



**U W**

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**Ukraine War  
Environmental  
Consequences  
Work Group**

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*Greetings, friends!*

**A**t UWEC Work Group, we continue to analyze, track, and write about the environmental consequences of the war. For us, this work is doubly important because the events in Ukraine reflect a fundamental conflict that is destroying the human community and planet Earth. The war clearly illustrates how authoritarian regimes destroy lives, short-sighted plans lead to catastrophes, and the environment, unfortunately, is often just a pawn exploited by selfish interests.

War has many consequences. It exposes problems often unseen in peacetime. For example, gold mining has always been dirty and harmful to the environment, but not much has been said about it past or present. In this issue, UWEC expert Eugene Simonov analyzes how the war and sanctions complicate Russia's ability to sell gold and how the laws governing its production have become much simpler and not in a good way. This combination can have fatal consequences for the environment of entire regions.



#### • War-time gold rush

*Reports from the battlefield tell us how the war steals the lives of thousands of soldiers and peaceful civilians. However, even more animals and trees have already died in the war; their deaths are extremely difficult to track. Ukrainian author and environmentalist Kateryna Polianska discusses this mournful side of the war, one that is little discussed, and about how some people are helping animals at risk.*

#### • Animal victims of war

*Some are calling the fighting in Ukraine "ecocide." This term not only draws attention to the widespread death of living organisms, but also serves as the legal basis for filing lawsuits in international courts. We spoke with Olena Kravchenko, Executive Director and Board Member of the Ukrainian NGO Environment-Law-People, about the war through the lens of environmental law, standards for collecting evidence, and the prospects for prosecuting crimes against nature.*

#### • Interview with Olena Kravchenko of the NGO "Environment-People-Law"

*In early July Ukraine's government presented a recovery plan for rebuilding Ukraine, a plan that provoked strong criticism from Ukrainian environmental organizations. The plan was even called the "Shame of Lugano". UWEC editorial team analyzes its flaws.*



- **Environmentalists critique Ukraine's reconstruction plan**

*Lastly this week, the war also has a direct impact on international climate policy. In November 2022, Egypt will host the Conference of the Parties to the Paris Climate Agreement (COP-27), and the mood among climate diplomats and experts is less optimistic today than a year ago. Learn about how the war affects international decarbonization efforts and global climate policy more generally in an interview with Bill Hare, founder and CEO of Climate Analytics and co-leader of Climate Action Tracker.*

- **"Governments prioritize energy security over the clean energy transition"**



You can find additional coverage about the war's environmental consequences on our website – <https://uwecworkgroup.info/> and on [Facebook](#) and [Twitter](#).

*Take care of yourself and our fragile world,*

*Aleksei Ovchinnikov*

*Editor-in-Chief, UWEC Work Group*



# War-time gold rush

By [Eugene Simonov](#)

## **D**o sanctions on Russian gold have conservation impacts?

As Western countries impose ever more sanctions on Russia, questions about sanctions' environmental consequences become more urgent. These consequences differ from sector to sector and are often far from obvious or clear cut. This article will attempt to understand how the sanctions affect gold production and how those impacts are fraught for both nature and local residents in gold-producing regions.

## **Gold under sanction**

Meeting in June 2022, G7 nations announced that the [United States](#), Great

Britain, Canada, and Japan would impose a ban on gold imports from Russia. Australia joined them, and the European Union promised to discuss a ban for its next packet of sanctions. The import of precious metals from Russia is also now banned. As with all those before them, the goal of this new round of sanctions is to deprive Russia of financial means to make war in Ukraine.

Russia is among the three largest gold-producing nations globally, second only to China and Australia, and is responsible for roughly 9% of world production. In 2021 alone, Russia extracted approximately 340 metric tons of gold and exported 85% of that amount.



Last year gold was also among Russia's main sources of export earnings, after oil, natural gas, and agricultural exports. Still, total gold earnings were about US\$18 billion, representing a relatively small share of total export earnings (US\$498 billion).

In response to US sanctions against Russia after its annexation of Crimea in 2014, Moscow began to increase its gold and foreign exchange assets. Now, various estimates indicate that Russia has approximately US\$140 billion in gold reserves, roughly a fifth of the Russian Central Bank's assets ([holdings](#)). In 2020, the Central Bank stopped actively buying gold and forcing companies and banks to export it. By the end of 2021, Russia [ranked fifth](#) in global gold reserves.

As a whole, Russia's gold mining industry [contributes significantly](#) to its overall budget, producing over 1.3 trillion rubles (over US\$21 billion in 2021) of gold and remitting numerous taxes and fees into federal coffers. The Mineral Extraction Tax alone brings in almost 80 billion rubles, and total payments to Russia's treasury amount to at least 20% of all gold sold.

## Gold and/or nature

Environmentally speaking, gold is a very "dirty" product, the extraction of which is usually associated with destruction of landscapes and river pollution. In addition, such mining is often associated with corruption,

criminal schemes, oppression or forced relocation of residents (often Indigenous) living where deposits are found, and sophisticated exploitation of workers. This is a worldwide problem, one that forces the largest buyers and gold processors to [monitor supply chains](#) in order to ensure that the resulting gold is not "tainted" with human blood or the destruction of valuable natural ecosystems.

In Russia, environmentalists are well aware that the greatest harm to nature and local communities is caused by small mining brigades extracting alluvial (placer) gold in primitive and barbaric fashion: dredging sediments in river valleys, leaving barren landscapes over many kilometers of a riverbed, and also causing chronic clouding of rivers downstream of extraction zones. Only 15-20% of all gold in Russia is mined in this way, but such operations account for the lion's share of environmental damage.

Large companies use more advanced processes to extract gold from ore. Their mines occupy a much smaller area and, as a rule, are subject to much closer government oversight. Although each individual site presents significant environmental risk, especially when accidents occur, overall (especially per kilogram of gold produced), they result in significantly less damage to natural ecosystems and are less devastating for local residents.





*Image 1. Typical landscape following alluvial (placer) gold mining. Credit: Krasnoyarsk Krai Ministry of Ecology.*

[According to Viktor Tarakanovsky](#), chair of Russia's Gold Prospectors Union, just 43 companies produce 84% of processed gold in Russia, and the remaining 550 enterprises contribute a lowly 16%. For the most part, those latter enterprises are small placer mining brigades operating on rivers.

Despite the fact that Russian authorities are well aware of the disproportionate harm caused by these small-scale alluvial operations, they encourage it to this day. Almost any organization can obtain a "prospecting license" for a pittance without formal tender or auction, allowing prospecting and test mining at one's own risk in a river of one's liking.

UWEC has already reported on how environmental law violations

by this category of miners increased significantly in 2022, when their operations were decreed free of state environmental oversight during the war. Thus, the question of how sanctions and other wartime factors will affect the damage caused by gold mining is of great concern to Russian environmentalists.

## **Blow to exports**

The most effective measures to block Russia's gold exports were actually taken immediately after hostilities began. In early March, the London Bullion Market Association (LBMA) "temporarily" stripped the largest Russian gold refineries of their "Good Delivery" seller status.



Almost all legal gold is refined at just a handful of refineries. The LBMA decision [affected](#) ingots produced at Krastsvetmet, Novosibirsk Refinery, Uralelectromed, Prioksky Non-Ferrous Metals Plant, Schelkovo Secondary Precious Metals Plant, and Moscow Special Alloys Plant.

