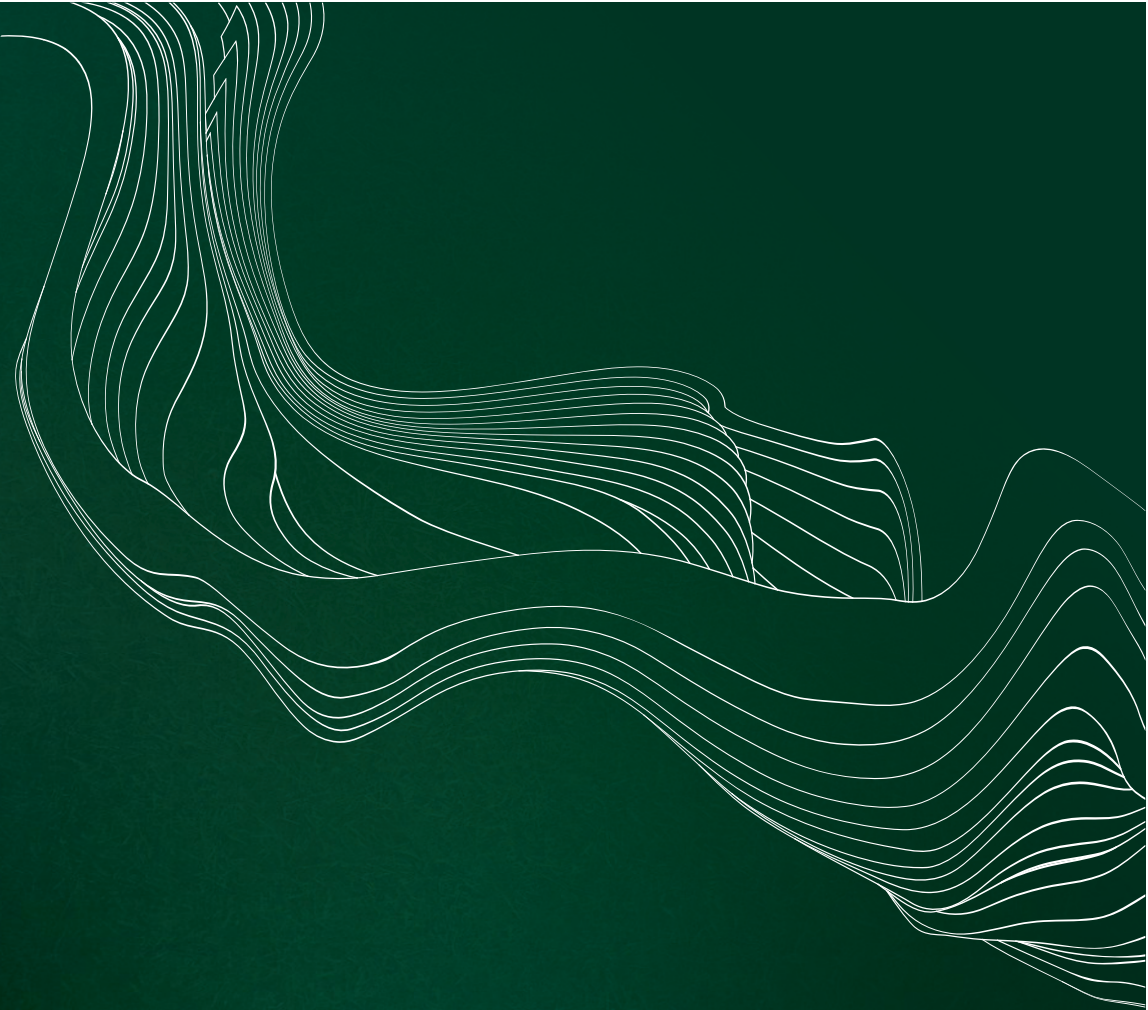




9 February
2024

AN ENVIRONMENTAL COMPACT FOR UKRAINE

**A Green Future:
Recommendations for Accountability
and Recovery**

**High-Level Working Group on the
Environmental Consequences of the War**

Andriy Yermak and Margot Wallström, Co-Chairs

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Preliminary Note

The High-Level Working Group was created by the Office of the President of Ukraine, with international members invited to serve in their personal capacity. This report includes recommendations that are directed to the Ukrainian Government, understanding that Ukrainian authorities must follow appropriate procedures for deciding policy directives. It is hoped that all recommendations will be strongly considered by the national or international entities to whom they apply.

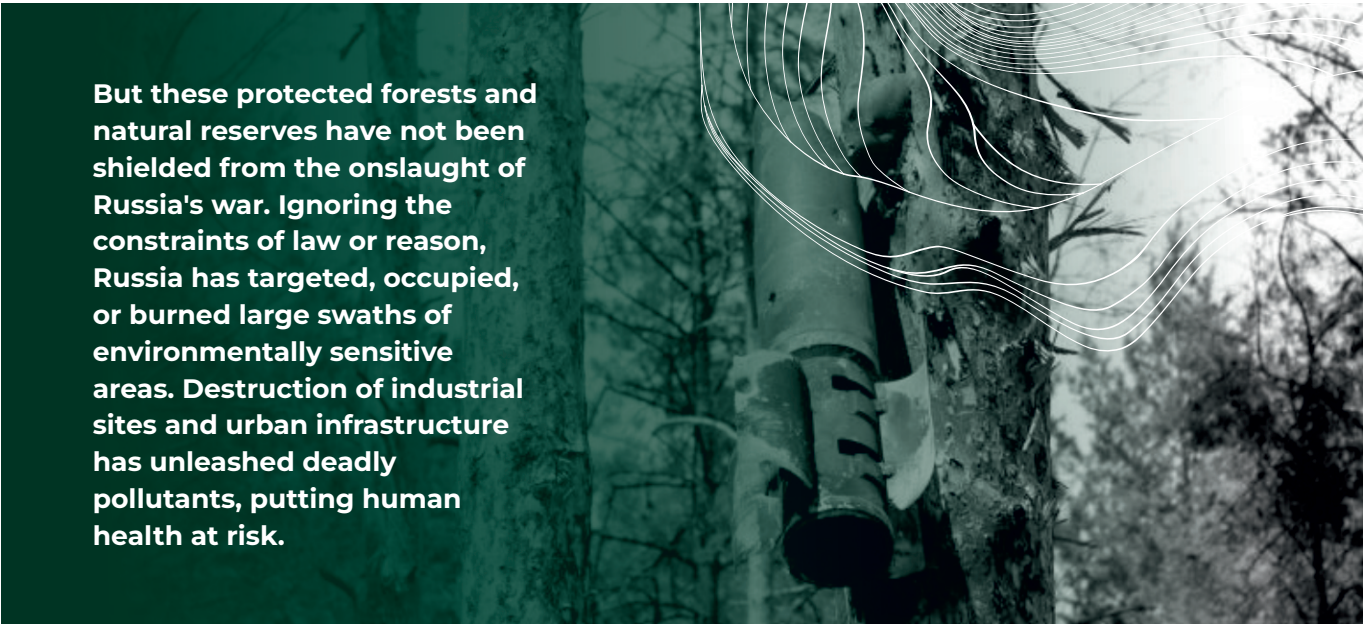
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Preface

Ukraine is a country of environmental splendor. Its natural riches and large areas of protected green space have been a part of its national identity, and a foundation for its future.



