economic regimes — special ecological and economic zones.

Instead of isolated and fragmented remnants of wildlife, which make up the current protected-area system, we must move toward integrating these protected areas into global TFET zones.

Part 5. Kamchatka Refuge

I will illustrate an example of how the plan to protect Earth’s biosphere could be implemented using a real region that should already be designated as a Territory of Full Ecological Tranquility. Instead, we are witnessing the accelerating exploitation of this wildlife refuge and even greater pressure from human activity.

I am referring to the Kamchatka region of the Russian Federation.

Kamchatka is a peninsula in eastern Russia, within the Far Eastern Federal District. It is bordered by the Pacific Ocean to the east and the Sea of Okhotsk to the west. The peninsula covers approximately 270,000 km². As of 2023, the population of Kamchatka Krai was only around 300,000 people, the overwhelming majority of whom live in the regional administrative center, the city of Petropavlovsk-Kamchatsky.

The peninsula stretches 1,250 km from north to south. This region is known throughout the world for its unique natural environment: volcanoes, hot springs, and exceptionally rich flora and fauna.

From the perspective of Earth’s biosphere, Kamchatka is a wildlife refuge of global importance. Scientific terminology includes the concept of a “refugium” — a place from which biological systems may recover in the future. In other words, if abnormal catastrophes occur around the world, nature may later begin to regenerate from these centers of recovery.

But what if the greatest catastrophe on the planet today is humanity itself? What if people are consciously seeking to “develop” and exploit wildlife refuges?

Kamchatka is precisely the kind of refuge whose protection should be a priority for the entire world and for Earth’s biosphere as a whole.

The human population here is low, which allows ecosystems to recover and maintain the necessary balance.

The terrain is difficult to access, creating the conditions required to maintain a high level of biodiversity.

Kamchatka is surrounded by ocean waters, making it possible to create refuges not only for terrestrial flora and fauna, but also for marine and coastal ecosystems.

Very few regions like this remain in the world. Almost everything else that humanity has been able to reach has already been destroyed.

Unfortunately, however, the Kamchatka region is facing growing pressure and openly reflects the predatory interests of large businesses.

I will try to explain this in detail.

Several years ago, the authorities in Kamchatka officially removed all limits on the killing of wolves, even though wolves serve essential ecological functions and help maintain the health of natural systems. According to the authorities, fewer than 200 wolves remained in the region, but even this number was considered excessive, and unlimited killing was authorized by any

available means. The authorities also announced a reward of several hundred dollars for every wolf killed, encouraging hunters to destroy as many predators as possible.

A major public scandal followed. I personally spoke out in defense of the wolves and attempted to defend their right to live. I also proposed using modern technologies, based on international experience, to track predators and prevent conflicts with people through humane methods. Such technologies are already being successfully used in many regions of the world.

The issue generated a strong public response, and my initiative received broad support. Soon afterward, the Minister of Natural Resources of Kamchatka issued a public response in which he attempted to ridicule the idea of using modern technology. To him, it appeared to be something unimaginable and nonexistent. In other words, the person responsible for managing the natural environment of an entire region had no understanding of the technologies that already exist and are being used to

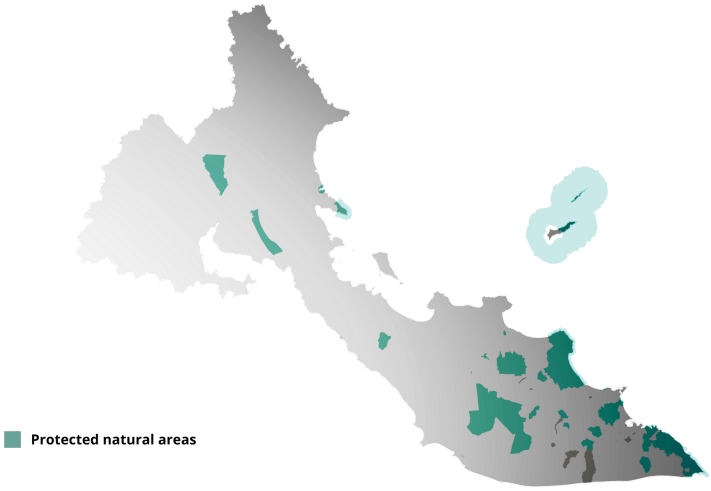
protect wildlife. He knew nothing beyond the crude killing of animals.