“Good Delivery” status is awarded to refineries and producers of weighted gold bullion that comply with LBMA requirements. Gold from such suppliers is not subject to additional checks and can be freely traded on the London Metal Exchange (LME) and other Western trading floors. Without such status, selling gold in the UK and other Western countries is almost impossible, while, in other parts of the world, sales are possible, but at a significant discount.

That said, London is not the only global center for the precious metals trade. Gold can also be sold at auction in Dubai (UAE), Shanghai (China), and Mumbai (India). The trouble, however, is that by 2021 approximately 90% of Russian gold exports went to the UK and other Western countries, and it is quite challenging to redirect sales to new customers.

Industry expert Leonid Khazanov [told Oktagon-Media](#), “Our players will seek to increase exports to the United Arab Emirates, India, and China, albeit at a discount. In 2021, demand for gold in India approached 800 tons, while in China it exceeded 1,100 tons. In the most conservative scenario, we can expect a 30-40% decline (200-230 tons) in production by the end of 2022 and a resulting export reduction of 20-30%.”

### Distribution of Russian Gold Exports in 2021



Figure 1. Russian gold exports in 2021 based on Oktagon Media data. Credit: Octagon.media



Sanctions against many Russian banks played the most important role in declining exports. The first to affect Russian gold transactions – and thus the Russian Central Bank – were introduced on March 24 by the US Treasury. Subsequently, sanctions targeted precisely those large banks that were intermediaries for the sale of most Russian gold abroad.

## Likely buyers

Thus, even before the introduction of G7 sanctions, gold sales abroad dropped dramatically. Chair of the Russian Union of Gold Producers Sergey Kashuba commented that at present most gold is now sold on the domestic market. According to Kashuba, the two main Russian consumers of gold are the domestic jewelry industry (which in previous years consumed 30-35 tons of chemically pure gold), and citizens, who, after personal income and [value-added taxes were abolished](#), altogether can afford to buy only 25-30 tons of gold.

The Russian state abolished a 33% tax on gold in order to make the metal an attractive alternative to holding foreign currency. So far, however, individual demand for gold has plateaued, in particular due to high price volatility as well as the challenges facing individuals when it comes to selling gold back to banks.

Russia's Central Bank has also begun buying up gold to replenish gold and

foreign exchange reserves, but is doing so at a 15% discount on the market price. [According to the Union of Gold Producers](#), the bank implemented this strategy from May 16 to June 10, 2022, when global gold prices fluctuated between 3,345 and 3,968 Russian rubles per gram of gold. During that same period, the Central Bank was purchasing gold at prices of 2,842-3,198 rubles per gram.

The scale of possible reductions in production also depends on how much gold the Central Bank is prepared to buy in reserves in 2022. At an [industry conference](#) in May, Russia's Gold Prospectors Union Chair Viktor Tarakanovsky complained that the state's planned purchasing volume is small: "In the State Precious Metal Repository's three-year budget, they plan to purchase just 8 tons of gold, with no public plan for where to put another 350 tons."

Discovered by journalists and NGOs, a [delivery of 3 tons](#) of Russian gold to Switzerland caused an uproar in May 2022. Swiss customs officials refused to disclose the metal owner's name, reasonably noting that there is no legal ban on such imports. All Russian refineries have denied responsibility for this bullion, neatly illustrating the sector's extreme sensitivity to the slightest suspicion of possessing "dirty gold." Most likely, the gold's owner simply brought gold purchased or





extracted prior to the sanction's effective date to Switzerland for storage, but even this information caused a sharp public outcry.

Companies exporting to non-Western countries are also experiencing difficulties. For example, JSC Polymetal (Polymetal Int subsidiary), a business that sells 50% of the gold it produces to Asian countries, saw its stock value [fall by 74%](#).

Some experts detect an eastern trade vector increasing despite the threat of secondary sanctions.

"Today, Russia is already seeing a surge in gold trading with the United Arab Emirates. We are shipping ingots to Dubai on a massive scale. India and China will soon be included," commented Golden Mint House vice president Alexei Vyazovsky during an interview with [Vzglyad](#).

## Resilience of Gold Mining Companies

According to the [Union of Gold Producers](#), corporate ruble revenue fell by one-third due to a strengthening ruble and because the price of gold is pegged to the international exchange rate in US dollars. There have also been increases in almost all production cost categories. In 2022, the most significant growth is expected in exploration (40%), raw materials and materials (30%), and growth in wages and social needs (15%). Rising prices for saltpeter, a key

ingredient in explosives, has already risen between 200 and 400%, a reflection of its wartime scarcity.

The price of gold is lower than the cost of production for most companies in the industry, especially for alluvial gold miners who had already begun their seasonal work when the ruble was ultra-low.

Many foreign mining equipment manufacturers and suppliers, including Komatsu, Caterpillar, Liebherr, and John Deere, ["temporarily" left](#) the Russian market, creating a significant potential challenge for accessing equipment and parts. While deliveries of [Chinese](#) equipment and [South Korean](#) equipment of Chinese assembly continue, these products will cost more and perhaps be less reliable than the previously available range.

Many foreign companies operating in Russia managed to acquire a large fleet of new equipment in 2021 and would now be happy to transfer them to mines in other countries. [Speaking in the State Duma](#), Ministry of Natural Resources Minister Alexander Kozlov noted that he had signed an order limiting the export of foreign exploration, mining, and laboratory equipment.

"Many rushed to export this equipment outside our country, especially companies with foreign capital. In the last three months, we have issued only 16 export permits, refusing 70 more. Roughly 400 more applications



are now under consideration, and we are interpreting them in favor of the state,” the minister added.

Mangazeya Mining Ltd, a Russian gold mining company with assets in Transbaikalia, a Russian region east of Lake Baikal, has [halted trading](#) on the Canadian securities exchange. Delisting is a fate likely awaiting other companies that continue to do business in Russia.

General Director of Krastsvetmet (open joint stock company) Mikhail Diaghilev [sees the situation](#) as complex but not critical, given that large subsoil resource users producing the lion’s share of gold have a significant safety margin. But the Russia’s Gold Prospectors Union chair Viktor Tarakanovsky believes that difficult times are here for small companies. As a rule, that means small alluvial gold companies.

He [asks](#), “We have 11 enterprises that do not produce even a single kilogram per year. Another 55 produce 1-5 kg, and 61 more with just 5-10 kg. Taken together, 127 companies produce approximately a ton of metal.... Where will they sell the gold?”

The Association of Subsoil Users in Magadan Region sent a written [cry for help](#) to Deputy Prime Minister Yuri Trutnev: “Small and medium-sized gold mining enterprises are at particular risk, given the time and difficulty of obtaining a general export license and signing contracts with foreign buyers, while still accounting for complex

sanctions. It could be impossible or take a long time. Magadan miners explain that the consequences may be criminalization of gold mining or up to a 40% decline in annual production (120 metric tons per year) and subsequent loss of up to 40,000 jobs in Russia’s eastern regions.”

The Association’s letter cites compelling statistics: “In 2021, the average cost of gold mining in Russia was 1,700 rubles per gram, and, including capital costs – 2,450/rubles per gram. On the market, gold cost 4,340 rubles per gram, providing businesses with a profit for doing business and servicing financial obligations and investments. In 2022, however, inflation increased expenses by 490 rubles per gram, while the strengthening ruble reduced profits by 1,082 rubles per gram. A Central Bank discount reduces profitability by another 489 rubles per gram, rendering the direct sale of gold on the domestic market unprofitable.”

Despite all the difficulties, the Russian Statistical Services agency [reported](#) that in January-May 2022, Russian gold production fell by only 4.6% compared to the same period in 2021. As a side note, this may be the last official data on Russia’s gold production: companies no longer publish quarterly results, and in July the State [Duma adopted a law](#) declaring information about the country’s gold reserves as a state secret.



