

REVIEW

Environmental Security of Women and Men in the Context of Russia's War Against Ukraine

All-Ukrainian CSO “Democracy Development Center”



*Photo: a nest made by birds from drone optical fiber.
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2026

¹ www.facebook.com/oleg.mal.cenko.900831/posts/pfbid02EFXV9eaVKDo98B6ZB2S1LnVDp1H2jSNVy6wLEKdvgsjGLwL67wxqUSveFVNof7qrl

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Executive Summary

This Review is dedicated to the environmental security of women and men in Ukraine in the context of Russia's war against Ukraine, climate change, infrastructure destruction, environmental pollution and community recovery. The document proceeds from the understanding that environmental and climate crises are not neutral: they affect women and men, girls and boys, people of different ages, and residents of urban, rural, frontline, de-occupied and host communities in different ways. Levels of vulnerability depend on place of residence, health status, disability, age, income, internally displaced person status, access to water, energy, transport, health and social services, and the distribution of paid and unpaid care work.

Section 1 defines the purpose, tasks and methodology of the Review. The document draws on expert interviews, consultations and training materials collected within the project “Environmental Security from a Gender Perspective”, as well as legal and policy documents, analytical reports, academic publications and other open sources. Quotes from participants are used as qualitative material illustrating experience and observations voiced during the project and are not statistically representative data.

Section 2 analyzes international and national environmental security policy through the lens of equal rights and opportunities for women and men. It examines international standards in the fields of women's rights, climate policy, biodiversity, sustainable development, rural development and disaster risk reduction. It also analyzes Ukraine's legal and policy framework: legislation on equal rights and opportunities for women and men, environmental and climate policy, strategic environmental assessment, agricultural policy, regional development, the Sustainable Development Goals and the Women, Peace and Security agenda. The section shows that Ukraine already has important prerequisites for integrating a gender-responsive approach into environmental, climate, energy, agricultural and recovery policies, but these approaches do not yet consistently translate into concrete objectives, indicators, budgeting, data collection and stable decision-making procedures.

A separate subsection of Section 2 addresses the environmental tax and its use in territorial hromadas. It explains how the environmental tax can be linked to financing local environmental protection measures, local environmental programs and decisions related to water, waste, green spaces, energy efficiency and other community needs. The subsection emphasizes transparency, public participation, access to information, budget planning and the need to take into account the needs of different population groups when setting local environmental priorities.

Section 3 examines the participation of women and young people in environmental protection, climate policy and Ukraine's green recovery. It shows that women are active in environmental, energy, educational, civic, volunteer, humanitarian and recovery-related fields, but their contribution often remains less visible, while access to leadership roles and influence over policies remains limited. The section also describes international and Ukrainian initiatives related to women's leadership, professional training, women's participation in energy, renewable energy, mine action, green entrepreneurship and climate adaptation.

Section 3 also pays particular attention to youth, education and changes in environmental behavior. Young people can be important actors of environmental change in communities, but they often remain outside real decision-making mechanisms. The section stresses that environmental education should combine knowledge about the environment with practical skills for civic participation: understanding local programs, budgets, consultations, document work, advocacy and monitoring of decisions. Special attention is needed to support girls and young women in STEM, ecology, energy, agricultural innovation, green entrepreneurship and local leadership.

Section 4 analyzes the main environmental problems and their consequences for different groups of women and men in the context of war. It covers the environmental and community security impacts of hostilities, rising temperatures and heatwaves, drought, desertification, water scarcity, food security, the situation of rural women, floods and damage to water infrastructure, fires, destruction of forests,

soil degradation and biodiversity loss, waste, industrial and agricultural pollution, air pollution, acoustic burden, and radiation and nuclear safety. The section demonstrates that these risks have not only environmental, but also social, security and gender dimensions.

Within Section 4, special attention is given to children, pregnancy, childbirth and early motherhood under combined climate and war-related risks. For children, pregnant women, women after childbirth, mothers of infants and newborns, war, heat, air pollution, lack of safe water, and disruptions to electricity, transport and health services can reinforce each other. In this context, not only access to health services is important, but also conditions for safe infant care, breastfeeding support, safe preparation of infant formula, access to water, sanitation, heating or cooling, and reliable information. Section 4 also analyzes population mobility, the situation of frontline, de-occupied and host communities, and the relationship between environmental crises and risks of male violence against women. The document does not claim an automatic direct causal link between environmental crisis and violence, but shows that infrastructure destruction, displacement, poverty, dependence on humanitarian assistance, isolation, overburdened support services and limited access to safe housing can increase risk conditions for women and girls.

Section 5 summarizes the main gaps. These include a lack of data disaggregated by sex, age, place of residence, disability, IDP status and other characteristics; formal or uneven application of a gender-responsive approach in environmental and climate policy; a weak link between training and institutional change; insufficient involvement of women in decision-making; fragmentation between environmental, climate, social, security and recovery policies; limited capacity at the community level; weak sustainability of project results; non-systemic environmental education; and insufficient connection between environmental security and prevention of violence against women.

Section 6 provides recommendations for stakeholders: the Verkhovna Rada of Ukraine, the Cabinet of Ministers of Ukraine, line ministries, oblast military administrations, rayon state administrations, local self-government bodies, regulatory authorities, the public health system, services working on prevention of violence and support for survivors, educational institutions, civil society organizations, international organizations and donors. Cross-cutting recommendations include collecting and using data disaggregated by sex and other characteristics, conducting gender analysis of environmental and climate documents, consulting women and women's organizations before decisions are made, gender-responsive budgeting, intersectoral coordination, monitoring the impact of policies on different population groups and public reporting on results.

Section 7 concludes that environmental security in wartime should not be treated only as an issue of nature protection. It is part of human rights, women's rights, public health, social justice, community security, humanitarian response, recovery and the Women, Peace and Security agenda. Integrating a gender-responsive approach into environmental policy is a prerequisite for ensuring that decisions on recovery, climate adaptation, natural resources, infrastructure and local development respond to the real needs of different population groups.

The Annexes complement the analytical part with practical tools. **Annex 1** contains a comparative analysis of the integration of a gender-responsive approach in Ukraine's strategic documents on agriculture, gender equality and regional development. **Annex 2** proposes a gender-inclusive environmental roadmap for territorial hromadas with possible areas of action. **Annex 3** outlines the main stages of developing and implementing a local environmental program with a gender-responsive approach. Together, they are intended to support the transition from general analysis to practical planning, implementation, monitoring and revision of local environmental programs.

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List of Abbreviations

Common abbreviations such as UN, EU, CMU, CSO, all-Ukrainian CSO and USA are not included.

Abbreviation	Full name
AA/DCFTA	EU-Ukraine Association Agreement / Deep and Comprehensive Free Trade Area
APWLD	Asia Pacific Forum on Women, Law and Development
CAP	Common Agricultural Policy
CBD	Convention on Biological Diversity
CDC	Centers for Disease Control and Prevention
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CE OBS	Conflict and Environment Observatory
COP	Conference of the Parties
COVID-19	Coronavirus disease 2019
EAFRD	European Agricultural Fund for Rural Development
EAGF	European Agricultural Guarantee Fund
EFFIS	European Forest Fire Information System
FAO	Food and Agriculture Organization of the United Nations
FMO	Dutch Entrepreneurial Development Bank
GBV	Gender-based violence
GFDRR	Global Facility for Disaster Reduction and Recovery
GHG	Greenhouse gas / greenhouse gases
GICHD	Geneva International Centre for Humanitarian Demining
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IAEA	International Atomic Energy Agency
IFC	International Finance Corporation
IOM	International Organization for Migration
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IUCN	International Union for Conservation of Nature
KSE	Kyiv School of Economics
ODIHR	Office for Democratic Institutions and Human Rights
OHCHR	Office of the United Nations High Commissioner for Human Rights
OSCE	Organization for Security and Co-operation in Europe
STEM	Science, technology, engineering and mathematics
TEAD	Training for Energy Auditors and Technical Designers
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP-WCMC	United Nations Environment Programme World Conservation Monitoring Centre
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WASH	Water, sanitation and hygiene
WECF	Women Engage for a Common Future
WHO	World Health Organization
WPS	Women, Peace and Security

1. Introduction, Purpose and Methodology of the Review

Ukraine has already produced a considerable body of research on the state of the environment, the environmental consequences of the war, climate change, losses of natural resources and damage caused to ecosystems as a result of the armed aggression of the Russian Federation. At the same time, much less attention has been paid to how environmental risks, climate change, infrastructure destruction, and water, soil and air pollution affect the everyday lives of women and men of different ages, social status and places of residence.

This Review proceeds from the understanding that all regions of Ukraine are facing a hybrid crisis: existing environmental problems and the effects of climate change are being intensified by the destructive impact of the war. There is a particular lack of materials in which environmental security is examined through women's own experiences: women living in rural and urban communities, representatives of civil society organizations, local self-government bodies, state institutions, women experts, activists and leaders of local initiatives.

Women are often among the first to face the practical consequences of environmental crises: water scarcity, the deterioration of children's and older relatives' health, increased care work, problems related to food, waste, safe housing, evacuation, access to services and the restoration of everyday life in communities. At the same time, women are not only affected by environmental crises; they also actively respond to them: organizing mutual assistance, supporting families and communities, initiating local solutions, participating in recovery and promoting environmentally responsible practices.

The purpose of this Review is to map organizations, institutions, laws, policies, action plans and initiatives related to the Triple Nexus in Ukraine, to assess vulnerability to climate change and to develop a dedicated roadmap. Within this purpose, the Review focuses on the following tasks:

- to analyze how environmental and climate risks intensified by the war affect women and men and different population groups;
- to assess the extent to which international and national policy and practical measures take these differences into account;
- to identify key gaps and propose recommendations and practical tools for state authorities, local self-government bodies, civil society and international organizations.

For this Review, the All-Ukrainian CSO "Democracy Development Center" used materials from expert interviews and consultations with participants of trainings conducted within the project "Environmental Security from a Gender Perspective", implemented by the Democracy Development Center in 2025 with the support of Oxfam and in partnership with the civil society organization "Rural Women of Ukraine". The experiences and observations of project participants became an important source for analyzing how environmental and climate challenges are connected with inequality, care work, access to resources, health, security, participation in decision-making and community recovery. In addition to these materials, the Review used legal and policy documents, analytical reports, news publications and other open-source materials. A short analysis was also conducted of women's participation in decision-making and the consideration of the gender dimension in the planning and implementation of environmental security measures at the international, national and local levels.²

Materials collected within the project:

- expert interviews with activists of women's organizations – 40 persons;
- interviews and consultations with representatives of local self-government bodies – 9 persons;
- separate consultations with women experts on environmental issues – 4 persons;

² Democracy Development Center. Environmental Security and Climate Change.
<https://ddc.org.ua/екологічна-безпека-та-зміна-клімату/>

- materials from discussions during online and offline project events. Quotes from participants in interviews, consultations, trainings and other events are provided without names. They are used as qualitative material to illustrate the problems, experiences and observations voiced during the project and are not statistically representative data.

Additional sources:

- current international and national documents in the fields of women's rights, environmental security, climate change, sustainable development, recovery and the Women, Peace and Security agenda;
- analytical reports and news publications by Ukrainian and international organizations on the environmental consequences of the war, climate risks, women's participation in green recovery and the impact of environmental crises on different population groups;
- academic publications and studies on the impact of climate and environmental risks on health, pregnancy, children, rural communities and other population groups;
- publications by Ukrainian news outlets.

The Review is not an exhaustive study of all environmental problems in Ukraine and does not claim to represent the position of all women's, environmental or human rights organizations. Its task is to outline the problems that project participants see at the community level and to show why environmental security should be understood not only as a matter of nature protection, but also as a matter of human rights, women's rights, social justice, community security and the quality of Ukraine's recovery.

The Review focuses on the impact of environmental and climate risks on women and men, girls and boys, people of different ages, and residents of urban, rural, frontline, de-occupied and host communities. The following sections examine international and national policy, the participation of women and youth in green recovery, key environmental risks, gaps in public policy and recommendations for stakeholders.

At the end of the Review, three annexes complement the analytical part. Annex 1 contains a comparative analysis of the integration of a gender-responsive approach in Ukraine's strategic documents in the areas of agriculture, gender equality and regional development in the context of the relevant provisions of the EU gender acquis included in the EU Common Agricultural Policy for 2023–2027 and other EU legal acts and policy documents concerning rural development, social inclusion, equality between women and men and women's participation. Annexes 2 and 3 have practical relevance for territorial hromadas: Annex 2 identifies possible areas of action in gender-responsive environmental policy, while Annex 3 proposes a sequence for the development, implementation, monitoring and review of the relevant local program.³

2. International and National Policy on Environmental Security through the Lens of Equal Rights and Opportunities for Women and Men

Environmental security, climate change, access to natural resources, and recovery after crises are increasingly understood not only as environmental issues, but also as issues of human rights, sustainable development, security, and equal rights and opportunities for women and men.

³ Common Agricultural Policy, CAP. https://agriculture.ec.europa.eu/common-agricultural-policy_en; Starikova, L. (2023). The EU Common Agricultural Policy and Ukraine's Tasks in the Context of European Integration (Policy Approximation and Legislative Harmonization Plan) (Спільна аграрна політика ЄС і завдання України в контексті євроінтеграції (план наближення політик і гармонізації законодавства)). German-Ukrainian Agricultural Policy Dialogue (APD). https://www.apd-ukraine.de/fileadmin/user_upload/Agrarpolitische_Berichte/Starikova_Alalyse_und_Empfehlungen_CAP_UA.pdf (pp. 6–22, 35–54).

International documents directly or indirectly recognize that environmental crises are not neutral: they affect different population groups in different ways and can deepen existing inequalities.

2.1. International Normative and Legal Framework

Women's rights and the environment

One of the key international documents that systematically links women's rights, gender equality, and environmental issues is the 1995 Beijing Declaration and Platform for Action.⁴ Section K, "Women and the Environment," recognizes that environmental degradation, pollution, reduced access to water, and other environmental factors have a specific impact on women, especially in rural and poorer communities. The document calls on states to involve women in the formulation of environmental policy and to develop gender-responsive data, research, and monitoring systems in the field of sustainable development.⁵

The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)⁶ establishes the obligation of states to ensure equal rights of women and men in all areas of life. Of particular importance for this Review is CEDAW General Recommendation No. 37 on the gender-related dimensions of disaster risk reduction in the context of climate change.⁷ It stresses that policies on disaster risk reduction, emergency response, and climate change adaptation should take into account the situation of women and girls, their participation in decision-making, and their access to resources, information, services, and safety.

Another important document for this analysis is UN Women's publication *Feminist Climate Justice: A Framework for Action*,⁸ which proceeds from the premise that the climate crisis disproportionately affects women and girls, increases care burdens, restricts access to resources, and raises risks to health, safety, and economic autonomy. At the same time, this approach emphasizes that women are not only a vulnerable group: they are leaders of adaptation, local recovery, the green economy, and sustainable resource management. This policy framework calls for rebalancing through the recognition of women's rights, redistribution of resources, expanded participation of women, and the correction of historical inequalities.

Key environmental and climate mechanisms

International environmental and climate instruments also contain important provisions on women's participation. Although the original texts of the United Nations Framework Convention on Climate Change⁹ and the Convention on Biological Diversity¹⁰ do not place equal rights and opportunities for women and men at the center of their agenda, later decisions, action plans, and policy documents increasingly recognize the differentiated impact of environmental and climate change on women and men, as well as the role of women in sustainable development, climate adaptation, and biodiversity conservation.

⁴ Beijing Declaration and Platform for Action. <https://www.un.org/womenwatch/daw/beijing/pdf/Beijing%20full%20report%20E.pdf>

⁵ Beijing Declaration and Platform for Action. <https://www.un.org/womenwatch/daw/beijing/pdf/BDPfA%20E.pdf>

⁶ Convention on the Elimination of All Forms of Discrimination against Women. <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-elimination-all-forms-discrimination-against-women>

⁷ CEDAW General Recommendation No. 37 on gender-related dimensions of disaster risk reduction in the context of climate change. <https://www.ohchr.org/en/documents/general-comments-and-recommendations/general-recommendation-no37-2018-gender-related>

⁸ UN Women. *Feminist Climate Justice: A Framework for Action*. <https://knowledge.unwomen.org/sites/default/files/2023-12/Feminist-climate-justice-A-framework-for-action-en.pdf>

⁹ United Nations Framework Convention on Climate Change. https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf

¹⁰ Convention on Biological Diversity. <https://www.cbd.int/convention/text>

The Rio Declaration on Environment and Development of 1992 states directly in Principle 20 that women have a vital role in environmental management and development, and that their full participation is essential to achieve sustainable development.¹¹

The United Nations Convention to Combat Desertification recognizes the importance of women's participation in combating land degradation and desertification.¹² This is particularly relevant for Ukraine, especially for southern, eastern, and rural hromadas, where droughts, reduced access to water, soil degradation, and the loss of opportunities for household production can directly affect the economic capacity of women and families.

Rural women

International standards pay specific attention to the situation of rural women. Article 14 of CEDAW¹³ requires states to take into account the particular problems faced by rural women and to ensure their participation in the development and implementation of development planning, as well as access to health services, education and vocational training, credit and loans, technology, social security, and adequate living conditions.

The Geneva Declaration for Rural Women,¹⁴ adopted at the Summit on the Economic Advancement of Rural Women in Geneva in 1992, was one of the early specialized international documents devoted to the economic and social situation of rural women. The UN General Assembly welcomed its adoption and called on states to work toward achieving the objectives of the Declaration.

The Beijing Declaration and Platform for Action¹⁵ provides for the needs and situation of rural women to be taken into account in poverty eradication policy (para. 52), education and training (para. 82 (q), (r)), health care (para. 106 (c)), economic participation and access to land, credit, capital, development programs, and cooperative structures (para. 166 (c), (e)), as well as the sustainable use and management of natural resources (para. 253 (d), (f)).

UN General Assembly Resolution 62/136, "Improvement of the Situation of Women in Rural Areas,"¹⁶ adopted on 18 December 2007 at the 62nd session of the General Assembly, emphasizes the need to include the needs and contributions of rural women in development policies and programs, to ensure their participation in decision-making, and to expand their access to productive resources, social services, infrastructure, and economic opportunities. It also stresses the integration of a gender perspective into agricultural policy, rural development, and poverty reduction programs.

European integration

In the context of Ukraine's European integration, the Common Agricultural Policy (CAP) for 2023–2027 is particularly important.¹⁷ Regulation (EU) 2021/2115¹⁸ identifies among the specific objectives of the

¹¹ Rio Declaration on Environment and Development.

https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf

¹² United Nations Convention to Combat Desertification. http://catalogue.unccd.int/936_UNCCD_Convention_ENG.pdf

¹³ Convention on the Elimination of All Forms of Discrimination against Women; Convention on the Elimination of All Forms of Discrimination against Women (Конвенція ООН про ліквідацію всіх форм дискримінації щодо жінок). https://zakon.rada.gov.ua/laws/main/995_207; <https://www.ohchr.org/sites/default/files/Documents/ProfessionalInterest/cedaw.pdf>

¹⁴ Geneva Declaration for Rural Women. <https://digitallibrary.un.org/record/157624>; UN General Assembly Resolution A/RES/50/165. <http://un-documents.net/a50r165.htm>

¹⁵ Beijing Declaration and Platform for Action (Пекінська декларація і Платформа дій). https://zakon.rada.gov.ua/laws/show/995_507#Text

¹⁶ UN General Assembly Resolution 62/136, *Improvement of the Situation of Women in Rural Areas*. <https://docs.un.org/en/A/RES/62/136>

¹⁷ Common Agricultural Policy. <https://eur-lex.europa.eu/eli/reg/2021/2115/oj/eng>; L. Starikova, *The EU Common Agricultural Policy and Ukraine's Tasks in the Context of European Integration (Policy Approximation and Legislative Harmonization Plan)* (Спільна аграрна політика ЄС і завдання України в контексті євроінтеграції (план наближення політик і гармонізації законодавства)). German-Ukrainian Agricultural Policy Dialogue, 2023. https://www.apd-ukraine.de/fileadmin/user_upload/Agrarpolitische_Berichte/Starikova_Alalyse_und_Empfehlungen_CAP_UA.pdf

¹⁸ Regulation (EU) 2021/2115. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02021R2115-20260318>

CAP the promotion of employment, growth, gender equality, including the participation of women in farming, social inclusion, and local development in rural areas. The Regulation also provides for the assessment of the situation of women in agriculture and for responses to identified problems in the CAP Strategic Plans of Member States, the integration of gender equality into the preparation, implementation, and evaluation of CAP measures, and the use, where available, of data disaggregated by gender.

EU law on equality in employment and economic activity is also highly relevant for the situation of women in agriculture and related sectors. Directive 2006/54/EC¹⁹ establishes the principle of equal opportunities and equal treatment of women and men in matters of employment and occupation, covering access to employment and vocational training, working conditions, pay, occupational social security schemes, and protection against discrimination, harassment, and sexual harassment.

Directive 2010/41/EU²⁰ is especially relevant for family farming and rural entrepreneurship. It applies the principle of equal treatment between women and men engaged in self-employed economic activity and also covers the situation of spouses and, where recognized under national law, life partners of self-employed workers who regularly participate in the activities of the business. The Directive also includes provisions on social protection and maternity benefits.

Directive (EU) 2024/1500²¹ complements this system by setting minimum standards for the functioning of equality bodies in areas covered by Directives 2006/54/EC and 2010/41/EU, with the aim of strengthening their independence and effectiveness, preventing discrimination, and providing assistance to persons affected by discrimination.

The broader context of rural development is defined by the European Commission Communication *A Long-Term Vision for the EU's Rural Areas — Towards Stronger, Connected, Resilient and Prosperous Rural Areas by 2040*²² and the related EU Rural Action Plan.²³ These documents approach rural development comprehensively, linking economic development with access to infrastructure and services, digital and green transformation, social inclusion, entrepreneurship, and public participation. The EU Rural Action Plan specifically provides for support to rural women in entrepreneurship and decision-making, as well as attention to services needed to reconcile professional activity and care responsibilities.

For this Review, these provisions are important because of the close link between the state of the environment, access to natural resources, agricultural development, and the situation of rural women. Access to land, water, financing, technology, and state support, opportunities for training and employment, participation in decision-making, and the availability of basic services affect both the economic capacity of rural women and the ability of rural hromadas to adapt to climate change, soil degradation, water scarcity, the loss of agricultural land, and other environmental and war-related risks. Given Ukraine's European integration course, it is important to assess the extent to which agricultural, gender, and regional policies are coordinated with one another and whether they ensure systematic consideration of the needs and participation of rural women in the transition to environmentally sustainable models of development. A comparative analysis of relevant EU approaches and Ukraine's strategic documents is provided in Annex 1, "Comparative Analysis of the Integration of a

¹⁹ Directive 2006/54/EC. <https://eur-lex.europa.eu/eli/dir/2006/54/oj/eng>

²⁰ Directive 2010/41/EU. <https://eur-lex.europa.eu/eli/dir/2010/41/oj/eng>

²¹ Directive (EU) 2024/1500. <https://eur-lex.europa.eu/eli/dir/2024/1500/oj/eng>

²² European Commission. *A Long-Term Vision for the EU's Rural Areas — Towards Stronger, Connected, Resilient and Prosperous Rural Areas by 2040*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0345>

²³ European Commission. *A Long-Term Vision for the EU's Rural Areas — Towards Stronger, Connected, Resilient and Prosperous Rural Areas by 2040*. Publications Office of the European Union, 2021.

[https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698027/EPRS_BRI\(2021\)698027_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698027/EPRS_BRI(2021)698027_EN.pdf)

Gender-Responsive Approach in Ukraine’s Strategic Documents in the Areas of Agriculture, Gender Equality, and Regional Development.”

Contemporary international environmental mechanisms

The Paris Agreement of 2015²⁴ provides for a gender-responsive approach to climate change adaptation and capacity-building. Article 7.5 states that adaptation action should, among other things, follow a gender-responsive, participatory, and fully transparent approach, while Article 11.2 provides for gender-responsive capacity-building.

UN General Assembly Resolution A/RES/76/300, “The Human Right to a Clean, Healthy and Sustainable Environment,” adopted on 28 July 2022, recognizes the right to a clean, healthy, and sustainable environment as a human right.²⁵ For this Review, this is important because it creates a human rights basis for analyzing how environmental and climate risks affect the realization of rights by different groups of women and men.

UN Women, in cooperation with the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), promotes women’s participation in environmental conservation decision-making.²⁶ Following the adoption by the 14th Conference of the Parties to the Convention on Biological Diversity (CBD) in 2018 of a decision on the need for a gender-responsive approach to the development of the Post-2020 Global Biodiversity Framework, the partners focused on three key areas for achieving gender equality: gender-responsive data, closing gaps in environmental statistics, and aligning environmental policy with the Sustainable Development Goals, including goals related to equal rights and opportunities for women and men, climate action, water, food security, and ecosystem conservation.

The Convention on Biological Diversity²⁷ has a Gender Plan of Action for 2023–2030,²⁸ adopted by Decision 15/11 of the Conference of the Parties in 2022. Its purpose is to support the gender-responsive implementation of the Kunming-Montreal Global Biodiversity Framework.²⁹ Target 23 of this Framework specifically provides for ensuring gender equality in its implementation, including equal rights and access for women and girls to land and natural resources, as well as their full, equitable, meaningful, and informed participation and leadership at all levels of decision-making related to biodiversity.

In 2025, the Belém Gender Action Plan for 2026–2034 was adopted at the UN Climate Change Conference (COP30).³⁰ It sets out measures on gender-responsive climate policy, women’s participation and leadership, data, financing, technology, capacity-building, monitoring, and reporting.