At the same time, speaking on behalf of the state, the Minister expressed confidence that wolves must continue to be killed and stated that the killings would not stop.

This demonstrates a deeply flawed system of governance trapped in appalling archaic thinking and incapable of recognizing or understanding global ecological problems.

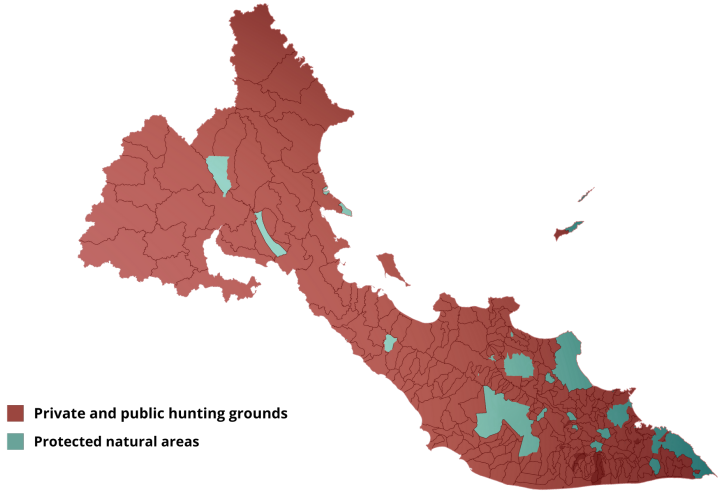
After the scandal involving the wolves, I personally traveled to Kamchatka and studied the location of protected areas, as well as the human impact on this wildlife refuge.

And this is what I saw. Specifically for the Concept of Territories of Full Ecological Tranquility, we prepared maps. Let us examine them together.



First figure.

Here are the existing reserves of Kamchatka, that is, the areas protected by the state in one way or another.



Second figure.

Now look at where the hunting grounds are located. The entire territory of Kamchatka — a wildlife refuge — has been divided into hunting areas, the overwhelming majority of which are privately controlled. In other words, the land is leased to large businesses for the organization of an industry of paid killing.

I began examining the problem more closely. And this is what I discovered!

For several years, the authorities of the Kamchatka region have pursued a policy of developing the paid-killing industry. They even created a mobile application for hunters who travel here from around the world to kill wild animals in their refuges.

The nature reserves located here are literally surrounded by the hunting industry. These animals are not being killed for food or out of urgent necessity — this is about serving the interests of hunters from around the world who call killing a “sport” and fly here to shoot living targets and receive trophies as rewards.

This is happening despite the fact that the same approach has already produced disastrous results in different parts of the world that chose to build their economies around killing wild animals. Consider African countries, where competition continues to attract people seeking opportunities to kill animals through trophy hunting.

What people call tradition is simply “killing for the sake of killing.” Traveling to a distant country, booking a “hunting tour for the white sahib,” killing rare animals, and taking a trophy home in order to assert oneself and display a private collection of wild animal body parts.

At the time of the European colonization of Africa, approximately 20 million elephants lived freely across the continent’s open landscapes. They were deeply integrated into local ecosystems and performed essential biological functions. These elephants were then slaughtered on a massive scale, and today only around 400,000 remain across the entire continent — approximately 2% of the original population.

Yet even this number seems excessive to some people. For example, in 2024, when Germany was considering legislation to restrict the import of hunting trophies, the president of Botswana threatened to send 20,000 elephants to Germany, claiming that these animals urgently needed to be killed because they posed a threat to agriculture.

A further precedent was set in 2024, when several African countries announced that animals would be killed inside protected areas, butchered, and used to feed local residents. Namibia made the first announcement, followed by Zimbabwe. In other words, under the pretext of humanitarian necessity, governments began killing animals within protected natural territories.

This creates an opportunity to organize legal wildlife safaris, generating additional profit. Nevertheless, sport hunting in Africa is gradually declining: there are fewer animals, while the risks and difficulties continue to increase. New dangerous diseases have emerged, the geopolitical situation is becoming more complicated, and military conflicts and social problems are intensifying.