But these protected forests and natural reserves have not been shielded from the onslaught of Russia's war. Ignoring the constraints of law or reason, Russia has targeted, occupied, or burned large swaths of environmentally sensitive areas. Destruction of industrial sites and urban infrastructure has unleashed deadly pollutants, putting human health at risk.

The damage is extensive. We must seek to fully understand the environmental consequences of this war, and take all measures to stop the harm and immediately address the damage already done.

The Ukrainian Government recognized this issue early in the war, standing apart from other conflicts around the world. It is time that environmental damage in war everywhere is recognized and appropriately addressed. Recognition and justice for these crimes is something that every society suffering war rightly deserves.

Ukraine can be an example for the world. We must get this right, so that the environment is no longer a silent victim nor seen as a luxury to be turned to only after a war has ended.

Indeed, Ukraine teaches us that this is not just a “post-war” issue. It is an urgent matter for today. The decisions taken now will directly determine what is possible later.

The climate crisis has made clear how intertwined we all are: human health depends on environmental health. What happens in one country affects the environment everywhere. The oft-cited triple threat of biodiversity loss, stresses on the climate and increased pollution are all tragically evident in Ukraine: the fighting, and in particular the manner of Russia's attacks, is having a devastating effect in all three areas.

This is not an optional issue, nor one of legal neutrality. To be clear: Russia's unprovoked war of aggression against Ukraine is illegal. And the way in which Russia is prosecuting its war – targeting the civilian population, natural sites and civilian infrastructure – is also clearly illegal under national and international law.

There must be justice for these crimes. There are already many important initiatives to achieve this justice, and there are opportunities to do even more, as we identify here. The experience in Ukraine might not only help redefine the international understanding of environmental damage in war, but also how justice may be achieved. This is critical.



President Volodymyr Zelenskyy included environmental protection in his ten-point peace formula in November 2022. Other issues that he singled out, such as nuclear safety, global food security, justice and energy, also have strong environmental dimensions.

Reflecting these priorities, in June of 2023 the Office of the President of Ukraine established the High-Level Working Group on the Environmental Consequences of the War. Comprised of Ukrainian and international members, we were asked to look carefully at the environmental damage from the war, assess how justice could be strengthened, and recommend steps towards green reconstruction and recovery.

This report does not prescribe every step and every detail. We have indicated where we see the need for policy or action, but we recognize that the implementation phase must develop our recommendations in further detail. For some of our recommendations, Ukrainians must set out these specifics, within a robust process of consultation. Likewise, we urge international partners to take the necessary steps to implement the ideas and recommendations that we have put to them.

Indeed, we have titled our report “An Environmental Compact” because we know it is only by Ukrainians and internationals joining together that we can accomplish what is outlined here.

Many Ukrainian and international experts have contributed to our work. We are so thankful for this input and engagement; we know our report is much stronger as a result of these contributions.

In the midst of painful war, it can be difficult to see through the fog to what might come after. But maintaining the vision of a post-war Ukraine is essential. We have been impressed with the concrete and positive proposals for a future Ukraine, built on a green economy and a restored environment.

That is what we see too, when we look into the future: a clean, green, peaceful and democratic Ukraine.

LET US ALL WORK TOGETHER TO HELP UKRAINE FIND THIS PATH.

Signed,

Andriy Yermak and Margot Wallström
Co-Chairs, High-Level Working Group

Introduction



Ukraine has suffered catastrophic damage since Russia's full-scale military attack in February 2022.

The loss of human life and the deep suffering across society is incalculable.

The natural environment has been one of the war's significant casualties, and addressing this damage has been a priority for the Ukrainian Government and civil society.

Despite Ukraine's commitment to date, the needs remain great. This includes more detailed monitoring of the ongoing damage for legal, remediation and health purposes; increasing criminal investigation capacities; addressing the environmental concerns of land mine clearance; and beginning now to implement green recovery, reconstruction and significant economic transformation.

All of this must be a joint effort with Ukraine's international partners. There are many areas where international leadership is required, not only in providing technical assistance and resources, but also clarifying international policy, law and best-practice. It is important that the necessary support and attention to these issues is provided now, even while the war continues, as reconstruction planning and implementation is already underway.

Ukraine recently entered negotiations for accession to the European Union. Satisfying the requirements to join the EU includes incorporating significant environmental safeguards, and this process will guide many areas of specific reform. The Working Group notes the progress already made by Ukraine, including legislative alignment and institutional reforms, as detailed in the European Commission's report of November 8, 2023.

Several issues within this report should be considered cross-cutting themes, relevant to all recommendations:

01

Inclusive policymaking should be a priority. There is no question of the benefits from public consultations, and especially in a context with such a robust network of experts and organizations on these issues. Policies will also be strengthened if they consider the impact on both men and women, as well as persons of all ages and circumstance.

02

Gaining the full trust of the Ukrainian people, donors and investors will require a firm commitment to transparency and countering corruption. This will be critical to carry out the proposals here.

03

The “planetary boundaries” framework should help guide Ukraine's recovery and rebuilding. This scientific framework shows us that global resources are limited, and that all countries must undertake a multipronged effort to reduce pollutants, protect natural areas and lower the stress on the environment and the climate. This orientation will help Ukrainians see all the interconnected factors that are related to environmental recovery, while also ensuring that Ukraine contributes positively to the global effort to address climate and ecosystem health.



This is an important moment to strengthen accountability for environmental crimes in war, as well as pioneer sustainable approaches to recovery. The recommendations presented in this report are intended to assist Ukraine and its international partners to map priorities within this enormous task.

Ukraine's efforts in this area, together with its partners, will show that it is possible to rejuvenate natural resources and build a resilient society after war. We turn to the international community to support the recommendations here, under the policy lead of Ukraine.

Priority 1: Monitor the Damage and Reduce the Risk



The environmental consequences of Russia's full-scale invasion of Ukraine have been profound and far-reaching.

The attacks on the environment have had a direct effect on human lives and livelihoods.

There have been dangerous chemical releases and pollution from damaged industrial sites; unfathomable risks due to the militarization of nuclear sites; an impact on air quality from the devastation of towns and cities and from forests burned; economic and ecological consequences of damage to agricultural areas, forests and natural reserves; water pollution and destruction of water infrastructure; and sensitive ecosystems terribly polluted, including in coastal and marine areas.

The environmental risks and damage also extends outside of Ukraine, such that the world as a whole is directly impacted by this war. The threat of nuclear catastrophe must receive utmost attention, with the urgent need to halt the targeting and military occupation of nuclear power plants. The availability and price of food has been affected throughout the developing world. The war has increased greenhouse gas emissions, while distracting from critical climate goals in Europe and elsewhere. Ukraine's neighbors suffer air pollution from the war, and those abutting the Black Sea contend with mines and damage to the Sea's wildlife.

