

Annual Report 2022

SaveDnipro NGO

2022

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1. ACTIVITIES OF THE ORGANIZATION AND ACTIONS OF TEAM MEMBERS DURING THE WAR

We withstood!

The start of a full-scale invasion on February 24, 2022 could not but affect the activities of the organization. Despite the absolute shock of how our lives had changed, we were able to pull ourselves together and endure the earliest and most difficult days. The organization supported the team members at the beginning of the war, helped relocate to safer places, and provided financial support for the first time. Despite the fact that 2022 was full of terrifying upheavals, the organization continues building expert capacity, retaining current specialists, attracting new ones and even expanding the composition of the team.



1. ACTIVITIES OF THE ORGANIZATION AND ACTIONS OF TEAM MEMBERS DURING THE WAR

a) Our guys had gone off to war

From the earliest days of the invasion two members of our team, namely Development Director Artem Romaniukov and Head of Analytical and Technical Department Illia Rybakov, have voluntarily joined the Armed Forces of Ukraine. The organization and the team have constantly supported them during the difficult first year of a large-scale war.

b) Public support

Despite current security problems, in 2022, the SaveDnipro NGO received external voluntary donations in the total amount of UAH 95.571.98.

What are we fundraising for? We aim to support directions not covered by cooperation with international projects or not supported by them.

- · Promotion of environmental requirements for industrial enterprises.
- · Comprehensive monitoring of air quality and radiation background.
- · Support of the technical part of the SaveEcoBot system.
- Opening up and digitizing environmental data.

We are very grateful to everyone who supports our struggle for the right of Ukrainians to a clean and safe environment and helps our organization remain stable and effective, especially in wartime conditions.

You can support our work following this link.

c) Fundraising to help the army

Having coped with the first shock of a fullscale invasion, we also joined in helping the Ukrainian Armed Forces, which are defending us from the occupiers. We have repeatedly helped our colleague Artem Romaniukov raise money to strengthen the capacity of the Armed Forces company led by him, and for vehicles to carry out combat missions. We disseminated information about the fundraising campaigns for the Armed Forces of Ukraine and the National Guard of Ukraine from our friends and partners, namely Atiko company, which produces air quality monitoring stations. The funds were required to develop devices that help obtain the coordinates from lost drones for their return.

2. DIGITAL ECO-SOLUTIONS FOR PROTECTION OF THE WAR-TORN ENVIRONMENT

a) Report of a war environmental crime in SaveEcoBot

Promptly responding to the challenges of war regarding the impact of military actions on the environment, and in order to further hold the Russians to full and comprehensive responsibility for all criminal actions, we, at the request of the Ministry of Environment, added the option to report crimes against the environment in SaveEcoBot. All the reports on environmental crimes are sent automatically through the API to the Operational Headquarters of the Ministry of Environment and the State Environmental Inspectorate for further consideration.

b) Monitoring of the background radiation level in Ukraine

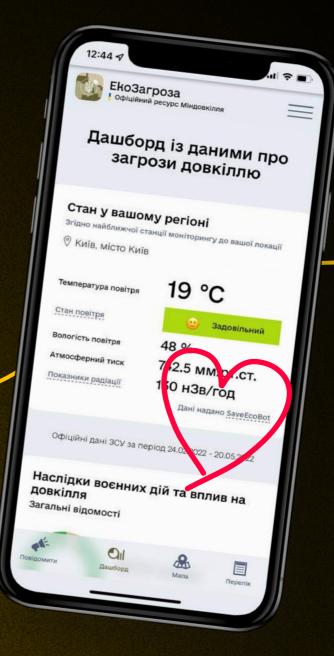
2022 will forever be remembered not only for the horrific full-scale invasion, crimes against humanity and the environment but also for Russian nuclear terrorism, which also began on February 24. Due to this, the topic of radiation level monitoring became one of the key activities of the SaveDnipro because the Russians seized first the Chornobyl station and the Exclusion Zone, and then the largest nuclear power plant in Europe – the Zaporizhzhya NPP. Thus, the public simply could not ignore this challenge.