At the same time, Russian regions have begun developing hunting tourism, attempting to attract hunters who want to kill animals in the boreal forests and offering bears and wolves as trophies.

Kamchatka is confidently taking a leading position, and people are already traveling here from around the world simply to kill animals.

These killings are constantly justified by the supposed need to “regulate animal populations.”

But why is such regulation necessary in a wildlife refuge where almost no people live?

Not far from Kamchatka, on Japan’s Shiretoko Peninsula, scientists observed bears for more than 50 years in an area where hunting is prohibited. Their long-term research revealed the following:

1. Bears approach human settlements exclusively because of hunger, when they are forced to compete with people for resources. When food is scarce, bears search for it near places where humans live.

2. Scientists found no evidence of uncontrolled bear reproduction — their population is regulated by natural biological processes.

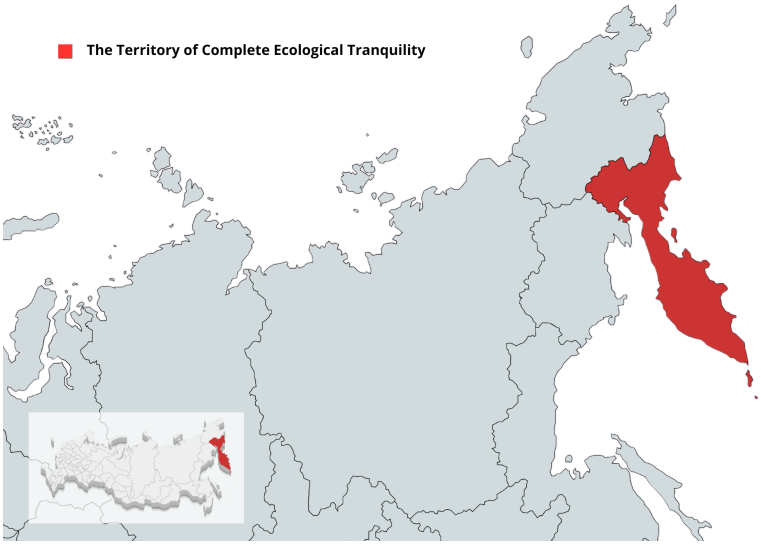
Similar scientific conclusions were reached in the Chernobyl Exclusion Zone, from which people were forced to leave following the nuclear power plant disaster on April 26, 1986. Since then, only animals and radiation have remained there.

Scientists found that animal populations, including wolves, had fully recovered, yet no excessive reproduction or threat to other species was observed. An ecosystem without human interference regulates itself through natural processes, maintaining balance and order.

Kamchatka can also become a refuge for wildlife. There is no need to regulate anyone there — nature must simply be left alone! If all economic activity is excluded and all protected areas are united into a single global Territory of Full Ecological Tranquility of worldwide biospheric importance, the peninsula will become a true refuge for wildlife. It will become a center for the future recovery of biological systems.

Proposal for Kamchatka

I propose designating the Kamchatka Peninsula as a global Territory of Full Ecological Tranquility, with a complete ban on the industrial development and exploitation of local ecosystems. All economic activity within this territory must be prohibited.



Third figure.

This map shows the proposed boundaries of the Kamchatka Territory of Full Ecological Tranquility (TFET).

It represents one of the potential TFET areas intended to protect the Earth’s biosphere and help prevent the sixth mass extinction of species. Similar territories, selected according to their geographical location and the condition of their biological systems, should be established throughout the world and recognized as areas of international biospheric significance.

Part 6. TFET Economy

It is extremely difficult to integrate the creation of Territories of Full Ecological Tranquility (TFET) into national economies, because establishing such large-scale zones requires spending on wildlife protection without producing an immediate “economic return.” Simply put, people value profit in monetary terms while ignoring the far more important return that living nature can provide: the future of our children and the survival of modern civilization as a whole.

However, within the framework of the current Concept, I also propose an economic justification for establishing such territories. From the outset, it must be understood that the “economic return” generated by TFET should primarily support local communities and the development of neighboring regions. At the same time, these regions must receive continuous federal support.