In some respects, the environmental consequences of this war have been better documented than in other conflicts around the world. The strong advocacy by the Ukrainian Government, together with the work of national and international civil society and intergovernmental organizations, has focused attention to the terrible environmental toll. This stands in contrast to other contexts: historically, wartime environmental damage has often been a low priority, even where it is clearly detrimental to human health and ecosystems.

But this documentation is not fully coordinated and is incomplete. It is built on a system of environmental monitoring that was in place prior to the current conflict, and the war has significantly increased the demands on this system. Furthermore, the nature of the damage assessments must be different for different ends. An evidentiary legal process is required both to prosecute wrongdoers and to make the legal case for reparations, requiring strict evidence-collection protocols. On the other hand, ongoing monitoring of certain risks and trends is critical to protect human health, undertake immediate remediation, and keep the public informed.

A requirement by Ukraine's Parliament in early 2022 led the Government to develop methodologies to place a monetary value on the damage: as of early 2024, the Government calculated the environmental damage from the war at close to 56 billion Euros. This approach is helpful for communicating the vast damages and for overall planning of the resources that will be needed for repair.

But despite the considerable accomplishments to date, more work is needed. Given the vast damage across the country and the varying specific needs, Ukraine should further build out its data collection and assessment system, as well as improve coordination across Government and with independent entities.

→ **RECOMMENDATION 1:**

The Presidency of Ukraine should establish a **high-level coordination body** that oversees a robust system for the collection and preservation of evidence of war-related environmental damage.

A. All relevant ministries or agencies should be represented on this coordination body, including the Prosecutor-General, as well as pertinent non-governmental entities that may have an active role in evidence collection.

B. This coordination body should help ensure consistent practice in the monitoring and documentation of damage, as per the strategy and methodologies indicated below. This includes establishing a clear plan with relevant parties to ensure that data is collected on an ongoing basis, or as soon as possible given security and safety concerns.

→ **RECOMMENDATION 2:**

Ukraine should develop a **comprehensive strategy for data collection and preservation**, based on international best practice.

A. This strategy should in particular identify the data and information needed for a possible international compensation mechanism in the future, which could award reparations for well-documented damages. Ukraine should ensure that this data is integrated into the **Register of Damage** Caused by the Aggression of the Russian Federation Against Ukraine, which has been established in The Hague by the Council of Europe.

B. The strategy should also plan for the **range of other needs for data on environmental damage**. In addition to (i) evidence for reparations, these needs include (ii) understanding the health risks at specific locations as early as possible in order to minimize immediate dangers, (iii) obtaining an overview of damages that will assist in targeting recovery and reconstruction priorities, and (iv) carefully preserving any evidence in relation to specific crimes.

→ **RECOMMENDATION 3:**

The specific methodology for the above data collection and preservation should be **developed in conjunction with key international expert institutions**. This is a critical need, given that documenting environmental damage in the context of ongoing conflict is still an undeveloped area, lacking clear guidance.

A. This methodology could be built on existing, general international standards for evidence collection (for example, clear chains of custody), while grappling with the special challenges of significant environmental damage and the limited access due to war.

→ **RECOMMENDATION 4:**

The international community should **provide specialized technical assistance and financial support** for the establishment and management of the above coordination body, and for the development of the data collection strategy and methodology.

A. The international community should also provide the necessary **capacity-building and equipment** for those officials and partners carrying out the monitoring and evidence collection, recognizing the highly technical nature of this work and extremely challenging conditions. This may include remote tools of evidence collection (such as drones and satellite imagery) to cover territory that is occupied or mined.

→ **RECOMMENDATION 5:**

The **World Health Organization** and other international health organizations should assist Ukraine in assessing the impact of environmental damage on human health. This should aim to identify the harm done, and to minimize health hazards where possible.

→ **RECOMMENDATION 6:**

Ukraine and its neighbors should give special attention to the **environmental damage affecting the Black Sea**.

A. Ukraine should **coordinate with those allied States that abut the Black Sea** to collect and analyze information on mines and unexploded ordnance in the Sea, water pollution levels, and the many other effects of wartime activities on animal and sea life and on biodiversity in this important body of water.

B. These Black Sea countries should establish a special initiative to **report regularly** on these effects of the war. These reports, with documentation, should be submitted to the Black Sea Commission and to other international institutions focused on the Black Sea, with recommendations to address this damage and prevent further harm.

→ **RECOMMENDATION 7:**

Internationally protected areas in Ukraine, such as wetlands and wilderness conservation sites, have been directly damaged by the war. The states-parties or oversight bodies of the pertinent international treaties should work with Ukraine to assess the damage to these areas and regularly report on their findings. This would include the Ramsar Convention (on wetlands of international importance) and the Bern Convention (on the conservation of wildlife and natural habitats).

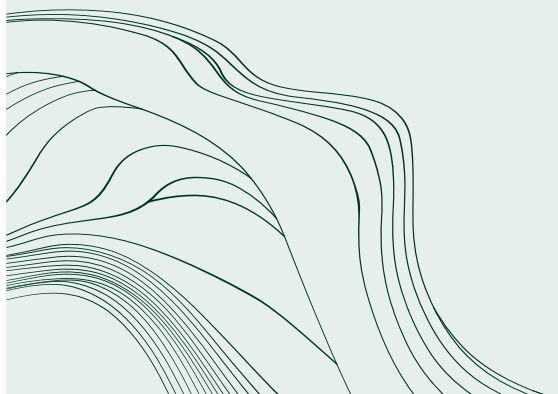
→ **RECOMMENDATION 8:**

The international community should strongly press Russia to ensure **proper treatment and protection of nuclear sites**, and to take all measures to prevent a nuclear radiation incident.

A. Russia's illegal seizure of the Zaporizhzhia Nuclear Power Plant is putting Ukraine and its neighbors in peril. **Russia should immediately withdraw from this nuclear power plant** so that Ukrainian authorities can ensure its safe and secure operation, as was specifically stipulated in a resolution of the International Atomic Energy Agency's Board of Governors in November 2022. The IAEA and other UN bodies should maintain pressure on Russia to comply with this resolution.

B. As a party to the **Convention on Nuclear Safety**, Russia is bound by the obligation to ensure the safe operation and oversight of nuclear power plants. These specific obligations should be addressed urgently, including at the next meeting of the Contracting Parties to the Convention.

C. The EU should consider establishing an **international task force to conduct comprehensive safety assessments** of all Ukrainian nuclear facilities, including any vulnerabilities in the context of conflict. This task force could be supported by the European Instrument for International Nuclear Safety Cooperation, and should include Ukrainian and international nuclear safety experts, meteorologists and emergency response specialists.



Priority 2: Ensure Accountability

There must be accountability for the massive environmental destruction wrought by Russian forces.