A further analytical instrument is the Gender Equality and Climate Policy Scorecard, launched in November 2025 and developed by UN Women with partners to assess the extent to which national climate policies address gender inequalities, the differentiated impacts of climate change on women

²⁴ Paris Agreement. https://treaties.un.org/doc/Treaties/2016/02/20160215%2006-03%20PM/Ch_XXVII-7-d.pdf

²⁵ UN General Assembly Resolution A/RES/76/300, *The Human Right to a Clean, Healthy and Sustainable Environment*. <https://digitallibrary.un.org/record/3982508?ln=en&v=pdf>

²⁶ UNEP-WCMC. *Women and the environment — 25 years on*. <https://www.unep-wcmc.org/en/news/women-and-the-environment-25-years-on>

²⁷ Convention on Biological Diversity. <https://www.cbd.int/convention/text>

²⁸ CBD Gender Plan of Action 2023–2030. <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-11-en.pdf>

²⁹ Kunming-Montreal Global Biodiversity Framework, Target 23. <https://www.cbd.int/gbf/targets/23/>

³⁰ Belém Gender Action Plan. <https://unfccc.int/topics/gender/workstreams/the-gender-action-plan>

and girls, women's contribution to climate action, and concrete measures to address gender inequality.³¹

The Sustainable Development Goals³² also connect equal rights and opportunities, the environment, water, energy, sustainable cities, climate action, and ecosystem protection. For this Review, Goal 5 "Gender Equality," Goal 6 "Clean Water and Sanitation," Goal 7 "Affordable and Clean Energy," Goal 11 "Sustainable Cities and Communities," Goal 13 "Climate Action," and Goal 15 "Life on Land" are particularly important. These goals are interconnected: women's access to land, water, energy, financial resources, and information, as well as their participation in decision-making, are simultaneously issues of human rights, community security, and sustainable development.

Advocacy that integrates gender policy into the protection of women's rights in international climate policy

During the webinar "Environmental Security with a Gender Perspective" on 17 June 2025, Pia Hollenstein, a representative of KlimaSeniorinnen Schweiz (Switzerland), presented the organization's experience and the judgment of the Grand Chamber of the European Court of Human Rights in *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland* of 9 April 2024.

The organization brings together more than 2,000 older women who argued that insufficient state climate policy increases the risks to their life and health during increasingly frequent and intense heatwaves. After unsuccessful appeals to national authorities and courts, the organization applied to the European Court of Human Rights.³³

The applicants emphasized that older women are particularly vulnerable to such extreme climate impacts and have a higher risk of death from heat; therefore, the state must take effective measures to limit global warming to 1.5°C in line with the Paris Climate Agreement. Their organization worked toward the precedent-setting ECtHR judgment for nine years, after all domestic courts had rejected their claims.

The Grand Chamber of the ECtHR found a violation of Article 8 of the European Convention on Human Rights — the right to respect for private and family life — in connection with deficiencies in Switzerland's fulfilment of its positive obligations to protect against the serious adverse effects of climate change. The Court also found a violation of Article 6 § 1 regarding the applicant association's access to court, because the national courts had not properly examined its complaints.³⁴

Since then, Switzerland has been required to report every six months on improvements to its climate strategy. This is a key precedent: states must not only respond to climate change but also protect the rights of citizens, including women, in this context. Accordingly, any country that is a party to the European Convention on Human Rights may be held responsible for insufficient action against the climate crisis.

This example is important for Ukraine because it shows that a state's climate policy may also be assessed through its impact on human rights and the state's ability to protect the population from the serious consequences of climate change. It also demonstrates the importance of access by civil society organizations to effective mechanisms for challenging public policy.

³¹ Gender Equality and Climate Policy Scorecard. <https://knowledge.unwomen.org/en/digital-library/publications/2024/11/enhancing-gender-responsive-nationally-determined-contributions-insights-from-the-gender-equality-and-climate-policy-scorecard>

³² Sustainable Development Goals. <https://sdgs.un.org/goals>

³³ Reuters, *Climate activists seek breakthrough human rights court ruling against European states*. <https://www.reuters.com/sustainability/climate-activists-seek-breakthrough-human-rights-court-ruling-against-european-2024-04-09/>

³⁴ European Court of Human Rights. *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland* (Application no. 53600/20). <https://hudoc.echr.coe.int/eng/?i=002-14304>; Judgment: <https://hudoc.echr.coe.int/eng/?i=001-233206>

Disaster risk reduction

The participation of women and the consideration of the different needs of women and men should also be addressed in policies for disaster prevention, preparedness, response, and recovery. The number of disasters is increasing each year as a result of climate change and careless use of resources. In wartime conditions, environmental risks, technological accidents, infrastructure destruction, landmines and explosive remnants of war, fires, water pollution, and resource shortages overlap with climate change. Three documents form a particularly important basis for gender-responsive disaster risk reduction policy.

Making Disaster Risk Reduction Gender-Sensitive: Policy and Practical Guidelines (2009)³⁵ was the first comprehensive guidance on integrating a gender-responsive approach into disaster risk reduction policies. It emphasizes that women often suffer most from disasters, but also play a key role in community resilience. It recommends involving women at all stages, from risk assessment to planning and response, and ensuring equal access to information, resources, and participation in decision-making.

The *Sendai Framework for Disaster Risk Reduction 2015–2030* (2015),³⁶ adopted by the Third UN World Conference on Disaster Risk Reduction, is a global framework that recognizes the critical role of women in improving the effectiveness of disaster risk reduction measures. It addresses the need to ensure equal access to resources, information, and participation in risk governance, and to strengthen women's rights and capacities as agents of change. Gender equality is treated as a cross-cutting principle of disaster risk governance. The *Gender Action Plan to Support Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030*³⁷ is a dedicated action plan prepared by UNDRR, UN Women, and UNFPA to strengthen gender-responsive disaster risk reduction. It defines practical areas of work related to data disaggregated by sex, age, and disability, women's participation and leadership, gender-responsive planning, financing, preparedness, response, recovery, and accountability.

Gender Equality and Women's Empowerment in Disaster Recovery (2018),³⁸ developed by the Global Facility for Disaster Reduction and Recovery (GFDRR) at the World Bank, contains practical guidance for governments and partners on incorporating gender aspects into disaster recovery programs. It shows that effective reconstruction requires women's participation in planning, leadership, and resource allocation, and that the recovery period provides an opportunity to transform unequal practices in favor of sustainable and inclusive development.

2.2. National Policy of Ukraine

Historical context

After restoring its independence in 1991, Ukraine simultaneously underwent deep economic transformation, built state institutions, and developed its system of environmental and climate governance. In the 1990s, a significant part of state policy focused on overcoming the economic crisis, macroeconomic stabilization, energy security, and maintaining the functioning of basic state institutions and industry.

³⁵ *Making Disaster Risk Reduction Gender-Sensitive: Policy and Practical Guidelines*. UNDRR, UNDP, and IUCN.

https://www.unisdr.org/files/9922_MakingDisasterRiskReductionGenderSe.pdf

³⁶ *Sendai Framework for Disaster Risk Reduction 2015–2030*. https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf

³⁷ *Gender Action Plan to Support Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030*.

<https://www.undrr.org/media/94610>

³⁸ *Gender Equality and Women's Empowerment in Disaster Recovery*. <https://www.gfdr.org/sites/default/files/publication/Gender-Equality-and-Womens-Empowerment-in-Disaster-Recovery.pdf>

The environmental agenda was also shaped by the legacy of the Chornobyl disaster. For society and the state, Chornobyl remained the most visible and painful environmental issue, while climate change and long-term ecosystem degradation were often perceived as less urgent or more distant problems. During the same period, Ukraine remained dependent on Russian energy resources and markets, while economic policy was largely oriented toward short-term survival and support for industry.

At the same time, Ukraine joined international climate policy relatively early:³⁹ it signed the United Nations Framework Convention on Climate Change in 1992, ratified it in 1996, and in 1997 the Government approved the National Climate Program.⁴⁰ Ukraine signed the Kyoto Protocol in 1999 and ratified it in 2004,⁴¹ after which it participated in the international mechanisms provided by the Protocol. For a long time, however, climate policy developed as a separate area and was not yet systematically integrated into economic, territorial, and social planning.

The development of environmental policy was shaped by the structure of the economy, the high resource and energy intensity of production, the significant role of the industrial sector, and outdated production facilities and infrastructure. International assessments of Ukraine's environmental policy in different periods also pointed to problems in the quality of environmental governance, implementation of legislation, pollution control, monitoring systems, and institutional capacity.⁴² As a result, the existence of laws and strategic documents did not always ensure their full practical implementation.

For a long time, state gender policy and state environmental policy in Ukraine developed mainly as separate areas. Legislation and state programs on equal rights and opportunities for women and men focused on non-discrimination, employment, education, social protection, participation in decision-making, and combating violence. At the same time, issues such as women's access to natural resources, the differentiated impact of pollution and climate risks, unpaid care work, and women's participation in climate adaptation, energy policy, environmental security, and community recovery did not for a long time form a separate and systematic area of state policy.

This separation between policy areas has practical consequences: environmental and climate documents may fail to take into account the different experiences and situations of population groups, while gender policy may insufficiently cover access to water, land, energy, a safe environment, climate adaptation, and participation in environmental decision-making. Subsequent policy documents have gradually begun to connect these areas, but, as shown below, the level of integration remains uneven.

After 2014, when Russia occupied Crimea and began the war against Ukraine in Donbas, and especially after the full-scale invasion in 2022, environmental security, climate adaptation, and recovery became significantly more urgent. Ukraine adopted a number of laws, strategies, and plans on state environmental⁴³ and climate policy,⁴⁴ climate change adaptation,⁴⁵ and the implementation of

³⁹ UNFCCC, history of Ukraine's participation in climate policy. <https://unfccc.int/resource/docs/idr/ukr01.htm>

⁴⁰ UNFCCC, official profile of Ukraine and dates of accession to international climate agreements. <https://unfccc.int/node/61227>

⁴¹ Law of Ukraine on ratification of the Kyoto Protocol (Закон України про ратифікацію Кіотського протоколу).

<https://zakon.rada.gov.ua/laws/show/1430-15#Text>

⁴² World Bank. *Ukraine Country Environmental Analysis*. <https://openknowledge.worldbank.org/entities/publication/821cdaed-dc31-5e6a-abde-c3cc1afd615a>; European Commission, assessment of Ukraine's structural environmental challenges.

https://enlargement.ec.europa.eu/document/download/6f3ce1115-0598-41a7-b696-9ef3cc79ca15_en

⁴³ Law of Ukraine "On the Basic Principles of State Environmental Policy of Ukraine for the Period until 2030" (Закон України «Про основні засади державної екологічної політики України на період до 2030 року»), No. 2697-VIII, 28 February 2019. <https://zakon.rada.gov.ua/laws/show/2697-19>

⁴⁴ Law of Ukraine "On the Basic Principles of State Climate Policy" (Закон України «Про основні засади державної кліматичної політики»), No. 3991-IX, 19 March 2024. <https://zakon.rada.gov.ua/laws/show/3991-IX>

⁴⁵ Order of the Cabinet of Ministers of Ukraine "On Approval of the Strategy for Environmental Security and Adaptation to Climate Change until 2030" (Розпорядження Кабінету Міністрів України «Про схвалення Стратегії екологічної безпеки та адаптації до зміни клімату на період до 2030 року»), No. 1363-r, 20 October 2021. <https://zakon.rada.gov.ua/laws/show/1363-2021-p>

international obligations. However, the adoption of strategic documents has not always been accompanied by a sufficient level of implementation, environmental control, monitoring, and accountability for violations. In some areas, including the use of forest resources, the problems of illegal logging⁴⁶ and weak inevitability of liability have remained the subject of attention by civil society organizations and experts. International assessments continue to point to gaps between the existence of a legal framework and its full implementation, as well as to the need to strengthen environmental control, monitoring, administrative capacity, and further approximation of legislation to the EU acquis. The systematic connection between environmental, climate, security, and gender policy also remains incomplete.

“Remember who ran the economy in the Soviet period and in the early years of Ukraine’s independence. Men looked at ecology through the lens of going fishing or hunting. At the beginning of independence there were many parks and public gardens, but over time there were fewer and fewer of them. Business projects destroyed natural resources.”

Training participant

The Law of Ukraine “On Ensuring Equal Rights and Opportunities for Women and Men”⁴⁷ defines the main areas of state policy in this field: the establishment of gender equality, the prevention of discrimination on the grounds of sex, the use of positive actions, and the equal participation of women and men in socially important decisions. Since the Law is aimed at achieving equal rights and opportunities in all spheres of social life, its principles create a general legal basis for integrating a gender-responsive approach into environmental, climate, energy, agricultural, water, and recovery policy.

The State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030, adopted in 2022,⁴⁸ laid the foundation for integrating a gender-responsive approach into different areas of state policy, including environmental, climate, energy, agricultural, and recovery policy. It provides for equal participation of women and men in decision-making on natural resources, environmental security, and climate change response, as well as equal opportunities for access to new energy technologies. The Operational Plan for 2022–2024⁴⁹ specified this direction through educational programs and training, support for women’s participation in clean energy, agroecological food systems, and family farming, as well as mentoring and research activities related to access to natural resources, the impact of climate change on health, and access to energy. The Operational Plan for 2025–2027⁵⁰ continues this direction, retaining a separate operational objective on participation in environmental decisions and access to natural resources. It provides for educational, training, research, and mentoring activities, and also specifically emphasizes the identification of barriers to women’s and men’s access to new technologies in the energy sector. The key task remains the transition from

⁴⁶ *Volumes of Illegal Logging in 2023: Analytical Report Based on Data from Forest Users (Обсяги незаконних рубок у 2023 році: аналітичний звіт на основі даних лісокористувачів)*. <https://forestcom.org.ua/news-post/illegal-logging-ukraine-2023-according-forest-users-data-analytical-report>

⁴⁷ Law of Ukraine “On Ensuring Equal Rights and Opportunities for Women and Men” (Закон України «Про забезпечення рівних прав та можливостей жінок і чоловіків»), No. 2866-IV, 8 September 2005. <https://zakon.rada.gov.ua/go/2866-15>

⁴⁸ Order of the Cabinet of Ministers of Ukraine “On Approval of the State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030 and the Operational Plan for 2022–2024” (Розпорядження Кабінету Міністрів України «Про затвердження Державної стратегії забезпечення рівних прав та можливостей жінок і чоловіків на період до 2030 року та операційного плану на 2022–2024 роки»), No. 752-г. <https://zakon.rada.gov.ua/laws/show/752-2022-%D1%80>

⁴⁹ Ibid.

⁵⁰ Order of the Cabinet of Ministers of Ukraine “On Approval of the Operational Plan for 2025–2027 for the Implementation of the State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030” (Розпорядження Кабінету Міністрів України «Про затвердження операційного плану заходів з реалізації у 2025–2027 роках Державної стратегії забезпечення рівних прав та можливостей жінок і чоловіків на період до 2030 року»). <https://zakon.rada.gov.ua/laws/show/439-2025-%D1%80#Text>

individual measures to systemic changes in policy, budgeting, and mechanisms of participation in decision-making.

The Law of Ukraine “On Environmental Protection,”⁵¹ whose main tasks are aimed at regulating relations in the field of natural resources, defines environmental security as a state of the environment in which the prevention of deterioration of the environmental situation and the emergence of danger to human health is ensured. At the same time, the Law does not contain mechanisms for analyzing how environmental risks may affect women and men, children, older people, persons with disabilities, and residents of rural, urban, frontline, or de-occupied hromadas in different ways. This creates an important field for applying the general norms of legislation on equal rights and opportunities for women and men and methodological tools of gender analysis in environmental policy.

The Law of Ukraine “On Strategic Environmental Assessment”⁵² establishes the procedure for assessing the impact of state and local strategies, plans, and programs on the environment and public health. It provides for the analysis of possible consequences, consideration of alternatives, measures to prevent and reduce negative impacts, public discussion, consultations, and subsequent monitoring. The Law does not explicitly provide for gender analysis or the assessment of the differentiated impact of planned decisions on women and men and other population groups. At the same time, its requirements regarding assessment of impacts on public health, public participation, comprehensive analysis, and consideration of consultation results create a procedural basis for integrating a gender-responsive approach: during strategic environmental assessment, it is advisable to analyze which population groups are affected differently by environmental risks and planned decisions, to ensure the participation of women’s and other civil society organizations in consultations, and to include relevant indicators in the monitoring system.

In 2024, Ukraine adopted the Law “On the Basic Principles of State Climate Policy,”⁵³ which defines the legal and organizational foundations of state climate policy aimed at achieving climate neutrality, mitigating and adapting to climate change, low-carbon and sustainable development, and ensuring Ukraine’s environmental, food, and energy security.

State policy on climate change response

In 2016, the Government of Ukraine approved the Concept for the Implementation of State Policy in the Field of Climate Change until 2030,⁵⁴ and in 2017 it approved the Action Plan for its implementation.⁵⁵ These documents defined three main areas of state climate policy: strengthening institutional capacity, preventing climate change by reducing emissions and transitioning to low-carbon development, and adapting to climate change and reducing related risks. The Action Plan provided, among other things, for the preparation of a climate change adaptation strategy, recommendations for agricultural adaptation, and pilot projects for the development and implementation of adaptation plans at regional and local levels. The Concept and the Action Plan ceased to be in force in 2024 following the adoption

⁵¹ Law of Ukraine “On Environmental Protection” (Закон України «Про охорону навколишнього природного середовища»), No. 1264-XII, 25 June 1991. <https://zakon.rada.gov.ua/go/1264-12>

⁵² Law of Ukraine “On Strategic Environmental Assessment” (Закон України «Про стратегічну екологічну оцінку»). <https://zakon.rada.gov.ua/laws/show/2354-19#Text>

⁵³ Law of Ukraine “On the Basic Principles of State Climate Policy” (Закон України «Про основні засади державної кліматичної політики»), No. 3991-IX, 8 October 2024. <https://zakon.rada.gov.ua/laws/show/3991-20#Text>

⁵⁴ Order of the Cabinet of Ministers of Ukraine “On Approval of the Concept for the Implementation of State Policy in the Field of Climate Change until 2030” (Розпорядження Кабінету Міністрів України «Про схвалення Концепції реалізації державної політики у сфері зміни клімату на період до 2030 року»). <https://zakon.rada.gov.ua/laws/show/932-2016-%D1%80#Text>; the act ceased to be in force on the basis of Cabinet of Ministers Order No. 483-r of 30 May 2024. <https://zakon.rada.gov.ua/laws/show/483-2024-%D1%80#Text>

⁵⁵ Action Plan for the Implementation of the Concept for State Policy in the Field of Climate Change until 2030 (План заходів щодо виконання Концепції реалізації державної політики у сфері зміни клімату на період до 2030 року). <https://zakon.rada.gov.ua/laws/show/878-2017-%D1%80#Text>

of the new Strategy for the Formation and Implementation of State Policy in the Field of Climate Change until 2035.

In 2020, an interagency working group was established to coordinate efforts to overcome the consequences of climate change within the framework of the European Commission initiative “European Green Deal.”⁵⁶ Its establishment was intended to promote interagency coordination in the areas of climate policy, energy transition, energy efficiency, industrial pollution, the circular economy, biodiversity conservation, and other related areas.

In 2021, the Government approved the Strategy for Environmental Security and Adaptation to Climate Change until 2030 and the Operational Plan for its implementation in 2022–2024.⁵⁷ The Strategy identified, among the problems, insufficient integration of climate change adaptation into sectoral and territorial policy, a lack of systematic research on risks and vulnerability, insufficient awareness among public authorities and hromadas, and a lack of capacity for planning adaptation measures. It provided for sectoral risk assessments, methodological recommendations, the inclusion of adaptation in regional and local strategic documents, and the development of local and regional adaptation strategies. In 2025, the Operational Plan for implementing the Strategy in 2025–2027 was approved.⁵⁸

In May 2024, the Government approved the Strategy for the Formation and Implementation of State Policy in the Field of Climate Change until 2035 and the Operational Plan for its implementation in 2024–2026.⁵⁹ The Strategy covers the strengthening of legal and organizational foundations of climate policy, reduction of emissions and increase of greenhouse gas absorption, a socially just transition to low-carbon development, assessment of climate risks and vulnerability, sectoral and territorial adaptation, early warning of climate hazards, and the development of climate services. At the same time, the Strategy does not contain separate gender objectives, gender indicators, or requirements for the use of data disaggregated by sex and other relevant characteristics. The document provides for a socially just transition for vulnerable population groups, support for hromadas with high climate risks, and social protection, but does not define mechanisms for analyzing how climate risks and adaptation measures affect women and men, people of different ages, persons with disabilities, internally displaced persons, and households with different levels of care responsibilities.

At the same time, regional and local adaptation instruments are gradually emerging in the practical implementation of climate policy. According to the official report on the implementation of the National Environmental Action Plan in 2024,⁶⁰ draft climate change adaptation strategies were prepared for Lviv, Ivano-Frankivsk, and Mykolaiv oblasts. Climate change adaptation was included in nine regional strategic documents; within the Covenant of Mayors East project, 54 Sustainable Energy and Climate Action Plans for cities were developed and approved, while another 14 were at the development or approval stage. Methodological recommendations for the assessment of risks and

⁵⁶ Resolution of the Cabinet of Ministers of Ukraine “On Establishing an Interagency Working Group on Coordination of Overcoming the Consequences of Climate Change within the Framework of the European Commission Initiative ‘European Green Deal’” (Постанова КМУ «Про утворення міжвідомчої робочої групи з питань координації подолання наслідків зміни клімату в рамках ініціативи Європейської Комісії “Європейський зелений курс”»), No. 33, 24 January 2020. <https://zakon.rada.gov.ua/laws/show/33-2020-%D0%BF#Text>

⁵⁷ Strategy for Environmental Security and Adaptation to Climate Change until 2030 (Стратегія екологічної безпеки та адаптації до зміни клімату на період до 2030 року). <https://zakon.rada.gov.ua/laws/show/1363-2021-%D1%80#Text>

⁵⁸ Operational Plan for Measures to Implement the Strategy for Environmental Security and Adaptation to Climate Change in 2025–2027 (Операційний план заходів з реалізації Стратегії екологічної безпеки та адаптації до зміни клімату у 2025–2027 роках). <https://zakon.rada.gov.ua/laws/show/96-2025-%D1%80#Text>

⁵⁹ Strategy for the Formation and Implementation of State Policy in the Field of Climate Change until 2035 (Стратегія формування та реалізації державної політики у сфері зміни клімату на період до 2035 року). <https://zakon.rada.gov.ua/laws/show/483-2024-%D1%80#Text>

⁶⁰ Report on the Implementation of the National Environmental Action Plan in 2024 (Звіт про виконання Національного плану дій з охорони навколишнього природного середовища у 2024 році). <https://mepr.gov.ua/wp-content/uploads/2025/03/Zvit-po-vykonannnyu-NPD-za-2024.pdf>

vulnerability were also developed for central and local authorities, local self-government bodies, specialists, and the public.⁶¹

These steps indicate the gradual formation of a practical level of climate adaptation. The next task is to ensure that risk assessments, strategies, and adaptation plans analyze not only territorial and sectoral risks, but also the differentiated impact of climate change on population groups, their capacity to adapt, and their access to the necessary resources and services.

The Law of Ukraine “On Ensuring Equal Rights and Opportunities for Women and Men” created the general legal basis for integrating a gender-responsive approach into state policy. However, in the environmental and climate spheres this process remains uneven. Public materials indicate the existence of some training and institutional measures, but they much less often make it possible to trace their influence on policy content, procedures, indicators, budgeting, data collection, and regular reporting.

Example

In October 2024, representatives of the central office and territorial bodies of the State Environmental Inspectorate of Ukraine participated in a roundtable on ensuring gender equality, organized by UNDP in Ukraine under the environmental damage assessment project funded by the Government of Sweden. According to the SEI, participants discussed practical steps to integrate a gender-responsive approach into the work of the Inspectorate, and following the event, the concept of the activities of the working group on ensuring gender equality was defined.

This example shows the emergence of institutional initiatives in the system of environmental governance. At the same time, to assess their effectiveness it is important to track subsequent changes: revision of internal procedures, methodologies for assessing environmental damage, data systems, indicators, reporting, and mechanisms for women’s participation in decision-making.⁶²

An analysis of key state environmental and climate policy documents shows that the gender-responsive approach is integrated into them unevenly. The Strategy for Environmental Security and Adaptation to Climate Change until 2030⁶³ and the Strategy for the Formation and Implementation of State Policy in the Field of Climate Change until 2035⁶⁴ contain a broad set of measures on vulnerability, adaptation, social protection, and public participation, but do not establish gender-specific objectives, indicators, or data requirements. In key strategic documents, such as the National Waste Management Strategy until 2030⁶⁵ and Ukraine’s Nationally Determined Contribution under the Paris Agreement,⁶⁶ the gender dimension is not reflected in the objectives, tasks, or measures, despite its presence in international recommendations and Ukraine’s obligations to implement those recommendations.