Possible economic models under the creation of Territories of Full Ecological Tranquility:

1. Development of ecotourism and related businesses along the boundaries of TFET within specially designated buffer zones.

2. Creation of new business sectors with government support, based on organic agriculture and secondary forest use, including forestry and forest farming, within the TFET buffer zone.

3. Establishment of scientific research centers within TFET, enabling research activities and the involvement of international organizations to stimulate local economies through grants and funding for academic institutions.

4. Financing the operation of TFET through taxation and “green credit” mechanisms for businesses and end consumers.

5. Development of alternative environmentally responsible products, with priority distribution within the country and export to international markets.

Possible forms of government support:

1. Creation of compensation programs for businesses that are required to leave TFET zones or transition to alternative, permitted, environmentally safe technologies.

2. Introduction of government subsidies and support for retraining programs for local residents in order to create jobs within the changing economic model.

3. Establishment of government-supported funds to attract private investors and assist regions in adapting to the realities of TFET.

4. Mandatory provision of permanent tax incentives for businesses, similar to those already used in special economic zones.

5. Creation of jobs related to TFET protection, expansion of the ranger and forestry workforce, and free education for professions in demand within the environmental sector.

6. Introduction of an alternative forest service for young men in place of compulsory military service, followed by employment within TFET forestry services.

The economic model for the creation of Territories of Full Ecological Tranquility must be developed individually in each case, depending on the country and its existing economic system. However, the principal areas and fields of activity should comply with unified standards that can be further developed through cooperation among governments and environmental organizations, as well as through close engagement with businesses and local communities.

To the individual.

Today, we, ordinary people, still possess an inalienable right to environmental safety. Beginning around 1952, which some scientific studies identify as the starting point of the Anthropocene — the era of human-driven destruction of nature — humanity entered a period of rapid population growth and global capitalism. The right to abundance and unlimited consumption replaced our right to clean air, clean water, and a healthy environment.

To move toward a new world through an ecological revolution, we will have to give up many things. We must all learn to live differently: to protect what we have and be satisfied with what is necessary. To take only what we need while striving to give back far more.

There are no other options. Either we protect Earth’s biosphere and establish global Territories of Full Ecological Tranquility, or modern civilization will become extinct.

Our task is to learn how to live in a new way and rethink our relationship with the living world around us. The first step is to acknowledge environmental problems and be prepared to change personally.

To business.

We live in an era of natural resource depletion and ecosystem collapse. Everything is changing. But this does not mean that businesses will only face difficulties. On the contrary, entirely new opportunities are emerging.

Imagine that your business does not destroy nature, but helps restore the world around us. You invest in nature, becoming not a consumer, but a protector of Earth’s biosphere and our shared future. The future of our children.

You can open new horizons in ecotourism, develop green technologies, or offer products designed to reconnect people with the living world. Ultimately, this will not only benefit nature, but also strengthen consumer trust

in business and help cultivate a true sense of humanity within each of us. I can say with confidence that this is an opportunity not only to adapt to change, but also to become a pioneer of a new era. A trailblazer. A discoverer.

Every business initiative must inevitably become a contribution to protecting the planet. We have no other home. In the end, people will follow those who change the world for the better.

To governments.

You now have the power not only to change the fate of future generations and establish an entirely new paradigm for the future, but also to prevent an ecological catastrophe — the collapse of modern civilization.

Territories of Full Ecological Tranquility (TFET) are our chance to stabilize Earth’s biosphere, heal the wounds inflicted upon it, and rethink humanity’s path. It must be understood that every large natural territory freed from

destructive human pressure is a contribution to global security, clean air, clean water, and the health of both present and future generations.

Every country, especially those that choose to take this difficult path first, will become a leader in humanity’s transition toward the Ecological Revolution. They will remain in history.

TFET is your opportunity to leave behind a legacy that future generations will be proud of.

Part 7. International cooperation and the TFET Union

I propose creating an intergovernmental union to ensure the effective implementation of the Concept of Territories of Full Ecological Tranquility (TFET) worldwide, as well as its support, financing, and oversight through unified standards.