Ukraine has taken significant steps to ensure justice for these environmental crimes. The Ukrainian Prosecutor General has created a structure within his office specifically to investigate and prosecute these crimes and has simultaneously pursued many international paths to criminal accountability.

Ukraine has accepted the jurisdiction of the International Criminal Court and cooperates closely with the ICC Prosecutor. The ICC thus has the legal standing to investigate and prosecute acts committed in Ukraine by persons of any nationality, back to November 2013.

It is notable that “ecocide” has long been stipulated as a crime in the Ukrainian legal code. There has indeed been a global increase in the incorporation of the crime of ecocide into national criminal codes. In the context of this increased attention, an Independent Expert Panel recently proposed a definition of ecocide as



«unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.»¹

In addition to the prosecution of environmental damage, either as a war crime or as ecocide, accountability must also include obtaining reparations, in particular from the State responsible for the damage.

International law requires that Russia pay for the damages that it has caused through its unlawful use of force against a sovereign State. The Working Group encourages all avenues for reparation to be considered. Some experts have advocated for using Russian State assets that have been frozen in overseas accounts. In addition, policymakers are discussing whether revenues generated from these frozen assets can be used for Ukraine's recovery and reconstruction. These are important issues that have economic, legal and political dimensions. Whenever reparations may be awarded, it is important that some of these funds address environmental repair.

As noted above, the accurate and reliable collection and preservation of evidence is critical to support both criminal prosecutions and reparations claims. There is no established international standard for wartime environmental data collection, but there are general standards and methodologies that indicate best practice. To ensure that full reparations are provided for the environmental damage of the war, it is important that data is gathered and preserved in a scientifically and legally sound manner. Collected data must be of high quality, with sampling, processing and storage methodologies that adhere to international standards.

These efforts may have a lasting effect on the field of justice for environmental damages in war. While there are some precedents of successfully prosecuting environmental crimes in contexts of conflict, international experience remains underdeveloped. Ukraine's commitment to obtaining accountability for Russia's environmental destruction is thus strengthening law and practice at both the national and international level.

¹ Independent Expert Panel for the Legal Definition of Ecocide, “Commentary and Core Text,” Stop Ecocide Foundation, June 2021. www.stopecocide.earth/legal-definition

In addition to the strong actions that Ukraine has undertaken to date, the Working Group suggests the following measures to ensure accountability:

→ **RECOMMENDATION 9:**

Ukraine's Prosecutor-General should develop a **comprehensive strategy for the prosecution of wartime environmental damage**. This could assess the need for further laboratory capacities or a digital evidence platform, as well as other areas.

→ **RECOMMENDATION 10:**

Prosecuting environmental crimes in Ukrainian courts will demand a foundational understanding by the national judiciary of the relevant law and evidentiary criteria to be applied. International judicial training institutes, deeply experienced in providing impartial judicial seminars, should offer **trainings for judges** who may take up cases of environmental crimes.

→ **RECOMMENDATION 11:**

There is likewise a need to **build the capacity of investigators and prosecutors**. There is currently no specialization within the National Police for the investigation of environmental crimes. Ukraine could address this by creating special units within investigation departments of the National Police that are dedicated to environmental war crimes and ecocide.

→ **RECOMMENDATION 12:**

While several States are investigating international crimes committed in Ukraine based on universal jurisdiction, these have not yet focused on environmental damage. European and other States should strengthen their capacities to investigate and prosecute environmental war crimes based on **universal or extraterritorial jurisdiction**, and actively pursue such cases pertaining to Ukraine.

A. There are numerous means to shore up these capacities, in particular through strengthening a prosecuting State's domestic legal framework and providing national prosecuting authorities the resources and specific expertise to pursue these complex investigations.

B. Ukraine has already committed to cooperation with third-party States on case investigations where extraterritorial prosecutions are possible; such strategic cooperation should continue to be prioritized.

→ **RECOMMENDATION 13:**

While Ukraine has not ratified the Rome Statute, it may find many advantages in doing so. Having contributed to the development of international law over many decades, and given that it has already accepted the jurisdiction of the ICC, the Working Group suggests that Ukraine analyze the considerable **advantages to ratifying the Rome Statute**.

→ **RECOMMENDATION 14:**

Article 8 of the Rome Statute provides for prosecution of attacks that knowingly cause widespread, long-term and severe damage to the natural environment, and that are clearly excessive in relation to the military advantage anticipated, which it defines as war crimes.² Other legal avenues for prosecuting wartime environmental damage are also found within Article 8. The Working Group encourages the ICC Prosecutor to **consider the case of the Kakhovka Dam collapse for prosecution** within the scope of Article 8. Accountability before the ICC for the excessive environmental damage from this extraordinary act would send a strong signal of international justice.

² The Rome Statute defines war crimes to include: "Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated." (Rome Statute Article 8(2)(b)(iv))

→ **RECOMMENDATION 15:**

The Assembly of States Parties to the ICC should consider **incorporating ecocide as a core international crime within the Rome Statute**. This would strengthen the possibility of justice for such crimes in the future.

→ **RECOMMENDATION 16:**

To support accountability for environmental crimes in future conflicts, the international community should establish a **central repository of global experience and jurisprudence** on cases pertaining to the environment. This would assist both national and international actors in pursuing, and seeking to prevent, environmental crimes in contexts of conflict.

→ **RECOMMENDATION 17:**

The European Union Agency for Criminal Justice Cooperation (Eurojust) is supporting accountability for Russia's crimes in Ukraine through a number of important initiatives, including a Joint Investigation Team and a Core International Crimes Evidence Database, as well as a new International Centre for the Prosecution of the Crime of Aggression Against Ukraine. It is not clear that any of these include a focus on environmental crimes, however. EU Member States and members of the Joint Investigation Team should review these respective mandates and **ensure that the investigation of Russia's crimes includes an environmental emphasis**.

A. For example, the Core Crimes Database should collect, store and analyze evidence pertaining to the damage to the environment, and develop guidelines for those who may wish to submit evidence.

→ **RECOMMENDATION 18:**

Working in cooperation with Ukraine, the international community should **establish an international mechanism for reparation** for damage, loss or injury resulting from Russia's internationally wrongful acts in or against Ukraine. This is in alignment with the UN General Assembly resolution of November 2022, and could be enforced through the establishment of a compensation mechanism for Ukraine consisting of a claims commission and a compensation fund.

→ **RECOMMENDATION 19:**

The Working Group strongly supports the idea of **allocating a portion of any reparations funds** to apply specifically to environmental recovery and repair.

A. Any reparations program that is created should envisage environmental damage resulting from Russia's wrongful acts among the categories of harm to be addressed.