## Russia's potential responses

Of course, gold industry representatives are actively encouraging Russia's Central Bank to eliminate the 15% discount on gold purchasing, a move that would significantly increase mining profits.

"From 2006 (until 2020), Russia's Central Bank actively bought gold from subsoil resource users for the global price minus a 0.5% discount, and now is the time to resume this practice," [says](#) Sergey Kashuba.

In order to avoid bankrupting the majority of small mining enterprises, Russia's Gold Prospectors Union [proposes](#) to establish state guarantees for the sale of mined gold in accordance with the federal law "On Precious Metals." To this end, the Union also calls for increased funding to purchase gold from miners for deposit into state reserves through the State Precious Metals Repository and the National Welfare Fund, up to an annual maximum of 300 tons of gold.

The Central Bank also recently publicly acknowledged the benefits of gold. "Gold is good because it cannot be seized," [noted Elvira Nabiullina](#), head of Russia's Central Bank on June 29. "It can be wholly stored within Russia, and in that sense it is more secure. Of course, it must also be understood that gold prices are quite volatile. This must also be taken into account."

Whether such a proposal would then be followed by Central Bank gold purchases is unknown.

Some economists believe that G7 sanctions are aimed at preventing the active use of Russian gold reserves.

"Russia could pay for essential goods not made at home using domestically produced precious metals. This is especially true in the face of a tightening embargo on Russian oil and gas. Approximately 21% of foreign exchange reserves could be used to pay for critical imports. But under sanctions, this will not be possible," said economist Tatyana Kulikova, an employee of the Steklov Mathematical Institute, in a [conversation with Gazeta.ru](#).

According to Kulikova, Western countries have also banned gold exports to the Russian Federation, as they seek to halt Russia's ability to sell oil and gas for gold received in advance.

The Ministry of Natural Resources has [drafted a bill](#) to protect Russian partners in the event that foreign businesses unilaterally halt their activities in joint projects. Indeed, sanctions have already forced Canada's Kinross Gold to sell its Russian assets; Polymetal Int [split](#) into Russian and Kazakh divisions; and [Petrovavlovsk](#) (another major mining company) was unable to pay its debts to a sanctioned Russian bank. Under the new bill, non-residents are prohibited from obtaining a license for the use of subsoil resources in Russia. According



to the Ministry of Natural Resources, this will force investors to register a Russian company and thus prevent possible unpredictable behavior by owners.

Boris Kavchik, a researcher at mining engineering research firm Irgiredmet, [proposes](#) to evaluate the Subsoil Resource Management Agency's efforts not by the number of articles, projects, and reports, or even gold resources, but by increased real gold production, trouble-free operations, and environmental protection. He considers further simplification of the gold mining licensing process and ridding miners of petty state oversight the most promising moves.

Indeed, fears of rising unemployment during the war probably hastened [preparation](#) of the draft law "On Prospecting" at the Ministry for Far Eastern Development. The law will allow private individuals and entrepreneurs to prospect for and extract precious metals at prospecting sites "in a non-industrial way" in Russia's Far East and Arctic zones. People will individually select and register sites where they want to mine gold. Oversight will be minimal.

## Natural consequences

According to [public monitoring](#) funded by WWF-Russia, in just one 30-day period from May 15-June 15, 2022, the extent of riverbeds disturbed and polluted by mining in eight Siberian and Far Eastern regions totaled 2,949 km

of rivers across 85 different sites. This exceeds the same time period in 2021, where 2,534 km of rivers were polluted at 74 locations. The greatest number of pollution sites was documented in Amur Oblast (37 cases, 1,251 total km).

"Unfortunately, this year we are seeing increased negative impacts from alluvial gold mining on many rivers in Siberia and the Far East. While understanding the importance of strategic raw materials for the Russian economy, we support limiting extraction of alluvial gold, a process that damages ecosystems and is conducted in violation of environmental laws," [noted](#) Alexey Knizhnikov, WWF program manager for corporate environmental responsibility.

Responding to increased environmental damage caused by gold mining and subsequent widespread public discontent, the Public Chamber of the Russian Federation announced its [recommendations](#) to the government on "Environmental Aspects of Alluvial Gold Mining" at the end of June.

These include a moratorium on issuing simplified (declarative) prospecting licenses, often used by miners to conceal illegal exploitation of placer gold deposits. The Chamber also requested a ban on licenses for exploration and production of alluvial gold in areas located within 5 km of a protected area boundary, as well as on rivers flowing through protected areas and territories of traditional natural use





*Image 2. Wasteland created by gold mining in a river valley. Source: Krasnoyarsk Krai Ministry of Ecology. Credit: Krasnoyarsk Krai Ministry of Ecology.*

management by Indigenous peoples of the North, Siberia, and the Far East.

So, despite sanctions that came into force only after companies commenced mining activity in 2022, environmental damage is unlikely to decrease in the coming months. An uncertain future is prompting companies to intensify current production; gold is always an important resource for survival. In addition, mining enterprises will also violate many environmental standards, given that oversight agency Rosprirodnadzor has sharply reduced the number of on-site compliance inspections.

If the Central Bank does not fully resume buying gold from domestic companies, then it is likely that a significant number of small and

medium-sized companies will face bankruptcy, a trend that will effectively reduce destruction of new natural areas. In addition, next year, many companies will relinquish licenses for remote and inaccessible fields, where mining could potentially cause the greatest environmental damage. Total gold production is likely to decrease (perhaps 20%-30%), as large companies will sooner or later find alternative markets.

On the other hand, if the State Duma passes a law this fall allowing citizens to engage in individual “prospecting” activities, the law will result in active criminalization of the industry in 2023 by allowing the sale of gold of unknown origin. Many unemployed miners will become individual prospectors and head deep into the taiga forest, where



the methods and scale of mining cannot be readily monitored. There is no doubt that heavy equipment and blasting could be used for such mining, although nominally the law forbids this. Such methods will not significantly increase production volume, but will deal a mortal blow to remaining taiga rivers. Placer mining and resulting river pollution are already sources of broad community discontent in [many regions](#), and that discontent will intensify many times over with the potential adoption of the new law and start of this latest “gold rush.”

Freehold prospecting will begin work at alluvial deposits holding up to 20-30 kg of gold reserves. Their exploitation using traditional industrial methods is economically inefficient under current market conditions. According to [Interfax News Agency estimates](#), there are at least 10,000 such non-industrial scale placer gold deposits across Russia. Environmentalists estimate that most

of these sites are pristine river valleys in remote wilderness areas. The only potential silver lining is the hope that some young people from economically-depressed regions in the Far East (for example, Buryatia and Transbaikalia) might become individual miners instead of enlisting to fight in the war.

In the event that the Central Bank opts to increase gold and foreign exchange reserves and purchase all domestic gold production without a discount, Siberian and Far Eastern nature wilderness will face even greater losses.

Environmental damage from gold mining depends not so much on the sanctions as such, but on the Russian government’s response to them within the framework of Russian domestic environmental and economic policies in wartime. And, as evidenced by the federal [decree № 336](#) (10 March 2022) canceling compliance inspections, the Russian authorities are more likely to shift the war’s costs onto nature. •

*Translated by Jennifer Castner.*



# Animal victims of war

*This article contains brief descriptions of animal cruelty*

Since the beginning of Russia's attack on Ukraine, not only have people been victims of the war, but our smaller brothers – animals – have as well. They face incredible cruelty, hunger and thirst, explosive mines, and rocket attacks.