⁶¹ Methodological Recommendations for Assessing Climate Risks and Vulnerability (Методичні рекомендації з оцінки кліматичних ризиків і вразливості). <https://mepr.gov.ua/wp-content/uploads/2023/06/386nd1.pdf>

⁶² State Environmental Inspectorate of Ukraine. “The SEI integrates gender approaches into its work” (“ДЕІ інтегрує гендерні підходи у свою роботу”). <https://www.dei.gov.ua/post/2973>

⁶³ Order of the Cabinet of Ministers of Ukraine “On Approval of the Strategy for Environmental Security and Adaptation to Climate Change until 2030” (Розпорядження Кабінету Міністрів України «Про схвалення Стратегії екологічної безпеки та адаптації до зміни клімату на період до 2030 року»), No. 1363-r. <https://zakon.rada.gov.ua/laws/show/1363-2021-%D1%80>

⁶⁴ Strategy for the Formation and Implementation of State Policy in the Field of Climate Change until 2035 (Стратегія формування та реалізації державної політики у сфері зміни клімату на період до 2035 року). <https://zakon.rada.gov.ua/laws/show/483-2024-%D1%80#Text>

⁶⁵ National Waste Management Strategy in Ukraine until 2030 (Національна стратегія управління відходами в Україні до 2030 року), approved by Cabinet of Ministers Order No. 820-r, 2017. <https://zakon.rada.gov.ua/laws/show/820-2017-%D1%80>

⁶⁶ Ministry of Environmental Protection and Natural Resources of Ukraine. Updated Nationally Determined Contribution of Ukraine to the Paris Agreement (Оновлений національно визначений внесок України до Паризької угоди), 2021. <https://mepr.gov.ua/content/оновleniy-nacionalno-viznacheniy-vnesok-ukraini-do-parizkoi-ugodi.html>

The Law of Ukraine “On the Basic Principles of State Climate Policy” (No. 3991-IX of 8 October 2024)⁶⁷ directly defines gender equality as one of the principles of state climate policy. However, neither gender equality nor women are mentioned later in the document. This principle therefore still needs to be translated into specific mechanisms: gender analysis of climate programs, objectives and indicators, data disaggregated by sex, age, place of residence, and other characteristics, participation of women’s organizations in consultations, gender-responsive budgeting, and regular reporting on results.

By Resolution No. 439-r of the Cabinet of Ministers of Ukraine of 2 May 2025,⁶⁸ amendments were introduced to the State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030, and the Operational Plan for its implementation in 2025–2027 was approved.

The updated Strategy provides for the integration of the principle of equal rights and opportunities for women and men into policies in all spheres of public life and at all levels. Among the expected results, it identifies the incorporation of this principle in Government policy and strategic documents, regional development strategies, hromada development strategies, and implementation action plans, including in humanitarian crisis response and projects for Ukraine’s recovery and development. The Strategy also provides for the development of statistical and administrative reporting that reflects the situation and needs of different groups of women and men, girls and boys, as well as the application of a gender-responsive approach in the budget process.

Certain provisions of the Strategy directly concern environmental, climate, and infrastructure policy. It provides for the application of a gender-responsive approach and the principle of inclusiveness during the reconstruction and restoration of infrastructure in urban and rural areas, taking into account the European Green Deal. Operational Objective 3 defines the task of ensuring equal participation of women and men in decision-making on the conservation of and access to natural resources, environmental security, and response to climate change, as well as equal rights and opportunities in the use of new technologies in the energy sector. Among the expected results, it identifies increased participation of women in environmental and climate decision-making and equal protection from the effects of climate change, taking into account the needs of different population groups.

The Operational Plan for 2025–2027 translates some of these provisions into concrete measures. In particular, it provides for research on the impact of climate change on the health and lives of women and men, girls and boys; the development of educational programs on gender aspects of ecology, energy, and climate change; training for civil servants, local self-government officials, and representatives of women’s civil society associations; research on environmental education and women’s and men’s access to natural resources in rural areas; the development of mentoring programs in sustainable development and environmental policy; and the identification of barriers to women’s and men’s access to new technologies in the energy sector.

Also important for the subject of this Review is that one of the Strategy’s indicators sets a target value for the share of women among heads of farms: 40 per cent by 2030. This creates a link between state gender policy and women’s economic participation in agriculture.

Gender dimension of agricultural policy and rural development

The Strategy for the Development of Agriculture and Rural Areas in Ukraine until 2030 and the Operational Plan for its implementation in 2025–2027 require separate analysis.⁶⁹ Within Strategic Goal

⁶⁷ Law of Ukraine “On the Basic Principles of State Climate Policy” (Закон України «Про основні засади державної кліматичної політики»), No. 3991-IX. <https://zakon.rada.gov.ua/laws/show/3991-20#Text>

⁶⁸ Order of the Cabinet of Ministers of Ukraine No. 439-r of 2 May 2025 (Розпорядження Кабінету Міністрів України від 2 травня 2025 р. № 439-p). <https://zakon.rada.gov.ua/laws/show/439-2025-%D1%80#Text>

7, “Creating Conditions for the Development of Rural Areas,” the Operational Plan contains a separate task on “Gender Equality.” Its measures provide for support for starting businesses in the agricultural sector for defined groups, including wives of war veterans, wives of fallen veterans and Defenders of Ukraine, as well as skills upgrading and retraining for women in rural areas.

A comparison of the Strategy for the Development of Agriculture and Rural Areas, the State Strategy for Ensuring Equal Rights and Opportunities for Women and Men, and the State Strategy for Regional Development shows that mechanisms related to gender equality are distributed across different strategic documents and fall within the competence of different public authorities. This issue is discussed in more detail in Annex 1.

The Agricultural Strategy⁷⁰ contains specific measures to support entrepreneurship and the professional development of women in rural areas. The State Gender Equality Strategy⁷¹ covers a broader range of issues: economic opportunities, entrepreneurship, access to natural resources and new technologies, infrastructure, education, participation in decision-making, and data collection. The State Strategy for Regional Development⁷² contains provisions on local statistics, data disaggregated by sex, and the integration of a gender-responsive approach into strategic planning and budgeting.

At the same time, these elements do not yet form a unified system of gender-responsive policy for the development of agriculture and rural areas. The analyzed documents lack a systematic analysis of the situation of women in agriculture, including their access to land, financing, state support, training, technologies, and markets; a comprehensive system of agricultural data disaggregated by sex and other relevant characteristics; regular assessment of women’s participation in support programs and decision-making; and targeted support mechanisms based on analysis of identified gender inequalities and needs.

Following the merger of powers in the fields of economic, environmental, and agricultural policy within one central executive body,⁷³ it is important to ensure the continuity of processes already initiated and better coordination among these areas. The Ministry of Economy, Environment and Agriculture of Ukraine⁷⁴ is simultaneously responsible for areas in which access to natural resources, rural development, the green transition, climate adaptation, entrepreneurship, employment, and recovery intersect. This creates an opportunity for more systematic integration of a gender-responsive approach, but requires translating it into specific mechanisms for policy planning, implementation, and monitoring: data analysis, objectives and indicators, assessment of program impact, participation of women’s organizations and representatives of different population groups in consultations, and application of a gender-responsive approach in the budget process.

In the process of localizing the Sustainable Development Goals, Ukraine defined national targets and a monitoring system for their achievement. By Resolution No. 1190-r of the Cabinet of Ministers of Ukraine of 29 November 2024, “Certain Issues of Ensuring the Achievement of the Sustainable

⁶⁹ Strategy for the Development of Agriculture and Rural Areas in Ukraine until 2030 (Стратегія розвитку сільського господарства та сільських територій в Україні на період до 2030 року). <https://zakon.rada.gov.ua/laws/show/1163-2024-%D1%80#Text>

⁷⁰ Strategy for the Development of Agriculture and Rural Areas in Ukraine until 2030 (Стратегія розвитку сільського господарства та сільських територій в Україні на період до 2030 року). <https://zakon.rada.gov.ua/laws/show/1163-2024-%D1%80#Text>

⁷¹ State Strategy for Ensuring Equal Rights and Opportunities for Women and Men (Державна стратегія забезпечення рівних прав та можливостей жінок і чоловіків). <https://zakon.rada.gov.ua/laws/show/439-2025-%D1%80#Text>

⁷² State Strategy for Regional Development (Державна стратегія регіонального розвитку), current main act.

<https://zakon.rada.gov.ua/laws/show/695-2020-%D0%BF#Text>; Resolution of 2024 by which the Strategy was restated (Постанова 2024 року, якою Стратегію викладено в новій редакції). <https://zakon.rada.gov.ua/laws/show/940-2024-%D0%BF#Text>

⁷³ Ministry of Economy of Ukraine, news on the merger of competencies. <https://me.gov.ua/News/Detail/83f0e17d-2fbf-4515-8b23-7b96590bb44e>

⁷⁴ Ministry of Economy, Environment and Agriculture of Ukraine. <https://me.gov.ua/>

Development Goals in Ukraine,”⁷⁵ the Government approved targets for achieving the Sustainable Development Goals by 2030, indicators, target values, and responsible coordinators for each SDG with corresponding obligations, including:

- achieving gender equality and empowering all women and girls;
- ensuring access to affordable, reliable, sustainable, and modern energy for all;
- promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all;
- building resilient infrastructure and promoting inclusive and sustainable industrialization and innovation;
- making cities and other human settlements inclusive, safe, resilient, and environmentally sustainable;
- ensuring the transition to sustainable consumption and production patterns;
- taking urgent action to combat climate change and its impacts.

The global SDG indicator framework⁷⁶ for Goal 5.a (“Gender Equality”) includes indicator 5.a.1, which measures the prevalence of ownership or secure rights over agricultural land among women and men and the share of women among owners or rights-bearers. This indicator is not included in the national list of indicators approved by Cabinet of Ministers Resolution No. 1190-r. Including it in the national monitoring system would help better assess gender differences in access to one of the key productive resources in agriculture. Other environmental or climate indicators, such as water, energy, and CO₂, are not disaggregated by sex. This makes it more difficult to formulate policy that genuinely takes into account the needs of different population groups.

The Ministry of Environmental Protection and Natural Resources (hereinafter, the Ministry of Environment) was among the co-implementers of the two previous National Action Plans for the Implementation of UN Security Council Resolution 1325 “Women, Peace and Security” (2016⁷⁷ and 2020⁷⁸), but did not propose measures either as components of security or for Ukraine’s recovery. Environmental organizations did not receive training on gender policy and did not propose relevant measures; they were not invited to participate in the development of the above-mentioned documents.

The National Action Plan for the Implementation of UN Security Council Resolution 1325 “Women, Peace and Security” for the period until 2030, approved by Government Resolution No. 214-r of 25 February 2026,⁷⁹ should also be mentioned separately. It provides for a number of tasks and measures that directly or indirectly concern environmental and climate security: dissemination of materials on radiation safety, sources of drinking water supply, and adaptation measures for families and hromadas in the context of climate change; inclusion of environmental and climate literacy topics in educational

⁷⁵ Order of the Cabinet of Ministers of Ukraine No. 1190-r, “Certain Issues of Ensuring the Achievement of the Sustainable Development Goals in Ukraine” (Розпорядження Кабінету Міністрів України № 1190-р «Деякі питання забезпечення досягнення Цілей сталого розвитку в Україні»), 2024. <https://zakon.rada.gov.ua/laws/show/1190-2024-%D1%80>

⁷⁶ SDG Global Indicator Framework, Goal 5. <https://unstats.un.org/sdgs/metadata/?Goal=5&Text=>

⁷⁷ Order of the Cabinet of Ministers of Ukraine “On Approval of the National Action Plan for the Implementation of UN Security Council Resolution 1325 ‘Women, Peace and Security’ until 2020” (Розпорядження Кабінету Міністрів України «Про затвердження Національного плану дій з виконання Резолюції Ради Безпеки ООН 1325 “Жінки, мир, безпека” на період до 2020 року»), No. 113-r, 2016. <https://zakon.rada.gov.ua/laws/show/113-2016-%D1%80#Text>

⁷⁸ Order of the Cabinet of Ministers of Ukraine “On Approval of the National Action Plan for the Implementation of UN Security Council Resolution 1325 ‘Women, Peace and Security’ until 2025” (Розпорядження Кабінету Міністрів України «Про затвердження Національного плану дій з виконання Резолюції Ради Безпеки ООН 1325 “Жінки, мир, безпека” на період до 2025 року»), No. 1544-r, 2020. <https://zakon.rada.gov.ua/laws/show/1544-2020-%D1%80>

⁷⁹ National Action Plan for the Implementation of UN Security Council Resolution 1325 “Women, Peace and Security” until 2030 (Національний план дій з виконання резолюції Ради Безпеки ООН 1325 «Жінки, мир, безпека» на період до 2030 року), approved by Government Order No. 214-r of 25 February 2026. <https://zakon.rada.gov.ua/laws/show/214-2026-%D1%80#Text>

programs; and a study on assessment of environmental damage caused by the war with consideration of a gender-responsive approach.

In particular, under Task 7 of Operational Objective 1 (“An effective mechanism of interaction has been established between public authorities, civil society associations, enterprises, institutions and organizations for identifying security challenges, preventing such challenges, and responding to them — wars, pandemics, cyber threats, technological disasters — taking into account the needs of different groups of girls and boys, women and men”) of Strategic Goal 2 (“A gender-responsive system for identifying, responding to, and preventing security challenges has been created”), the following measures are envisaged:

- development and dissemination in the media, on websites of public authorities and local self-government bodies, and in public and community spaces of materials on the topics “Radiation Safety and Means of Radiation Protection,” “Main Sources of Drinking Water Supply and How to Navigate Drinking Water Standards,” and “Adaptation Measures for Families and Hromadas in the Context of Climate Change” (item 3);
- inclusion of topics on environmental and climate literacy in educational programs and provision of recommendations to educational institutions on the implementation of the Sustainable Development Goals (item 4);
- conducting the study “Assessment of Damage Caused by the War to the Natural Environment with Consideration of the Gender Component,” developing a methodology, and conducting training for the Environmental Damage Assessment Coordination Center (item 7).

This is an important step, because environmental security is more clearly entering the Women, Peace and Security agenda in Ukraine. At the same time, the Plan does not contain a separate set of measures devoted to energy efficiency, renewable energy, and a just green transition. It therefore requires further development: environmental and climate security should be treated not only as an information or educational topic, but as a component of community security, humanitarian response, recovery, access to resources, health protection, prevention of violence, and women’s participation in decision-making.

Ukraine has normative and methodological instruments that can be used to integrate a gender-responsive approach into environmental, climate, energy, agricultural policy and the policy of territorial hromada development. The Ministry of Social Policy, which is responsible for implementing gender policy in Ukraine and coordinating other central executive authorities in this field, has approved normative legal acts recommending:

- integration of a gender-responsive approach during the development of normative legal acts;⁸⁰
- inclusion in collective agreements and accords of provisions aimed at ensuring equal rights and opportunities for women and men in labor relations;⁸¹
- assessment of the gender impact of sectoral reforms;⁸²

⁸⁰ Order of the Ministry of Social Policy No. 86, “On Approval of the Instruction on Integrating Gender Approaches during the Development of Normative Legal Acts” (Наказ Міністерства соціальної політики № 86 «Про затвердження Інструкції щодо інтеграції гендерних підходів під час розроблення нормативно-правових актів»), 7 February 2020. <https://zakon.rada.gov.ua/laws/show/z0211-20#Text>

⁸¹ Order of the Ministry of Social Policy No. 56, “On Approval of Methodological Recommendations on Including Provisions in Collective Agreements and Accords Aimed at Ensuring Equal Rights and Opportunities for Women and Men in Labor Relations” (Наказ Міністерства соціальної політики № 56 «Про затвердження Методичних рекомендацій щодо внесення до колективних договорів та угод положень, спрямованих на забезпечення рівних прав і можливостей жінок та чоловіків у трудових відносинах»), 29 January 2020. <https://zakon.rada.gov.ua/rada/show/v0056739-20#Text>

⁸² Order of the Ministry of Social Policy No. 257, “On Approval of Methodological Recommendations on Assessing the Gender Impact of Sectoral Reforms” (Наказ Міністерства соціальної політики № 257 «Про затвердження Методичних рекомендацій щодо оцінювання гендерного впливу галузевих реформ»), 14 April 2020. <https://zakon.rada.gov.ua/rada/show/v0257739-20#Text>

- conducting gender audits by enterprises, institutions, and organizations;⁸³
- implementation of a gender-responsive approach and a human rights-based approach at the level of territorial hromadas.⁸⁴

The Ministry of Finance approved the Methodological Recommendations on the Introduction and Application of a Gender-Responsive Approach in the Budget Process (Order No. 1 of 2 January 2019)⁸⁵ for use at all levels of decision-making in all sectors.

Ukraine has a sufficient normative and methodological basis for integrating the approach of equal rights and opportunities for women and men into environmental, climate, energy, agricultural, water, and recovery policy. However, these instruments are not yet applied systematically in the environmental sphere. In key documents, the gender dimension often does not translate into objectives, indicators, budgeting, consultations with women's organizations, data collection, and regular monitoring of policy impact on different groups of women and men.

2.3. Environmental Tax and Its Use in Territorial Hromadas

Environmental tax is one of the economic instruments of environmental policy and an important source of financing for environmental protection measures. For territorial hromadas, issues related to its revenues, planning, and use are directly connected with the ability to finance local environmental programs and respond to specific environmental problems.

The procedure for collecting the environmental tax, the range of taxpayers, objects and tax base, rates, and calculation procedure are determined by the Tax Code of Ukraine.

The main issues related to the payment procedure for this tax are defined by the Tax Code of Ukraine,⁸⁶ in particular:

1. taxpayers and types of activities subject to environmental tax are specified (Article 240);
2. the object and tax base by type are defined, including air emissions, discharges into water, and waste disposal (Articles 242–246);
3. rates are established for the relevant objects (Articles 243, 245, 246);
4. the calculation procedure is established, on a quarterly basis and according to formulas (Article 249);
5. temporary rules during martial law provide for exemption from payment of environmental tax for generators (Transitional Provisions, para. 46, subsection 5, section XX).

According to the current Budget Code of Ukraine⁸⁷ (para. 16-1 of Article 29 and para. 4-1 of Article 69), 45 per cent of the environmental tax is credited to the state budget and 55 per cent to the special fund of local budgets. Of the total amount of the environmental tax, 25 per cent goes to local self-government budgets and 30 per cent to oblast budgets and the budget of the Autonomous Republic of Crimea; for the budgets of Kyiv and Sevastopol, 55 per cent is credited. Certain types of environmental

⁸³ Order of the Ministry of Social Policy No. 448, "On Approval of Methodological Recommendations on Conducting Gender Audits by Enterprises, Institutions and Organizations" (Наказ Мінсоцполітики № 448 «Про затвердження Методичних рекомендацій щодо проведення гендерного аудиту підприємствами, установами та організаціями»), 9 August 2021. <https://zakon.rada.gov.ua/rada/show/v0448739-21#Text>

⁸⁴ Order of the Ministry of Social Policy No. 359, "On Approval of Methodological Recommendations on Implementing a Gender-Responsive Approach and a Human Rights-Based Approach at the Level of Territorial Hromadas" (Наказ Мінсоцполітики № 359 «Про затвердження Методичних рекомендацій з реалізації гендерного підходу та підходу, що базується на дотриманні прав людини, на рівні територіальних громад»), 27 December 2022. <https://zakon.rada.gov.ua/rada/show/v0359739-22#Text>

⁸⁵ Order of the Ministry of Finance No. 1, "Methodological Recommendations on the Introduction and Application of a Gender-Responsive Approach in the Budget Process" (Наказ Міністерства фінансів № 1 «Методичні рекомендації щодо впровадження та застосування гендерно орієнтованого підходу в бюджетному процесі»), 2 January 2019. <https://zakon.rada.gov.ua/rada/show/v0001201-19#Text>

⁸⁶ Tax Code of Ukraine (Податковий кодекс України). <https://zakon.rada.gov.ua/laws/show/2755-17>

⁸⁷ Budget Code of Ukraine (Бюджетний кодекс України). <https://zakon.rada.gov.ua/laws/show/2456-17#Text>

tax, in particular the tax on carbon dioxide emissions from stationary sources and the tax related to the generation and storage of radioactive waste, have a separate procedure for allocation to the state budget.

The part of environmental tax revenues credited to local budgets belongs to the special fund of local budgets. The Law of Ukraine “On Environmental Protection”⁸⁸ provides that the funds of local environmental protection funds may be used only to finance environmental protection and resource-saving measures and other environmental purposes defined by law. The list of types of activities that qualify as environmental protection measures was approved by Resolution No. 1147 of the Cabinet of Ministers of Ukraine of 17 September 1996⁸⁹ and includes, among others, modernization of water supply, energy efficiency, waste management, and green areas in hromadas.

The Budget Code of Ukraine⁹⁰ provides for the possibility of expenditures from local budgets for programs of environmental protection measures of local significance (para. 13 of Article 91). Thus, for territorial hromadas, environmental programs are one of the main mechanisms for planning a set of interrelated measures, identifying responsible implementers, implementation timeframes, and required financing.

The Law of Ukraine “On Local Self-Government in Ukraine”⁹¹ includes within the competence of local councils the approval of programs of socio-economic and cultural development and targeted programs on other issues of local self-government. National legislation does not establish a single nationwide procedure for developing local targeted programs similar to the procedure established for state targeted programs. Therefore, the specific procedure for initiating, developing, approving, financing, monitoring, and reporting on local programs is determined at the level of the relevant territorial hromada, taking into account budget legislation and the powers of local self-government bodies.

For the purposes of this Review, a local environmental program is understood as a set of interrelated tasks and measures aimed at addressing identified environmental problems of a territorial hromada, with indication of implementation timeframes, responsible implementers, performance indicators, and sources of financing.

Procedures for the development and implementation of local environmental programs should provide for mechanisms of balanced participation of women and men and the involvement of population groups that have different experiences of environmental risks. Such participation may be ensured through public consultations, working groups, consultative and advisory bodies, budget consultations, and other legally provided forms of participation by residents in resolving issues of local significance.

Under martial law, budgetary powers at the local level are exercised taking into account special rules. Local self-government bodies and their executive bodies continue to exercise budgetary powers; where military administrations are established, as provided by part 1 of Article 4 of Law of Ukraine No. 389-VIII of 12 May 2015 “On the Legal Regime of Martial Law,”⁹² the relevant budgetary powers are exercised by them in the manner prescribed by law. Military administrations may, in particular, amend

⁸⁸ Law of Ukraine “On Environmental Protection” (Закон України «Про охорону навколишнього природного середовища»). <https://zakon.rada.gov.ua/laws/show/1264-12>

⁸⁹ Resolution of the Cabinet of Ministers of Ukraine No. 1147, “On Approval of the List of Types of Activities That Qualify as Environmental Protection Measures” (Постанова КМУ № 1147 «Про затвердження переліку видів діяльності, що належать до природоохоронних заходів»), 17 September 1996. <https://zakon.rada.gov.ua/laws/show/1147-96-%D0%BF#Text>

⁹⁰ Budget Code of Ukraine (Бюджетний кодекс України). <https://zakon.rada.gov.ua/laws/show/2456-17#Text>

⁹¹ Law of Ukraine “On Local Self-Government in Ukraine” (Закон України «Про місцеве самоврядування в Україні»). <https://zakon.rada.gov.ua/laws/show/280/97-%D0%B2%D1%80#Text>

⁹² Law of Ukraine “On the Legal Regime of Martial Law” (Закон України «Про правовий режим воєнного стану»), No. 389-VIII, 12 May 2015. <https://zakon.rada.gov.ua/laws/show/389-19#Text>

local budgets, carry out legally defined redistribution of expenditures, and approve local targeted programs. This means that martial law conditions and changes in the system of hromada governance must be taken into account when planning local environmental programs and determining their financial support. At the same time, decisions on the use of budget funds must comply with the requirements of budgetary and other applicable legislation.

In hromadas where the powers of local self-government bodies are preserved, environmental tax revenues may be one source of financing for environmental protection programs and measures of local significance. At the same time, the amount of such revenues differs significantly between hromadas, and therefore environmental tax cannot always serve as the main or sufficient financial basis for local environmental policy.

In the context of European integration, it is important to take into account that in the EU statistical system environmental taxes are classified into several groups:

1. energy taxes, such as excise duties on fuel;
2. transport taxes and fees, such as vehicle registration or ownership charges;
3. pollution taxes;
4. resource taxes, such as charges or rent payments for the use of natural resources.⁹³

For the local level, this does not mean automatic access by hromadas to all such revenues. It does, however, underline the need to plan the financial basis of environmental programs more broadly: by combining local budget funds, special fund revenues, state programs, international assistance, grants, partnerships, and other lawful sources of financing.

The need to expand the financial base of environmental programs at the local level in Ukraine is also driven by the war and its negative impact on the environment, as it increases the burden on different ecosystems through infrastructure destruction and the growth of waste volumes.

Issues related to the development, consideration, and approval of local environmental programs should be aligned with the rules of procedure of the local council, the budget regulation of the hromada, and the powers of the relevant permanent deputy commissions, in particular those responsible for the environment, housing and communal services, socio-economic development, and finance. The adoption of a local environmental program should be synchronized with the key stages of the budget process as defined by the Budget Code of Ukraine⁹⁴ and the Budget Regulation of the local council, the preparation and approval of which are carried out in accordance with the Methodological Recommendations of the Ministry of Finance of Ukraine approved by Order No. 228 of 31 May 2019.⁹⁵

Environmental risks and decisions on the use of local resources affect different population groups in different ways. Therefore, the participation of women and other groups with different experiences of environmental risks and different access to resources is important at the stages of defining priorities, planning programs, allocating funds, monitoring, and evaluating results. A gender-responsive approach in the planning of local environmental programs and the use of relevant budgetary resources makes it possible to:

1. connect environmental protection measures in territorial hromadas with social security;

⁹³ Eurostat, Environmental tax statistics. https://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental_tax_statistics

⁹⁴ Budget Code of Ukraine (Бюджетний кодекс України). <https://zakon.rada.gov.ua/laws/show/2456-17#Text>

⁹⁵ Order of the Ministry of Finance of Ukraine No. 228, "On Approval of Methodological Recommendations on the Preparation and Approval of the Budget Regulation for the Local-Level Budget Process" (Наказ Міністерства фінансів України № 228 «Про затвердження Методичних рекомендацій щодо підготовки та затвердження Бюджетного регламенту проходження бюджетного процесу на місцевому рівні»), 31 May 2019. <https://zakon.rada.gov.ua/rada/show/v0228201-19#Text>

2. take into account the needs of vulnerable groups, including internally displaced persons, women with children, and older people, who are affected by environmental risks in different ways;
3. increase the transparency and accountability of local decisions.