→ **RECOMMENDATION 20:**

Working with international partners, Ukraine should consider seeking an **advisory opinion from the International Court of Justice** that would clarify the rights, responsibilities and liabilities in regards to environmental crimes and other violations in contexts of conflict. This request to the ICJ would be made through a resolution of the UN General Assembly. The purpose would be to contribute to the development of international law by pursuing an authoritative statement on questions pertaining to the environment where international law is still unclear.³

³ There are a number of possible questions that could be put to the ICJ. Identifying the right questions is a strategic matter, in part because it can take several years for an advisory opinion to appear. Possible questions include:

(a) What is the nature and scope, under international law, of State obligations to prevent environmental damage during armed conflict?
(b) How should "widespread, long-term and severe damage to the natural environment" be interpreted – a term of reference in international law?
(c) To what degree does the right to a clean and healthy environment apply during armed conflict, and how does this affect the assessment of "proportionality" of military attacks on key infrastructure or industrial sites?
(d) Have environmental protections reached the status of peremptory norms (*ius cogens*), and thus cannot be derogated by other priorities?
(e) In response to clear violation of Article 2(4) of the UN Charter – where the crime of aggression has taken place – may the assets of a perpetrator State be seized for the purpose of paying for direct damages?

→ **RECOMMENDATION 21:**

In line with the international commitment to maintain a **victim-centered approach to accountability**, including in resolutions on the Register of Damage for Ukraine by the Council of Europe, Ukraine should consider documenting and evaluating the impact of the war's environmental damage on individuals and communities.

A. This could be done in coordination with civil society, perhaps jointly by organizations focused on human rights and those dedicated to the environment. International partners should support civil society in such an initiative.

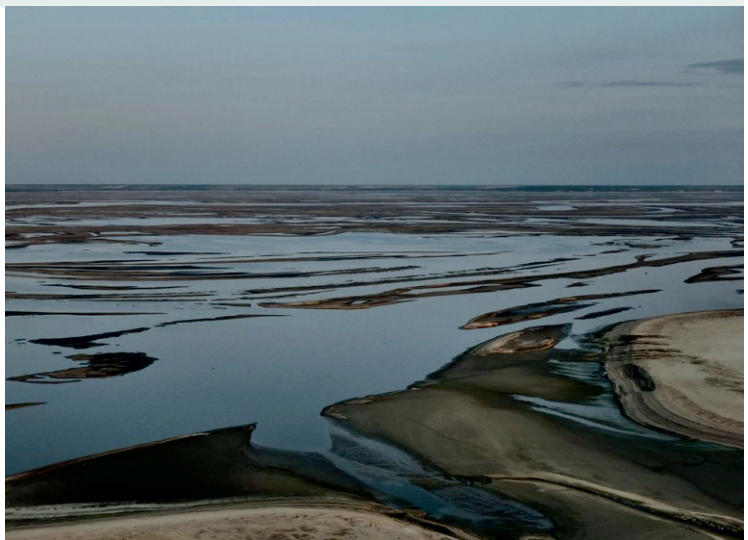
B. The goal should be to understand the human impact of the damage in the immediate as well as longer term, consulting affected communities to document victim perceptions and to identify what reparations would be most meaningful, and ultimately to make a record of these victims or categories of victims.

→ **RECOMMENDATION 22:**

International human rights investigations in Ukraine should consider environmental consequences of the war as a human rights issue.

A. This would include the Independent International Commission of Inquiry on Ukraine, established by the UN Human Rights Council; the UN Human Rights Monitoring Mission in Ukraine; and investigations undertaken through the OSCE Moscow Mechanism.

B. These should in particular look at attacks on the environment that constitute violations of international humanitarian law, as well as violations of the human right to a clean, healthy and sustainable environment, which has been firmly established by the UN Human Rights Council. The information gathered by these bodies should be made available to Ukrainian and international institutions seeking justice, in accordance with their respective mandates.



Priority 3: Mobilize Green Reconstruction and Environmental Recovery

RESTORE THE WAR-DAMAGED NATURAL ENVIRONMENT

Historically, land and nature have been among Ukraine's most important and best-known assets. Pre-2022, 7% of Ukraine was set aside as protected natural areas, and there were plans underway to further increase forested lands and protected areas.



Since the start of the war in the Donbas region of Ukraine in 2014, almost 40% of Ukraine's ecologically valuable areas have experienced occupation, most of these since February 2022. Looking at all of Ukraine, a third of the country's land has been within 30 kilometers of the frontline at least for a short period of time. As of late 2023, experts estimate that about 10% of Ukrainian territory had suffered moderate to very significant damage.

The record of environmental restoration has not been strong in other post-war contexts worldwide, although there are a few cases where important progress has been made, usually in targeted sectors or geographic areas. Ukraine must do better, with a vision of “building back greener.” A future vibrant economy, meeting climate targets, safe agricultural production, and many other goals that are central to national recovery are also directly linked to reclaiming safe and pollution-free green spaces. These will also help strengthen Ukrainians' livelihood, national identity and general health and wellbeing.

This will not be easy, but it should begin now with both planning (including local mapping where possible) and initial restoration programs.

→ **RECOMMENDATION 23:**

Restoring Ukraine's natural areas should be established as a **priority within the country's post-war recovery plan**. This should be reflected in the work of the National Council for the Recovery of Ukraine from the War, as well as Ukraine's overall post-war reconstruction program.

A. Green spaces in urban areas are equally important and can support healing from the trauma of war.

→ **RECOMMENDATION 24:**

In line with the overall data collection strategy in Recommendation 2 above, there is a need to specifically **map the damage to designated natural areas and reserves**. This may benefit from a well-coordinated consortium of local and international actors, including the Ministry for the Environment, State Forest Service and other relevant bodies.

A. This mapping should **identify immediate priorities** where restoration should be fast-tracked, due to high risks such as pollution seeping into groundwater, uncontrolled exploitation of natural resources, fires, or other significant threats to humans, biodiversity, climate, or ecosystems. Remediation measures should take place urgently.

→ **RECOMMENDATION 25:**

The mapping should help Ukraine to **design a multi-year plan** to guide overall restoration. Prioritization should be done through consultation with affected communities, taking into account the degree and nature of the damage; the environmental, social and economic value of the affected areas; the cost of the required intervention; and the capacities to carry them out.

→ **RECOMMENDATION 26:**

Ukraine's impressive natural areas depend on a fabric of government agencies and offices that were set up to protect them in peacetime. Addressing wartime damage requires close coordination between these diverse entities, and possibly new entities, as well as new skills and capacities. **Ukraine should assess how these many entities could best be coordinated, and what resources will be needed** for such a coordination framework.

A. There is currently limited staff to plan and implement environmental policies, including servicing protected areas, which should be urgently addressed. International partners should help with technical assistance and financial support for this planning, coordination and increased staff capacity.

→ **RECOMMENDATION 27:**

In some cases, allowing specific developed areas to return to their natural state is the best environmental policy. This approach has gained interest throughout Europe and globally. Where this is proposed, **Ukraine should commit to broad consultations** and expert input before taking such decisions, in order to balance the needs of the economy, society and green restoration and climate goals.