[According](#) to Ukraine's Ministry of Agrarian Policy and Food data, as of 16 June 2022, the official estimated number of animals killed since Russia's invasion began on 24 February was 42,000 sheep, 92,000 cattle, 258,000 pigs, more than 5.7 million poultry. In fact, these numbers are surely much higher – data collection

during active hostilities is challenging to say the least. Active hostilities, limited physical access to farms, and few opportunities to purchase fodder and provide veterinary services are the main causes of animal deaths.

Chornobayivska Poultry Factory [reported](#) that 4 million chickens and 700,000 immature birds died due to power outages and lack of employee access to provide care. There are documented cases of animal killings on some farms. In the Chernihiv region, Russian occupiers [shot and killed](#) 110 cows on a farm for sport. [Intentional arson](#) of horse stables have also been





recorded. In Gostomel in March, approximately 20 horses died in a fire, and, while some managed to escape, charred remains of other horses were found at the stables. Other barns have burned following munitions explosions.

Thousands of livestock on farms, domestic pets, and homeless animals need care, food, and water every day. They experience pain, fear, hunger, and thirst, some of them are unable to take care of themselves or find food.

For example, at one of the stables there are horses requiring feeding 5 times a day and watering twice daily. Every day, each horse consumes 10-12 kg of hay and several kilograms of grain mashes and drinks 10-20 liters of water at a go, and benefits from additional nutrients in carrots, apples, and beets. Horse facilities can have 10, 50 or 100 horses, all with similar needs. This is daily work, and there is a constant need for funding to purchase supplies. Animals are not capable of understanding why they suffer without food or water or are left to die.

Approximately 300 dogs [died of hunger and thirst](#) in an animal shelter in Borodyanka during the occupation. Hundreds of other animal shelters found themselves in difficult conditions. Most of the challenges of animal rescue fell on the shoulders of volunteers.

Ukraine's UAnimals publishes daily reports on its [Facebook page](#) about support for numerous animal shelters,

animal foster volunteers, owners struggling to care for their pets, and rescued animals handed over by the military. Volunteers feed some animals on the streets, visiting them where they live. At present, there are a number of emergency facilities sheltering household pets and livestock at varying scales, from thousands to hundreds or just a few animals.

There is a constant need for monetary contributions for the purchase of feed for animals, provision of veterinary care, and evacuation. This effort is extremely important that there are such dedicated organizations and volunteers in Ukraine. There are many volunteers, and they save lives every day. Rehabilitation centers for wild animals and zoos also need support – they also face the possibility of sudden destruction by munitions. In the first days of the war, the [12 Months Zoo](#) in Kyiv region was occupied. During the month-long occupation, it was impossible to maintain suitable environments for the animals or feed them, and evacuation was also not possible either. Feldman Ecopark near Kharkiv ceased to exist following extensive shelling. Six people were killed trying to feed or evacuate the animals, infrastructure and enclosures were destroyed. Some of the animals were rescued.

Wild animals also suffer in wartime. Birds, baby foxes, and fawns with various injuries are admitted to wildlife





rehabilitation centers. These are just the ones who were found and brought to the veterinary clinic, while thousands more wild animals are not so lucky. Wildlife is threatened by missile strikes, artillery fire, land mines, grenade tripwire entanglements, fires, damage to internal organs due to explosive blast waves, and noise disturbances. Animals cannot be evacuated from commercial hunting sites.

In the Black Sea, dolphin strandings have increased as has the frequency of entanglements in fishing nets, potentially caused by the presence of military boats operating powerful acoustic devices and explosions. Marine mammals may be at risk of direct damage and destruction from explosions, acoustic trauma gradually leading to starvation or spatial disorientation and stranding, and fatal acoustic trauma. Together with Turkish researchers, Ukrainian experts are studying these issues, including collecting tissue samples from dead dolphins. These will be sent for further study in an attempt to determine cause of death.

The war is also a tragedy for household pets, many of which are left behind by their owners. Some were rescued, some were reunited with their owners, but some animals died of hunger and thirst in shuttered houses and apartments. Some animals were lost during evacuation, fleeing in fear. There are constant reports of animals being hit by cars and injured.

Some, unfortunately, were abandoned by their owners.

There is also intentional physical abuse of animals. There is a well-known story about a dog named Lys who was beaten and then injured by a mine near Makarov. The dog could not walk and lay in a garbage pit until local people found him and called rescuers to [rehabilitate him](#). Another dog was found [painted](#) with the inscription "Fool." Ukrainian Armed Forces soldiers rescued the dog and handed it over for treatment.

Cases of abduction of animals are also known. In particular, a cat named Max from the town of Bucha [escaped kidnappers](#) in Belarus and local residents there reunited him with his owners by calling the number on his collar.

Also, Armed Forces of Ukraine soldiers and State Emergency Service rescuers are constantly rescuing animals. This is incredible courage and valuable work. The people of Ukraine are proud of their defenders. Looking ahead to reconstruction after the war, we must create a network of state shelters and rehabilitation centers for animals in every region of Ukraine. This should include a network of veterinary clinics, special animal rescue service, database of animals and private and public assistance centers, established evacuation protocols, special animal protection funds, and animal protection and rehabilitation educational programs.



Here are some trusted organizations that need support now for their work in animal protection, evacuation, rehabilitation, and family reunification programs:

[UAnimals](#) advocates for humane and non-exploitative treatment of animals. Since the war began, UAnimals has focused on rescuing animals from combat zones and occupied territories.

[Kyiv Animal Rescue Team](#) provides

animal rescue services, getting pets out of dangerous situations.

About the author: Kateryna Polianska is an ecologist at “Environment-People-Law”, an international NGO based in Ukraine. She is based in Kyiv, where she is studying the war’s impacts on Ukraine’s natural complexes. For the last decade, she has been caring for horses at a stable near Kyiv. Contact her at [k.polyanska@epl.org.ua](mailto:k.polyanska@epl.org.ua) •



## Interview with **Olena Kravchenko** of the NGO “Environment-People-Law”

*“We must apply a ‘gold standard’ to evidence gathering for the numerous environmental crimes perpetrated by the Russian invasion.”*

UWEC’s Aleksei Ovchinnikov recently interviewed Olena Kravchenko, executive director and board member of the Ukrainian NGO Environment-People-Law (EPL), also editor-in-chief of the magazine EPL.

International charitable organization Environment-People-Law has existed since 1994. Since then, EPL has become

a key group of experts on Ukrainian environmental law. In particular, it was this organization that initiated and participated in the signing of the Aarhus Convention in 1998. EPL founded the first environmental law journal in Ukraine as well as the country’s first institution specializing in environmental law. It has also held numerous online



and in-person events. EPL worked with government agencies on the development and modernization of a regulatory framework for environmental protection and the human right to a healthy environment.

**Aleksei Ovchinnikov:** As far as I know, EPL has been collecting data on environmental crimes since 2014, the start of the war in Ukraine. Can you tell us more about your experience in analyzing the environmental consequences of the war?

**Olena Kravchenko:** Yes, we started developing methodology and conducting analyses back in 2014-2015. But even then we understood that a large-scale invasion would take place sooner or later. This meant that environmental damage would be catastrophic.

Back in 2014 we developed a methodology for collecting data on environmental crimes stemming from military actions. We developed a clear-cut approach on how to document forest fires, including how to calculate damages, updating a methodology that has been in place since Soviet times. We also developed an approach to cataloging damage caused by the war in nature reserve areas. We developed and formalized a methodology for assessing the impact of war on soil and land resources.