Without the participation of women and other population groups that have different experiences of environmental risks and different access to resources, local decisions on planning environmental protection measures and using funds may fail to reflect the real needs of the hromada.

Principles of gender-responsive planning for the use of environmental tax funds

Four principles are important for gender-responsive planning of the use of environmental tax funds: learning and access to information; partnership and public participation; transparency and accountability; and alignment of local decisions with European environmental requirements and objectives.

The learning principle. In order for a hromada to implement more projects, its residents need knowledge. The learning principle opens new opportunities, including for women and young people, and helps launch green businesses and participate in technical processes. In implementing this principle, hromadas in Ukraine should introduce a set of educational measures that help raise awareness among different population groups, including women, about environmental legislation, monitoring of its implementation at the local level, application of the environmental tax and other instruments of environmental policy, participation in public consultations, communication with local authorities, creation of initiative groups, and practical actions in the field of environmental safety, such as protection from air pollution.

The partnership principle is a condition for good governance in the hromada. Only interaction among local authorities, civil society, business, and donors makes it possible to combine resources and competencies. In implementing this principle, public consultations should take place when a draft local environmental program is being considered.

The principle of transparency and visibility. As stated in the Budget Code of Ukraine, budget allocation should be a transparent and accountable process. This means that the public should be actively involved, ensuring oversight over the allocation of funds, increasing transparency, and allowing the environmental tax to be directed toward the real needs of the local hromada.

Openness of environmental tax budgets guarantees trust and allows citizens to monitor how funds are spent. Whereas previously environmental tax data were actively published as open data, under the conditions of the full-scale invasion there are restrictions; therefore, this issue is particularly important at the local level.

Alignment with EU requirements and approaches. When developing local environmental programs, it is advisable to take into account Ukraine's process of approximation to the EU environmental acquis, as well as European approaches to water resource management, air quality, waste, energy efficiency, climate adaptation, and public participation. This will help hromadas plan solutions that are compatible with the broader direction of Ukraine's European integration.

Together, these principles form a coherent approach that can increase the effectiveness of the use of environmental tax revenues and better connect local environmental planning with the real needs of the hromada. The involvement of women and other vulnerable population groups in the management of environmental tax funds is not only a matter of fairness, but also an effective instrument for sustainable hromada development and effective recovery. Such an approach will ensure the connection

of environmental solutions with social security and economic opportunities, which is especially important for Ukraine under conditions of reconstruction.

Thus, the integration of a gender-responsive approach and the environmental component into the hromada budget regulation is an important element of this process. Detailed possible areas of action for hromadas are presented in Annex 2, while the sequence for developing, implementing, monitoring, and reviewing a local environmental program with an integrated gender-responsive approach is provided in Annex 3.

3. Women's and Youth Participation in Environmental Protection, Climate Policy and Ukraine's Green Recovery

3.1. Women's Participation in Environmental and Recovery Decision-Making

Women's participation in environmental protection, climate policy, the energy transition and community recovery is a condition for ensuring that decisions take into account the different experiences of the population related to the use of natural resources, paid and unpaid work, care responsibilities, mobility, and access to water, energy, transport, medical and social services.

Women of different ages and social backgrounds can directly see the consequences of environmental problems at household and community level: deterioration of water quality, lack of green areas, waste problems, the consequences of heat, flooding, fires, destruction of infrastructure, and pollution caused by the war. If this experience is not taken into account when local strategies, programmes, budgets and recovery plans are prepared, decisions may fail to respond to the real needs of different groups of the population.

The normative prerequisites for broader women's participation in shaping environmental and climate policy are laid down, in particular, in the updated State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030 and its Operational Plan for 2025-2027,⁹⁶ discussed in Section 2.2. This section focuses on practical participation mechanisms and on examples of international and Ukrainian initiatives.

The principle of “nothing for us without us” is also important in the environmental field. Environmental, climate and war-related risks affect women and men differently depending on their age, place of residence, health status, income level, access to resources and care responsibilities. Therefore, decisions in the fields of the environment, climate adaptation, recovery, water supply, waste management, energy, transport, spatial planning and public health should be made with due regard to the experience of those who live with the consequences of these risks every day.

Available studies show that women are actively engaged in environmental protection, science, education, civil society and energy. However, their contribution often remains less visible, while access to leadership positions and policy influence remains limited.

The Razumkov Centre study *Gender Perspective of the Environmental Protection Sector of Ukraine*⁹⁷ was prepared within the WE ACT: Women's Empowerment Action programme, implemented by UNFPA with support from the EU. Its purpose was to identify opportunities to overcome gender gaps in environmental protection, reduce the negative impact of climate change and pollution on women and men, ensure a fairer distribution of resources, and strengthen women's participation in environmental

⁹⁶ Cabinet of Ministers of Ukraine, Order No. 439-r of 2 May 2025, “On approving the Operational Plan for 2025-2027 for the implementation of the State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030” (Розпорядження Кабінету Міністрів України № 439-р від 2 травня 2025 року «Про затвердження операційного плану заходів з реалізації у 2025–2027 роках Державної стратегії забезпечення рівних прав та можливостей жінок і чоловіків на період до 2030 року»). <https://zakon.rada.gov.ua/laws/show/439-2025-%D1%80#Text>

⁹⁷ Razumkov Centre. *Gender Perspective of the Environmental Protection Sector of Ukraine*. UNFPA / WE ACT: Women's Empowerment Action, 2022. https://ukraine.unfpa.org/sites/default/files/pub-pdf/we_act_ecology_eng_report_1.pdf

decision-making. The study found that women account for almost half of environmental protection specialists in Ukraine, but their contribution is often not reflected in data and decisions because of the lack of sex-disaggregated data and women's insufficient representation in leadership. The study also underlines the need to integrate a gender approach into environmental policy and ensure women's participation in environmental decision-making.⁹⁸ In the project logic of UNFPA and the EU, such sectoral studies complement the gender profile of Ukraine with a focus on the gender dimension of the implementation of the EU-Ukraine Association Agreement and its Deep and Comprehensive Free Trade Area,⁹⁹ as well as EU cooperation and assistance programmes in Ukraine.¹⁰⁰

In the project materials, participants drew attention to the fact that in their families and communities women often take on everyday environmental practices in households: sorting waste, saving water and electricity, making responsible purchases and refusing some single-use items. At the same time, responsibility for environmental behaviour should not be shifted onto women or individual households. Such practices can become widespread only when the relevant infrastructure exists: containers, waste collection points, systematic waste removal, transparent information and trust in the system.

Women can be important agents of change in communities, but their participation should not be limited to the role of training participants, volunteers or performers of household work. They should be involved as co-developers of policies, members of working groups, experts, monitors, community representatives, participants in budget consultations, partners in implementing decisions and in monitoring their implementation.

It is especially important to ensure the participation not only of national-level experts, but also of women from communities: rural women, internally displaced women, older women, women with disabilities, mothers, women veterans, women from frontline and de-occupied territories, women working in the social, medical, educational and municipal sectors, and representatives of women's, environmental, youth and veterans' organisations and organisations of persons with disabilities.

Meaningful participation requires involvement at the stages of defining the problem, choosing priorities, planning the budget, developing measures, and monitoring and evaluating results. This requires accessible information, clear procedures, an acceptable time and format for consultations, physical accessibility, the possibility of combining participation with care responsibilities, and a feedback mechanism that shows how participants' proposals were taken into account.

In practice, women's participation in environmental and recovery decision-making should cover the following areas:

- strategic and budget planning: local strategies, recovery plans, socio-economic development programmes, environmental programmes and climate adaptation plans;
- decisions on basic infrastructure and natural resources: water supply, water quality and treatment, waste management, greening, preservation of forest belts and green areas, energy, transport and spatial planning;
- planning preparedness for and response to emergencies: floods, inundation, fires, blackouts, shelling, evacuation, radiation and other technological risks;
- support programmes for rural populations, households, small-scale farming, cooperatives, green entrepreneurship and access to natural resources;

⁹⁸ Razumkov Centre. *Gender Perspective of the Environmental Protection Sector of Ukraine* (Гендерна перспектива сфери захисту довкілля в Україні). https://razumkov.org.ua/images/2022/07/15/we_act_ecology_ukr_report.pdf

⁹⁹ EU-Ukraine Association Agreement / Deep and Comprehensive Free Trade Area, AA/DCFTA. <https://trade.ec.europa.eu/access-to-markets/en/content/eu-ukraine-deep-and-comprehensive-free-trade-area>

¹⁰⁰ UNFPA Ukraine. UNFPA gender study by sectors to contribute to the EU Country gender profile. <https://ukraine.unfpa.org/en/submission/unfpa-gender-study-sectors-contribute-eu-country-gender-profile>

- monitoring and evaluation of how environmental and recovery decisions affect women and men of different ages, health status, place of residence, IDP status, disability and care responsibilities.

Ukraine already has normative prerequisites for integrating a gender approach into environmental and climate policy, but its practical application remains uneven. Some approaches - gender analysis, identification of different target groups, action plans and individual participation mechanisms - are being developed within internationally supported projects, but after projects end they do not always become stable procedures of state or local policy.

A significant problem remains the lack of data that would make it possible to analyse different population groups' access to water, energy, transport, safe housing, information, evacuation, and medical and social services. Such analysis requires data disaggregated not only by sex, but also, depending on the subject of the study, by age, place of residence, disability, IDP status, type of household and other relevant characteristics.

Therefore, the participation of women and other groups who are affected differently by environmental and climate risks should be part of standard governance procedures: consultations, advisory and working groups, strategic and budget planning, monitoring, reporting and policy impact assessment.

3.2. International Initiatives and Platforms

At the international level, there are already examples of women's leadership in climate policy, green recovery, energy, environmental education and local initiatives. Women's organisations and initiatives work both with UN structures and regional associations, participate in climate negotiations, advocate for a just transition and support women's participation in decisions concerning the environment. Examples include:

- Women Engage for a Common Future (WECF)¹⁰¹ - an international ecofeminist network whose members work in more than 70 countries. It participates in international climate processes, including through the Women and Gender Constituency¹⁰² under the United Nations Framework Convention on Climate Change (UNFCCC),¹⁰³ and supports the participation of women's and grassroots organisations in shaping climate policy.
- Asia Pacific Forum on Women, Law and Development (APWLD),¹⁰⁴ a network of organisations and individuals - 265 members in 30 countries of the Asia-Pacific region - which for more than 30 years has enabled women, especially marginalised women and Indigenous women, to participate actively in climate justice through support for grassroots women's organisations, capacity development and advocacy strategies at the national and international levels.

At the Ukraine Recovery Conference in Berlin on 12 June 2024, the Alliance for Gender-Responsive and Inclusive Recovery in Ukraine was launched.¹⁰⁵ This initiative brought together the Government of Ukraine, partner governments, UN entities, international financial institutions, the European Union, civil society and business. Its goal is to help ensure that gender equality and women's empowerment are integrated into Ukraine's recovery processes, including women's and women's organisations' participation in decision-making, planning and financing recovery.

¹⁰¹ Women Engage for a Common Future (WECF). Our partners. <https://www.wecf.org/our-partners/>

¹⁰² Women and Gender Constituency. <https://womengenderclimate.org>

¹⁰³ United Nations Framework Convention on Climate Change, UNFCCC. <https://unfccc.int>

¹⁰⁴ Asia Pacific Forum on Women, Law and Development (APWLD). <https://apwld.org/our-programmes/climate-justice/>

¹⁰⁵ Alliance for Gender-Responsive and Inclusive Recovery in Ukraine launched with strong support. <https://ukraine.un.org/en/271438-alliance-gender-responsive-and-inclusive-recovery-ukraine-launched-strong-support>

At the UN Climate Change Conference (COP28, November 2023),¹⁰⁶ gender equality was included in discussions related to assessing environmental damage caused by the war and to Ukraine's green recovery. Within the Ukrainian pavilion, a discussion was held on "Ensuring Gender Equality in Environmental Damage Assessment and the Green Recovery Process of Ukraine",¹⁰⁷ while UNDP highlighted the link between damage assessment, gender equality and low-carbon recovery in the Ukraine pavilion.¹⁰⁸ Representatives of women's organisations, such as the Women's Energy Club of Ukraine, actively participated in this process.

At COP29 in Baku in November 2024, several events in the Ukrainian national pavilion addressed the intersection of environmental policy and gender equality. On 13 November, the Ukrainian pavilion hosted the panel discussion "Energy of the Future: Advancing Women's Leadership and a Resilient Workforce in Ukraine's Energy Sector". The organisers were UNDP, through the Green Energy Recovery project supported by GIZ and the German Government, together with the Climate Office of Ukraine. The event discussed gender inequality in Ukraine's traditional energy sector, which had worsened during the war - for example, the low share of women in technical and leadership positions - and explored solutions for creating an inclusive sector, including skills development and overcoming barriers to women's participation.¹⁰⁹ Its purpose was to support a gender-responsive green energy transition and develop women's capacities in this field. UNDP experts presented the report *Gender Equality and Resilience in Ukraine's Energy Sector: Pathways to Transformative Employment and Leadership Amidst War*¹¹⁰ and raised issues of women's access to technical professions, skills development and leadership roles in the green energy transition.

At COP30 in Belem, on 18 November 2025, the main gender-themed event was the panel "Women at the Helm: Building a Resilient Workforce and Driving Leadership in Ukraine's Energy and Climate Future". The event was organised by the Ukrainian pavilion together with UNDP and GIZ. Ukrainian and international experts discussed practical steps for building a gender-inclusive energy sector: skills development, overcoming barriers to women's participation in new industries and military communities, involving women veterans and other measures.¹¹¹ The focus was on creating an environment that enables women's equal involvement in a green future - gender-inclusive and just energy. Representatives of Ukrainian environmental NGOs, including Ecoaction, also highlighted during COP30 the impact of the war on women and the importance of gender equality in climate decisions.¹¹²

3.3. Women's Leadership, Professional Opportunities and Gender-Responsive Initiatives in Ukraine

International support plays a visible role in the development of gender-responsive environmental and energy initiatives in Ukraine. Some international programmes require or encourage gender analysis, the involvement of different groups of women and men in project implementation, and the monitoring of their results. At the same time, approaches to integrating a gender approach differ across programmes and donors.

¹⁰⁶ COP28 spotlights gender-responsive just transitions and climate action. <https://unfccc.int/news/cop28-spotlights-gender-responsive-just-transitions-and-climate-action>

¹⁰⁷ Ukraine at COP. Ensuring Gender Equality in Environmental Damage Assessment and the Green Recovery Process of Ukraine. <https://ukraineatcop.org/event/ensuring-gender-equality-in-environmental-damage-assessment-and-the-green-recovery-process-of-ukraine/>

¹⁰⁸ UNDP Ukraine. UNDP advocates for low-carbon recovery of Ukraine at COP28. <https://www.undp.org/ukraine/news/undp-advocates-low-carbon-recovery-ukraine-cop28>

¹⁰⁹ Ukraine at COP. Ukrainian Pavilion at COP29, 2024 (Павільйон України на COP29, 2024). <https://cop.ukrainian-climate-office.org/uk/pavilion-ukrayiny-na-sor29-2024/>

¹¹⁰ UNDP. *Gender Equality and Resilience in Ukraine's Energy Sector: Pathways to Transformative Employment and Leadership Amidst War*. 2024. <https://www.undp.org/uk/ukraine/press-releases/proon-vystupyla-za-zelene-vidnovlennya-ta-nyzkovuhletseve-maybutnye-dlya-ukrayiny-na-cop29>

¹¹¹ Ukraine at COP. Women at the Helm: Building a Resilient Workforce and Driving Leadership in Ukraine's Energy and Climate Future. <https://cop.ukrainian-climate-office.org/uk/program/women-at-the-helm-building-a-resilient-workforce-and-driving-leadership-in-ukraines-energy-and-climate-future/>

¹¹² Ecoaction. "From a conference of truth to compromises: how the COP30 climate negotiations in the Amazon ended and what this means for Ukraine" (Від конференції правди до компромісів: чим завершилися кліматичні переговори COP30 в Амазонії і як це стосується України). https://lb.ua/blog/ecoaction/709939_vid_konferentsiyi_pravdi.html

The energy sector deserves particular attention, as it is one of the key sectors for Ukraine's green recovery. The study *Role of Women in Ukraine's Energy Sector During the War: Towards Resilience and Equality*, prepared within the Germany-Ukraine Energy Partnership, shows that as of 2022 women held only 15.1 per cent of leadership positions in Ukraine's energy sector. Among the barriers to women's professional participation and career advancement, the study examines gender stereotypes concerning technical professions, the unequal distribution of care responsibilities, horizontal and vertical labour market segregation and other structural factors.¹¹³

These findings are also confirmed by UNDP's 2024 gender analysis:¹¹⁴ women remain underrepresented in leadership and technical positions in the energy sector, while the main barriers identified include the gender pay gap, limited opportunities for career advancement, stereotypes, and increased care responsibilities during the war. The study emphasises that women's participation in green recovery and sustainable development should be a component of recovery policy, vocational training and the development of STEM education.

At the same time, workforce changes, the shortage of specialists and the large-scale need to restore critical infrastructure have increased the need to expand women's professional participation in energy, renewable energy, energy efficiency, waste management, climate adaptation and local recovery. Ukraine already has organisations and programmes that combine professional training, networking, entrepreneurship and women's leadership in these fields.

Women's professional initiatives

Women's organisations and organisations working on gender equality are gradually expanding their activities to issues of energy, climate adaptation, green entrepreneurship and environmental security. At the same time, organisations working in the fields of energy and the environment are implementing specific programmes aimed at women's professional participation and leadership.

Impact Force,¹¹⁵ an NGO founded and led by women, implements, among other activities, the Energy Efficiency Innovators for Ukraine's Sustainable Future programme¹¹⁶ in cooperation with GIZ, Swiss partners, the Ministry of Digital Transformation, Diia.Business and the State Agency on Energy Efficiency and Energy Saving. The programme aims to support innovation in energy efficiency, develop a professional ecosystem and introduce solutions for Ukraine's energy-efficient recovery. This example also shows the presence of women's leadership among organisations working at the intersection of innovation, entrepreneurship and green recovery.

The NGO **Women's Energy Club of Ukraine** has implemented a number of programmes combining professional networking, gender analysis of energy policy, youth education and support for women's entrepreneurship:

In 2022, the **Women in Energy. United for Ukraine** initiative¹¹⁷ was implemented in partnership with the Germany-Ukraine Energy Partnership.¹¹⁸ The project provided support to Ukrainian women energy experts affected by the war, including assistance with adapting to new living conditions and finding employment in Ukraine and Germany. Networking, mentoring and consultations were organised for women in the energy sector; Ukrainian and European energy companies and specialists became

¹¹³ *Role of Women in Ukraine's Energy Sector During the War: Towards Resilience and Equality* (Роль жінок в енергетичному секторі України в умовах війни: до стійкості і рівності). https://energypartnership-ukraine.org/fileadmin/ukraine/media_elements/240523_Rol_zhinok_v_energetichnomu_sektori_Ukraini_v_umovakh_viini_final_UKR.pdf

¹¹⁴ UNDP. *Gender Equality and Resilience in Ukraine's Energy Sector: Pathways to Transformative Employment and Leadership Amidst War*. 2024. <https://www.undp.org/ukraine/publications/gender-equality-and-resilience-in-ukraines-energy-sector>

¹¹⁵ Impact Force. <https://theimpactforce.org/>

¹¹⁶ Energy Efficiency Innovators for Ukraine's Sustainable Future (Інноватори енергоефективності для сталого майбутнього України). <https://theimpactforce.org/energy/uk/>

¹¹⁷ Women in Energy. United for Ukraine. <https://www.wecu.com.ua/projects/women-in-energy>

¹¹⁸ Germany-Ukraine Energy Partnership. Women in Energy. United for Ukraine. <https://energypartnership-ukraine.org/we-united-for-ukraine/>

partners. The initiative helped increase the visibility of women in the recovery of the energy sector and involve them in the green energy transition.

In 2022, the pilot project **“Gender Analysis of Zhytomyr’s Energy and Climate Policy”**¹¹⁹ was implemented with support from the Heinrich Boell Foundation. Under an agreement with the Zhytomyr City Council, the Women’s Energy Club of Ukraine conducted a study of gender representation in local energy, prepared a gender analysis of municipal energy programmes, including the city energy plan for 2021-2024, and held trainings for local women officials and activists on integrating a gender approach into energy and climate policy. The project aimed to balance women’s participation in green energy at the local level and strengthen their voice in the city’s environmental policy.

In 2024, the **EkoMaybuttia** youth project competition¹²⁰ was held with support from the European Union, within the EU-supported project “Integrating Sustainable Development in Ukraine in line with the European Green Deal” implemented with DiXi Group. More than 60 applications were submitted to the competition of environmental and sustainable energy ideas for young people; 72 per cent of applicants were girls, and their share among finalists was 75 per cent. A series of webinars was held to prepare projects, and finalists received support in developing pilot green solutions. The project combined environmental education and a gender approach, motivating young people to engage in environmental protection.

In 2025, the **“Power of Women in Energy: New Dimensions of Entrepreneurship”** programme of the Women’s Energy Club of Ukraine¹²¹ supported women in green business with the support of the Ukrainian Women’s Fund, the RECONOMY project of HELVETAS Swiss Intercooperation and Sida. The target audience was existing or future women entrepreneurs, including women veterans, who wanted to develop businesses in renewable energy and energy efficiency. The programme included a series of webinars on implementing energy-efficient solutions, project financing and legal aspects, as well as mentoring support, meetings with experienced entrepreneurs and information on financial instruments. Participants received knowledge for developing sustainable business and opportunities for networking with experts, while employment support was provided indirectly through consultations and connections.

Environmentally focused projects with a gender component

The problem of women’s underrepresentation has also been recognised at the level of state policy in forestry. The State Forest Management Strategy of Ukraine until 2035,¹²² approved by Government order No. 1777-r of 29 December 2021, identifies women’s insufficient representation, especially in managerial and responsible positions, among the sector’s problems and provides for the creation of equal conditions for the professional development and career advancement of women and men. Reducing the gender imbalance in the forestry sector is defined as one of the expected results of the Strategy’s implementation.

The Agency for Sustainable Development of the Carpathian Region “FORZA” in Ukraine implemented the international project Forests in Women’s Hands (Fem4Forest) in 2020-2022, under the Danube Transnational Programme with EU funding. The project combined research on women’s position in the forestry sector, professional development, mentoring, networking and the strengthening of women’s

¹¹⁹ Women’s Energy Club of Ukraine. Gender Analysis of Zhytomyr’s Energy and Climate Policy (Гендерний аналіз енергетичної та кліматичної політики Житомира). <https://www.wecu.com.ua/projects/cooperation-memorandum>

¹²⁰ Women’s Energy Club of Ukraine. Youth contest (Молодіжний конкурс). <https://www.wecu.com.ua/projects/youth-contest>

¹²¹ Energy Efficiency in Business: a Training Programme for Women Entrepreneurs (Енергоефективність у бізнесі: навчальна програма для жінок-підприємців). <https://www.business.dii.gov.ua/news/enerhoefektyvnist-u-biznesi-navchalna-prohrama-dlia-zhinok-pidpriyemts>

¹²² State Forest Management Strategy of Ukraine until 2035 (Державна стратегія управління лісами України до 2035 року). <https://zakon.rada.gov.ua/laws/show/1777-2021-%D1%80#Text>

participation in professional and management processes, and also supported women forest owners in increasing employment and income from forest resources.¹²³

Professional training and career opportunities for women in green sectors

SolarStep, implemented by the Energy Act for Ukraine Foundation with the support of Mercy Corps and the KSE Business School,¹²⁴ is an educational and career programme for women who want to work in solar energy. The programme combines training in managing projects for the construction of solar power plants, practical work, mentoring support and career counselling. The training covers the theory and practice of project management in renewable energy; participants receive mentoring support, access to a network of industry experts and assistance with employment, and upon completion of the course they receive an official certificate and support in finding employment in the energy sector.¹²⁵

Zrostaï (“Grow”), implemented by the NGO Plato in Lviv with the support of Diia.Business of the Ministry of Digital Transformation,¹²⁶ is a training programme on climate change adaptation for women entrepreneurs in crop production.¹²⁷ The programme targets women of any age and from all regions who already work, or plan to work, as agronomists, farmers, landscape designers, gardeners and in related fields. Participants study the impact of climate on agribusiness, assess risks and develop a climate resilience strategy for their own business. The format includes a series of webinars and a three-day offline workshop with Ukrainian and German experts, practical visits to farms and individual consultations. The most active participants present the results of their work and receive prizes and PR support.

The “**Solar Power Plant Installer 2.0**” programme,¹²⁸ implemented by Women in Tech Ukraine, Greenpeace Ukraine and People in Need with financial support from the Government of Czechia, gave women the opportunity to receive practical training in the installation of solar power plants. In 2025, 30 women from five oblasts of Ukraine completed the training. The programme combined theoretical training and practical sessions and aimed to support women’s professional entry into the technical field of renewable energy.

The **TEAD** project, implemented in 2022-2025 by an international consortium involving WECF Germany and in cooperation with the Ministry for Communities, Territories and Infrastructure Development of Ukraine,¹²⁹ aimed to improve the qualifications of energy auditors and technical designers in Ukraine. The gender component of the project included encouraging women’s professional participation, developing a network of women specialists, mentoring and strengthening career opportunities in energy efficiency through mentoring, advocacy for equal opportunities and inclusion in professional communities. The programme was open to all but had a special strategy for encouraging women’s participation.