Such a union could become an ideal platform for bringing together the efforts of governments, the scientific community, and the business sector. In addition, a TFET Support Fund should be established under the Union to finance projects aimed at creating, protecting, and maintaining these territories.

In essence, this would create a unified system for protecting Earth’s biosphere through the designation of global natural territories free from any economic activity capable of damaging ecosystems.

The International TFET Union should perform the following functions:

Identifying TFET territories around the world and concluding agreements with participating states that join the global network for biosphere protection.

Monitoring compliance with unified standards for the designation and protection of Territories of Full Ecological Tranquility. Each territory should be established on the basis of scientific research and in close cooperation with the scientific center supported by the TFET Union and the national centers of participating countries.

Establishing scientific commissions composed of scientists and experts from the participating countries of the TFET Union. Scientific research should be conducted within the Territories of Full Ecological Tranquility to monitor ecosystem conditions, recovery processes, and the impact of these territories on Earth’s biosphere. The results of this research will make it possible to continuously improve the management of

TFET zones.

In addition, the international Union should promote environmental education programs around the world. These programs should include not only public awareness of the importance of nature protection, but also practical guidance for people living in regions bordering Territories of Full Ecological Tranquility. The Union should provide support measures and monitor their implementation by participating states.

I also propose creating a clear and transparent organizational structure for the International TFET Union.

This structure could include: The Union Assembly — the highest governing body, composed of representatives of participating countries, scientific and public experts, and representatives of international organizations and the business sector. The Assembly would make decisions regarding the strategic development of Territories of Full Ecological Tranquility.

The Executive Council — a rapid-response body responsible for managing the Support Fund, coordinating the activities of participating countries in establishing TFET zones, and monitoring compliance with a unified set of rules for all member states.

The Scientific Council — an independent body composed of leading scientists and wildlife conservation experts. The Scientific Council would conduct research, monitor TFET zones, and develop further recommendations on ecosystem and biodiversity conservation that would be subject to mandatory consideration. It would also oversee scientific programs conducted directly within TFET territories and ensure continuous monitoring of the condition of each Territory of Full Ecological Tranquility.

National TFET Commissions — bodies established by participating countries within their own national systems. Members of these commissions should include national scientists and experts, as well as representatives of environmental and other relevant

government agencies and ministries. National commissions should have federal authority, while TFET zones should be removed from the jurisdiction of regional authorities and placed under federal control. In turn, the national commissions would provide oversight, management, and decision-making for Territories of Full Ecological Tranquility.

Now regarding the financing of the International TFET Union.

Any supranational structure of this kind requires permanent financial support. I therefore propose establishing a Support Fund under the Union.

Sources of financing may include:

Mandatory international contributions from participating countries of the TFET Union.

Grants from international environmental organizations, private foundations, and charitable initiatives, including those established under the TFET Union.

An additional source of financing could be a system of so-called “corporate responsibility” — financial contributions to the Fund from major transnational corporations whose activities affect natural resources. Such companies would be required to compensate for their pressure on ecosystems by financially supporting the creation and protection of TFET zones.

All activities of the International Union of Territories of Full Ecological Tranquility should be transparent and open. All reports on its activities, expenditures, and results should be made publicly available and reviewed at meetings of the Assembly of participating countries. Each country should also submit regular reports on the condition of its TFET zones. The fundamental principle of the TFET Union should be the development of international cooperation and engagement with all interested institutions, together with flexibility and adaptability in response to rapidly changing global conditions, including the destruction of ecological systems, socioeconomic changes, and developments in international politics.

Part 8. TFET - A necessity for all humanity

We are living through global change, and the planet’s biosphere is now gravely ill. Living species are being exterminated, ancient forests are being destroyed, and ecosystems across the planet are collapsing.

Humanity has reached a point where there are simply no other options left to prevent the extinction of modern civilization. The only correct course of action is for the entire world to unite and begin placing wildlife within global Territories of Full Ecological Tranquility.

This must mark the beginning of a global Great Ecological Revolution — a complete rethinking by humanity of the unfolding catastrophes and a worldwide mobilization to confront the destruction of Earth’s biosphere.