We shared all of these methodologies with the Ministry of Environment

and Natural Resources – we’ve been working with that Ministry since 2014. Today, we use these tools to analyze the consequences of Russia’s invasion on Ukraine’s environment. In other words, now we have a clear idea of how to quickly and reliably document negative impacts on forests, soils, and conservation areas. Using these methodologies allows us to gather an evidentiary base that can be used when cases go before international courts.

**AO:** Can you already draw any conclusions based on your analysis of the invasion’s environmental impacts?

**OK:** It’s obvious that the consequences are catastrophic and that the funding needed to restore the environment will be colossal. I believe that they may exceed the total cost of infrastructure restoration.

We also know that collecting evidence of the impacts should have started on 24 February, the first day of the invasion. Unfortunately, the Ministry, State Environmental Inspection Agency, and public organizations were late to start that work.

Today, five months later, we are already seeing a completely different picture. In some places nature is healing itself. In other places we can no longer document the damage inflicted by the aggressor. Almost six months on, it is much more difficult to document and collect supporting evidence of crimes





against the environment than it would have been to do it as soon as these crimes were committed and discovered.

**AO: In Ukraine today, many initiatives collect data on crimes against the environment. Efforts include the Office of the Environmental Inspection Agency, the Ekozagroza ('Environmental Threat') project under the aegis of the Ministry of Environment and Natural Resources, Ecodia Environmental Action project, and EPL's work. Do they all act as a single coordinated network, or do they collect information separately?**

**OK:** All of these projects operate in parallel; this is a result of differing approaches to data collection. For example, we cannot be sure that the information collected by Ekozagroza has been verified. Ekozagroza receives information that has not gone through secondary verification. When we ask what is being used to confirm the cataloging algorithm or what type of regulatory document is being used to support the algorithm, Ekozagroza cannot give an answer.

So, the information Ekozagroza is collecting has not been verified and cannot be presented as a thoroughly investigated case within the framework of an international court.

Unfortunately, that kind of unverified information can only make it more difficult to obtain reparations for

crimes against the environment. When presented in an international court, this sort of evidence will go up in smoke. It will be rejected by the court, which, of course, creates serious problems for us as environmental lawyers.

**AO: So, such evidence does not meet standards for information collection and verification?**

**OK:** Yes, in international practice, a "gold standard" has already been developed for analysis of military crimes against the environment. It was developed by international lawyers who analyzed numerous military conflicts, whether they be in Nicaragua, Iraq, Yemen, or other places.

We are also trying to collect evidence using this gold standard so that potential cases regarding Russian war crimes against Ukraine's environment can be accepted, considered, and recognized by international courts.

Unfortunately, sometimes we are unable to conduct the necessary analysis because of the very structure of Ukraine's legal system. For example, the Criminal Procedure Code in Ukraine does not provide for inviting foreign experts to collect and process information. If we had this opportunity, it would greatly simplify standardizing information before transferring it to an international court.

In our organization's view, in the five months since the active phase of the



military invasion began, it should have been possible both to develop regulations and instructions to guide the invitation of foreign specialists to investigate crimes and confirm instructions for collecting and processing information about the war's environmental impacts using the gold standard. Despite this, legislative change is slow in Ukraine, and of course that complicates our work.

**AO: Olena, can you tell us a little more about this 'gold standard'?**

**OK:** In principle, it is a standard of requirements for assembling evidentiary support. For example, how satellite imagery confirming crimes against the environment should be collected, processed, and presented.

The standard also details requirements for court appearances of witnesses to a given crime who are prepared to testify during a hearing. According to the International Criminal Court's rules, a witness must be a specific person or several persons who can testify and answer the prosecutor's questions.

Cooperation between the Ministry of the Environment, Ministry of Defense, Ministry of the Interior, and other state institutions made it possible to develop a single data collection algorithm.

When a war crime is documented – for example, the shelling of the Rivne oil depot by Russian missiles – it is important that all institutions work together. The Environmental

Inspection Agency drew up a regulatory instrument regarding evidence collection. The Space Agency provided satellite data. The National Police drew up a report in which it documented witness testimony by people prepared to appear both in the Ukrainian and international courts. So, official sources will exist that will confirm the information, thereby creating a "gold standard."

Of course, in order for all this to work, there must be clear instructions describing the actions of all authorities when collecting information about a crime. Unfortunately, there is no such functioning mechanism in Ukraine at present.

**AO: There is a lot of talk about ecocide happening in Ukraine now. What exactly is ecocide and can we really link it to this war?**

**OK:** Ecocide in Ukraine is not only possible, but should be discussed today. Of course, neither international nor domestic legislation was prepared that – in the 21st century, almost a hundred years after the end of World War II – we would face ecocide in the heart of Europe.

The very legal definition of the concept lacks clarity. Section 12 of Ukraine's Criminal Code contains Article 441, titled "Ecocide". It provides for punishment for "mass destruction of flora or fauna, poisoning of the atmosphere or water



resources, as well as other actions that can cause ecological catastrophe.”

From the perspective of national law, the ecocide article is a more serious crime than genocide. That said, it’s also based on value judgments and does not define what ecocide is and is not. How many trees must burn to be considered “mass destruction”? How do we document pollution of the air and water resources? What is an ecological disaster? For us, as lawyers, it lacks the specificity that would allow us to use this article.

As of today, the Prosecutor General’s Office has identified 11 environmental crimes since the beginning of the active military invasion – that is, since February 2022 – that we define as ecocide. Perhaps the most significant of these include the shelling of the Rivne oil depot (which I mentioned earlier) and the captures of the Zaporozhye and Chernobyl nuclear power plants.

The International Criminal Court’s Rome Statute contains Article 8(2) (b), which does not directly mention ecocide. It does, however, echo Article 441 of Ukraine’s Criminal Code. It also addresses the mass destruction of flora and fauna and infliction of significant and long-term harm to the environment.

For us, as lawyers though, it remains unclear what “long-term” and “significant” harm mean. How do we measure it? Perhaps that is why Article 8(2)(b) has never been used in international criminal trials.

But it does exist, so we decided to collect data using the gold standard and submit an appeal to the court. That will allow us to either confirm its viability or demonstrate the impossibility of its application and the need to reformulate it.

Since “long-term and significant” harm is legally difficult to prove, today a group of international lawyers is trying to make this article part of another article on genocide that is better worded.

As for the ecocide article in Ukraine’s Criminal Code, unfortunately, it doesn’t work either. Since it appeared in 2014, it has only been argued once in court, when it was applied to the destruction of three trees: one white mulberry and two apricots. Then the trial ended in nothing, and the plaintiff’s motion was denied in the absence of a criminal offense.

Today, we are preparing several cases that focus, for example, on the destruction of oil depots, a case to which it is easier to apply the ecocide concept, in other words, to imagine the “large-scale nature” and “significance” of the damage caused to the environment and to demonstrate the negative impacts of emissions on soil, groundwater, and the atmosphere. Hundreds of hectares of burnt forests also fall under the definition of “large-scale character.” For this reason, we expect that the case will be decided in our favor, particularly given that the Office of the Attorney General shares the same point of view.



Applying the Rome Statute, we also want to pursue criminal responsibility for carpet bombing, an act that destroys the soil layer across large areas. Such bombings lead to widespread and long-term chemical poisoning. As a result, we are counting on significant reparations for the destruction of unique humus-rich soil cover that can no longer be used for agriculture.