¹²³ FORZA. Forests in Women’s Hands – Fem4Forest project. <https://forza.org.ua/en/fem4forest/forests-womens-hands-fem4forest-project>

¹²⁴ SolarStep. <https://solarstep.kse.ua/>

¹²⁵ Energy Act for Ukraine. Solar Step: a free course for women in solar energy. <https://www.energyactua.com/uk/post/solar-step-a-free-course-for-women-in-solar-energy>

¹²⁶ Plato. Zrostaï: selection of participants for a training programme for women entrepreneurs in crop production (Зростаї: відбір учасниць навчальної програми для жінок-підприємниць у рослинництві). <https://plato.lviv.ua/zrostaï-vidbir-uchasnyts-navchalnoyi-programy-dlya-zhinok-pidpryyemycz-u-roslynnytvtvi/>

¹²⁷ Diia.Business. Training programme for women entrepreneurs in crop production (Навчальна програма для жінок-підприємниць у галузі рослинництва). <https://dia.dp.gov.ua/navchalna-programa-dlya-zhinok-pidpriyemich-u-galuzi-roslnnictva/>

¹²⁸ Greenpeace Ukraine. Thirty Ukrainian women mastered a new profession and are actively strengthening the energy independence of communities (30 українок опанували нову професію і активно підсилюють енергонезалежність громад). <https://www.greenpeace.org/ukraine/novyny/4809/30-ukrayinok-opanuvay-novu-profesiyu-i-aktyvno-pidsilyuyut%CA%B9-enerhonezalezhnist%CA%B9-hromad/>

¹²⁹ WECF. TEAD trainings for women energy auditors and technical designers in Ukraine. <https://www.wecf.org/tead-trainings-for-women-energy-auditors-technical-designers-in-ukraine/>

Power Women, implemented by Scatec, IFC, FMO, Swedfund and EdEra,¹³⁰ is a professional training programme for women to work in solar energy. Launched with the participation of the Norwegian company Scatec, international financial partners and the Ukrainian educational platform EdEra, it combines theoretical and practical training, career support, professional networking and opportunities for paid internships. The programme includes online and offline trainings on theoretical and practical aspects of working with solar power plants, paid internships for the best participants, leadership sessions and career consultations. Support includes communication with potential employers, networking and assistance with further employment.

Women's participation in safe recovery and addressing the consequences of war

Women are also increasingly active in humanitarian demining. In some operators, they already make up a visible share of personnel. For example, in a UN Women story, Iryna Krykunenko reported that in the international humanitarian demining organisation HALO Trust Ukraine, which she represents, women account for around 30 per cent of employees. This example demonstrates the expansion of women's professional participation in a field that is critically important for the safe recovery of territories and the return of people to communities.¹³¹ In 2024, the Ministry of Economy reported that Ukraine sought to increase women's participation in mine action and was interested in Canada's support in promoting gender-transformative mine action. According to the ministry, the average level of women's involvement among state and non-state mine action operators reached around 30 per cent. In the same context, the Government considered the issue of state financing for private operators, which was expected to increase the number of such companies in Ukraine's market and encourage international companies to become more actively involved in demining.¹³²

The 2026 study ***Clearing the Way Forward: Women, Peace, and Security in Ukraine's Mine Action Response***,¹³³ the first comprehensive analysis of the integration of Women, Peace and Security principles into Ukraine's mine action during the ongoing armed conflict, concludes that this sector already contributes to all four components of the WPS agenda: participation, protection, prevention, relief and recovery. At the same time, the authors emphasise the need for further systematic integration of Women, Peace and Security principles into mine action as a component of inclusive recovery and peacebuilding.

In 2024, the NGO Women's Coalition in Poltava oblast, with the support of the Embassy of Slovenia in Ukraine, implemented the project "Nature Therapy for Women and Children Affected by the War". Within the project, 12 nature therapy programmes and 23 events were organised in Dykanskyi Park, involving 232 women and 109 children, including IDPs and family members of service personnel. The project combined psychosocial recovery with the use of the natural environment, the arrangement of routes and the creation of a recreational space. This example shows that the natural environment can be one of the resources for restoring everyday life and supporting people affected by the war.

The examples above show that Ukraine already has a significant body of initiatives related to women's leadership, professional training and women's participation in the fields of the environment, energy,

¹³⁰ Ministry of Economy of Ukraine. Power Women: the Ministry of Economy joins the launch of a programme to train women for professions in the energy sector (Power Women: Мінекономіки долучається до запуску програми з навчання жінок професіям в енергосекторі). <https://me.gov.ua/News/Detail/2af28a4b-f1d1-491c-a929-6585bd2529d1>

¹³¹ UN Women Ukraine. "In the words of Iryna Krykunenko: women in demining are not just a profession, but an opportunity to make a real contribution to Ukraine's safe future" («За словами Ірини Крикуненко: жінки в розмінуванні – це не просто професія, а можливість зробити реальний вклад у безпечне майбутнє України»). <https://ukraine.unwomen.org/uk/stories/za-slovamy/2025/04/za-slovamy-iryny-krykunenko-zhinky-v-rozminuvanni-tse-ne-prosto-profesiya-a-mozhlyvist-zrobyty-realnyy-vklad-u-bezpechne-maybutnye-ukrayiny>

¹³² Ministry of Economy of Ukraine. Canada will participate in implementing training programmes in mine action involving women (Канада візьме участь у реалізації навчальних програм у протимінній діяльності за участю жінок), 29 April 2024. <https://me.gov.ua/News/Detail?id=c4a18eb1-718b-4fdb-8230-6285ee6f7e6e>

¹³³ GICHD. *Clearing the Way Forward: Women, Peace, and Security in Ukraine's Mine Action Response*. 2026. <https://www.gichd.org/publications-resources/publications/clearing-the-way-forward-women-peace-and-security-in-ukraines-mine-action-response/>

climate adaptation and recovery. At the same time, the long-term impact of such projects depends on whether their results become stable professional opportunities, educational programmes, local policies, budgets, working groups and permanent mechanisms for participation in decision-making.

3.4. Youth, Education and Changes in Environmental Behaviour

Environmental security and climate adaptation are impossible without systematic education. Behavioural change in communities does not occur simply because strategies, plans or regulations are adopted. People need to understand what exactly is changing in the environment, how this affects their lives, what they can do themselves and what decisions they should demand from authorities.

It is especially important to work with children and young people. Youth organisations and initiatives can be important drivers of new environmental practices: sorting waste, using water and electricity sparingly, responsible consumption, refusing single-use plastic, preserving green spaces and participating in community initiatives. At the same time, young people often have limited access to real decision-making in the community: they are invited to trainings or public events, but are not always involved as partners in the development of local programmes, budgets, environmental decisions or recovery plans.

In 2023-2024, the All-Ukrainian CSO **“Democracy Development Center”** implemented the project **“Youth Initiatives in Decision-Making for the Reconstruction and Recovery of Their Communities”** for young people in small hromadas of Chernivtsi, Volyn, Kirovohrad and other oblasts, with support from the German Marshall Fund. The project covered gender policy and localisation of the Women, Peace and Security and Youth, Peace and Security agendas.

During trainings in a number of communities, participants said that women’s rights are often not viewed as part of participation in decision-making. According to their observations, women’s involvement in communities is sometimes presented not as a right and not as a condition for quality policy, but as a forced step during the war while men are defending the country. This is especially visible in attitudes toward women primarily as caregivers and “keepers of the home”, rather than as full participants in governance, planning and recovery.

This has a direct connection with the environmental field. If women and young people are not perceived as full participants in decision-making, their knowledge of everyday community problems - water, waste, transport, green areas, safe routes, the effects of heat, flooding or destruction - does not enter local programmes and budgets. As a result, environmental decisions may remain formal or technical, but fail to correspond to people’s real lives.

In the project materials, intergenerational differences in environmental behaviour appeared repeatedly. Some young participants spoke about the need to sort waste, not burn garbage, reduce pollution, conserve water and protect green areas. By contrast, some older people do not trust such practices or consider them useless. Participants explained this not only by lack of knowledge, but also by distrust of the authorities: people are convinced that even if they sort waste, it will later be mixed together, buried or taken to an illegal dump.

“At the training, we talked about the fact that we already need to act, but we were stopped by a representative of the authorities, who said that it was not so simple and that, although the head of our local authority is competent, not everything depends on her, so things are still stuck. Waste is not collected, but burned and buried, and older people convince us that nothing will change.”

Project participant

“We would be happy to take part in different meetings for cooperation and further change, but we are not invited, or they tell us to go to the website and leave our feedback, or they invite young people who have been working with them for a long time.”

Project participant

“Sometimes I am afraid to speak. I know the topic, but they look at me like I am a child who cannot say anything, and that makes me even more afraid.”

Project participant

In rural communities, the generational conflict over waste and garbage is especially visible. Older people may be used to burning waste or may see no point in sorting it if they do not trust the collection and recycling system. Young people, by contrast, more often demand waste sorting and collection, but do not have sufficient influence over community decisions.

“In rural areas, the population is mostly women of different ages and children, as well as older men, who do not see waste disposal as a serious problem because they do not have sufficient knowledge in this field. There is also a generational conflict: older people in villages are used to burning waste and do not pay attention to young people who demand sorting and collection.”

Training participant

“We have a problem with my grandmother: I tell her about sorting waste, that you cannot burn everything indiscriminately, and I ask her to think about it, but she says it is nonsense, that everything is buried together anyway and everyone does it. But I only come home from my studies on weekends, while she and her neighbors are destroying my village, and local leadership does not see any financial benefit and says there is no money for this in small villages.”

Training participant

“My grandfather was an honored energy worker of the USSR, but sometimes he behaved simply like a destroyer of all living things: he could throw old nails and various machinery parts into the ground and say that nothing would happen, everything would rot away, or he would leave the water running and flood the garden, saying more would come anyway. And my father has an education from KPI, something like chemical engineering, and he also does not care about the environment; he said that specialists should deal with it, that we are a rich country and we have everything.”

Training participant

These statements show several problems at once. First, young people often have the motivation to act, but do not have access to real mechanisms of influence. Second, local authorities may perceive young people more as an active audience for events than as partners in decision-making. Third, even when young people have knowledge, they may lack skills in public speaking, argumentation, working with documents, budgets, local programmes and consultation procedures.

Another problem is that environmental education often focuses only on children and young people, but does not reach the adults who actually make decisions: local self-government officials, local council members, community leadership, educators, starostas, municipal workers, social service staff, medical institutions, educational and cultural institutions. As a result, young people may have new knowledge but lack adult allies who can turn this knowledge into community decisions.

During the trainings, participants mentioned that almost no education on ecology and climate change is provided for the leadership of rural hromadas. The population also often lacks information on how best to take care of their health, what agricultural crops are better to grow under climate change conditions, how to manage waste, how to conserve water, what decisions a community can make, and how to influence those decisions.

Environmental education should be not only informational but also practical. Young people need to understand not only why waste should not be burned or why it is important to conserve water. They

need to know how local government works, how proposals are submitted to programmes, how budgets are formed, how working groups are created, how consultations are conducted, how to prepare appeals, how to speak at meetings, how to argue a position and how to build alliances in the community.

In 2023, the All-Ukrainian CSO **“Democracy Development Center”**, together with *Internews* and with the support of UN Women, implemented the project **“Strengthening the Capacity of Youth and Women’s CSOs in Building and Sustaining Peace”**. The project activities combined the topics of feminism, human rights, leadership, gender equality, ecology and sustainable development. At the beginning of the project, the main target group was young women and girls, but the participants themselves proposed expanding the group and inviting boys and young men, emphasising that human rights, gender equality, environmental security and sustainable development require shared responsibility and participation.

“I realised that I did not know topics that should be basic. Besides the fact that I can speak beautifully, I need to learn to understand gender equality, know everything about each Sustainable Development Goal, and understand how documents are adopted.”

Project participant

“I never thought that the rights of women and girls are still not protected today. To go to the leadership, you need to learn to control yourself, you need to learn to speak and argue. But the main thing is that boys and men should be our partners and support.”

Project participant

“Our adults - both teachers and people at home - know nothing about all these topics and even argue with us that foreigners invented all of this. We need to educate teachers and the authorities first. Or invite them to all the activities for us together with us.”

Project participant

This experience shows that environmental security training should be connected with broader civic education. If young people understand the link between human rights, equal rights and opportunities for women and men, sustainable development, local self-government, budgets, environmental security and recovery, they can not only change their own behaviour but also influence community decisions.

Youth and volunteer initiatives can be one tool for shaping environmental culture and making environmental problems visible. For example, in 2025 the nationwide youth movement Let’s do it Ukraine,¹³⁴ in partnership with Biosphere as general partner, the Ministry of Youth and Sports and local authorities, organised World Cleanup Day in Ukraine. According to its data, across the country more than 123,000 volunteers at nearly 4,000 locations took part in collecting and sorting waste. Such actions do not replace systematic waste management policy, but they can shape environmental behaviour, make the problem visible and create demand for infrastructure solutions.

It is also important not to shift responsibility for environmental behaviour only onto young people or individual households. For example, people may be ready to sort waste, but without containers, collection points, systematic removal, transparent information and trust in the system, such behaviour will not become widespread. Young people may be ready to propose solutions, but without openness from local authorities these proposals will remain outside policy.

Therefore, changes in environmental behaviour should include three levels:

¹³⁴ Ukraine — the center of World Cleanup Day 2025! Let's Make Ukraine Clean Together! <https://letsdoitukraine.org/2025/09/ldu-ukraine-center-wcd-2025/>

- the individual level - knowledge, skills, daily practices of responsible consumption, waste sorting, and careful use of water and energy;
- the community level - youth, women's, educational, environmental and volunteer initiatives that can mobilise people and shape a new behavioural norm;
- the institutional level - decisions by local authorities, financing, infrastructure, transparency, consultations, local programmes and accountability for their implementation.

Special attention should be paid to girls and young women. They should receive not only environmental knowledge, but also support for leadership, public speaking, participation in consultations, work with documents, advocacy and entry into technical and green sectors. Girls and young women should see themselves not only as participants in environmental actions, but also as future experts, engineers, managers, entrepreneurs and leaders of green recovery.

Boys and young men should also be involved in education on human rights, equal rights and opportunities for women and men, responsible consumption, a fair distribution of care work and shared responsibility for the community. Environmental behaviour should not be presented as “women's” or purely “youth” responsibility. Environmental security requires the participation of all population groups.

Educational institutions can play an important role in shaping this approach. Topics of environmental security and climate change should be connected with human rights, equal participation of women and men, local self-government and participation in decision-making. In communities affected by the war, this link should also include security, recovery, and the Women, Peace and Security and Youth, Peace and Security agendas. It is important for children and young people to see that ecology is not only knowledge about nature, but also a question of water, health, transport, waste, war, recovery, participation in decisions and the responsibility of authorities.

Work with children and young people requires time, resources and a systematic approach. It should cover not only young people themselves, but also educators, the leadership of children's and youth organisations, local authorities, local councillors, parents, the older generation and civil society organisations. Without this, young people will acquire knowledge but will not have an environment in which that knowledge can be applied.

Thus, environmental education for young people should combine knowledge about the environment with practical skills for participation in decision-making. Young people should understand how local programmes, budgets, consultations, public monitoring and partnerships with authorities work. Special attention should be paid to supporting girls and young women in STEM, ecology, energy, agricultural innovation, green entrepreneurship and local leadership. Practical recommendations on youth participation and the role of educational institutions are provided in Section 6.9.

4. Environmental Problems and Their Consequences for Different Groups of Women and Men in the Context of the War

The analysis of environmental problems in this section relies not only on legal and policy documents and consultation materials, but also on research published after the start of the full-scale invasion. These studies examine the interconnections between the war, environmental and climate risks, gender inequality, access to resources, recovery and the Women, Peace and Security agenda. They confirm that the environmental consequences of the war and climate change affect different groups of women and men differently, depending on place of residence, income, age, health status, family and care

responsibilities, IDP status, access to land, water, energy, transport, information and participation in decision-making.

4.1. Brief Review of Research on the Environment, Climate Change, Women's Rights, War and the Women, Peace and Security Agenda

Since the beginning of the full-scale invasion, several studies have appeared that directly or partly connect environmental and climate risks, gender inequality, war, recovery and the Women, Peace and Security agenda. The most relevant for this Review are the following.

Gender, the Environment and Security in Ukraine (2024).¹³⁵ The study analyzes the intersection of the war, climate and other environmental crises with women's security and the Women, Peace and Security agenda. The authors conclude that war and environmental challenges mutually reinforce inequality through problems of access to water and energy, food insecurity, deteriorating health, displacement and loss of livelihoods. The study also stresses the lack of sex-disaggregated data and the need to include the environmental dimension in recovery and in action plans for the implementation of UN Security Council Resolution 1325, while ensuring women's meaningful participation.

Gender-Just Climate Adaptation in Ukraine's Agriculture: Guidelines for Post-War Recovery and European Integration (2025).¹³⁶ The study covers demographic change and employment in agriculture, the gender pay gap, energy poverty, women's access to land, finance and technology, and women's role in climate adaptation. The authors show that lower incomes, unequal access to resources and care responsibilities reduce women's ability to adapt to climate risks, while the war, depopulation of rural areas and energy poverty further aggravate these problems. The report recommends introducing gender goals and indicators into agricultural climate policy, collecting sex-disaggregated data and expanding women's access to finance, equipment, training and advisory services.

Gender Equality and Resilience in Ukraine's Energy Sector: Pathways to Transformative Employment and Leadership Amidst War (2024).¹³⁷ This report examines women's employment, career paths, leadership and working conditions in the energy sector during the war. It documents women's underrepresentation in technical and leadership roles, pay gaps, the influence of stereotypes, care burdens and war-related stress. At the same time, it emphasizes that women's participation is necessary for green recovery, energy resilience and social cohesion, and recommends integrating a gender approach into recovery policies, vocational training, STEM education and the development of women's leadership.

Clearing the Way Forward: Women, Peace, and Security in Ukraine's Mine Action Response (2026).¹³⁸ This is the first comprehensive study of how the principles of the Women, Peace and Security agenda are integrated into Ukraine's mine action response. It shows the sector's contribution to all four pillars of the 1325 agenda: participation, protection, prevention, and relief and recovery. At the same time, despite the significant increase in women's share in the sector, women remain underrepresented in

¹³⁵ Sofiia Shevchuk, Claire Duncanson. *Gender, the Environment and Security in Ukraine*. 2024. https://wpshelpdesk.org/wp-content/uploads/2024/12/Gender-Climate-and-Security-in-Ukraine-FINAL-draft_to-publish.pdf

¹³⁶ *Gender-Just Climate Adaptation in Ukraine's Agriculture: Guidelines for Post-War Recovery and European Integration*. 2025. <https://ukrainian-climate-office.org/en/knowledge-hub/gender-just-climate-adaptation-in-ukraines-agriculture-guidelines-for-post-war-recovery-and-european-integration/>

¹³⁷ UNDP. *Gender Equality and Resilience in Ukraine's Energy Sector: Pathways to Transformative Employment and Leadership Amidst War*. 2024. <https://www.undp.org/ukraine/publications/gender-equality-and-resilience-in-ukraines-energy-sector>

¹³⁸ GICHD. *Clearing the Way Forward: Women, Peace, and Security in Ukraine's Mine Action Response*. 2026. <https://www.gichd.org/publications-resources/publications/clearing-the-way-forward-women-peace-and-security-in-ukraines-mine-action-response/>

some leadership and strategic decisions; women's rights organizations have limited and short-term funding; and the link between WPS policy and mine action requires further systematization.

Strengthening Climate Resilience in Women, Peace and Security Frameworks: Tackling the Impact of Human Insecurity (2025).¹³⁹ This policy brief examines how climate risks, environmental degradation, water scarcity, displacement and conflict together intensify human insecurity and gender inequality. It recommends integrating climate risks into WPS policies and plans, strengthening the capacity of women's and women-led organizations to influence climate and security policy, and creating sustainable multistakeholder coordination mechanisms.

Ukraine Gender Snapshot: Findings from the Ukraine reSCORE (2023).¹⁴⁰ This is a broader gender study rather than a specifically environmental one, but it provides important context for analyzing the vulnerability of different groups. The data show lower economic security and poorer access to some services among IDPs, women with disabilities and rural women, as well as lower levels of personal security and higher indicators of anxiety and depressive states among some groups of women. Its recommendations include involving affected populations and broader communities in recovery decisions.

The following subsections examine these interconnections by specific environmental problems and areas of risk: the consequences of the war for the environment, climate change, access to water, food security, waste, pollution, energy and radiation security, displacement, health and women's safety.

4.2. Consequences of the War for the Environment and Community Security

Russia's full-scale war against Ukraine has created a new level of environmental danger. Hostilities, shelling, mined territories, fires, destruction of industrial facilities, energy infrastructure, water supply systems, fuel depots, wastewater treatment facilities and transport infrastructure lead to air, water and soil pollution and create long-term risks for people's lives, communities and natural ecosystems.

According to the observations of project participants, **the current environmental situation in Ukraine is shaped by the overlap between long-standing environmental problems and the large-scale consequences of the war.** Among the problems that existed before the full-scale invasion, participants named technogenic pollution of rivers and groundwater, deforestation, air pollution from industrial emissions and road transport, accumulation of waste and the spread of illegal dumpsites, insufficient environmental education, weak enforcement of environmental legislation and limited opportunities for communities to influence enterprises that pollute the environment.

The full-scale war has sharply increased the environmental burden and created new risks: contamination of territories with ammunition, fragments, fuel and other hazardous substances; destruction of industrial facilities and critical infrastructure; large-scale fires; pollution of water, air and soils; destruction and damage to terrestrial and aquatic ecosystems, from forests and agricultural land to the Black Sea; and risks related to the occupation, shelling and damage of nuclear facilities, including the Chernobyl Nuclear Power Plant and the Zaporizhzhia Nuclear Power Plant, which create the risk of radiation accidents with international consequences.

¹³⁹ UN Women. *Strengthening Climate Resilience in Women, Peace and Security Frameworks: Tackling the Impact of Human Insecurity*. 2025. <https://eca.unwomen.org/en/digital-library/publications/2025/05/strengthening-climate-resilience-in-women-peace-and-security-frameworks-tackling-the-impact-of-human-insecurity>

¹⁴⁰ *Ukraine Gender Snapshot: Findings from the Ukraine reSCORE*. 2023. <https://www.scoreforpeace.org/en/pub/475>

The Conflict and Environment Observatory and the Zoi Environment Network, in the report **The Environmental Consequences of the War Against Ukraine: Preliminary 12-Month Assessment, February 2022-February 2023**, systematized the main types of environmental damage caused by the war and emphasized that these consequences must be taken into account in response and recovery planning.¹⁴¹

The main environmental consequences of the war include:

- contamination of territories with mines, ammunition, fragments of military equipment, rocket fuel, fuel residues, heavy metals and other toxic substances;
- destruction of industrial enterprises, warehouses, energy facilities, oil depots, chemical production sites, logistics centers and other infrastructure;
- generation of large volumes of construction, industrial, medical, military and hazardous waste;
- fires in forests, fields, warehouses, industrial and energy facilities;
- damage to water supply, sewerage and treatment systems;
- pollution of rivers, water bodies and groundwater;
- destruction of protected areas, forests, steppe ecosystems and agricultural land;
- destruction or damage to habitats of animals and plants, including in protected natural areas;
- threats related to the occupation and shelling of nuclear facilities, particularly the Zaporizhzhia Nuclear Power Plant;
- long-term risks for public health, agriculture, water security, food security and community recovery.

The war also has a significant climate dimension. According to the **Initiative on GHG Accounting of War**, an international expert initiative assessing the climate impact of the war, including additional greenhouse gas emissions caused by hostilities, fires, infrastructure damage, population displacement and future reconstruction,¹⁴² total greenhouse gas emissions associated with the first four years of the full-scale war amounted to about 311.4 million tonnes of CO₂ equivalent. This estimate includes emissions from military operations, fires in natural landscapes, damage to energy infrastructure, displacement of people, additional civil aviation routes and the future reconstruction of destroyed buildings and infrastructure.

The relationship between war and climate change is two-directional. Hostilities cause additional greenhouse gas emissions and destroy vegetation cover that could absorb carbon, while hotter and drier conditions increase the risk of large-scale landscape fires. Missile strikes sharply raise temperatures in affected areas, cause fires, contaminate soils with rocket fuel, and destroy or pollute water bodies, damaging flora and fauna. At the same time, firefighting in areas of hostilities is limited by risks to personnel, mining, lack of equipment and other wartime restrictions. Destruction of energy infrastructure also has direct and indirect consequences: emissions from fires and damaged equipment, increased use of diesel generators, changes in energy consumption patterns, and additional pressure on people who must provide heating, lighting, water and communication under unstable conditions.

The **EcoZagroza** platform records many cases of environmental damage related to the war, including damage to industrial facilities, pollution of water and soil, destruction of ecosystems, fires and other

¹⁴¹ Conflict and Environment Observatory / Zoi Environment Network. *The Environmental Consequences of the War Against Ukraine: Preliminary 12-Month Assessment*. <https://ceobs.org/the-environmental-consequences-of-the-war-against-ukraine-preliminary-12-month-assessment-summary-and-recommendations/>

¹⁴² Initiative on GHG Accounting of War. https://en.ecoaction.org.ua/wp-content/uploads/2026/02/Climate-Damage-Caused-by-War-48-months_ENs.pdf

incidents.¹⁴³ Such tools are important for documentation, but they do not by themselves answer the question of how environmental damage affects different groups of the population. For this, environmental data need to be combined with information about population density, access to services, age, disability, displacement, income, care responsibilities and the capacity of communities to respond.

For women and men, girls and boys, older people, people with disabilities and IDPs, the consequences of environmental destruction are experienced through everyday needs: safe water, food, housing, transport, access to medical and social services, the ability to work, care for children and relatives, and remain in or return to a community. In many cases, environmental damage increases the volume of unpaid work in households: searching for water, preparing food under difficult conditions, cleaning damaged housing, caring for children and older people, adapting to blackouts, organizing evacuation or temporary accommodation, and seeking assistance.