Since the first day of the invasion, we have been monitoring the manifestations of Russian nuclear terrorism, and it happened so that we were the only ones to publicly record a sharp increase in radiation in the Exclusion Zone, which was 30 times greater than in previous periods. This is how our movement towards the most complete collection and display of radiation background data in Ukraine began. In order for Ukrainians to have more information about background radiation levels, we even cooperated with DTEK to receive and display data from their five thermal power plants, and increased the amount of data on the SaveEcoBot map. Together with the Ministry of Environment, all available networks were involved: the Ministry of Health of Ukraine, the State Emergency Service, the Ukrainian Hydrometeorological Center, ECOTEST, the Department of Ecology and Natural Resources of the Kyiv Regional State Administration, EcoCity, JSC "Kryvyi Rih Iron Ore Plant". We have also joined forces with SAFECAST, uRADMonitor, the Czech National Institute for Radiation Protection (SÜRO) and the Chornobyl Radiation and **Ecological Biosphere Reserve to ensure our** own up-to-date and accurate radiation monitoring in Chornobyl, around the Zaporizhzhya NPP and in other parts of Ukraine.

2. DIGITAL ECO-SOLUTIONS FOR PROTECTION OF THE WAR-TORN ENVIRONMENT

c) A state platform EcoZagroza uses the data of the SaveEcoBot

In May 2022, the Ministry of Environmental Protection and Natural Resources of Ukraine presented the "EcoZagroza" website and mobile application with a number of functions, including information on air quality and radiation background in the country. SaveEcoBot - the largest aggregator of data on the state of the environment in Ukraine - has been collecting this data from various sources for several years and now transfers it to the state application through API. Thanks to this partnership between the Ministry of Environment and SaveDnipro, the SaveEcoBot simplifies the work of the state institution, and citizens benefit from access to the information about environment.



a) Renewal of access to the information on environment and open data

In 2022, we continued to push for open data, a challenge made even more difficult by the war as the vast majority of public administrators stopped publishing and sharing data, referring to security or technical reasons.

During the year, we analysed the environmental information that was proposed to be concealed by the Cabinet of Ministers of Ukraine Resolution No. 835 and investigated which data remain open. We strongly oppose the closure of environmental data due to the new security conditions of martial law proposed by the Ministry of Digital, and argued for the need to preserve the relevant information in an open format. In addition, after the start of the full-scale invasion, the SaveDnipro NGO together with other Ukrainian and international organisations, called on the Ministry of Energy, Energoatom, and the Ministry of the Environment to open data on the radiation background at Ukrainian nuclear power plants and in the 30 km zone around them. We also appeal directly to the Energoatom to ensure the free access of current data on the radiation background at all the Ukrainian nuclear power plants in a machine-readable format.

b) National Emission Reduction Plan from Large Combustion Plants (hereinafter - NERP)

Before the start of the full-scale invasion, the SaveDnipro had closely monitored compliance with the National Emissions Reduction Plan from Large Combustion Plants (NERP). At the beginning of 2022, the Cabinet of Ministers of Ukraine made changes to the NERP and disregarded the obligation to carry out a Strategic Environmental Assessment (SEA). The SEA was formally announced, but only after the adoption of the relevant order of the Cabinet of Ministers, which introduced these changes. It is worth emphasizing that the public submitted their comments to the draft resolution, which were rejected by the Ministry of Energy. The energy sector, in particular its coal generation, has become the number one target in this ugly war for the survival of the Ukrainian people, especially in winter. And in the times of reconstruction, the issue of greening the existing plants should become the top priority again.

c) Russian nuclear terrorism

Raising awareness about Russia's nuclear terrorism

Since the start of the full-scale invasion,

terrorism. We collect, record and inform

about all the criminal actions of the

the SaveDnipro has been actively monitoring acts of Russian nuclear

Russians at nuclear facilities in Ukraine, and especially at the Chornobyl and Zaporizhzhya NPPs and in the Exclusion Zone. In particular, we created several chronologies of events at the occupied Zaporizhzhya NPP for August 5-12, August 13-19, August 20-26, and for the autumn 2022, and distributed them. Considering the unprecedented nature of Russian nuclear terrorism in the history of atomic energy, we also created explanatory articles on the consequences of the occupiers' actions: "UnPeaceful atom from the Russian occupiers", "How the aggression of the Russian Federation affected the radiation background in Ukraine", "Shutting down nuclear power units: why and for what reason?" So that as many people as possible know about Russian nuclear terrorism in more detail, the SaveDnipro NGO created a landing page with the chronology of the occupation of the Chornobyl nuclear power plant and continues to fill it with information about terrorist activities at other nuclear power plants in Ukraine. The landing page is available in both Ukrainian and English, so as the information can be distributed all over the world.



c) Russian nuclear terrorism

Event in Vienna at the IAEA General Conference and pressure on the agency Russian nuclear terrorism continues, so in order to influence the situation regarding the safety of nuclear power plants in Ukraine and Europe, the SaveDnipro NGO, Ukrainian and international environmental organizations held an event in Vienna, on the day of the 66th IAEA General Conference. The initiators appealed to the representatives of the countries participating in the General Conference, the management and executive bodies of the IAEA with a collective open letter, signed by more than 50 civil society organizations, with the following demands: 1) to promote the exclusion of Russia from the IAEA Board of Governors; 2) suspend the rights of Russia as a member of the IAEA; 3) remove citizens of the Russian Federation from performing duties in the executive body of the IAEA; 4) suspend all current technical cooperation and scientific and technological exchanges between the IAEA and the State Atomic Energy Corporation "Rosatom" and JSC "Rosenergoatom".