A. The future of the **Kakhovka Dam** is one example that continues to be debated in the media by academic and civil society experts. The Government stated an early intention to rebuild the Dam. Interesting compromise proposals have meanwhile been developed that are due consideration, such as building the Dam at a smaller scale. Engaging independent experts to thoroughly review options and related environmental impacts is recommended, given the significant scale of this project and its long-term and multifaceted ramifications.

REMOVE LAND MINES

A large part of Ukraine is known or suspected to be contaminated with land mines and unexploded ordnance. This will take many decades to clear, a process that could be slowed due to accessibility, financial and security factors. Over the next years this should be a high priority for Ukraine.

It is important that mine clearance is done in a manner that does not cause greater environmental damage. Mechanical demining and stripping the topsoil, for example, may remove mines more quickly but can result in significant and irreparable harm. In agricultural areas, the risk of cratering and pollutants released from onsite detonation of mines should be closely reviewed. The integration of environmental considerations across all mine clearance activities is critical, as was highlighted by the President of the 2023 Meeting of States Parties to the Anti-Personnel Mine Ban Convention.⁴

⁴ Green Implementation: Integrating Environmental Considerations into the Implementation of the Convention," President's Paper for the Twenty-First Meeting of States Parties to the Anti-Personnel Mine Ban Convention, 2023. <https://www.apminebanconvention.org/fileadmin/APMBC-DOCUMENTS/Meetings/2023/21MSP-President-Paper-Green-Implementation.pdf>

→ **RECOMMENDATION 28:**

Ukraine's Mine Action Strategy, now under development, should be accelerated, and should explicitly integrate environmental concerns.

A. This Strategy should incorporate the guidance provided in the **International Mine Action Standards**, including the update that is expected in early 2024.⁵

B. All mine action operators, likewise, should implement these international standards. Ukraine's Mine Action Strategy should provide for close oversight of state and non-state operators involved in demining activities. All operators should be registered and accredited, with environmental safeguards in place. National legislation may be needed to ensure that these protections are assured.

→ **RECOMMENDATION 29:**

Better coordination between those organizations focused on the environment and those that focus on removing land mines would be beneficial to both communities. The environmental risks of improper demining would be of concern to environmental professionals, and their expertise should be of help to the technical and policy specialists on demining.

A. The international donor community should encourage this collaboration, and require an environmental perspective of demining operators. Recipients of demining support should be asked to report on their environmental policies and operational safeguards.

→ **RECOMMENDATION 30:**

Ukraine should establish a program to address **mine clearance in targeted forests, protected areas and other natural spaces**, which in other countries have sometimes been addressed last. A prerequisite for environmental restoration, as outlined above, is clearing land of unexploded ordnance.

→ **RECOMMENDATION 31:**

Ukraine should also encourage **sustainable land use practices following mine clearance** and land release, where possible. This could seek to address deforestation, land degradation and biodiversity loss, with support for sustainable farming, local enterprises and nature-based solutions to promote climate resilience and sustainable livelihoods.

A. Ukraine should aim to prioritize clearance programs that provide a dual benefit to communities by removing mines and facilitating environmental enhancement through land restoration and sustainable land use practices.

→ **RECOMMENDATION 32:**

Climate change and **climate-related hazards should be embedded into decision-making** on the prioritization of areas to be cleared, noting the potential vulnerability of areas contaminated with mines. For example, flooding or landslides caused by extreme weather events could dislodge and move mines into previously unaffected areas.

⁵ "Environmental Management in Mine Action," International Mine Action Standards 07.13, UN Mine Action Service, 14 Mar 2017.
www.mineactionstandards.org/fileadmin/uploads/imas/Standards/English/IMAS_07.13_Ed1.pdf

BUILD A GREEN ECONOMY FOR THE FUTURE

A healthy, climate- and environment-friendly Ukraine will require significant changes to many sectors of its economy, in the same way as other countries worldwide are grappling with the same. Many of these structural investments and reforms will need to be decided and at least initially launched even in the context of the current war.

The Working Group is aware of the huge demands and social needs competing for resources. Still, it is critical for the future that Ukraine and its financial supporters consider its war-reconstruction needs simultaneously with the requirements for greening its economy overall.

Ukraine will need a fundamental shift in its economic model, transitioning away from low energy efficiency and high pollution and greenhouse gas emissions.

The European Commission's recent report also highlights these priorities.⁶ Ukraine should take advantage of the EU accession momentum to make this critical transition to an environmentally sustainable economic model. The EU framework represents a new generation of policy and will require significant financial support to make the necessary transformation. The business sector will also need time and resources to modernize and adjust to these rules.

All of this will require clear ownership and strong leadership by the Government. Done well, this will provide the confidence needed to attract the necessary investors.

Given the enormous task at hand, the Working Group offers several overarching recommendations that could lay the groundwork for Ukraine's transition to a green economy:

→ RECOMMENDATION 33:

These mammoth challenges require cross-cutting management and coordination within the Government. Ukraine should ensure that a **high-level official is explicitly responsible for green recovery** and reconstruction.

A. For example, this could be done by incorporating climate policy and green reconstruction into the portfolio of an existing deputy prime minister, with the necessary dedicated personnel. It could alternatively be done by creating a new post on climate policy and green reconstruction at the level of deputy prime minister, but ensuring close collaboration between the various relevant ministries.

B. The aim would be coherent planning and implementation of Government priorities: ensuring energy- and resource-efficient recovery and reconstruction; placing the reduction in the use of fossil fuels at the center of recovery plans; ensuring the principle of do no significant harm to the environment; and actively engaging independent experts and institutions that can assist, including Ukrainian civil society and universities as well as international entities.

→ RECOMMENDATION 34:

Reliable, **publicly available data is critical** to attract private investors and to shape smart public policy. The Government should review its data policies with the aim of providing more information to the public in relation to its energy and climate strategies, actions and overall progress. This is also important in relation to data on current damage and contamination, minefields, restoration of natural sites and development plans, to the degree that security conditions allow.

⁶ Specifically, the report recommends that Ukraine should "ensure cross-sectoral mainstreaming of environment and climate action in the reconstruction plans of the country, identify green reconstruction strategy for key sectors and prioritize relevant EU legislation and standards in its National Programme for the Adoption of the Acquis." European Commission, "Ukraine Report 2023," pp 125-6, Nov 8 2023. https://neighbourhood-enlargement.ec.europa.eu/system/files/2023-11/SWD_2023_699%20Ukraine%20report.pdf

→ **RECOMMENDATION 35:**

Working with international partners, including the Planetary Guardians, Ukraine should undertake a detailed **assessment of its position in relation to the planetary boundaries**.

A. This should include establishing the national boundaries within the nine criteria of this framework; assessing the current national status or performance in relation to each; and identifying specific policy pathways to ensure that Ukraine stays within the safe operating space of the national boundaries.

B. In the meantime, while that review is underway, Ukraine should proactively incorporate the lessons and general guidance of the nine planetary boundaries into all of its policymaking related to recovery and reconstruction.