Therefore, the environmental consequences of the war should not be analyzed only as damage to nature or infrastructure. They should also be understood as a factor of human security, public health, social cohesion, economic resilience and equal rights and opportunities for women and men. Recovery policies that do not take these different impacts into account risk reproducing inequalities and failing to meet the real needs of communities.

4.3. Rising Temperatures, Heat Waves and Urban Space

The consequences of climate change are not limited to rising temperatures. Natural systems are closely interconnected, and even a relatively small increase in temperature can trigger chain reactions that significantly affect not only the national economy and agriculture, but also people's health.

Ukraine is already experiencing a sustained increase in temperature and related changes in climate risks. According to the Ukrainian Hydrometeorological Institute of the State Emergency Service of Ukraine and the National Academy of Sciences of Ukraine,¹⁴⁴ the average air temperature in Ukraine during the 1991-2020 climate period was 1.2°C higher than during 1961-1990. The greatest increase was observed in winter and summer, at 1.5°C. At the same time, changes in total annual precipitation were minor, but its seasonal distribution changed: precipitation decreased in winter and summer and increased in spring and autumn. Climate risks have a clear territorial specificity: heat, drought and water deficit are especially relevant for the southern and eastern oblasts; floods and inundation for the Carpathians and the Subcarpathian region; and overheating, the urban heat island effect and pressure on infrastructure and public health for large cities.

Climate impacts differ by territory. Southern and eastern Ukraine face higher risks of heat, drought and water scarcity; the Carpathians and Subcarpathian areas face floods and inundation; large cities face heat islands, air pollution and infrastructure pressure. Significant seasonal temperature variability is observed across Ukraine. Winters are becoming warmer, and summers hotter and drier. Over the last 30 years, the average annual temperature in Ukraine has increased by 1.5°C, which is higher than the global average. It is projected that by 2040 winters in Ukraine will be warmer, snow will become rare

¹⁴³ EcoZagroza. <https://ecozagroza.gov.ua/>

¹⁴⁴ Climate Change Viewer: User-Friendly Web Tool for Climate Change Tracking in Ukraine. <https://www.gae.agh.edu.pl/gae/article/view/901>

and spring may begin as early as January; by 2050, the duration of summer in Ukraine may increase to 150-180 days per year, with average summer temperatures in southern regions reaching 28-30°C.¹⁴⁵

Ukrainian climatologist Svitlana Krakovska emphasizes that modern urban infrastructure was designed for a different climate, while heat and water are becoming among the key risks for European cities. In this context, trees, parks, open soil and green corridors should be viewed not merely as elements of landscaping, but as climate infrastructure that helps reduce overheating and manage water.¹⁴⁶

Climate models project further warming. For 2021-2050, an ensemble of regional climate models shows an increase in average temperature of approximately 1.4°C compared with 1981-2010, with the greatest warming expected in winter. Average annual precipitation may increase slightly, but in summer it is likely to decrease in southern and eastern Ukraine, increasing risks for water supply and agriculture.

According to the Ukrainian Hydrometeorological Institute of the State Emergency Service of Ukraine and the National Academy of Sciences of Ukraine¹⁴⁷

One of the most dangerous consequences of warming is the increase in the frequency and duration of periods of abnormal heat. There is no single universal quantitative definition of a **heat wave**, because different thresholds are used depending on the climate of the area and the purpose of a study. Ukrainian studies,¹⁴⁸ for example, use the criterion of a period lasting more than five consecutive days during which the maximum daily temperature is at least 5°C higher than the average maximum temperature of the corresponding day during the baseline climate period.

Impact of climate change on the country's population

Extreme heat directly affects people's health. It increases the risk of heat exhaustion and heatstroke, places additional pressure on the cardiovascular and renal systems, and can exacerbate cardiovascular, respiratory, kidney, metabolic and mental health disorders. The level of risk depends not only on temperature, but also on the duration of heat, humidity, nighttime temperatures, a person's health status, housing and working conditions, and access to cooling and medical care.¹⁴⁹

The impact of heat on pregnancy, children and older people requires particular attention. The World Health Organization points to a link between exposure to high temperatures during pregnancy and increased risk of adverse outcomes, including preterm birth and stillbirth, as well as hypertensive disorders and gestational diabetes. The **Global scoping review of climate change impacts on women's health** (2021)¹⁵⁰ emphasizes that climate change poses a serious threat to health and further exacerbates existing gender inequalities. Women are more likely to be affected by droughts and heat, as physiological needs during menstruation and pregnancy increase vulnerability. During pregnancy, the effects of climate change may increase the risk of infections, heat stress and congenital anomalies. For older people, heat is associated with increased risk of cardiovascular and respiratory complications.¹⁵¹ **An evidence gap map review on the impact of climate change on child outcomes¹⁵²**

¹⁴⁵ *How Climate Change Affects Ukrainians in 2026 (Як зміни клімату впливають на українців у 2026 році).* <https://phc.org.ua/news/yak-zmini-klimatu-vplivayut-na-ukrainciv-u-2026-roci>

¹⁴⁶ Olena Struk. "The train is flying into the abyss. We must press the brakes with all our strength." A conversation with climatologist Svitlana Krakovska ("Потяг летить у прирву. Треба з усіх сил тиснути на гальма". Розмова з кліматологією Світланою Краковською). LB.ua, 17 June 2026. https://lb.ua/society/2026/06/17/745426_potyag_letit_priivu_treba_z_usih.html

¹⁴⁷ *Climate Change Viewer: User-Friendly Web Tool for Climate Change Tracking in Ukraine.* <https://www.gaeed.agh.edu.pl/gaeed/article/view/901>

¹⁴⁸ *Human Thermal Comfort Conditions during Heat Wave Events in Kyiv, Ukraine.* <https://erem.ktu.lt/index.php/erem/article/view/23142/14946>

¹⁴⁹ WHO. *Heat and health.* <https://www.who.int/news-room/fact-sheets/detail/climate-change-heat-and-health>

¹⁵⁰ *Global scoping review of climate change impacts on women's health.* <https://pmc.ncbi.nlm.nih.gov/articles/PMC8414962/>

¹⁵¹ WHO. *Experts warn of serious health impacts from climate change for pregnant women, children, and older people.*

<https://www.who.int/news/item/05-06-2024-experts-warn-of-serious-health-impacts-from-climate-change-for-pregnant-women-children-and-older-people>

¹⁵² *Impact of climate change on child outcomes: an evidence gap map review.* <https://pubmed.ncbi.nlm.nih.gov/39401971/>

shows a wide range of related risks, including adverse perinatal outcomes, nutrition problems, respiratory diseases, mental health issues and the consequences of disrupted access to safe water, food and medical care. At the same time, the authors underline that the evidence base is uneven across different climate impacts and health outcomes.

In Ukraine, increases have already been observed in the number of heatstroke cases, exacerbations of cardiovascular diseases during the summer period, and increased levels of anxiety and depressive states among the population. Issues of population mobility, frontline, de-occupied and host communities are discussed separately in Section 4.13.

Climate change also creates economic risks for Ukraine, including in agriculture and forestry, water resources, public health and infrastructure.¹⁵³ This reinforces the need for adaptation investments and for taking climate risks into account in recovery and long-term development planning. Climate change also directly affects the spread of infectious disease agents transmitted by vectors: higher temperatures, changes in precipitation and humidity create favorable conditions for the survival, reproduction and expansion of the ranges of vectors and pathogens.¹⁵⁴

Heat and other climate risks are especially dangerous for children, pregnant women, older people, people with chronic diseases and people with disabilities. Under wartime conditions, these risks can overlap with stress, forced displacement, environmental pollution, interruptions in water and electricity supply, and destruction of medical and social infrastructure. The combined impact of climate and war-related risks on children, pregnancy, childbirth and early motherhood is discussed separately in Section 4.12.

Climate change manifests in Ukraine through rising average annual temperatures, an increase in hot days, more frequent heat waves, droughts, uneven precipitation and general instability of weather conditions. These processes affect not only the environment, but also people's health, transport, infrastructure, working conditions, care work, access to services and quality of life in communities.

The impact of heat has different characteristics in urban and rural areas. In cities, dense development, large areas of asphalt and concrete surfaces, and lack of vegetation and water bodies contribute to the formation of the **urban heat island**.¹⁵⁵ A particularly important risk is slower nighttime cooling in urban areas, which reduces the body's ability to recover after daytime heat. At the same time, risk is determined not only by place of residence, but also by housing conditions, income, age, health status, access to green spaces, medical care and other adaptation resources.¹⁵⁶

Rural areas also have their own climate risks. A global study of the combined effects of droughts and heat waves¹⁵⁷ found that between 1901 and 2021 rural populations experienced approximately 2.5 times greater **cumulative exposure to concurrent droughts and heat waves** than urban populations, although exposure among urban residents has grown faster over the last 30 years. At the same time, this difference varied significantly between world regions and was much smaller in Europe. Therefore,

¹⁵³ World Bank. *Ukraine: Building Climate Resilience in Agriculture and Forestry*.

<https://documents1.worldbank.org/curated/en/893671643276478711/pdf/Ukraine-Building-Climate-Resilience-in-Agriculture-and-Forestry.pdf>

¹⁵⁴ *Consolidated Risk Assessment Report (Узагальнений звіт про оцінку ризиків)*. <https://moz.gov.ua/storage/uploads/32774e30-17ab-4423-b871-ffd38482e188/%D0%A3%D0%B7%D0%B0%D0%B3%D0%B0%D0%BB%D1%8C%D0%BD%D0%B5%D0%BD%D0%B8%D0%B9-%D0%B7%D0%B2%D1%96%D1%82-%D0%BF%D1%80%D0%BE-%D0%BE%D1%86%D1%96%D0%BD%D0%BA%D1%83-%D1%80%D0%B8%D0%B7%D0%B8%D0%BA%D1%96%D0%B2.pdf>

¹⁵⁵ *Rural "buffer ring" can reduce urban heat island effect by more than 0.5°C*. <https://www.carbonbrief.org/rural-buffer-ring-can-reduce-urban-heat-island-effect-by-more-than-0-5c/>

¹⁵⁶ *Heat vulnerability: health impacts of heat on older people in urban and rural areas in Europe*.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11390756/>

¹⁵⁷ *Global disparities in rural and urban population exposure to compound drought and heatwave events*. <https://www.nature.com/articles/s41612-025-01025-9>

for Ukraine it is important to analyze specific territorial conditions by combining climate hazard assessment with data on employment, infrastructure, access to water, medical and social services, and people's adaptive capacity.

In cities, high temperatures also affect **physical infrastructure**: roads deteriorate more quickly in heat and require more frequent repairs; public transport becomes less comfortable and less safe; stops, squares, pedestrian routes and other open spaces without shade become risk zones for people who must use urban infrastructure every day.¹⁵⁸ Project participants repeatedly drew attention to overheated public transport stops, lack of trees and shelters, absence of drinking water and difficult travel conditions in overcrowded transport during heat.

The increase in hot days and other deteriorating weather conditions caused by climate change create problems for users of urban transport. The lack of trees near stops in cities affects older women and men, pregnant women, children and persons with disabilities, who during heat are forced to wait for transport at stops that are not adapted to high temperatures and are surrounded by overheated asphalted surfaces. Such conditions create particular difficulties for people with higher physiological sensitivity to heat or limited ability to quickly change route or mode of travel: older people, pregnant women, children, people with disabilities and people with chronic diseases. The gender dimension also arises in connection with care responsibilities: traveling with children or accompanying relatives to medical, educational and social institutions can increase time spent outdoors and dependence on public transport.

“The stops, especially in the city center, simply melt. There is no shade, no water, only asphalt. You stand with a child and wait for a minibuss, and you understand that this is not just discomfort, it is dangerous.”

Project participant

For women, the consequences of heat often intersect with care responsibilities and mobility. If women are more often responsible for taking children, older relatives or relatives with disabilities to medical, educational or social institutions, they may spend more time in overheated urban spaces, at stops, in queues, in public transport and in institutions without proper ventilation or cooling. Heat therefore affects not only health, but also the organization of everyday life, access to services and the ability to combine paid work with care responsibilities.

Climate adaptation of urban space should therefore include more than technical energy efficiency measures. It should cover shade and greening of streets, stops and school routes; access to drinking water in public spaces; adaptation of medical, educational and social institutions to heat; heat warning systems; information campaigns for groups with higher risk; and the inclusion of heat risks in local recovery and development plans. Such measures should be based on analysis of how women and men, children, older people, people with disabilities and people with different care responsibilities use the city.

4.4. Droughts, Desertification, Water Scarcity and Everyday Care Work

Droughts, water scarcity, land degradation and desertification are interconnected but not identical processes. The United Nations Convention to Combat Desertification¹⁵⁹ defines **drought** as a naturally occurring phenomenon that exists when precipitation has been significantly below normal recorded

¹⁵⁸ Heat stress mitigation by trees and shelters at bus stops. <https://www.sciencedirect.com/science/article/pii/S136192092500063X>

¹⁵⁹ United Nations Convention to Combat Desertification, Article 1: Use of terms. <https://www.unccd.int/article-1-use-terms>

levels, causing serious hydrological imbalances that adversely affect land resource production systems. **Desertification** is defined as land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities.

For Ukraine, the risk of aridity and water deficit is already a significant problem. The Water Strategy of Ukraine until 2050¹⁶⁰ states that, as a result of climate change, the area of the dry and very dry zone has increased by 7 per cent and now accounts for almost one third of Ukraine's territory, including 11.6 million hectares of arable land. This does not mean that one third of Ukraine is already a desert, but it indicates the expansion of territories with moisture deficits and increasing risks for water resources, agriculture and ecosystems.

The combination of precipitation deficit and high temperatures increases evaporation and reduces moisture reserves in soils and water bodies. At the same time, intense short-term precipitation does not always compensate for long dry periods: part of the water quickly runs off the surface, while the risk of water erosion may increase. Climate risks are not limited to southern Ukraine. For example, in 2024 the European Commission's Joint Research Centre recorded the negative impact of intense summer drought on the potential yield of summer crops, especially in central and eastern Ukraine. Southern Ukraine is among the regions with a very high level of vulnerability to desertification. Odesa, Kherson, Zaporizhzhia and Mykolaiv oblasts are among the regions most affected by droughts that destroyed tens of thousands of hectares of crops. These data do not imply the same level of risk for all territories, but they show that drought and moisture deficit are no longer a problem only of the southern oblasts. At community level, analysis should combine climate data with information on water infrastructure, land use, people's access to water, household income and adaptive capacity.

The consequences of drought depend on the territory, duration and intensity of the phenomenon, the state of water infrastructure, land-use practices and the adaptive capacity of people and farms. For agriculture, soil moisture deficits and high temperatures can reduce yields, increase the need for irrigation and make production less stable. For the population, drought becomes a social problem when reduced available water resources coincide with the absence or damage of centralized water supply, drying of local sources, deterioration of water quality and rising costs of obtaining water.

Droughts and moisture deficits affect not only yields but also food security, household income and access to water for people, animals and household production. Water availability is expected to decline across the country, which will intensify problems with water supply and agriculture. More than one third of Ukraine's agricultural land is already exposed to water stress during hot and dry periods, combined with flood and wind erosion on bare soils. Reduced water availability for plants due to increasing aridity and declining soil nutrients may limit the potential productivity gains from higher CO₂ concentrations. In rural communities, these consequences can quickly turn from an agricultural problem into a social one: costs for water, fodder, food, transport and medical treatment increase, and some unpaid work related to finding, transporting and purifying water is shifted onto households. Expected further declines in yields of major agricultural crops, including cereals and vegetables, due to abnormal heat, moisture deficit and more frequent droughts will have serious consequences for global food security and food prices.

¹⁶⁰ Cabinet of Ministers of Ukraine. *On Approval of the Water Strategy of Ukraine until 2050 (Про схвалення Водної стратегії України на період до 2050 року)*, Order No. 1134-r of 9 December 2022. <https://zakon.rada.gov.ua/laws/show/1134-2022-%D1%80#Text>

High temperatures stimulate the multiplication of bacteria in food products, such as salmonellosis and campylobacteriosis; droughts force people to use unsafe water sources, increasing the risk of intestinal infections.

Access to water and care work

Access to water differs significantly between urban and rural areas. According to the World Bank policy note on **water supply and sanitation in Ukraine**, published in 2021,¹⁶¹ about 34 per cent of the rural population had access to piped water compared with 80 per cent of the urban population, while about 66 per cent of the rural population relied on noncentralized self-supply, mainly from shallow or tube wells. The war has further complicated the situation in communities where water infrastructure has been damaged or where access to water sources has become unsafe.

Interview and consultation materials collected within the project show how water scarcity appears in the everyday life of communities. Participants named the following problems:

- drying wells;
- deteriorating water quality and pollution of groundwater;
- the need to use water of doubtful quality because of the lack of alternatives;
- absence of centralized water supply in some villages;
- irregular delivery of drinking water;
- the need to travel to other settlements to obtain water;
- additional costs for bottled water, filters and other purification methods.

“I am already over 55. My generation was not taught to save water. No one anywhere explained the need to follow rules of consumption or understand water quality, and I am horrified to think that our irresponsibility has left us and our children without drinking water.”

Training participant

Water scarcity also directly affects the economic capacity of rural households. If there is not enough water for vegetable gardens, orchards, poultry or livestock, a family may lose part of its food or income. Buying drinking and technical water creates additional costs, while bringing water requires time, physical labor, transport and accessible roads.

“In Khersonska and Donetsk oblasts, the problem of drinking water is addressed through delivery or by providing people with filters. But the problem remains because of outdated rules for drilling wells or permits for drilling. Water is needed today, while permits can take an endless number of days to obtain. This problem must be solved today.”

Training participant

For women, these problems have a separate dimension because of the unequal distribution of unpaid domestic and care work. According to project materials, in many households it is women who organize water for drinking, cooking, hygiene, caring for children, older people and people with disabilities, and for household production and domestic animals. When water becomes scarce, expensive or unsafe, this work becomes more time-consuming, physically demanding and emotionally burdensome. The cost is not only fatigue, but also the loss of time for paid work, study, participation in community life, rest and personal recovery.

“Missile attacks damaged the water supply to our village. Our water was bad even before, and now we have to

¹⁶¹ World Bank. *Ukraine Water Supply and Sanitation Policy Note*. <https://documents1.worldbank.org/curated/en/844681624034932176/pdf/Ukraine-Water-Supply-and-Sanitation-Policy-Note-Toward-Improved-Inclusive-and-Sustainable-Water-Supply-and-Sanitation-Services.pdf>

spend money on water purification filters. All additional costs are a minus for our budgets, which are already small.”

Training participant

In frontline, de-occupied and shelling-affected communities, water scarcity may be combined with damage to water pipelines, pumping stations, treatment facilities, power grids, pollution of water resources because of destruction of industrial facilities and the use of weapons, including prohibited weapons, and problems with the logistics of water delivery. In such conditions, access to safe water becomes one of the factors determining whether people can remain in the community or safely return to it.

“A separate blow to the environmental security of the oblast was the destruction of the Kakhovka Hydroelectric Power Plant, which significantly changed the water balance of the entire south of Ukraine. For Zaporizhzhia oblast, this caused disruption of water supply systems and problems for the population and agriculture. One particularly painful consequence was the disappearance of water in wells in a number of settlements: Bilenkivska, Novomykolaivska, Mykhailo-Lukashivska and Kushuhumska hromadas. Because of the decline in water levels and the disruption of natural recharge of aquifers, residents of these communities face shallowing or complete drying of wells and boreholes. This has an especially negative impact on women-headed households and families with children who need outside help to bring water, creates additional costs for drinking and technical water and hygiene, and creates threats to safe access to water if logistics or other negative factors are disrupted.”

Training participant

State policy on droughts, water resources and adaptation

Responding to droughts and water scarcity requires a combination of climate adaptation, water resource management, soil protection, modernization of water infrastructure and support for communities and households. In Ukraine, these issues are covered by several strategic documents.

At the national level, a number of legal and policy acts provide for improving the situation and combating droughts, including:

- the **National Action Plan to Combat Land Degradation and Desertification** (until 2025),¹⁶² which envisaged the introduction of integrated water resources management based on the river-basin principle;
- the **Concept for the Implementation of State Policy on Climate Change until 2030**¹⁶³ and its Action Plan, which envisaged the development of recommendations for adapting agriculture to climate change and the preparation and implementation of pilot projects for developing and implementing climate adaptation plans at the level of regions, cities, settlements and villages;
- the **Strategy for the Formation and Implementation of State Policy on Climate Change until 2035 and the Operational Action Plan for its Implementation in 2024-2026**, approved by the Government in May 2024,¹⁶⁴ which provides for climate risk and vulnerability assessment and the development of sectoral and territorial adaptation, including in agriculture, water resources, forests and coastal areas;

¹⁶² *National Action Plan to Combat Land Degradation and Desertification (Національний план дій щодо боротьби з деградацією земель та опустеленням)*. <https://zakon.rada.gov.ua/laws/show/271-2016-%D1%80#Text>

¹⁶³ *Concept for the Implementation of State Policy on Climate Change until 2030 (Концепція реалізації державної політики у сфері зміни клімату на період до 2030 року)*. <https://zakon.rada.gov.ua/laws/show/932-2016-%D1%80#Text>; expired under Cabinet of Ministers Order No. 483-r of 30 May 2024: <https://zakon.rada.gov.ua/laws/show/483-2024-%D1%80#Text>

¹⁶⁴ *Strategy for the Formation and Implementation of State Policy on Climate Change until 2035 and the Operational Action Plan for its Implementation in 2024-2026 (Стратегія формування та реалізації державної політики у сфері зміни клімату на період до 2035 року та операційний план заходів з її реалізації у 2024-2026 роках)*. <https://zakon.rada.gov.ua/laws/show/483-2024-%D1%80#Text>

• the **Water Strategy of Ukraine until 2050**,¹⁶⁵ which among its tasks includes modern approaches to drinking water safety and sanitation planning based on risk assessment and risk management; 100 per cent access by rural and urban populations to safe and affordable drinking water by 2030; stronger penalties for violations of environmental legislation and targeted use of funds for environmental protection and restoration; preliminary local treatment systems for wastewater discharged into centralized sewerage systems; biogas installations in the treatment of municipal and industrial wastewater and agricultural waste; and public television programmes, social advertising and videos explaining the rights and role of each person in protecting natural aquatic ecosystems.

In December 2025, the **Operational Plan** for the implementation of the Water Strategy for 2025-2027 was approved.¹⁶⁶

A separate area of state policy is the restoration and modernization of irrigation and drainage systems. The **Irrigation and Drainage Strategy of Ukraine**¹⁶⁷ is valid until 2030, and in 2025 the Government approved the **Long-Term Plan for the Development of Ukraine's Irrigation Complex until 2050**.¹⁶⁸ These documents are particularly important for territories with high levels of water scarcity and for agricultural recovery.

The existence of strategic documents, however, does not by itself ensure that the everyday consequences of water scarcity for different groups of the population are taken into account. Local and sectoral measures should be based on data on people's actual access to safe water, the condition of noncentralized sources, the cost of water for households, transport accessibility, the needs of people with limited mobility and the distribution of unpaid care work.

National climate policy documents have already envisaged recommendations and pilot climate adaptation plans at regional and community level, but in practice these approaches are still insufficiently connected with rural women's needs, access to water, care work and local food security.

Community experience shows that residents are not always informed about alternative sources of water supply, permissible uses of water from such sources or methods of purifying water from natural sources. Procedural problems also exist with drilling wells and obtaining permits. Under wartime conditions this can become critical, because water is needed immediately, while permit procedures, supporting documents and approvals may take a long time.

Providing the possibility of special water use to meet the drinking and household needs of the population through centralized water supply without a permit before such permit is obtained should be carried out on condition that adequate drinking water quality is ensured and with the involvement of settlement military administrations. Under the Law of Ukraine **On the Legal Regime of Martial Law**, military administrations exercise powers related to water supply, drainage and wastewater treatment and control over drinking water quality. At the same time, supporting and accompanying documents often expire before a special permit for groundwater extraction is obtained.¹⁶⁹

The destruction of the Kakhovka Hydroelectric Power Plant was a separate blow to environmental security, as it substantially changed the water balance of the entire south of Ukraine. The Rapid

¹⁶⁵ Cabinet of Ministers of Ukraine. *On Approval of the Water Strategy of Ukraine until 2050 (Про схвалення Водної стратегії України на період до 2050 року)*, Order No. 1134-r of 9 December 2022. <https://zakon.rada.gov.ua/laws/show/1134-2022-%D1%80#Text>

¹⁶⁶ *Operational Plan for the Implementation of the Water Strategy of Ukraine for 2025-2027 (Операційний план реалізації Водної стратегії України на 2025-2027 року)*. <https://zakon.rada.gov.ua/laws/show/1412-2025-%D1%80#Text>

¹⁶⁷ *Irrigation and Drainage Strategy of Ukraine until 2030 (Стратегія зрошення та дренажу України до 2030 року)*. <https://zakon.rada.gov.ua/laws/show/688-2019-%D1%80#Text>

¹⁶⁸ *Long-Term Plan for the Development of Ukraine's Irrigation Complex until 2050 (Довгостроковий план розвитку іригаційного комплексу України до 2050 року)*. <https://zakon.rada.gov.ua/laws/show/280-2025-%D1%80#Text>

¹⁶⁹ Law of Ukraine *On the Legal Regime of Martial Law (Про правовий режим воєнного стану)*. <https://zakon.rada.gov.ua/laws/show/389-19#Text>

Damage and Needs Assessment for Ukraine records that the destruction of the dam, canals, pumping stations and reservoirs disrupted access to water for agriculture and households, negatively affected rural economies and increased environmental and sanitary risks.¹⁷⁰ Interview and consultation materials collected within the project show concrete local manifestations of this problem. Participants from Zaporizhzhia oblast reported shallowing or drying of wells and boreholes in settlements of Bilenkivska, Novomykolaivska, Mykhailo-Lukashivska and Kushuhumska hromadas. According to their observations, the situation is particularly difficult for households without their own transport or requiring outside help with water delivery, including some women-headed households and families with children.

