

# What can the EBRD do to help restore hope for Green Cities in Ukraine?

## Introduction

Once Ukraine's greatest hope for green development, the country's cities have been fighting for survival since the Russian invasion began on 24 February. Before the start of war, Ukraine [demonstrated](#) slow but certain progress in environmental policy and dealing with climate change. In 2021, the country approved an ambitious nationally determined contribution, committing to reduce emissions by 65 per cent relative to 1990 levels. There were also plans to reduce industrial pollution. Since the invasion, many of the priorities on environmental protection have been shifted and initiatives were put on hold.

The costs of the destruction are being thoroughly documented by the Ukrainian government and non-governmental organisations. One such initiative is the project [Russia Will Pay](#), organised by the Ministry of Economy, the Office of the President and Kyiv School of Economics (KSE). According to this initiative's early analysis, the cost of the war's physical damage had already exceeded USD 68 billion as of 1 April, equivalent to more than a third of Ukraine's GDP in 2021. These numbers do not include economic losses, agricultural losses, etc. According to data from [The Economist](#) (1 April), Ukraine's infrastructural losses are worth over USD 30 billion and residential buildings losses are USD 20 billion, with losses for civilian airports at over USD 6 billion, factories at USD 4 billion, and healthcare facilities and schools at almost USD 5 billion.

Long-term macroeconomic projections for the country are pessimistic. The World Bank [expects](#) Ukraine's economy to shrink by 45 per cent in 2022; the Russian economy is expected to shrink by 11 per cent, in comparison. The Centre for Economic Policy and Research [estimates](#) the total costs for rebuilding Ukraine to be between EUR 200 billion and EUR 500 billion. UNDP [anticipates](#) that protracted conflict will accelerate economic vulnerability and might lead 9 out of 10 Ukrainians into poverty.

In addition to taking people's lives and destroying infrastructure, the invasion has caused environmental scars. To assess environmental damages, the government

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of Ukraine [launched](#) a database collecting environmental damage and crimes against the environment. Several civic initiatives, including Bankwatch member group Ecoaction, started [collecting](#) data on crimes against the environment. Evidence of both infrastructural and environmental damage could be used in international courts to claim compensation from Russia in the future.

Many of these impacts have seriously affected and will continue to be felt in urban areas, many of which the EBRD has supported through the Green Cities programme.

## Which Ukrainian cities were involved in the EBRD Green Cities programme?

Ukraine has one the largest number of cities participating in the [EBRD Green Cities programme](#). As the largest country in Europe, Ukraine has many big cities fitting the requirements to participate in the programme. Additionally, with decentralisation reforms, Ukrainian cities obtained more self-governance powers, especially governance of local budgets and control over shaping their strategic development. This enabled cities to spend a part of their local budget and attract foreign investments for environmental and climate change projects. Ukrainian cities have also enjoyed the benefits of digitalisation, e-services that simplified bureaucratic procedures and allowed for more transparent and less time-consuming services.

Among the Ukrainian cities, [Lviv](#) was the first to join Green Cities at the beginning of 2019 and adopted its Green City Action Plan (GCAP) in 2020. In 2019, [Kyiv](#) became a part of Green Cities and its finalised GCAP was about to be adopted by the Kyiv City Council before the war started. [Mariupol](#), [Khmelnyskyi](#), and [Kryvyi Rih](#) joined the programme later in 2019, and their GCAP processes were ongoing. [Dnipro](#) and [Kharkiv](#) joined the programme in 2021. In total, seven Ukrainian cities have made a commitment to a greener future by joining the EBRD Green Cities programme.

Many of these cities identified [air quality](#) and air pollution as major environmental issues to be addressed by the Green City Action Plan and the planned investments. Some cities committed to modernising their waste and transport systems, in order to decrease carbon pollution and negative environmental impacts. Many of the agreements made as part of this programme and the progress made have become irrelevant now, as many cities have been attacked and some are already in ruins. The planners need to get back to the drawing board.

## What is the situation in Ukraine's Green Cities now?

The war in Ukraine has touched upon every city and every citizen, creating the most destruction in the east and south of the country. Most cities have stopped their daily operations and environmentalists have stopped saving the environment, and have instead switched to saving lives, saving cities and defending the country. Bellingcat's interactive [map](#) of civilian infrastructure damages allows for the tracking of damages in real time.

### Mariupol

The most horrific example of a destroyed city is the city of Mariupol. In recent years, Mariupol has launched promising environmental initiatives, such as a [Green Council](#) and [city parks](#). Joining the Green Cities

programme, the city committed to improving solid waste collection and electrification of public transport, [attracting](#) investments of tens of millions of euros from the EBRD and other funders.

The city, with over 400,000 inhabitants, became a target of Russian military in the early days of the war. The city was encircled and sieged, and local residents left without food, water, heating, sanitation and safe humanitarian corridors, which led to a humanitarian catastrophe. Mariupol's administration [reports](#) 20,000 dead among civilians as well as over 90 per cent of the city's territory destroyed. According to the [calculations](#) of the city administration, at least USD 10 billion will be needed for the reconstruction of the city's infrastructure.