**AO: Is it currently possible to file lawsuits in international courts for environmental crimes?**

**OK:** Here everything is the same as for any other procedural or legal practice. Today, cases involving criminal investigations and presenting evidence prepared according to the gold standard can be submitted to international courts. However, if an investigation is ongoing – for example, analysis of chemicals resulting in environmental poisoning – then cases may be submitted to the prosecutor's office at the completion of the investigation.

Our organization collaborates with international lawyers from the Netherlands and Finland to assemble and prepare cases for presentation in international courts. We have experience in filing cases with the European Court of Human Rights. We have carefully reviewed case studies for prosecuting environmental crimes during numerous military conflicts. And, most importantly, we have a strong

desire to win and be paid reparations for environmental crimes. Therefore, I think it is safe to say that the outcome of the case will be in Ukraine's favor.

The fact that the first appeal to the international court regarding crimes against the environment will be submitted by EPL is, in my opinion, of great importance. On the one hand, the Prosecutor General's Office may take our experience into account during preparation of the cases. On the other hand, the fact that a civil society organization is taking the initiative should inspire government agencies to work more actively to modernize Ukraine's legislative framework as well as developing and adopting normative acts to meet global standards.

**AO: On a side note, what do you think about the July conference on Ukraine's reconstruction in Lugano? Ukraine's proposed Green Recovery plan was criticized by environmental organizations and was even called "shameful".**

– Yes, indeed, looking at the environment and Ukraine's Green Recovery, environmental organizations have already called the submitted plan "the Shame of Lugano". So, although Ukraine's Ministry of Natural Resources and Environment postures itself as having worked with 211 experts and civil society representatives on the plan, its final version was not presented





to the public, nor was it approved by independent experts.

In other words, the final version presented in Lugano was not approved by Ukraine's environmental organizations or civil society. Moreover, some of its proposed programs are completely antithetical to a sustainable and environmentally friendly approach to the environment.

For example, the plan approved construction of new nuclear reactors, a move that conflicts with the European Green Deal. It is also expected to increase production of traditional fossil fuels, in particular, shale gas development, an industry that can cause significant environmental damage in the Kharkiv, Donetsk, and Lviv regions. It could also leave the Lviv region without water.

The plan also provides for the development of new inland waterways, which, in particular, may mean resumption of construction on the [international waterway] E-40. Ukrainian, Belarusian, and Polish environmentalists actively opposed this waterway, forecasting destruction of the Polesye ecosystem.

When presenting the final version, the Ministry actively referred to the

European Green Deal. For us, as lawyers, however, it is not clear how this relates to Ukrainian legislation or which regulatory document spells out the principles of implementing this course in Ukraine. In addition, this reference turned out to be rather crafty. For example, in accordance with the European Green Deal, the construction and use of waste incinerators is prohibited, while in Ukraine their installation is planned in almost every regional center.

Therefore, from the perspective of protecting the interests of the environment, the plan for Ukraine's recovery at the conference in Lugano needs revision. It is fundamentally critical that it represents the interests and position of environmental organizations and civil society. It is civil society and not those corporate lobbyists who apparently strongly influenced the recovery plan that will help to ensure that Ukraine's recovery contributes to the Green Transition and achievement of carbon neutrality goals throughout Europe. •

*Translated by Jennifer Castner and Sara Moore.*



# Environmentalists critique Ukraine's reconstruction plan

*By BY UWEC Editorial Team*

On 4 July, the Ukrainian government presented its Plan for Ukraine's Reconstruction During and After the War in Lugano, Switzerland at an international conference dedicated to that topic. Leading Ukrainian environmental organizations immediately pointed out the joy of such a large-scale "Green Recovery" was greatly overshadowed by the plan's anti-environment slant.

Experts from several Ukrainian environmental NGOs observed that the plan is replete with damaging "dirty" projects, lacks a constructive approach to Ukraine's green recovery, and ignores

environmentally-friendly recovery principles jointly [proposed in June by 25](#) environmental organizations.

The Ukraine's [Recovery Plan](#) was commissioned by the government and seeks to quickly, effectively, and innovatively modernize and rebuild the country following the war. It's expected that this work will be financed using funding from the European Union and Ukraine's other foreign partners.

One component of the plan directly relates to Ukraine's wild areas. Ruslan Strelets, head of Ukraine's Ministry of Environmental Protection and Natural Resources, presented ["priority" areas](#)



related to nature conservation, including the creation of:

- 10 “model” national parks
- 15 wildlife rehabilitation centers
- 15 wildlife crossing points in migratory corridors
- 9 forestry seed centers for growing tree seedlings

As a result of the conference, participants issued the [Lugano Declaration for the Reconstruction of Ukraine](#). The document was signed by heads of state and government and ministers and representatives from 42 states, as well as senior officials and Council of Europe representatives, European Bank for Reconstruction and Development, European Commission, European Investment Bank, and the Organization for Economic Cooperation and Development. This declaration refers to “green” projects in the areas of electricity, heat supply, industry, transport, construction, agriculture, and waste.

During the Conference, almost all speakers repeated the need to “build back better” and used the term “green recovery.” However, environmentalists noted that specifics were notably lacking and the critical need to restore a healthy environment and meet the environmental needs of Ukrainian citizens was not mentioned at all.

Ukrainian environmentalists reacted rather critically to the draft plan. Executive director of Ecodia Center for Environmental Initiatives Natalia Gozak [observed that](#), as presented, the National Recovery Plan (allegedly developed by 2,500 experts and civil society organizations) “has nothing to do with the needs of the environment and future generations.”

In particular, environmental experts critiqued plan proposals that were the opposite of environmentally friendly, including plans for:

- Building new nuclear facilities without first decommissioning obsolete and dangerous units
- Improving domestic uranium production
- Growing the mining industry
- Using renewable energy to produce huge volumes of hydrogen for export instead of for domestic energy consumption
- Developing domestic natural gas production, incl. shale, instead of decarbonization
- Selling green electricity to the EU.

Experts from the NGO sector also commented that all talk of decarbonization was accompanied by plans for the extraction and use of fossil fuels. Environmentalists bitterly noted the irony that Lugano commitments to reduce greenhouse gas emissions by 65%



over 1990 levels (which was the previous for 2030) have already absolutely been exceeded through the destruction of industrial sites. It is ironic that, today, it is thoroughly possible to commit to reducing emissions while simultaneously increasing fossil fuels consumption.

Executive Director of WWF-Ukraine Viktor Bogdan said, “While we welcome the Ministry of Environmental Protection and Natural Resources’ plan to invest in new protected areas and environmentally-friendly products, we are disappointed that is not a single mention of the importance of minimizing negative environmental consequences stemming from development projects.”

Natalya Gozak continued along those lines, saying that “The Ukrainian government perceives the Green Recovery as a means to expand nuclear energy and promote fossil-fueled projects (for example, gas exports) targeting hydrogen and bioenergy while remaining silent on their energy origin. We cannot afford to continue our dependence on unsustainable energy solutions. We need to think long-term to ensure the development of Ukraine as a modern economy based on sustainable renewable energy sources and energy efficiency programs.”

The Ukrainian Nature Conservation Group (UNCG) was also quite critical of the Ministry’s environmental priorities for Ukraine’s restoration, calling the conference in Lugano “[shameful](#).”

“To prioritize any of these expensive projects would be a significant misstep. Ukrainian environmental conservation requires other, much more systematic approaches. Moreover, every project proposed by Strelets involves construction, the single most corrupt activity in Ukraine,” UNCG wrote in a press release.

In addition to the Minister of Environmental Protection’s speech, there is extensive information in the public domain (for example, [here](#) and [here](#)) about specific projects for which Ukraine plans to seek EU funding. UNCG experts argue that some of those initiatives will obviously lead to significant environmental damage.