To achieve this, we will have to completely transform all the old foundations and systems that have long been operating in a defective state, driving us toward even greater degradation and self-destruction. The sixth mass extinction of species is underway! Over recent decades, we have lost an enormous number of animal species, and the recovery of ecosystems will now require millions of years of evolution. The situation is only becoming more severe. At the same time, the planet’s immune system has been disrupted, while we, as humans, continue to suppress it, preventing ecosystems from adapting to change and defending themselves against catastrophes.

We have no time! We must act.

The Concept on the need to create Territories of Full Ecological Tranquility can be refined, expanded, and supplemented with the necessary data, opinions, studies, and expert reviews.

Each point described in the Concept requires both generalized data with detailed assessments from relevant specialists and local solutions for specific regions of the world where TFET zones are planned.

This may be influenced by:

• The economic model of the state system

• The physical and geographical location of the state

• Existing protected-area systems and an assessment of their possible integration into TFET zones

• The resolution of conflicts arising from changes to the state’s protected-area system involving businesses and local communities, as well as the organization of support mechanisms by the state and the International TFET Union

The designation of TFET zones is essential if humanity intends to preserve wildlife and biodiversity and halt the further destruction of Earth’s biosphere.

Appendices

Kunming–Montreal Global Framework Agreement: a zero strategy for nature protection

As previously described in the Concept of Territories of Full Ecological Tranquility (TFET), the world is facing a massive biodiversity crisis. There are numerous estimates of how much total biomass has been permanently lost over the past 50 years; there are also findings from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), according to which around one million plant and animal species are at risk of extinction. We are talking about what is most valuable in the history of the planet — the genetic diversity of the biosphere. The disappearance of genetic diversity means, above all, the loss of millions of years of Earth’s evolutionary history.

In response to this threat, the international community has adopted a number of agreements intended to halt and reverse biodiversity loss. This shows that positive trends — or at least recognition of the global crisis — do exist after all! One of the central documents intended to address the problem of species extinction was the Kunming–Montreal Global Biodiversity Framework (GBF), adopted in 2022.

However, already by 2025, it is becoming clear that the goals of the agreement are unattainable. A historic initiative that could have influenced the destruction of the world’s ecosystems has effectively failed.

The Kunming–Montreal agreement was developed under the auspices of the Convention on Biological Diversity (CBD) and adopted by nearly 200 countries in 2022. Its goals were ambitious: to conserve and restore the planet’s biodiversity by 2030 through a series of measures:

1. It was assumed that by 2030 each participating state would ensure the “effective restoration” of areas important for biodiversity that had been destroyed by human activity. The plan was to restore at least 30% of degraded territories.

2. To halt the further destruction of key natural areas, including specially protected natural areas (nature reserves and national parks) and marine areas. Thus, under the adopted agreement, states were expected to place at least 30% of terrestrial and marine areas under protection.

According to the plan, countries were expected to unite and present their own strategies and action plans for biodiversity restoration.

However, on February 17, 2025, a scientific review was published in Nature Ecology & Evolution describing the results of the agreement several years after its adoption. The report is titled “Ambitions in national plans do not yet match bold international protection and restoration commitments”

By 2025, only 36 countries — less than one quarter of the participants — had submitted ecosystem restoration plans in accordance with the requirements of the agreement. Among these 36 countries:

• Only 9 clearly specified concrete percentage targets for the restoration of territories, instead of vague wording such as “large areas” or “priority zones.”

• Only 6 countries, including China, Luxembourg, Japan, and several others, genuinely expressed their willingness to achieve the target of restoring 30% of degraded territories.

• At the same time, 14 countries declared their intention to protect at least 30% of their land and marine areas, as required by the agreement.

Thus, the “30%–30%” target — restoration and protection — was supported by only a few countries, while the rest were willing to sign the document but did not even plan to implement it. Moreover, even those that declared their intention to achieve 30% restoration did not present detailed mechanisms guaranteeing the

actual quality of the protected territories, including areas of particular importance for biodiversity, habitats of rare species, and so on.

In the scientific report, the researchers identify several factors preventing the successful fulfillment of these commitments:

1. There is no centralization of action or genuine consolidation among states! Only a general framework convention was created, without real mechanisms or methodologies. Each state acts independently and is forced to develop its own restoration methods and find the necessary resources.