## Kharkiv

Kharkiv joined Green Cities in October 2021 and was at the initial stage of GCAP planning. This Ukrainian city, the second largest city in Ukraine located 40 kilometres from the Russian border, is in the epicenter of Russian aggression. Official [data](#) on destruction in Kharkiv show that as of 28 March, around 1,500 infrastructure objects were destroyed, and [1,929](#) residential buildings<sup>1</sup> (out of a total of 8,000 residential buildings), 69 schools, 53 kindergartens and 15 hospitals were completely or partially destroyed.

## Kyiv

As the capital of Ukraine was strongly fortified, military attacks were concentrated on the cities in the outskirts of Kyiv. Russian troops retreated from the Kyiv area leaving destruction and human casualties in the towns on the outskirts of Kyiv. However, Kyiv was also targeted by missile and artillery attacks. According to the information from [Kyiv's city administration](#) on damages in the capital as of 8 April, 208 residential buildings were damaged or destroyed, as well as 46 schools, 29 kindergartens, one orphanage, 13 administrative buildings, 17 hospitals and 48 objects of transport infrastructure.

## Dnipro

Dnipro's critical infrastructure was targeted by massive [missile attacks](#) and is surrounded by fighting from three sides. The [city](#) is a logistical hub for humanitarian aid and accepting refugees from the eastern parts of Ukraine and has become a target for Russian bombings. Despite this, it is unlikely that Russia plans to control the city right now, but as a major humanitarian and military point, it will likely continue to be a target of missile attacks from the sky.

## Kryvyi Rih

Kryvyi Rih, Ukrainian President Zelenskyi's native city, has suffered from shelling, particularly the prohibited cluster [munitions](#). Like Dnipro, it has become a point for accepting refugees from eastern parts of Ukraine fleeing from war and sending them further to the west and humanitarian aid points. In all these cities – Kharkiv,

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<sup>1</sup> Data from 20 April 2022

Dnipro and Kryvyi Rih, like in almost every big city – Russian troops have targeted objects of critical infrastructure.

## Lviv and Khmelnytskyi

Cities in western Ukraine like Lviv and Khmelnytskyi are not as drastically destroyed as those in the east. However, Russia has still shelled them, damaging critical infrastructure, like oil depots, and also military objects. Targeting such objects unavoidably leads to air pollution. Because these cities are highly populated by displaced people and serve as humanitarian hubs, their security should be of utmost importance. Infrastructure improvements are needed to address the influx of internally displaced people in the short to medium term, as it is unclear when people will be able to go back home.

### **Urgent current needs related to reconstruction identified by Ukraine's Ministry of Environment (from meetings with the ministries):**

1. How can cities be rebuilt in a more sustainable way? Taking into consideration that Ukraine will have issues with the availability of resources, including financial ones, the Ministry is looking for instructions from similar agencies/institutions to build work plans on reconstruction.
2. How can climate-related concepts be practically implemented for the restoration of Ukraine? To build even better houses means we must strengthen building standards. At the same time, another task is to end reliance on imported fossil fuels as much as possible.
3. Post-conflict waste management: the Ministry is looking at different experiences that exist in the world and trying to clarify what kind of materials, approaches and technologies are needed and what kind of tasks should be set so that cities can have instructions in place. Any advice on strategic implementation is useful.
4. What should be done with debris? How can all of the waste be managed? The Ministry thought it would start working on such issues once the war was over, but it has become urgent to find solutions now, as the north of the country is liberated. Which technologies should be used? What kind of materials can be recycled? There are many ruined vehicles (cars), so how should these be utilised (if possible)? There are many questions regarding property ownership (maybe people would still like to do something with their cars).
5. There are also issues with hazardous waste: for example, how can asbestos from buildings be separated from other materials?
6. Post-war environmental impact assessment: when should the process restart? Should environmental impact assessment be done right away, or only after the war is over?

## What should the EBRD do to help green post-war reconstruction of the cities?

In the first days of the war, the EBRD firmly [reassured](#) Ukraine that it will continue to support the country and [committed](#) to providing EUR 2 billion to help address the consequences of Russian aggression in Ukraine and the neighboring countries. How can the Bank make sure that this support has the most benefits for Ukrainian cities and their residents? And how can the post-war reconstruction be used to accelerate green transition? Support for the green post-war reconstruction of Ukrainian cities should take into consideration both short-term needs and long-term strategic approaches to sustainable reconstruction.