Below are just a few examples targeted for “priority funding” and specifically designated for the environmental restoration of Ukraine:

- Increasing Ukraine’s raw resource base (i.e., increasing the extraction of resources such as timber, minerals, etc.)
- Transitioning to mechanized timber harvests using harvesters and forwarders (i.e., a significant increase in felling volumes thanks to more efficient machines/technologies)
- Improving the environmental impact assessment (EIA) procedure and reducing its timeframe (i.e., simplification and reduction of public participation, both of which





- “hinder” unsustainable business practices)
- Deregulation and simplification of access to mineral resources
  - Developing an irrigation system serving one million hectares and development of water drainage/reclamation systems (i.e., such systems have already led to degradation of Ukraine’s rivers)
  - Returning rural lands to economic circulation (i.e., increasing areas under cultivation by destroying remaining steppes and self-renewing forests)
  - “Renewing” Ukrainian forests (i.e., cutting down allegedly “obsolete” old-growth forests)
  - Building 3.5-gW of hydroelectric power plants and pumped storage power plants (despite the established negative impacts of hydropower on river biodiversity)
  - Development of an international network of inland waterways in accordance with international treaties to which Ukraine is a signatory (namely, development of the E40 waterway stretching from the Black to the Baltic



*Carpathian Mountains. Photo by Andrew Yurkiv*





Seas, a plan actively opposed by environmentalists from at least three countries).

Representatives of NGOs point out that these are only a fraction of the anti-environment projects that the Ukrainian government hopes to implement. At the same time, meaningful priority measures for nature conservation are absent.

The [June 2022 proposal](#) by the alliance of over 25 Ukrainian and European NGOs called on EU officials to only finance Ukraine's plan if a number of extremely important conservation reforms are implemented. In their letter, environmentalists direct the European Commission's attention to attempts by corporate interests in Ukraine to actively weaken environmental regulations during the chaos of war, resulting in damage to Ukrainians, the environment, and the climate.

Proposed alternatives include a new law regulating the timber industry aimed

at reducing corruption in timber sales and allocating more funds to protect forests. Illegally felled wood from one of Europe's last virgin forests in Ukraine's Carpathian Mountains has already been [used to manufacture](#) furniture giant Ikea's most popular products. A 2018 [EU audit](#) of Ukraine's forestry sector revealed that the State Forest Resources Agency of Ukraine provides its own oversight. At the time of that audit's public release, the EU called for greater transparency and recommended the creation of a separate independent agency to oversee forest management in order to end conflicts of interest and reduce corruption in the logging sector.

Environmental activists call on the international community to refuse financial support for anti-environmental projects and hope that both Western partners and Ukraine will remain true to the European Green Deal's principles. •

*Translated by Jennifer Castner*

*Image credit: Greenpeace*



## **“Governments prioritize energy security over the clean energy transition”**

**D**uring June 2022 UN climate negotiations in Bonn, Germany, UWEC co-editor Angelina Davydova, along with Boris Schneider from the Clean Energy Wire CLEW spoke to [Bill Hare](#), founder and CEO of Climate Analytics and one of the leaders of the [Climate Action Tracker](#), about the current state of UN climate change negotiations and the global decarbonization agenda. This is a transcript of the interview, which first appeared in [the Eurasian Climate Brief](#)

[podcast](#), hosted by Angelina and Boris along with Natalie Sauer, an English-language editor for The Conversation.

**Davydova:** We’re meeting here in Bonn, during the UNFCCC intersessionals, and it’s the first UN negotiation session since the beginning of the war in Ukraine. So, how would you say that Russia’s invasion of Ukraine is influencing these negotiations now? Which consequences do you see?



**Bill Hare:** In Glasgow last year it was agreed that the whole climate process would focus on increasing ambition, but now what we're seeing in Bonn is a complete deflation of the pressure to increase ambition, and that's a consequence in significant part of the energy crisis induced by the illegal invasion of Ukraine by Russia. The problem that's happening here is that a lot of governments are now focused, they say, 'on energy security' rather than the clean energy transition, and that's leading to a disappearance of ambition from the agenda. We have a number of other countries, including Germany, focused on decreasing natural gas supplies. As far as we can calculate, natural gas supplies from Russia are being replaced, more than replaced, and that's leading to serious concerns about the lock-in of carbon-intensive infrastructure. So the politics of this meeting in Bonn are very disappointing, because of multiple countries basically not wanting to talk about or promote ambition anymore, so the whole objective of trying to close the emissions gap between where current commitments from countries are headed in 2030 and where they need to be on the Paris Agreement, and the agreed pathway is, basically, disappearing from the agenda.

**Angelina:** That all doesn't sound like very good news at the moment. From what I hear a lot in the negotiations,

there are also quite a lot of concerns that climate finance for developing countries (both for mitigation and adaptation) would not be accumulated in the amount that was promised before and that is actually needed. Do you also see this as a concern, that financial resources are being allocated for military purposes and other purposes but not for development aid and climate finance?

**Bill:** The climate finance issue is a long-standing problem – that developed countries have not met the commitments they've made, four hundred billion dollars – and that remains to be a significant problem. The economic issues induced by the Covid crisis and now also by the war in Ukraine are leading governments to be very reluctant to increase climate finance, rightly or wrongly, and I think that's going to be a significant political problem for the conference of the parties in Egypt (COP27), I think that the two issues are coupled, increasing ambition and action needs to be also supported by additional financing. If that doesn't happen, it will create a very bad political environment in Egypt for sure.

**Angelina:** So what should happen before Egypt, so that the world can be back on track for more climate ambition? And how could that happen? And what kind of effort do we need from which parties? When do you see this possibility?



**Bill:** Well, I think to improve the outlook for ambition and action– real action –by the conference of the parties in Egypt, there are several opportunities. We have the G7 coming up in a few weeks, we have the G20, and we have the United Nations General Assembly, which would be dominated by Climate Week in September. So these are high-level opportunities for governments to re-assert their commitment to increasing climate action. And so one would look to the G7 leaders and then the G20 leaders, and then governments turning up at the United Nations in September to really re-assert their commitment to act and to move past the Ukraine energy crisis in a positive way, and by ‘positive’ I mean – what government should really be doing now is doubling down and accelerating renewable energy and clean technology, and they should be doubling down on providing financial support for developing countries to reduce their emissions and also for adaptation. The conscience that we see now is very dangerous, because what we are seeing is an increase in the amount of finance going to very large liquefied natural gas projects, not only, but particularly in Africa, and at the same time we’re seeing decline in the amount of investment in renewable energy in that region. And at the same time we’re seeing a retreat in energy access for Africa. So what that means is at the very time when we should be seeing renewable energy

investment growing, we should be seeing energy access, energy poverty issues being overcome in Africa, we are seeing a massive and supported investment in fossil fuels, not just by the private sector, but directly or indirectly led by Northern governments. And that doesn’t speak well to the future. What it does tell us is a very old story that massive fossil fuel investments in developing country regions rarely ever bring serious benefits to the real people, they bring benefits to the elite, they bring benefits to the companies who repatriate their profits to shareholders often in Europe or North America, and that’s a really big problem that I am now seeing for the first time in a very, very long time.