2. Many government documents contain vague language and bureaucratic “systemic evasions.” It can be said that even the few states that at least prepared responses under the adopted agreement simply avoided responsibility for restoring nature in documentary form.

3. The Convention does not provide for strict sanctions for non-compliance or mechanisms of encouragement. This means that violating obligations does not result in

economic or political consequences. In practice, implementation of the agreement is entirely voluntary. It is merely a recommendation!

4. There is also severe inequality among the parties to the agreement. The situation is very simple: poorer countries with a high degree of environmental degradation do not have the resources needed for restoration, while the scale of destruction there is many times greater than in more developed regions.

Undoubtedly, the Convention and the agreement adopted by the international community carry the right message, but real-world practice demonstrates that states are unable to consolidate and do not possess a unified governance mechanism or strategy. In essence, everyone understands how dangerous the ongoing ecological collapse is, but no one knows what to do or how to influence it. That is why, within the framework of our Concept of Territories of Full Ecological Tranquility (TFET), we call for concrete action to protect Earth’s biosphere.

Unlike the GBF, which is essentially merely a recommendation to states, the TFET Concept is a real project aimed at preventing the further destruction of the world’s ecosystems through the mandatory creation of global wildlife refuges.

Our Concept should become the foundation for projects similar to the agreement adopted under the Convention on Biological Diversity. It offers a precise and understandable mechanism for protecting the world’s ecosystems. The central idea of TFET is the large-scale integration of existing protected areas, including nature reserves and national parks, together with the least disturbed ecosystems, into unified ecological complexes where human intervention is reduced to a minimum.

Unlike the fragmented approach, in which each country chooses the format and level of participation that is “convenient” for it, TFET proposes a centralized control mechanism and strict restrictions.

It should be noted that under the agreement adopted within the Convention on Biological Diversity, states circumvent all possible restrictions through bureaucracy, while economic activity is still permitted in areas that are supposed to be restored.

The TFET Concept, by contrast, provides for the complete exclusion of economic activity, minimizing human impact and giving ecosystems the full conditions necessary for self-regulation and recovery.

In addition, the Concept provides for international legal status and long-term funding capable of protecting TFET territories from the political and economic priorities of individual states.

The GBF is a voluntary commitment under which each state must independently search for ways to solve environmental problems.

TFET means the mandatory creation of natural refuges around the world under the centralized control of the international community.

Thus, the Global Biodiversity Framework (GBF) attempts to find a compromise between nature conservation and economic development by permitting the “sustainable use” of resources in areas of wildlife undergoing restoration. The Concept of Territories of Full Ecological Tranquility implies a radical rejection of ecosystem exploitation within designated territories.

From a scientific standpoint, under conditions of a deepening ecological crisis, stricter approaches, such as the TFET Concept, offer the greatest chance of preserving critically important species and ecosystems. They eliminate the influence of the human factor and give wildlife the opportunity to fully recover and maintain its natural state.

In conclusion, it should be emphasized that the Convention on Biological Diversity and the GBF agreements represent a significant step forward for the entire world, if only because states publicly and unanimously recognize the global ecocide and the need for urgent action to protect Earth’s biosphere. But when

fewer than one quarter of the participating countries have even formally declared action plans, while the majority continue to ignore the terms of the agreement, it becomes clear that a more effective mechanism is needed.

The TFET Concept must be brought to the center of the international agenda and made the foundation and key mechanism of a strategy for protecting the world's ecosystems. Only then can we expect genuine global change.

Collaboration.

This Concept of Territories of Full Ecological Tranquility was prepared by Russian researcher Pavel Pashkov. The Concept is intended to be supplemented and expanded, and the work also requires comprehensive peer review by the international scientific community.

All updates to the current Concept will be published on the author's official website at: https://pavel-pashkov.com/concept

As part of our efforts to advance the TFET Concept, we are open to cooperation with the scientific community, governments, organizations, and the public. We are also open to implementing joint projects capable of accelerating the international adoption of the Concept and its practical implementation.

For cooperation inquiries, please send proposals by email to: mission@pavel-pashkov.com

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