As the war is still ongoing, it is time to start preparing a post-war reconstruction plan that would include a strategic vision for the development of Ukrainian cities. This **Marshall plan** for Ukraine would include a strategic vision of a peaceful and prosperous Ukraine and give hope to the Ukrainian people for better tomorrow. The Ukrainian government is already [discussing](#) a draft of the post-war reconstruction plan for Ukraine. Funders like the EBRD must ensure that green and sustainable reconstruction is prioritised because of the banks' environmental commitments and because of economic gains. For example, the EBRD should have a precondition that a considerable part of its reconstruction funding is spent on projects that have climate change and environmental components, in line with its Green Economy Transition objectives.

The main principles that should be applied for rebuilding the cities are:

- Reconstruction plans should be based on the strategic vision for how cities should look in 5 to 15 years;
- This strategic vision should embrace the principles of sustainability and protecting the environment, especially with the need for fast-tracking, in order to not miss the opportunity to rebuild in a green, people-friendly way;
- Sustainable reconstruction of the cities should put the needs of people in the centre of planning and reconstructing cities;
- In order to ensure that reconstruction is people-friendly, it is crucial to arrange the reconstruction planning in a participatory way and involve city residents' voices in the planning and reconstruction.

### Urban planning

In light of Russian aggression against Ukraine, the EBRD should stay committed to supporting Ukraine's democratic and green transition. As soon as the situation allows, the EBRD has to make sure that reconstruction is taking place in a sustainable way.



*Soviet-style residential blocks in Mariupol, now destroyed. Photo by darvik.photography@gmail.com via depositphotos.*

As much as the destruction of cities is a great tragedy, it is also an opportunity to build Ukrainian cities without Soviet-style planning, which prioritises parcel-type buildings over human comfort and liveability. The sustainable reconstruction in the urban planning sector should put people in the centre of planning. In order to ensure this people-centred approach, it is important to ensure public participation in cities' planning and include the voices of local residents in the rebuilding efforts. Thus, reconstruction should combine environmental principles, international technical expertise and residents' voices. In addition, urban planning should include increased measures for providing security. For example, residential buildings should be designed and built to provide shelter for civilians.

### Energy efficiency

In March 2022, in the middle of war, Ukraine joined the EU's energy system. This opened opportunities for the diversification of energy resources, increased quality for consumers, and provided new opportunities for the renewable energy market. As nuclear power plants were occupied by the Russian army and nuclear remains the primary energy source in Ukraine, it is important to reconsider nuclear energy and its safety, as well as possible emergency situations in the future.

On the other hand, using the opportunity of Ukraine's EU energy system membership, it is important to continue to support renewable energy sources produced locally. Ukraine should be encouraged to apply energy decentralisation and diversification as a matter of security and independence from Russia. The state should promote more efficient energy consumption for households as well as measures for raising energy efficiency to replace fossil fuels.



Energy efficiency in the housing sector, especially in reconstructed buildings, should be a top priority. Using the available mechanisms of Ukraine's energy efficiency fund, energy efficiency needs to be fostered by simplifying the procedures for the population.

## Transport and infrastructure

The costs of road infrastructure damage already [exceeds](#) USD 25 billion (as of 1 April). Wherever roads will be rebuilt after the invasion, they need to be built for people, not just for vehicles, prioritising sustainable and emissions-free public transport. The new roads, including those connecting cities and towns, should have lanes for bicycles and scooters as well as infrastructure for public transport. The new infrastructure needs to accommodate the needs of electric transport, with charging stations for electric vehicles, scooters, and bikes. Finally, reconstructed road infrastructure has to ensure pedestrian mobility and safety and more pedestrian areas that will increase cities liveability and comfort.

## Supporting temporary housing for displaced populations as an immediate action

Given the displacement of people affected by war, one of the pressing immediate needs is to provide **temporary housing** for displaced populations due to war ([to date](#) 7.1 million people are internally displaced and 4.3 million have left Ukraine – and the numbers are growing). To address this need, the EBRD should explore the opportunity to support the temporary housing initiatives of Ukrainian and international architects. For example, a team of Ukrainian architects [designed](#) a modular shelter that combines the principles of fast and affordable building together with a sense of comfort and dignity. Other examples include [container houses](#) – mobile and easily transformable buildings that were already used in Ukraine for internally displaced people from the south-east of Ukraine in 2014 and now are widely used to shelter Ukrainian refugees abroad. In view of the huge economic losses caused by the war, the EBRD should mobilise grants from donor funds for such humanitarian initiatives.

## Conclusion

Reconstruction needs for Ukrainian cities will be tremendous, as some cities are completely or partially turned to rubble. As the EBRD has already supported Ukrainian cities in building a greener future, it should continue to support cities' sustainable reconstruction. This reconstruction, while providing fast response, should also be based on a strategic vision of building cities that are green, liveable and people-friendly. Many cities that will be built from scratch have a unique opportunity to be built on the highest standards of sustainability and become the most comfortable and safe places to be. The EBRD should accelerate its green transition impact by investing in environmental and climate adaptation solutions in reconstructing Ukraine. This will not only be an investment in a greener planet, but will also boost the creation of jobs and exchange of new technologies that will accelerate Ukraine's economic growth.