Also earlier, in order to stop Russian nuclear terrorism in Ukraine, we actively appealed to the International Atomic Energy Agency: we called for the immediate acknowledgement of Russian terrorism on the territory of Ukraine, the dismissal of the Russian Deputy Director General of the IAEA, and the transfer of radiation background data from Ukrainian nuclear power plants. We demanded that the IAEA call the events in Ukraine a war in its public communication.





d) Coalitions building and statements

In 2022, we continued to build friendly and partnership relations with other civil society organizations of Ukraine and supported each other's initiatives. In particular, we jointly opposed the merger of the Ministry of Environmental Protection and Natural Resources of Ukraine with the Ministry of Energy of Ukraine, called for the adoption of draft laws important for European integration and environmental protection, and called on the President of Ukraine Volodymyr Zelenskyy not to sign draft law No. 7282, which provides for the cancellation of the strategic environmental assessment (SEA) of recovery programs, in particular those pertaining to the regions and territorial communities.

4. RESEARCH ON THE IMPACT OF THE WAR ON ENVIRONMENT

a) Impact of the war on air quality

War has an immense impact on the environment, and the SaveDnipro has/investigated the impact on the state of the air in Ukraine's largest cities. For this aim, we chose three large cities with a sufficient number of monitoring stations for the research - Kyiv, Lviv and Dnipro - and compared data on air quality (PM 2.5) for the first half of 2021 and 2022. The conclusions became a prerequisite for many further advocacy actions.

b) Air quality in Kyiv before the invasion

Also, in 2022, our organization issued a report evaluating the neighbourhoods of Kyiv according to the following environmental indicators: air quality, drinking water, the state of water resources, soils, the availability of green areas, and the littering of territories. The data covers the period of 2020–2021 and the beginning of Russia's full-scale invasion of Ukraine. Besides, we have separately summed up the results of air quality research in Kyiv in 2020-2021.

c) Influence of ash disposal sites on environment. Case of Energodar

Due to constant Russian shelling, there are various dangerous situations for life and the environment. In the summer of 2022, the Defence Intelligence of the Ministry of Defence of Ukraine reported that as a result of the shelling of the ash dump at the Zaporizhzhya TPP and the scattering of ash dust, an increase in the radiation background level was observed in the city of Energodar. Since such a situation is extremely dangerous for human health and the environment, the SaveDnipro specialists analysed the problem of the spread of the dust itself, having studied the data from the Sentinel-2 satellite images for several previous months, and conducted field studies to conduct similar radiation background measurements at the ash dump of Prydniprovska TPP.

5. OIL INFRASTRUCTURE HAS BEEN SHATTERED: ANALYSIS AND CONSEQUENCES

In 2022, Russia systematically took actions that had a catastrophic impact on Ukraine's environment and the health of Ukrainians. Numerous bombings of Ukrainian oil depots were an example of such grievous crimes. Since oil depot fires have a tremendous impact on the environment, the SaveDnipro NGO has researched and analysed the consequences of such oil-depot explosions.



32 strikes on oil infrastructure facilities

*by 24.04.2022 according to information from open sources

6. GREEN RECONSTRUCTION OF UKRAINE AND ASSISTANCE TO CITIZENS

a) Water for Mykolayiv

In April 2022, even before the Russian military cut off the Mykolaiv water supply and the city was left without a centralized water supply, we started a partnership project aimed to create alternative sources of water supply, connect individual cleaning equipment tailored for each individual well in the city, and check water quality. The project, which was implemented with Soborna Ukraine, CEO Club Ukraine, Water Mission and Ukraine-Hilfe Berlin e.V., covered 14 social facilities schools and hospitals, where purification systems were partially installed on already drilled wells. As a result of the implementation of the project in Mykolaiv, which suffers daily from the terror of Russian troops, free and affordable drinking water for the population became available.

b) Green reconstruction of Ukraine

Despite the fact that a full-scale war is ongoing, we firmly believe that Ukraine will win. Therefore, they have already started work on the vision and the first steps of green reconstruction of the country. We participated in the development of the Recovery Plan of Ukraine, presented to the world public in Lugano, by joining the "Environmental Safety" working group of the National Council for the Recovery of Ukraine from the Consequences of War, created by the decree of the President of Ukraine, and the thematic online discussion. Also, together with other civil society organizations, we promoted the principles of green post-war recovery, based on the practices of the European Union.