C. The international community should provide support for this review and analysis. The EU has already undertaken a planetary boundaries assessment for the Union as a whole, as have several individual member states, and thus the Ukraine-specific analysis should coincide well within Ukraine's EU accession process and the European Green Deal.

→ **RECOMMENDATION 36:**

In addition to reconstruction from the war's damage, Ukraine must grapple with **historic efficiency challenges in its transport, housing, electricity and industrial sectors**. Ukraine will need to make significant advances in each of these areas. The **agricultural** sector, as well, offers important possibilities to contribute positively to Ukraine's carbon and climate impact.⁷

A. Transport infrastructure should not lock the country into continued dependence on oil. A future-focused strategy should provide for efficient, safe and sustainable transport in line with EU policies and standards, particularly in relation to trans-European transport networks. Ukraine should achieve a largely electrified transportation system, towards decarbonization targets of the sector as set out at the international and European level. These improvements, including in the railways and public transit infrastructure, would provide significant long-term benefits.

B. Ukraine's sustainable energy planning must grapple with the challenge of the country's existing **housing stock, which has historically been highly energy inefficient**. Clear building efficiency standards, and proper oversight to ensure implementation, are critical. Favorable loan incentives would also help to achieve these goals.

C. Systematic **long-term planning in the energy sector** is needed. Decentralized renewable energy can provide energy security and greater resiliency. This requires policies enabling private investments and improvements of grid infrastructure, for example. A combination of donor incentives and close government oversight could help to spur the necessary upgrades.

D. Ukraine should prioritize the EU directives related to eco-design and the application of "best available technologies" to support **green industrial recovery**, and to ensure access of Ukrainian industrial products to the EU market.

→ **RECOMMENDATION 37:**

Ukraine has made a concerted effort in recent years to **combat corruption**. This should continue. This will help ensure that environmental safeguards are implemented and all legal requirements are met.

A. Existing institutions include an anti-corruption bureau, special anti-corruption prosecutor and anti-corruption court, and a national agency on corruption prevention. In the past year the Government also created a comprehensive anti-corruption institutional framework and a national anti-corruption strategy. However, as recently noted by the European Commission, there is still a need for Ukraine to **strengthen its administrative and inspection capacities in the environment and climate sector**.

⁷ While this Compact cannot address the important opportunities for each of these sectors, the Working Group refers the reader to the valuable expert paper submitted by Green Deal Ukraine, "Proposals for a Green Recovery in Ukraine." Publication forthcoming: greendealukraine.org.

B. Ukraine's impressive technical know-how and strong innovation capacity, in particular in the digitization field, could be harnessed to ensure **transparency, accountability and environmental compliance**.

→ **RECOMMENDATION 38:**

Ukrainian **municipalities** are among the key actors in recovery. Local communities should be empowered and provided with the necessary capacity-building, support and financial instruments to design, plan and implement sustainable recovery projects.

ESTABLISH PROTECTIONS IN DEBRIS REMOVAL AND RECONSTRUCTION

The war's damage to the built environment presents significant and often unseen risks to the health of the population. These threats include asbestos-laden rubble, silica dust from concrete, polychlorinated biphenyls (PCBs) and contaminated sediment from the Kakhovka Dam breach.

→ **RECOMMENDATION 39:**

Ukraine should set out **national guidance on the removal of toxic wastes** in order to assist local authorities and inform the public of risks. To comply with EU regulations Ukraine will also need a hazardous waste management plan that regulates the removal and safe disposal of hazardous waste.

A. Asbestos presents a particularly urgent threat. When contained, asbestos is relatively safe, but once disturbed asbestos is a serious carcinogen. Ukraine has already taken recent steps to ban the manufacture and use of asbestos. Additional legislation should be passed to specifically address the disposal of asbestos-laden solid waste during the reconstruction process in order to ensure that public health is protected. The sale of asbestos within the country should also be prohibited, and enforcement tightened so that it is not used in reconstruction.

B. These toxic substances all require special handling, transport and disposal as well as clear strategies to ensure that the general population has an understanding of the human health risks.

→ **RECOMMENDATION 40:**

Information about the war's environmental contaminants is also important for the public prior to re-building. Given the **long-term health risks**, these should be identified and monitored throughout reconstruction.

→ **RECOMMENDATION 41:**

Recycling of construction debris is critical to reduce emissions and to build a circular economy. International partners should support Ukraine to develop an economically-competitive strategy to recycle debris into valuable building materials.

→ **RECOMMENDATION 42:**

There should be clear protections such that reconstruction activities do not cause significant damage to the environment. **Environmental impact assessments and strategic environmental assessments** should be required for all projects, plans and programs respectively, whether reconstruction from war or normal development, with proper oversight to ensure implementation.

A. Ukraine should review its laws, and any war-time exceptions that are currently in place, and make the necessary changes to **ensure that all building or reconstruction projects are assessed for their environmental impacts**, and that compliance with the EU's environmental impact assessment and strategic environmental assessment directives is ensured.



ENGAGE THE PUBLIC

As one of the first States to ratify the Aarhus Convention, which advances the role of citizens and civil society in environmental matters, Ukraine has undertaken important steps to engage public input over the years.

The current challenges of a war context have put a constraint on these principles. The Aarhus oversight body recently determined that Ukraine must include at least some level of public input into environmental impact assessments even during wartime. It is assumed that these policy modifications are underway.

Public participation provides a chance for those affected by the war to share their knowledge and ideas, and provides a channel for concerns so that they can be addressed early through better project design. This is a valuable means to improve plans and gather local insight into priorities, as well as track environmental damage at the local level.

This principle provides the foundation for democratic decision-making and ultimately strengthens democracy itself. New skillsets will be needed in many fields as the economy is transformed, with a need for professional training programs. All of this will strengthen Ukraine and deepen public investment in policies and programs that support a green economy for the future.

→ **RECOMMENDATION 43:**

Ukraine had a system of **Public Councils** that intended to facilitate interactions between civil society organizations and the Government. These Public Councils have been in hiatus since February 2022 and should be restarted, where possible, with consideration given to how to strengthen them by **increasing public trust and engagement** and expanding the representation of local environmental organizations.

→ **RECOMMENDATION 44:**

Public participation could also be incorporated into formal systems of **monitoring environmental damage**. With proper training and guidance, civil society and local communities could help to address any gaps in the State's capacity for data collection. This would work well in conjunction with the digital tools that Ukraine has established for public reporting of environmental threats or damage, such as the EcoZagroza application, managed by the Ministry of Environmental Protection and Natural Resources.

→ **RECOMMENDATION 45:**

Expanding **twin town or sister city programs**, in particular those focused on sustainable municipal development and environmental challenges, could provide direct expertise and open further opportunities for citizen engagement.

→ **RECOMMENDATION 46:**

Gender awareness and understanding should be a constant frame of reference for recovery planning. Ukraine has already undertaken a number of initiatives that put gender concerns at the center of its recovery plans, including a National Action Plan on Women, Peace and Security, and the recently-established National Platform for Gender Responsive and Inclusive Recovery, which brings together government and nongovernmental advocates and experts.