This example shows that access to water determines not only household comfort. It affects health, care, household expenses, the ability to grow food for own consumption, keep poultry or livestock and remain in the community. Where domestic and care work is unequally distributed, water scarcity can increase women's unpaid workload and reduce the time available for paid work, education, participation in public life, rest and personal recovery.

For women, these processes often have a double consequence. On the one hand, they worsen living and household production conditions. On the other, they increase unpaid work related to finding water, cooking, care, hygiene, maintaining family members' health, saving resources and seeking assistance. The more household and care tasks are shifted onto households, the less time and energy women have for paid work, education, participation in community life, rest, recovery and their own health.

Thus, droughts, desertification and water scarcity should not be viewed only as a climate or infrastructure problem. They are a matter of human rights, health, security, care work, food security, women's economic autonomy and the ability of communities to remain viable under conditions of war and climate change.

4.5. Food Security, Rural Communities and the Situation of Rural Women

Food security in Ukraine is affected simultaneously by the war, climate change, droughts, water scarcity, degradation of soils and ecosystems, mining, pollution, the destruction of agricultural infrastructure and restrictions on access to land, water, markets, labor and finance. These processes have different consequences for large agricultural producers, small farms, family farms and households that grow food for their own consumption.

The World Bank's Fourth¹⁷¹ and Fifth¹⁷² Rapid Damage and Needs Assessments for Ukraine emphasize the scale of losses in agriculture, irrigation, water infrastructure, ecosystems and natural resources, as well as the importance of recovery measures for rural areas and agricultural production. For rural communities, these losses are not only economic. They affect food supply, income, employment, household production, access to water and the ability of people to remain in their communities.

A gender perspective is essential for understanding these processes. Research on gender-just climate adaptation in Ukraine's agriculture shows that rural women's adaptive capacity is limited by lower incomes, restricted access to land, finance, technology, advisory services and decision-making, as well

¹⁷⁰ Ukraine: *Fourth Rapid Damage and Needs Assessment (RDNA4)*.

<https://documents1.worldbank.org/curated/en/099022025114040022/pdf/P1801741ca39ec0d81a4091a59a03152459.pdf>

¹⁷¹ Ukraine: *Fourth Rapid Damage and Needs Assessment (RDNA4)*.

<https://documents1.worldbank.org/curated/en/099022025114040022/pdf/P1801741ca39ec0d81a4091a59a03152459.pdf>

¹⁷² Ukraine: *Fifth Rapid Damage and Needs Assessment (RDNA5)*.

<https://documents1.worldbank.org/curated/en/099022025190516908/pdf/P1801741d1177f03c1a5c01e1841c61a380.pdf>

as by unpaid care work and the consequences of the war.¹⁷³¹⁷⁴ FAO also emphasizes that agriculture remains a lifeline for rural families in war-affected Ukraine.¹⁷⁵

For many rural households, vegetable gardens, orchards, poultry and small livestock are not only a tradition but also a source of food security and economic resilience. When droughts, lack of water, heat, pests, mining or pollution reduce harvests or make land unsafe, households lose part of their food and income. This is particularly important for households with low incomes, older people, women-headed households, families with children and IDPs living in rural areas.

Project materials show that participants associate the difficulty of adapting to environmental and climate change not only with the state of natural resources, but also with limited employment opportunities, transport problems, and access to services, training and information about adapting household production. Under such conditions, reduced yields or loss of the ability to maintain a household plot can simultaneously mean higher food expenses and the loss of one source of family economic resilience. At the village level, women are often not taught new forms of household production in response to climate change. In such conditions, environmental problems can aggravate poverty, dependence on other family members, forced migration, loss of economic autonomy or complete exhaustion.

“I have not been working in the garden for a long time; I buy everything in shops. But in the village the choice of goods is small, and my garden gives no harvest because of drought and lack of water. So we no longer cultivate our land.”

Training participant

The water problem in rural areas is related not only to climate, but also to access to resources, local authorities, privatization of property, ponds and land, and inequality within the community. If water bodies or other resources come under the control of private owners, access to them may depend not on community needs, but on personal relations, loyalty, money or political influence. This is especially dangerous for women who try to run household production or start their own business.

“When the hromada was created, the former collective farm property together with the pond was privatized by a local resident. At that time, the authorities did not resolve the issue of the pond located on the territory of the collective farm or the community’s drinking water. The new owner allowed residents to take water for free, but depending on who they were and how they behaved: if you support this local oligarch, the water will be free for you, but if you want independence and want to defend your rights, there will be a problem. For a local woman who decided to start her own business, the new owner raised the water price according to his own high tariffs. As a result, the woman not only gave up the business but also leased him her land at a reduced price, because she had to repay bank loans taken to start the business.”

Training participant

This example shows that environmental security in rural communities is connected not only with natural processes, but also with economic power, access to resources, transparency of decisions,

¹⁷³ Gender-Just Climate Adaptation in Ukraine’s Agriculture: Guidelines for Post-War Recovery and European Integration (Гендерно справедлива адаптація до зміни клімату в сільському господарстві України: рекомендації для повоєнного відновлення та європейської інтеграції). https://eu4climate.eu/resources_docs/2110_UA_web_gendernospavedliवादaptac%D1%96yadozm%D1%96nikl%D1%96matuvs%D1%96lysykomugospodarstv%D1%96ukra%D1%97ni_1764587717.pdf

¹⁷⁴ Ukrainian Climate Office. Gender-Just Climate Adaptation in Ukraine’s Agriculture: Guidelines for Post-War Recovery and European Integration. 2025. <https://ukrainian-climate-office.org/en/knowledge-hub/gender-just-climate-adaptation-in-ukraines-agriculture-guidelines-for-post-war-recovery-and-european-integration/>

¹⁷⁵ FAO. Agriculture remains a lifeline for rural families in war-affected Ukraine. <https://www.fao.org/ukraine/news/detail-events/en/c/1649775/>

control over community property, women's participation in local self-government and the ability to defend one's rights.

Reduced access to water and land directly affects household food security. If a vegetable garden or orchard no longer produces a harvest, the family has to buy more. If water becomes expensive or unavailable, household production becomes more difficult. If land is mined or polluted, people lose not only a resource but also part of their economic autonomy. If pastures, ponds, forest belts or local water bodies become inaccessible, opportunities for household production and small-scale production are weakened.

For rural women, the consequences of climate change, soil degradation, droughts, water scarcity, destruction of forest belts, mining, territorial contamination and weak local governance are not separate problems. They form one system of everyday pressure: less water, lower yields, higher expenses, more care work, more time spent on household tasks, fewer opportunities to work, study, rest, participate in decisions and care for their own health.

Project materials and the studies analyzed indicate the need to expand rural women's access to training on climate adaptation, sustainable household production and water conservation, as well as to technology, cooperation, finance, support for green entrepreneurship and mechanisms for protecting rights to resources. Without such support, environmental change may accelerate poverty and forced departure from villages.

State and local policy should therefore view rural women not only as a "vulnerable group", but also as key holders of knowledge about the state of water, land, household production, food, care and the real needs of the community. Their participation in decisions on water supply, land use, forest belts, pastures, ponds, local climate adaptation programmes, recovery and support for green entrepreneurship should be systematic, not formal.

At the same time, analysis of strategic documents shows a gap between the problems rural women face and the mechanisms of state policy. Some documents already provide for support for women's entrepreneurship, family farming, training and retraining of rural women. However, there is a lack of systematic analysis of women's access to land, finance, state support, technology, training, markets and participation in decision-making. There is also no agricultural data system that would allow assessment, by sex and other relevant characteristics, of differences in ownership and management of farms, receipt of support, income, access to resources and participation in development programmes. Further details are provided in Annex 1.

For rural women, environmental security is not an abstract environmental theme, but a matter of water, land, health, food, income, care, local justice, the ability to remain in their community and live with dignity.

4.6. Floods, Inundation and the Destruction of Water Infrastructure

Alongside droughts and water scarcity, Ukraine faces the risks of heavy rainfall, flash floods, river floods and inundation. Such events damage housing, roads, bridges, agricultural land, water pipelines, sewerage systems, schools, medical and social institutions. They may also lead to contamination of drinking water, the spread of infections, and the loss of property, documents, livestock, harvests and income.

Inundation is especially dangerous where infrastructure is worn out, drainage systems do not function properly, and local authorities lack sufficient resources for prevention and rapid response. After war-related destruction, these risks increase, because many hromadas simultaneously have damaged housing, roads, power grids, water supply, sewerage, transport infrastructure and limited access to services.

Flash floods and floods pose the greatest threat to the mountain and foothill areas of the Carpathians and Prykarpattia, including Zakarpattia, Ivano-Frankivsk, Lviv and Chernivtsi oblasts. At the same time, inundation is also possible in other oblasts, especially where infrastructure is worn out, there is unauthorized construction in low-lying areas, drainage is in poor condition, or land-use control is insufficient. For rural hromadas, this means risks for housing, kitchen gardens, livestock, roads, access to schools, hospitals, social services and evacuation.

The consequences of flooding depend not only on the intensity of precipitation and hydrological conditions, but also on land use and the condition of infrastructure. Construction in floodplains and coastal areas, disruption of natural runoff, losses in water supply and sewerage networks, insufficient capacity of drainage systems, and degradation of forests and wetlands can intensify the consequences of heavy rainfall and flooding. During floods, an additional risk is created by inundation of sites where waste, fertilizers and chemicals are stored, as well as the overflow of sewerage systems and septic tanks. This may lead to water contamination and sanitary and epidemiological risks.

Ukraine has approved flood risk management plans for 2023-2030 for specific territories within all nine river basin districts. They provide for assessment and updating of risks, preparation of hazard and risk maps, prevention and protection measures, public awareness-raising, strengthening of infrastructure resilience, forecasting and early warning.¹⁷⁶

Floods and inundation may affect people differently depending on age, health status, disability, access to transport, income, housing and the distribution of care responsibilities. For people responsible for children, older relatives or persons with disabilities, evacuation means additional tasks: preparing documents, medicines and hygiene products; organizing transport, temporary accommodation and subsequent care. In the project materials, participants associated this organizational and care work primarily with women. After inundation, it may also include cleaning the home, restoring everyday life, finding safe water and medicines, and caring for sick family members.

“During floods and heat, women carry greater responsibility than men: organizing food, providing drinking water, dealing with health-related issues and caring for children or older parents who need outside assistance. Under abnormal natural conditions, women become more vulnerable, and the amount of unpaid work they have to do increases.”

Training participant

Inundation and the increasing frequency of other disasters also cause losses in areas of rural employment that depend directly on the environment: forestry, fishing, horticulture, beekeeping, farming, vegetable growing and small livestock production. For women in rural hromadas, this may mean the loss of a source of income or part of the household food supply, and higher expenses for food, water, medicines, housing repairs and restoration of the household.

¹⁷⁶ Cabinet of Ministers of Ukraine Order No. 895-r of 7 October 2022 “On approving flood risk management plans for specific territories within river basin districts” (Розпорядження Кабінету Міністрів України № 895-р від 7 жовтня 2022 року «Про затвердження планів управління ризиками затоплення на окремих територіях у межах районів річкових басейнів»). <https://zakon.rada.gov.ua/laws/show/895-2022-%D1%80#Text>

Inundation and the destruction of water infrastructure have particularly complex consequences for people who depend on transport, medical and social services, schools, kindergartens, medicines, clean water and safe housing. For women who care for children, older relatives or persons with disabilities, such situations mean additional organizational and physical work: evacuation, preparation of documents, and the search for temporary housing, food, water, hygiene products, medicines and assistance.

For men who work in forestry, logging, fishing, communal services or rescue work, floods and inundation also create increased occupational risks. If, as a result of an accident, occupational disease or loss of working capacity, a man needs care, this care work often falls on his wife or other women in the family, in addition to other household tasks.

Ukraine has planning tools for flood risk management, including flood risk management plans for specific territories within river basin districts, as well as building standards¹⁷⁷ and engineering protection standards for territories.¹⁷⁸ For the purposes of this Review, however, it is important that these plans focus not only on engineering protection, but also on reducing risks to the life and health of the population, infrastructure, economic activity, agricultural land and the environment, as well as on forecasting, early warning and public awareness.¹⁷⁹

In wartime conditions, floods and inundation may have even more complex consequences. Damaged bridges, roads, power grids, water pipelines, sewerage systems and treatment facilities restrict people's access to assistance. Mined areas, unexploded ordnance, destroyed industrial facilities, military waste and contaminated water bodies can make evacuation, repair and recovery dangerous. In such conditions, response plans must take into account not only hydrological risk, but also security, social, medical and gender dimensions.

Response plans for floods and inundation should combine hydrological forecasting, engineering protection, sanitary safety, evacuation, access to water, transport, medicines, temporary housing, social support and protection from violence. Such plans should take into account the needs of children, older people, persons with disabilities, IDPs, rural households, workers in social, medical, communal and rescue services, and women who perform the main care work.

4.7. Fires, Destruction of Forests, Soil Degradation and Biodiversity

Climate change increases the risk of fires through longer periods of heat, drought, and reduced moisture in soils and vegetation. In dry and hot weather, the danger of forest, steppe and peat fires in Ukraine rises sharply. The most dangerous conditions occur during hot and dry days with low air humidity, when dry vegetation ignites quickly and fires are more difficult to localize.

Fire-prone conditions most often occur in the steppe, Polissia and forest-steppe zones, as well as in the mountainous areas of Crimea.¹⁸⁰ Forests and peatlands cover more than 10 million hectares of Ukraine's territory, so even ordinary seasonal fires can have large-scale consequences for the environment, water resources, soils and human health.

¹⁷⁷ https://e-construction.gov.ua/laws_detail/3074293124562945479?doc_type=2

¹⁷⁸ https://zakon.isu.net.ua/sites/default/files/normdocs/dstu-n_b_v.1.1-38_2016.pdf

¹⁷⁹ Cabinet of Ministers of Ukraine Order No. 895-r of 7 October 2022 "On approving flood risk management plans for specific territories within river basin districts" (Розпорядження Кабінету Міністрів України № 895-р від 7 жовтня 2022 року «Про затвердження планів управління ризиками затоплення на окремих територіях у межах районів річкових басейнів»). <https://zakon.rada.gov.ua/laws/show/895-2022-%D1%80#Text>

¹⁸⁰ Impact of Climate Change in Ukraine (Вплив зміни клімату в Україні). https://mepr.gov.ua/wp-content/uploads/2023/07/2_Vplyv-zminy-klimatu-v-Ukrayini.pdf

Summer is traditionally the period when open areas burn in the steppe part of Ukraine. Some fires may have natural causes, but human factors play a significant role, including burning stubble in fields, careless handling of fire, weak control over open areas and insufficient public awareness. In combination with heat, drought and dry winds, these practices quickly become a threat to fields, shelterbelts, pastures, villages and natural ecosystems.

In wartime conditions, the risk of landscape fires is shaped by a combination of hostilities, numerous ignition sources, mining, limited access for fire services, and hot and dry conditions. According to the **Initiative on GHG Accounting of War**,¹⁸¹ around 1.39 million hectares of natural landscape fires were recorded in Ukraine in 2025; fire-related emissions became one of the largest components of the war's climate damage. Satellite monitoring by the European Commission's Joint Research Centre and the European Forest Fire Information System (EFFIS)¹⁸² also shows the exceptional scale of the problem: in 2025, Ukraine was the most affected non-EU country in the EFFIS monitoring area; it accounted for almost 30 per cent of the total mapped burned area and 39 per cent of all recorded fires.

The wartime impact on natural areas is not limited to fires. Mines and explosive remnants of war restrict access to forests and protected areas and complicate firefighting, monitoring, forestry work and recovery. The Conflict and Environment Observatory (CEOBS)¹⁸³ notes direct damage to ecologically valuable territories, habitat fragmentation, fires, pollution and long-term risks from mines and ammunition.

The destruction of forests and shelterbelts also intensifies the impact of climate change on rural hromadas. Shelterbelts reduce dry winds, protect soils, retain moisture, reduce erosion and support the local microclimate. Their destruction worsens conditions for vegetable growing, horticulture, farming and household production, activities often carried out by women. Deforestation and the destruction of protective shelterbelts are cross-cutting factors for different regions: they occur both through economic activity and as a result of hostilities and the actions of occupation administrations in temporarily occupied territories. This intensifies dust storms, wind erosion and the drying of water bodies.

"There used to be green plantings between the fields; shelterbelts preserved soils and reduced dry winds, but business destroyed the shelterbelts between the fields and dry winds began to appear."

Training participant

Fire danger, droughts, soil erosion and crop losses are connected not only with natural processes, but also with decisions on land use, agricultural policy, local governance, control over natural resources and fire safety.

Fires also worsen air quality. Smoke, dust, ash and toxic substances from the burning of dry vegetation, waste, construction materials, fuel, machinery or industrial facilities increase risks for people with respiratory and cardiovascular diseases, children, pregnant women, older people, persons with disabilities, and people who work or live near smoke-affected areas. In such conditions, the need for medical assistance, care, evacuation, protective information and household support increases.

¹⁸¹ Initiative on GHG Accounting of War. *Climate Damage Caused by Russia's War in Ukraine: 48 months*. https://en.ecoaction.org.ua/wp-content/uploads/2026/02/climate-damage-rusaggression_48months_en-2s.pdf

¹⁸² Joint Research Centre / European Forest Fire Information System (EFFIS). *2025 was EU's most destructive wildfire season on record*. https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/2025-was-eus-most-destructive-wildfire-season-record-2026-03-31_en

¹⁸³ Conflict and Environment Observatory. *Ukraine conflict environmental briefing: nature*. <https://ceobs.org/ukraine-conflict-environmental-briefing-nature/>

In the context of **Russia's war against Ukraine**, fires in natural ecosystems are not only a consequence of heat, drought or human negligence, but also a direct consequence of hostilities. Shelling, explosions, falling debris, the use of explosives, mining of territories and the inability to quickly allow rescuers to reach ignition sites lead to large-scale fires in forests, steppes, fields, the nature reserve fund and near settlements. A significant part of Ukraine's forest fund has suffered fires caused by direct hostilities, explosions, mining, shelling, and ignition of young growth, undergrowth, shrubs and forest litter. The active use of artillery, aviation, drones and other weapons causes mass fires in forest, steppe and field ecosystems.

In areas of active hostilities, large-scale crown fires, surface fires and underground fires, including peat fires, are recorded. In such fires, all main layers of forest ecosystems may burn: herbaceous cover, undergrowth, shrubs, trees, forest litter and, in some cases, peat layers. This has long-term consequences for soils, water, biodiversity, climate and the ability of territories to recover naturally.

"In the non-government-controlled territories, logging of forest plantations and field-protective shelterbelts is recorded. Given the steppe characteristics of the region, this may lead to dust storms, increased wind erosion and further drying of landscapes. Hot dry weather combined with hostilities increases fire danger in forests and the steppe. This means the loss of vegetation cover, destruction of animal habitats and accelerated degradation of ecosystems."

Training participant

Objects of Ukraine's nature reserve fund suffer specific damage. Fires are recorded in forest, field and steppe ecosystems, on the territories of national parks and reserves, as well as at illegal dumpsites, in forests, along roadsides, on agricultural land and on riverbanks. In such cases, fire is combined with pollution of air, soil and water by toxic substances, plastics, household, construction or military waste.

The most contaminated forests will be withdrawn from use for many decades, because their demining is not a priority and requires significantly more effort and time than demining similar areas of agricultural land. This situation poses the greatest danger to large animals, which may be blown up by mines.

As a result of the destruction of the Kakhovka HPP dam, the best-known act of ecocide by the Russian army in Ukraine after 2022, natural areas in southern Ukraine were affected, including protected steppes with valuable plant species, many of which are listed in the Red Book of Ukraine. The dehydration of southern territories and the Crimean Peninsula also increases fire danger in the steppes, mountains and forests controlled by Russian forces.

Among examples of the wartime impact on natural ecosystems, participants and sources mentioned fires in occupied Enerhodar in Zaporizhzhia oblast, fires in Kherson oblast, damage to the Kamianska Sich National Nature Park, where 8.5 hectares of protected territory burned as a result of shelling, and the destruction of natural areas after the blowing up of the Kakhovka HPP.

"During massive shelling of Zaporizhzhia oblast, in the Huliaipole, Preobrazhenka, Orikhiv, Komyshevakh, Ternuvate, Novomykolaivka, Kushuhum, Novooleksandrivka, Bilenke, Stepne, Stepnohirska, Vozdvizhivka, Malotokmachka and Tavriiske hromadas, a significant amount of hazardous substances is released, poisoning the air, land and water in active combat zones. This leads to deterioration of the environmental situation, reduction of biodiversity and destruction of permanent animal habitats, forcing animals to migrate. There is also mass death of domestic animals that remained in the combat zone."

Training participant

Russian occupiers seized the administrations of almost all reserves and national parks in eastern and southern Ukraine. The invaders set forests on fire because they believe partisans are hiding there, and they hunt employees of national parks because they consider them “Nazis.”

In occupied and frontline protected areas, risks for staff have also become part of the environmental damage of the war. According to reports by environmentalists and journalists, Russian occupation forces seized the administrations of reserves and national parks in eastern and southern Ukraine, looted their materials and obstructed the work of staff; some employees of the nature reserve fund were abducted or unlawfully detained.¹⁸⁴ In the broader context of documented Russian drone attacks on civilians, including in Kherson,¹⁸⁵ the work of employees of environmental protection institutions in occupied, frontline and mined territories is associated not only with professional risks, but also with direct security risks.¹⁸⁶

A separate example of the wartime impact on protected areas is the situation in the Askania-Nova Biosphere Reserve. After occupation control was established over the reserve, Russian structures began to illegally remove and commercially use animals from its collections. According to Ukrinform reports citing the current director of the reserve, Viktor Shapoval,¹⁸⁷ Chapman’s zebras, American bison, Przewalski’s horses and Père David’s deer were taken from the zoo collection. Later journalistic materials also described attempts to sell animals from Askania-Nova, including requests to purchase collection specimens of saiga antelope and negotiations on the sale of rare Chapman’s zebras.¹⁸⁸ Such actions create the risk of losing unique biological collections, undermine the scientific and conservation function of the reserve, and show that the occupation of protected areas has not only a military, but also a commercial and exploitative dimension.¹⁸⁹

In 2024, more than 100 hectares of forest were destroyed by Russians in one week in the Lyman direction of Donetsk oblast. Near the Serebrianskyi Forest, only the name remained, and Russians destroyed 80 per cent of the Sviati Hory National Park. Extinguishing fires and rescuing animals in such conditions is often impossible because of mining, shelling and ongoing hostilities.¹⁹⁰

“Contamination of territories with explosive objects — mines, shell fragments and unexploded ordnance — is a serious problem not only for Zaporizhzhia oblast. The same can be said about Donetsk, Chernihiv and Kherson oblasts. These are the worst cases, but this is happening in all oblasts. It poses a direct threat to the life and health of the population, makes it impossible to use land for agriculture, causes soil degradation, damages vegetation cover and excludes large territories from economic use for a long time.”

Training participant

¹⁸⁴ IPC-South. “Occupiers abducted Leonid Yanchyshyn, a gamekeeper of the Chornomorskyi Biosphere Reserve” (ІРС-Південь. «Окупанти викрали егеря Чорноморського біосферного заповідника Леоніда Янчишина»). 12 July 2022. <https://ipc.org.ua/uk/2022/07/okupanty-vykraly-yegerya-chornomorskogo-biosfernogo-zapovidnyka-leonida-yanchyshyna/>

¹⁸⁵ Human Rights Watch. *Listen, Run, Hide: How Russia Uses Quadcopter Drones to Hunt and Kill Civilians in Kherson, Ukraine*. 3 June 2025. <https://www.hrw.org/feature/2025/06/03/listen-run-hide/how-russia-uses-quadcopter-drones-hunt-kill-kherson>

¹⁸⁶ Centre for Journalistic Investigations. “Occupiers seized and looted almost all administrations of reserves and national parks in eastern and southern Ukraine” (Центр журналістських розслідувань. «Окупанти захопили і розграбували майже всі адміністрації заповідників і національних парків сходу і півдня України»). 20 May 2022. <https://investigator.org.ua/ua/news-2/243103/>

¹⁸⁷ Anti-Corruption Dimension / URSA.MEDIA. “A zebra for a million: undercover journalists checked whether the occupiers are selling animals from Askania-Nova” (Антикорупційний вимір / URSA.MEDIA. «Зебра за мільйон: журналісти під прикриттям перевірили, чи окупанти продають тварин із ‘Асканія-Нова’»). 27 August 2025. <https://anticorruption-vymir.com.ua/2025/08/27/zebra-za-miljon-zhurnalisty-pid-prykryttyam-perevirlychy-okupanty-prodayut-tvaryn-iz-askaniya-nova/>

¹⁸⁸ UWEC Work Group. *Russia selling off rare animals from Ukraine’s Askania-Nova nature reserve*. <https://uwecworkgroup.info/russia-selling-off-rare-animals-from-ukraines-askania-nova-nature-reserve/>

¹⁸⁹ Ukrinform. “Invaders are removing animals from the Askania-Nova reserve” (Укрінформ. «Загарбники вивозять тварин із заповідника ‘Асканія-Нова’»). 24 April 2024. <https://www.ukrinform.ua/rubric-tymchasovo-okupovani/3856380-zagarniki-vivozat-tvarin-iz-zapovidnika-askanianova.html>

¹⁹⁰ “Russia is committing wartime ecocide by burning steppes and forests in southern Ukraine and Crimea” (Росія чинить воєнний екоцид, випалюючи степи і ліси на півдні України і в Криму). <https://investigator.org.ua/ua/publication/south-articles/268572/>

These examples show that fires in wartime have long-term consequences for biodiversity, soils, water resources, air quality, protected areas and the ability of ecosystems to recover. They also affect community life: they destroy forests, shelterbelts, pastures, fields and places for gathering berries, mushrooms and medicinal plants, worsen air quality and create additional health risks. These consequences are especially tangible in frontline and de-occupied hromadas, where contamination of territories is combined with mining, fires, infrastructure destruction and limited access to services.