On top of that, in order to correctly plan the future green recovery, it is necessary to accurately assess the impact of hostilities on the environment. Therefore, we presented a report on the topic "Impact of hostilities on air quality in Ukraine" during committee hearings in the Committee on environmental policy and nature management. We have also promoted this issue in the mass media during the online discussion "Crimes against the environment during war".

7. ASSISTANCE TO CITIZENS

Lawmaking assistance for citizens

Due to the Russian attacks on the unified energy grid of Ukraine, the country began to experience shortages and constant power outages. To help communities adapt to such conditions, our team has prepared a project of a <u>prototype</u> decision of local self-government bodies to limit the use of electric energy and lighting elements of public property on the territory of a city/town/village during rolling power outages.

8. AWARENESS RAISING

Recommendations for population during the war

In order to inform our audience about all possible threats of a full-scale war with Russia, we have created a permanent section "Life in the conditions of war". In this section we described how to act in case of chemical attacks using chemical weapons, sarin, chlorine, nitric acid, white phosphorus. We also created an article on the features of iodine prophylaxis in the event of another accident at a nuclear power plant.

9. ENVIRONMENT IN SMARTPHONE

a) System of permits for emissions of pollutants into atmospheric air for the the Ministry of Environmental Protection and Natural Resources of Ukraine

In 2022, we finalized an <u>electronic system</u> for issuing permits for emissions of pollutants into the atmosphere (e-Air module), which we have worked for two years on, and transferred it to a server of the Ministry of Environmental Protection and Natural Resources of Ukraine. We transferred all the content, access and information for further successful implementation of the system by the Ministry.

In addition, in 2022, the Verkhovna Rada of Ukraine approved in the second reading the government draft law No. 5339, which amends the Law "On Protection of Atmospheric Air", changing the algorithm of interaction between the state, business and the public on the issue of emission permits and air pollution control. Therefore, we believe that soon in Ukraine the electronic system of permits for emissions of polluting substances into the atmospheric air will become operational, and the foundation for "pipe monitoring" will also be laid.

Besides, thanks to the participation and hard work of the SaveDnipro representatives in the National Council for Recovery from the Consequences of War, the creation of the "e-Air" system was included in the post-war reconstruction projects of Ukraine.

b) Network of monitoring stations SaveEcoSensor3.0 is expanding

In 2022, we launched a <u>SaveEcoSensor 3.0</u> new generation monitoring stations, and their network is growing. We also started a large-scale campaign to distribute monitoring stations in Ukrainian communities. First of all, we <u>handed over</u> two SaveEcoSensor 3.0 stations to the city of Drohobych and <u>to</u> the community of Drohobych.



9. ENVIRONMENT IN SMARTPHONE

c) SaveEcoBot is continually developing

In 2022, the SaveEcoBot website was visited by more than 5 million users from all over the world. For the stable and safe operation of our system, we have improved the security mechanisms of the servers and carried out a small refactoring of the code.

We developed automatic systems for recognizing radiation background data for the State Emergency Service, Ministry of Health, Vinnytsia Hydrometeorological Center, DTEK.

We developed an automatic graphic widget that displays data on air quality in regional centres, in the dirtiest and cleanest settlements, the radiation background in regional centres, and the number of fires in the regions and the Chornobyl exclusion zone in order to inform our subscribers about the state of the environment on a daily basis.

Together with the Cherkasy Regional Military Administration, we set up the process of collecting information about the radiation background in the Cherkasy region, created an internal system for analyzing the collected information, and a new regional map showing the state of the radiation background in the territorial communities of the region.

In addition, during a full-scale war on the SaveEcoBot maps, users can enable an additional layer to highlight the temporarily occupied territories of Ukraine and the combat zone in colour.

d) Widget with the data on environment for the websites by SaveDnipro

We also created a new product — an widget for websites. This is an information block with indicators of air quality and temperature, wind direction, radiation background, etc. Now authorities, mass media and other information platforms can install a widget that displays environmental data about the area of interest to their readers.



10. ANALYTICAL WORK

Environmental tax statistics for 2020 and 2021

Unfortunately, we are unable to track current environmental tax information during a full-scale war since the State Tax Service of Ukraine, illegally, in our opinion, stopped the publication of this data, which we had advocated back in 2019. Nevertheless, we were able to compare data for 2020 and 2021 and demonstrate the main pre-war trends.