**Boris Schneider:** So I would like to ask you some questions about the report which was published by the Climate Action Tracker in early June, and in that report, the authors are saying that since the Russian invasion of Ukraine we have been witnessing a proper global gold rush for new fossil gas production, new fossil fuel investments, new pipelines and, in particular, LNG – liquefied natural gas facilities. Of course, also Germany in particular is talking a lot about this infrastructure as a way to escape Russian gas imports. And could you please elaborate the main takeaways of the report, what all these investments,



**all those structures mean for our ability to stay within 1.5° Celsius in the Paris Agreement?**

**Bill:** Yeah, I mean the Russian-induced energy crisis has meant that Europe is moving away from Russian gas, and that's right, and I don't think that anyone would argue that that gas needs, for a short period, needs to be replaced in order to enable the lights to stay on and the industry to keep moving in Europe. What's really at stake is the longer-term commitments that are being made to long-term inbound gas through new liquefied natural gas import facilities in Europe – Germany, Italy, the Netherlands, for example. And these inbound gas commitments already far exceed replacement of the Russian gas. That's one thing, the volume is greater, and secondly, we understand the commitments are over decades. So, add that up together, and it looks like a really big problem for de-carbonization in Europe. We know, for example, that two German utilities, RWE and Juniper, have entered into multi-megatons of gas contracts a year with an Australian producer, Woodside, which they now want to bring into Germany, and these contracts, ten-fifteen-twenty years or so, they are quite contradicting the idea of rapid de-carbonization of Germany and Europe. So that points to a really serious conflict between climate ambitions in Europe and the actual reality of what governments are stitching up on gas

supply. So that creates a major risk for the future, because companies will want to make these investments and will want over ten or twenty years or more to get their returns, and so we are stuck with these facilities. They become, in effect, stranded assets or very strong carbon-locking to economies, including Germany and Europe. So that's really one of the big risks I'm seeing, and of course the European energy liquefied natural gas problem is really only part of a much bigger global problem that we're seeing. So, for example, in Africa, I think in the pipeline now are 60 to 74 million tons per annum of new liquefied natural gas capacity. To put into comparison the biggest producers now are something like 79 or 80, that's Qatar and Australia. So, just the increase from Africa is enough to cause a serious problem in its own right. And somehow or other the gas companies and governments use the Ukraine and the Russian energy crisis to justify this. And it's in a way like the whole climate ambition is being thrown away and replaced by a rush to gas. And in the political domain we're also hearing that language for the G7 leaders in a few weeks and for the G20 leaders is increasingly referring to or replacing energy transition as an objective to energy security, which means boosting gas supplies.

**Boris:** Some politicians, in particular in Germany, I think it was the German





**Minister of Economy and Energy who is incidentally from the Green Party, when he announced that there would be an expansion of the LNG infrastructure, he claimed that part of it could eventually be used for hydrogen, so that in a way it would not be fully a stranded asset. Do you see this as a realistic option, or what is your comment on that?**

**Bill:** I think technologically it's possible to have liquefied natural gas terminals and social distribution systems that are hydrogen-compatible. So in the technological sense I think that's possible. The skepticism that many would bring to that is that we have heard this before from the fossil fuel industry. For anyone with a decent memory, you know, some years ago, a decade or so ago, there was a big push on cleaning up coal, carbon-capture and storage for coal plants was talked about, and we had politicians, including the Chancellor in Germany (at the time Chancellor Merkel) going around also supporting carbon-capture and ready coal-fired power plant, but I doubt there was a single one in Germany or anywhere else on the planet actually. So one has to be very skeptical and the reason is that the companies building these terminals want a long-term return, and it's not just the terminal itself, it's also on the supply side. Companies are making multi-billion investments in generating liquefied natural gas to come

to these terminals, and they will have a say in the political system, they always do, so I'm skeptical about this. I'm not questioning whether Germany needs to replace Russian gas for a few years, I think everyone agrees with that, but the issue is more of the longer-term lock-in and the rightly-held skepticism whether this would just be a short-term solution or part of a longer term carbon lock-in.

**Boris: And what do you make of talk or I think already in some countries existing attempts to tax windfall profits of fossil fuel companies? Because obviously since energy prices have risen very, very strongly since the beginning of the invasion some of them are making way more money than they were before the war. Do you see this as a reasonable or possible policy?**

Obviously, look, I'm not an economist, but, you know, as a citizen I think it looks perfectly reasonable to tax unusual windfall profits and to turn those to public advantage in different ways. People are hurting from the increased energy prices, industry are hurting, so it would make sense to tax windfall profits and thereby also provide a disincentive for companies to keep going in the fossil fuel direction. So I think that would be an important public policy initiative. I guess I struggle to understand why more governments haven't moved in that direction, when it just seems a very obvious thing to do, you know.



In a very colloquial sense you can say that many of the gas companies are profiteering off the war in Russia, they are the ones making the money, while many of the rest of us are suffering from the energy prices, and it's not just people in rich countries suffering, we're seeing countries that are presently importing fossil fuels to the developing world, who are quite poor, having to pay remarkable prices for energy, and that's one of the factors that's actually leading to a retreat from energy access in Africa. People can no longer afford to buy, for example, the liquefied natural gas which was sold a few years ago as a panacea for development, they just can't afford to buy it anymore, so they're going back to traditional biomass, etc, and that's one of the factors behind the retreat from energy access in Africa. So. I think, really, there's almost a very moral case to tax the companies and probably a very good economic case as well.

**Angelina: You now spoke a lot about how governments, and also particular companies are actually making money in current times of the war in Ukraine. Before the war, and also here, at the UNFCCC level, there was a lot of debate about how the world is moving more into renewable energy development, decentralization of energy supplies, and also people and consumers are having more to say, more power in the whole energy sector, rather than the**

**governments and companies. Is there a possibility for us to come back to this debate and enforce it in any way?**

**Bill:** That's a very good question. I think there is every possibility of coming back to this, the question is how long-lasting would be the structural market developments in the gas area and fossil fuel area for the companies that are presently been involved in the fossil fuel industry. If they become long-lasting and backed by government, then it would be very difficult to go back. What we know is that despite the energy crisis, in a way, or even because of it, renewables are much cheaper than the alternative, the spike in liquefied natural gas and, to some extent, coal prices really tells us of the way to go for energy security is renewables. And that means that there has to be a very strong economic incentive to go back in that direction towards renewables. I think there's another way to look at what's going on. I've been engaged in this now for a very long time and I really think this is a very very strong and coordinated global push by the gas and oil industry to bust the Paris Agreement. Frankly, I think that's really what's going on. And you can see it in multiple different ways – you can see this in the way in which the companies have rounded up large industrial countries to support their push, despite all the advice from their scientists. You can see it in the way this is being pushed on to developing



countries and supported by multilateral institutions. Knowing that the lobbying behind that is very formidable by the oil and gas industry. So it's very hard to avoid the conclusion that the oil and gas industry is taking advantage of this Russian energy crisis to try and roll back the implementation of the Paris Agreement permanently. And you can see... this is my view; I can't prove it, but it's my observation – a feeling about what I've been seeing the last months, and this is also linked to this massive explosion of green-wash. If you go and look at the gas company websites, whether it's Total or Woodside, you will see almost on the first page of their commitment to net zero, and so

on and so forth. When you drill into that, there's absolutely nothing there. It's not happening. And it's not going to happen. Or if it happens, it's gonna happen through offset purchases. So I think there's every justification for being deeply concerned that the fossil fuel industry is making an end-run in an attempt to derail and even strip off the Paris Agreement. And I think that creates a profound risk not just for the climate, but also for people in poverty. This is not going to help people in poverty in the developing world get access to energy. Further, it magnifies the very real chances of people in vulnerable places experiencing unacceptable, even catastrophic climate damages. •



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