A. It is important that those working in the environmental recovery and green economy space take proactive steps to connect with these resources and incorporate this expertise into their planning and programs, to **ensure a gender-responsive and inclusive approach** throughout their work.

REQUIRE SUSTAINABLE FINANCING

The level of support that will be needed for the reconstruction of Ukraine is extraordinary. It is essential that this perhaps-unprecedented level of financial support align with Ukraine's environmental needs and goals.

Environmentally sustainable finance is a field in rapid development.⁸ Due to this rapid development, there are differences in the requirements, criteria, or standards that have been put in place by different entities providing funding or green investment (by multilateral development banks, other multilateral institutions, or individual donor countries). In this context, working in conjunction with the EU, Ukraine should move towards establishing a set of criteria within its own national laws.

The EU has been a strong supporter of environmentally sustainable reconstruction. Given this commitment and the ongoing EU accession process by Ukraine, it would be natural for the EU to lead the standard-setting and to help facilitate a process by which the same principles are applied to all private and public sources flowing into Ukraine.

To ensure that all financing for Ukraine will align with (and never contradict) the country's environmental goals, the Working Group suggests clear standards, oversight and capacity-building.

→ RECOMMENDATION 47:

All entities providing financing for Ukraine should agree to **basic principles** that ensure sustainable standards are respected.

A. For projects designed to contribute to sustainable goals, such as alternative energy production, the plan must ensure that no significant environmental harm is done in other areas in the course of implementing the project. *This do no significant harm* principle is gaining ground as international best practice.

B. For other projects, the impact on the environment, climate goals, biodiversity and other areas must be part of the review for approval of the financing. Sustainable finance principles should establish a core set of criteria in reviewing financing arrangements. Clear protections should be in place so that investments are in line with reducing inequalities and strengthening national ecological goals.

C. The EU is likely to de facto set these standards as the EU Ukraine Facility takes shape, and this should help to align other financing entities.

→ RECOMMENDATION 48:

Ukraine should ensure that international principles of **responsible business conduct** are integrated into all recovery and reconstruction planning

A. Ukraine should complete a **National Action Plan** to implement the UN Guiding Principles on Business and Human Rights, in line with widely recognized instruments such as the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct. This should be developed in consultation with a wide range of stakeholders, including civil society.

⁸ "Sustainable finance" refers to standards on environmental, social and governance issues. While the Working Group is focused on environmental criteria and impact, these broader criteria should also be included in Ukraine's sustainable financing policies, as is now considered best practice.

B. This Plan should include national legislation setting out mandatory environmental and human rights due diligence requirements, in line with the forthcoming EU Directive on Corporate Sustainability Due Diligence.

C. The OECD, EU, UNDP and other actors should provide the necessary support to Ukraine in developing its responsible business policies and practices.

→ **RECOMMENDATION 49:**

Trust in the proper expenditure of funds is critical and must be assured. Ukraine should work with its international partners to establish an **independent auditing entity**, such that all projects relying on international financing are assured of proper oversight and implementation. This could be for example through the creation of an external audit mechanism or an independent verification and oversight board.

A. This entity should operate independently of the Government. It should be comprised of Ukrainian and international members, including senior audit professionals and experts on multilateral development banks and financing, and include the necessary technical capacities.

B. Among its responsibilities, its oversight function should report on compliance with sustainable finance requirements.

C. The structure, powers and modalities of this auditing and oversight entity should be designed in consultation with international experts and donor partners.

→ **RECOMMENDATION 50:**

Given the complexity of reviewing and monitoring sustainable financing plans and programs, it is essential that expert **technical assistance** is made available to Ukrainian officials at the local and national levels, with the aim of building their capacity in this area, as well as that of business, civil society and scientific institutions.

A. The international donor community should offer such expert technical assistance and capacity-building, with the specific needs identified by Ukraine.



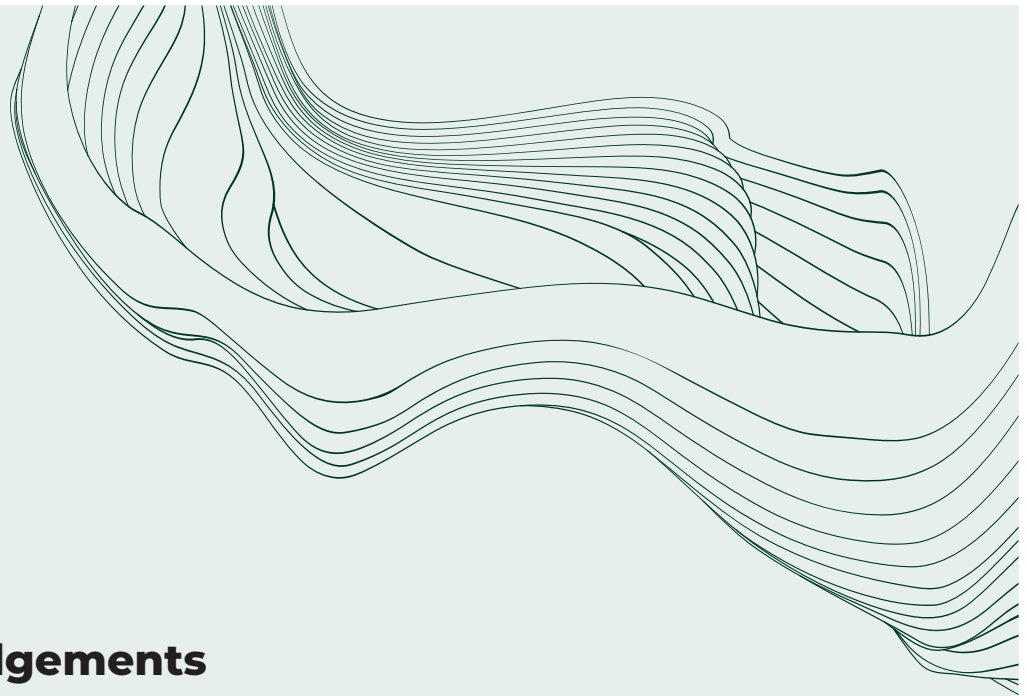
CONCLUSION

The recommendations in this report envision a positive, democratic future for Ukraine, one that is green, productive and at peace.

This report is a first step. Concrete measures towards the implementation of these recommendations must come next, and we understand this will not be easy. This will require strong leadership by Ukraine, with the active engagement of the citizenry and significant technical and financial support from Ukraine's partners and friends.

The approach by Ukraine to all of these issues could become the blueprint for the future. These actions, and those by international entities as recommended here, will strengthen the legal and policy infrastructure for responding to environmental damage caused by war.

The harm to Ukraine's ecology, biodiversity, air and water demand attention. There must be justice, and the significant nuclear, chemical and other pollution risks urgently addressed. Supporting Ukraine on these issues is a way to shape the recovery from vast destruction, and to prevent nature from remaining a silent victim of war. Despite the devastation of war, we must together harbor the vision of a green and just future.



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