2 051 004,63 thousand UAH

Environmental tax for emissions into the atmosphere

1 125 674,61 thousand UAH

Income from waste disposal in specially designated locations or facilities

1 047 850,07 thousand UAH

Environmental tax for emissions of carbon dioxide into the atmosphere

1 035 537,40 thousand UAH

Environmental tax for the generation and/or temporary storage of radioactive waste

149 653,22 thousand UAH

Income from discharges of pollutants directly into water bodies

29 775,68 thousand UAH

Other miscellaneous payments

Statistics of environmental taxes for the year 2021*

*Source: State Tax Service of Ukraine

11. COMMUNICATION

a) Key interaction with media: columns, expert opinions

In 2022, we actively cooperated with Ukrainian and foreign media. Given the high risks associated with the criminal actions of the Russian army, the main topic we covered in the media was Russian nuclear terrorism, as the greatest threat to Ukraine and all of Europe. We wrote columns on this topic for Stanford, twice for Censor.net, for Ukrainska Pravda ("Ukrainian Truth") and for Rubryka. Also, the SaveDnipro experts wrote for Ukrainska Pravda how important it is to record all Russian crimes against the environment, and explained the importance of disclosing environmental data in the article for Rubryka.

We gave an interview about our initiatives and the peculiarities of work during the full-scale invasion to <u>5th Channel</u> and Rubryka.

Also, in 2022, within the framework of the project that had started even earlier, the SaveDnipro, together with the Office for the Environment NGO and the "New Voice", created a joint <u>publication</u>. Furthermore, the data aggregated by our SaveEcoBot was used by Bihus.info platform in its <u>investigation</u> into how Akhmetov blackmails Ukraine.

b) International statements and presentations

In 2022, Pavlo Tkachenko, the main developer of SaveEcoBot, took part in the international conference European Radiation Protection Week 2022 (ERPW 2022) with a <u>report</u> on the topic "The importance of open data on the radiation background during wartime in Ukraine."

11. COMMUNICATION

c) Our website becomes a powerful information platform

In 2022, we intensified our website's development and started regularly publishing articles about our activities and the environment.

The biggest number of articles were dedicated to the full-scale war and the consequences of the criminal actions of the Russians. We created a number of articles about Russian nuclear terrorism, on how aggression affected the radiation background level in Ukraine, and also explained why nuclear power units were stopped during massive missile attacks. In order to achieve nuclear safety, we demanded to open the radiation level data of nuclear power plants, and to dismiss the Russian deputy general director of the IAEA.

Crimes against the environment became another big topic of material in 2022, so we talked in detail about <u>Russian</u> environmental crimes.

On the contrary, we are already working on a vision for the future reconstruction of the country: we are expressing the <u>public's</u> <u>position</u> on green reconstruction and <u>forming three steps of industrial</u> reconstruction.

In our publications, we also talked about how war affects <u>air quality and climate</u>, how <u>air quality changes during a blackout</u>, and what permit documentation is required for <u>using generators</u>.

In addition, in 2022, we started a new permanent website section "EcoDigest" about changes in the environmental legislation of Ukraine. We also closely followed the development of the field of open data: we urged the Ministry of Digital to not make changes to Resolutions No. 835 and No. 867, advocated the need for environmental registers to remain open despite the war, and analyzed data that should remain open.

In total, we have created more than 50 informational and analytical publications, reviews, which are available on <u>our</u> <u>website</u>.

12. PARTNERSHIPS

In 2022, we continued cooperation with the Ministry of Environmental Protection and Natural Resources of Ukraine, the General Prosecutor's Office of Ukraine, the Environmental Prosecutor's Office, and the National Security Council of Ukraine. We also started cooperation with regional military administrations, in particular, we signed a memorandum with Cherkasy regional military administration. Additionally, SaveEcoBot and Windy.com, an international company that provides interactive weather forecasting services around the world, partnered last year. Now all users of the Windy.com platform have access to data about the radiation background level in Ukraine. Instead, the international giant financially supports our project, which is still developing pro bono radiation monitoring for the sake of informing Ukrainians.

Despite the difficult conditions in Ukraine, international partners — the European Commission, the international Renaissance Foundation, the Embassy of the Kingdom of the Netherlands and the United Nations Development Program — continue and start new stages of cooperation with the SaveDnipro.

Besides, we continue to transfer UAH 50 from each payment for the air quality monitoring station to the "Tabletochki" Charitable Fund to help children with cancer.

Thanks

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www.saveecobot.com