For hromadas affected by the war, fires create an additional challenge: they may simultaneously destroy natural resources, worsen air quality, destroy property, complicate access to water, damage power grids, create risks from explosive objects and increase the need for assistance. If a hromada lacks sufficient equipment, trained services, safe access to the ignition site and an early warning system, fires can quickly turn into a complex environmental and humanitarian crisis. Therefore, fires, destruction of forests, soil degradation and biodiversity loss should be considered part of broader environmental security. This is not only a matter of nature conservation, but also of water security, food security, health, agriculture, climate action, safe access to resources, public training in fire prevention and safe behavior during fires, community recovery and women's participation in decisions on land, water, forests, shelterbelts and local development.

4.8. Waste, Illegal Dumpsites, Medical and Military Waste

The waste problem in Ukraine was acute even before the full-scale invasion and has worsened significantly during the war. It includes household waste, illegal dumpsites, industrial, construction, medical, agricultural and hazardous waste, as well as a new large-scale category: demolition waste and waste generated by hostilities. All these types of waste create risks for water, soils, air, human health, community safety and territorial recovery. The current Law of Ukraine **On Waste Management**¹⁹¹ establishes the foundations for preventing waste generation, collection, transportation, recovery and disposal; assessment of the situation should rely on up-to-date accounting, monitoring and local data systems. This section addresses accounting, safe storage, transportation, treatment and disposal of such waste; the impact of industrial emissions and discharges on air, water and soil is discussed in Section 4.9.

Illegal dumpsites and household waste

Illegal and unauthorized waste disposal sites remain a problem for hromadas, but different datasets should not be added together or compared without explaining the methodology by which they were formed. According to official data from 2020, Ukraine had 22,631 illegal dumpsites with a total area of almost 557 hectares, not including Crimea; by July 2021, another 11,843 unauthorized dumpsites had been recorded on the Ministry of Environmental Protection and Natural Resources' interactive map.¹⁹²

In the project materials, participants described cases where waste accumulation sites in rural hromadas were designated situationally, without a procedure understandable to the population, proper infrastructure or regular removal. Illegal dumpsites in rural areas often form in the shelterbelts closest to settlements, in gullies along roads, on the shores of water bodies and in steppe areas. People dump waste there without regard to sanitary rules or standards, and the waste itself may contain materials of

¹⁹¹ Law of Ukraine "On Waste Management" of 20 June 2022 No. 2320-IX (Закон України «Про управління відходами» від 20.06.2022 № 2320-IX). <https://zakon.rada.gov.ua/laws/show/2320-20#Text>

¹⁹² О. М. Петрович. *Еколого-економічний механізм вибору земельних ділянок для розміщення регіональних полігонів відходів, що не є небезпечними*. Dissertation. 2025. https://nubip.edu.ua/sites/default/files/u145/dis_petrovich.pdf

different hazard levels. As organic matter decomposes and rainwater penetrates the waste mass, leachate is formed that contains heavy metals, toxins and pathogenic microorganisms. It seeps through the soil, contaminating it and groundwater. As a result, flora and fauna, including rare species, die, and settlements receive contaminated water, acrid odors and increased risks of infection spread.¹⁹³

Women and their family members in rural areas identify the creation of dumpsites by local self-government bodies without proper procedures as a major problem. In cities, such dumpsites should be created in accordance with sanitary cleaning schemes and master plans, while in rural areas the issue is often handled chaotically: village councils designate places for dumps within their hromadas situationally, without developing project documentation, observing sanitary protection zones or obtaining the necessary environmental passports. This effectively legitimizes illegal dumpsites at hromada level.¹⁹⁴

Such waste accumulation sites are not properly equipped landfills and, as a rule, do not have engineering protection, leachate and gas control systems, or conditions for safe reception, placement, disposal and further monitoring of waste. Legal management of landfills and other waste treatment facilities requires compliance with the requirements of the **Law of Ukraine On Waste Management**,¹⁹⁵ obtaining a permit for waste treatment operations, submitting information on the composition and properties of waste, the material and technical base, technological processes and, in cases defined by law,¹⁹⁶ an environmental impact assessment conclusion. Separate technical requirements for landfill operation, closure, reclamation and post-closure care were approved by **Order of the Ministry of Environmental Protection and Natural Resources No. 263 of 10 February 2025**.¹⁹⁷ The exact number of illegal dumpsites in Ukraine remains unknown; according to an **information note by the Research Service of the Verkhovna Rada of Ukraine**,¹⁹⁸ 22.6 thousand unauthorized dumpsites were identified in the private sector in 2024, while the official resource **EcoZagroza** is used to record reports of such objects.

The problem is compounded by shortages of budgets, equipment, containers, collection points for recyclables, regular removal and education. In some hromadas, residents do not pay for waste removal services or do not trust the system, while local authorities do not provide an accessible alternative. As a result, waste is burned, buried or dumped in shelterbelts, gullies, roadsides or near water bodies, contaminating soils, water and air and harming human health. Frequent arson and spontaneous combustion of such dumpsites in hot weather affect the health of women and men of different ages, including boys and girls. Smoke, toxic substances and combustion products from plastic, rubber, organic matter, construction materials and other waste can harm the respiratory and digestive systems and increase the risk of allergic reactions and exacerbation of chronic diseases. Children, pregnant

¹⁹³ "Ukraine without landfills. How the circular economy works and why the eco-transition is also very profitable" (Україна без сміттєзвалищ. Як працює циркулярна економіка та чому екоперехід — це ще й дуже вигідно). 28 February 2025. <https://projects.liga.net/mcdonalds/>

¹⁹⁴ "Illegal dumpsites: harm to health and the environment and recommendations" (Стихійні звалища: шкода здоров'ю і довкіллю та рекомендації). 11 April 2017. <https://epl.org.ua/human-posts/styhiyni-zvalyshha-shkoda-zdorov-yu-i-dovkilliyu-ta-rekomendatsiyi/>

¹⁹⁵ Law of Ukraine "On Waste Management" of 20 June 2022 No. 2320-IX (Закон України «Про управління відходами» від 20.06.2022 № 2320-IX). <https://zakon.rada.gov.ua/laws/show/2320-20#Text>

¹⁹⁶ Ministry of Environmental Protection and Natural Resources of Ukraine. "Issuance of a permit for waste treatment operations" (Міністерство захисту довкілля та природних ресурсів України. «Видача дозволу на здійснення операцій з оброблення відходів»). <https://mepr.gov.ua/vydacha-dozvolu-na-zdiysnennya-operatsij-z-obroblennya-vidhodiv/>

¹⁹⁷ Order of the Ministry of Environmental Protection and Natural Resources of 10 February 2025 No. 263 "On approving the Rules for the Technical Operation of Landfills, Termination of Operation, Reclamation and Post-Closure Care of Landfills" (Наказ Міндовкілля від 10.02.2025 № 263 «Про затвердження Правил технічної експлуатації полігонів, припинення експлуатації, рекультивації та догляду за полігонами після припинення їх експлуатації»). <https://zakon.rada.gov.ua/laws/show/z0405-25#Text>

¹⁹⁸ Research Service of the Verkhovna Rada of Ukraine. *Information Note on the Legal Regulation of Prevention of Illegal Dumpsites*

(Дослідницька служба Верховної Ради України. Інформаційна довідка щодо правового регулювання запобігання утворенню стихійних сміттєзвалищ). <https://research.rada.gov.ua/uploads/documents/33721.pdf>

women, women planning pregnancy, older people and people with chronic diseases are most sensitive to such harmful effects. Negative consequences also arise from the relocation of businesses from frontline territories that had previously specialized in working with secondary raw materials, including because of the reduced possibility of properly processing certain types of waste.

Participants in project events also drew attention to the lack of practical information on which types of waste are hazardous, how to collect them, how to handle construction or medical waste, why waste must not be burned, and what consequences this has for soils, water, air and human health.

“Rural areas are inhabited mainly by women of different ages and children, and by older men who do not consider waste disposal a serious problem because they do not have proper knowledge in this area. There is also a generational conflict: older people in villages are used to burning waste and do not pay attention to young people who demand sorting and removal.”

Training participant

“We have a problem with my grandmother: I tell her about sorting waste, that she cannot burn everything, and ask her to think about it somehow, and she says that it is nonsense, that everything is buried together anyway and everyone does it. But I come from my studies only on weekends, while she and her neighbors are destroying my village, and the local leadership sees no financial benefit and says there is no money for this in small villages.”

Training participant

Even near buildings where separate waste collection points have been installed, residents do not always use them properly. This is mostly due to a lack of understanding and adequate local information and awareness work on the types of waste that can be recycled and the types of waste that are single-use. At present, 3-6 per cent of household waste is recycled in Ukraine, another 1-2 per cent is incinerated, and the rest — more than 90 per cent — is taken to landfills.¹⁹⁹

“They put boxes for separate household waste collection in our courtyard. I tell my grandmother not to throw everything away together, and she explains to me: what difference does it make, it will all end up in one dump and go into the ground. I feel as if she lived in some other reality, although she listens to the radio and watches television all day.”

Training participant

“To encourage women and men to sort waste, it would be worth expanding the network of collection points for secondary raw materials, introducing a motivating, sufficiently high level of reward for collecting and handing over secondary raw materials, reducing tariffs for household solid waste removal for the population in cases where waste is sorted, or introducing vouchers for preferential purchases after handing over secondary raw materials.”

Training participant

Industrial waste

Large enterprises, factories and plants whose emissions and discharges enter the air, water and soils are often located within or near cities. Ukraine has significant volumes of accumulated industrial waste, which creates long-term risks for the environment, public health and territorial recovery. The **National Waste Management Strategy in Ukraine until 2030**, approved by the Cabinet of Ministers of Ukraine in 2017,²⁰⁰ stated that the annual volume of industrial waste generation was 419.2 million tonnes, and the volume accumulated in specially designated places or facilities was 13.27 billion tonnes. Almost half of accumulated waste comes from mining, energy, metallurgy and machine-building. Every year, **500-750**

¹⁹⁹ “Golden waste. Why Ukraine is drowning in garbage and who earns money from it — an NV investigation” (Золоті відходи. Чому Україна тоне у смітті і хто на цьому заробляє — розслідування NV). <https://biz.nv.ua/ukr/economics/pererobka-smitty-ta-vidhodiv-v-ukrajini-klyuchovi-problemi-korupciya-ta-perspektivi-rozvitku-novini-50359866.html>

²⁰⁰ Cabinet of Ministers of Ukraine Order of 8 November 2017 No. 820-r “On approving the National Waste Management Strategy in Ukraine until 2030” (Розпорядження Кабінету Міністрів України від 8 листопада 2017 року № 820-р «Про схвалення Національної стратегії управління відходами в Україні до 2030 року»). <https://zakon.rada.gov.ua/go/820-2017-%D1%80>

thousand tonnes of hazardous waste, including industrial waste, are generated, some of which does not appear in official statistics.²⁰¹ More than half of this waste could be recycled or reused, but due to lack of infrastructure, primary sorting and incentives, actual recycling volumes remain at the level of 6-10 per cent. Over the years, the volume of waste has only grown: untreated or poorly treated liquid, solid and gaseous waste from factories and plants enters the atmosphere, water and soils, causing irreparable harm both to the planet as a whole and directly to people. In wartime conditions, these risks are intensified by fires, explosions, destruction of enterprises, warehouses, oil depots, energy facilities, treatment plants and waste accumulation sites. The consequences depend on the type of facility, the nature of damage, the hazardous substances stored or used there, the direction in which smoke or pollution spreads, and the possibility of rapid monitoring, localization and public information.

In addition to the National Waste Management Strategy, Ukraine has legislation regulating waste management and prescribing relevant environmental protection measures²⁰²; however, it is not always possible to properly verify compliance, and the management of these enterprises does not always observe it. Industrial, construction, agricultural and hazardous waste require separate attention because they may contain toxic substances, heavy metals, chemicals, fuel residues, construction dust, fragments of glass, metal and asbestos-containing materials. The war has intensified this problem through the destruction of enterprises, warehouses, energy facilities and industrial infrastructure, and through the increased volume of hazardous waste. For hromadas, this means the need for control, inventory, safe storage, disposal and transparent information for the population.

The war has brought additional problems: destroyed enterprises increase the volume of industrial waste and increase pollution. In hromadas located near industrial facilities or waste accumulation sites, children, older people, people with chronic diseases, pregnant women and people who lack resources to move away from pollution or protect themselves from it may be especially vulnerable.

“Because improving environmental production standards is not a priority for heavy industry enterprises, especially during the war, the amount of atmospheric emissions remains significant. The largest polluters are enterprises of the metallurgical complex, such as Zaporizhstal PJSC, ZAPORIZHKOKS PJSC, Ukrgrafit PJSC and others. This leads to increased incidence of cancer, skin diseases, tuberculosis — where most patients are men — affects women’s and men’s reproductive health, as well as diseases of the upper respiratory tract and eyes, and causes allergies.”

Training participant

Medical waste

Medical waste is a separate environmental security problem, especially during the war, when the burden on hospitals, mobile medical points, volunteer initiatives, military medicine and humanitarian assistance increases. A huge amount of waste is generated by medical institutions, which are usually located in cities. This occurs during the diagnosis and treatment of women and men patients, disease prevention and elimination of risks to human health.²⁰³

About 85 per cent of the total waste generated by health-care facilities is general, non-hazardous waste. But the remaining 15 per cent — such as needles, blades, personal protective equipment, medical devices, medicines or consumables contaminated with blood and other biological fluids — may be infectious, toxic or radiological hazards.²⁰⁴ Medical and hygiene waste, such as gauze bandages,

²⁰¹ <https://pro-consulting.ua/ua/pressroom/rynok-opasnyh-othodov-ukrainy-vazhnoe-v-cifrah-material-pro-consulting-dlya-ekologiya-ekonomika>

²⁰² Laws of Ukraine: On Waste Management No. 2804-IX of 1 December 2022 (Закони України: Про управління відходами № 2804-IX від 01.12.2022). <https://zakon.rada.gov.ua/laws/show/2320-20#Text>

²⁰³ <https://youcontrol.com.ua/data-research/nebezpechni-vidkhod-y-v-ukrayini-de%2C-kym-iyak-stvoriuietsia-naybilshe-toksychnykh-rechovyn/>

²⁰⁴ World Health Organization. *Health-care waste*. <https://www.who.int/news-room/fact-sheets/detail/health-care-waste>

wipes and tampons, may enter ordinary household waste streams and are among the most frequent causes of sewer blockages if there is no proper awareness-raising, control, sorting, labeling, specialized transport, staff training, disposal contracts and oversight. In such conditions, risks extend not only to medical facilities, but also to communal services, landfills, informal waste collectors, children who may come into contact with hazardous objects, and residents of hromadas.

Improper handling of medical waste can have serious consequences for medical workers, especially middle and junior staff where women predominate, as well as for women and men patients, cleaners, women volunteers, communities and the environment. During the war these risks increase because of the growing number of wounded people, deployment of additional medical points, volunteer medical assistance, damage to hospitals, power and water outages, disruptions in logistics and removal of hazardous waste. Medical waste management is regulated by Order of the Ministry of Health No. 1827 of 31 October 2024 **On approving the State Sanitary Norms and Rules “Procedure for Medical Waste Management, Including Health Safety Requirements During the Generation, Collection, Storage, Transportation and Treatment of Such Waste”**.²⁰⁵

Demolition waste and waste generated by hostilities

Waste from destruction has become a separate, large-scale category of wartime impact. It may contain concrete, brick, metal, glass, wood, plastic, insulation materials, electrical equipment and hazardous components, including asbestos-containing materials. Its safe inspection, sorting, temporary storage, treatment and reuse are complicated by mining, repeated shelling, damaged roads and shortages of equipment.

The procedure for managing such waste is determined by Resolution of the Cabinet of Ministers of Ukraine No. 1073, which regulates operations with waste generated as a result of damage to and destruction of buildings and structures, as well as sites for its temporary storage.²⁰⁶

Construction debris generated by shelling, explosions and hostilities is practically not recycled or reused in villages. At best, it is taken to a landfill. At worst, it ends up in shelterbelts, gullies, roadsides or creates new illegal dumpsites. In large cities, residents of apartment buildings have fewer opportunities to adapt part of demolition waste to household needs and depend almost entirely on decisions by city authorities, commissions inspecting damaged housing, compensation mechanisms and organized removal. In small towns and villages, the situation may differ: people more often organize dismantling and removal of demolition waste themselves, while some residents, for economic reasons, take waste to shelterbelts or create illegal dumpsites.

Illegal burial of demolition waste occurs where organized removal has not been established, or in hromadas where removal and disposal are paid for by residents. A major problem in disposing of the consequences of destruction in both cities and villages is the emotional destabilization of owners because of the scale of losses and destruction. At the moment of losing housing, property or loved ones, people cannot always think about the environment and long-term consequences. Another

²⁰⁵ Order of the Ministry of Health of Ukraine of 31 October 2024 No. 1827 “On approving the State Sanitary Norms and Rules ‘Procedure for Medical Waste Management, Including Health Safety Requirements During the Generation, Collection, Storage, Transportation and Treatment of Such Waste’” (Наказ Міністерства охорони здоров’я України від 31.10.2024 № 1827 «Про затвердження Державних санітарних норм та правил ‘Порядок управління медичними відходами...’»). <https://zakon.rada.gov.ua/laws/show/z1938-24#Text>

²⁰⁶ Resolution of the Cabinet of Ministers of Ukraine of 27 September 2022 No. 1073 “On approving the Procedure for Management of Waste Generated in Connection with Damage to or Destruction of Buildings and Structures...” (Постанова Кабінету Міністрів України від 27.09.2022 № 1073 «Про затвердження Порядку управління відходами, що утворились у зв’язку з пошкодженням (руйнуванням) будівель та споруд...»). <https://zakon.rada.gov.ua/laws/show/1073-2022-%D0%BF#Text>

problem is the absence of homeowners who have left their settlements: such sites effectively remain in a conserved condition and become a difficult task for hromadas.

“Who thinks about sorting when people are frightened, devastated by grief? Someone invested their last money, worked all their life to earn housing, and someone may still have a relative under the rubble. Who thinks about the environment and sorting then? Everything was thrown together, dumped out, and that was it.”

Training participant

In areas under intense shelling, the management of demolition waste often becomes a lower priority, because residents are trying to leave the hromada as quickly as possible or are focused on survival. The closer a hromada is to the actual front line, the less relevant this topic may be for residents in the short term. At the same time, postponing the solution to the waste problem creates long-term risks for health, water, soils, safety and recovery.

Waste removal in frontline territories is also complicated by risks to people's lives, damaged roads, destroyed infrastructure, lack of equipment, mining of territories, limited access for communal services and the possibility of repeated shelling. During the war, waste from the presence of military units along the front line has also been added, where collection and timely removal of waste is logistically difficult and dangerous to organize.

A separate risk is posed by the biological and sanitary consequences of hostilities, particularly in territories where cleaning, burial, sanitary treatment or demining cannot be carried out safely for a long time. Such risks require professional response, creation of specialized services, protection of workers in the relevant services, and careful communication with the population without silence and without creating panic.

Gender dimension of the waste problem

The waste problem has a clear social and gender dimension. If the system for collecting, sorting, removing and recycling waste does not work, responsibility is often shifted to households. In such conditions, women more often perform the daily work of cleaning, sorting, burning or taking out waste, while children, older people and people with chronic diseases may suffer most from polluted air, smoke and hazardous substances.

Project participants noted that women more often take on everyday practices of household waste management: sorting, reducing the use of disposable items, reuse, cleaning and control over the cleanliness of household space. However, without specialized services that could provide containers, collection points, regular removal, transparent information and trust in the system, this responsibility remains shifted to households rather than supported by hromada policy.

Among the reasons that hinder improvement of the waste situation, project participants named the lack of systematic environmental education for the population of different age groups, especially children and young people; low culture of waste management; distrust of the sorting system; lack of funding; low capacity of part of the population to pay for waste removal; absence of incentives for sorting; consequences of the war; lack of environmental literacy among local authority representatives; and weak intersectoral cooperation.

“Women in villages buy bottled water; it costs money, but what can they do, local water cannot be drunk. Then all those bottles are burned by the same women in their gardens.”

The waste problem in wartime combines environmental, security, medical and social dimensions. For hromadas, it is important not only to eliminate illegal dumpsites, but also to create clear systems for sorting, removal, recycling and safe management of household, industrial, construction, medical and military waste. This requires infrastructure, funding, control, transparent information, practical education for the population and local authorities, and inclusion of waste issues in local recovery and development programs. Without such a system, responsibility for environmental behavior is effectively shifted to households, most often to women.

Textile waste and second-hand clothing

Textile waste is a separate element of the household waste problem: clothing, shoes, home textiles, fabric scraps and items that have lost consumer value. This problem cannot be reduced only to the “overconsumption” of individuals. It is connected with the model of fast fashion, the quality and durability of items, availability of repair, systems of collection and sorting, and the movement of used clothing flows after primary use. The European Commission notes that textile consumption in the EU has the fourth largest impact on the environment and climate change after food, housing and mobility; around 5 million tonnes of clothing are discarded in the EU every year, and only around 1 per cent of clothing material is recycled back into new clothing.²⁰⁷

Second-hand clothing has a dual environmental effect. On the one hand, reuse extends the life cycle of items, may reduce demand for new production and provides more affordable clothing for people with lower incomes. On the other hand, if imported or collected items do not undergo quality sorting, and hromadas lack infrastructure for reuse, repair, recycling or safe disposal of unusable textiles, part of this flow effectively becomes waste. The European Environment Agency warns that without increasing sorting and recycling capacity, significant volumes of collected textiles may continue to be incinerated, landfilled or exported outside the EU.²⁰⁸

For Ukraine, this topic is important because of the significant used clothing market connected with imports from European countries. A Ukrainian study of the environmental consequences of consuming textile products from second-hand stores²⁰⁹ draws attention to the fact that modern second-hand is no longer primarily humanitarian assistance, but functions as a certified commodity that is treated, sorted, packaged and sold. The authors also note that the repeated consumption of clothing may reduce the accumulation of textile waste primarily in exporting countries, while for Ukraine the key issue remains its own system of textile waste management.

The environmental risks of textile waste are connected not only with the volume of items in mixed household waste or illegal dumpsites. Much modern clothing is made of mixed materials or synthetic fibers, which complicates recycling. Synthetic textiles may also be a source of microplastics: wearing and washing fabrics made of plastic fibers are recognized as one source of their release into the environment. If such textiles are burned in households or at illegal dumpsites, risks of air pollution from

²⁰⁷ European Commission. *Sustainable and Circular Textiles Strategy*. https://environment.ec.europa.eu/strategy/textiles-strategy_en

²⁰⁸ European Environment Agency. *Management of used and waste textiles in Europe's circular economy*. 2024.

<https://www.eea.europa.eu/en/analysis/publications/management-of-used-and-waste-textiles-in-europes-circular-economy>

²⁰⁹ Tykhomyrova T. S., Kriuchkova V. *Study of the environmental consequences of consuming textile products from second-hand stores*

(Тихомирова Т. С., Крючкова В. Дослідження екологічних наслідків споживання текстильних виробів з магазинів типу «секонд-хенд»). 2023. <https://repository.kpi.kharkov.ua/handle/KhPI-Press/75039>

combustion products are added, especially when items contain synthetic materials, dyes, fittings or chemical treatments.²¹⁰

The gender and social dimension of this problem requires careful wording. Textile pollution should not be presented as a result of “women’s purchasing behavior,” nor should responsibility for it be shifted onto women and households. In many families, women are responsible for children’s clothing, care for items, passing clothes to other people, charity or sorting, but these practices cannot replace systemic policy. At the same time, for low-income households, IDPs, large families and people who have lost housing or work, affordable used clothing can be an important resource.

For hromadas, the practical solution is not to ban second-hand clothing, but to create a clear system for handling textiles: separate collection points for usable clothing, routes for transferring items to social services and charitable initiatives, support for repair, alteration and upcycling, separate collection of unusable textiles, transparent information for the population, and control to prevent unusable textiles from ending up in illegal dumpsites or being burned. For Ukraine, this is also a matter of approximation to EU approaches: in 2025, new EU rules on textile waste management entered into force, including extended producer responsibility for textiles and footwear and mandatory sorting of separately collected textiles before possible shipment.²¹¹

4.9. Industrial and Agricultural Pollution

Industrial pollution of air, water and soils remains one of the key environmental security problems in Ukraine. Untreated or insufficiently treated emissions and discharges from industrial enterprises, production waste, and the contamination of rivers, groundwater and land may have long-term effects on human health, the local economy, agriculture, access to water and hromadas’ opportunities for development.

In wartime conditions, these risks are intensified by the destruction of enterprises, warehouses, energy facilities, oil depots, chemical production sites, logistics centers and other infrastructure. Fires, explosions and the inability to promptly monitor the condition of facilities increase the risk of toxic emissions and territorial contamination. Industrial risks are further aggravated by fires and damage to enterprises, warehouses, oil depots, energy facilities, treatment facilities and waste accumulation sites. The consequences depend on the type of facility and the substances stored there: damage may cause local or wider air emissions, leaks into soil and water, and long-term risks if access to monitoring and clean-up is restricted.²¹² Damaged waste storage sites and municipal treatment facilities may allow waste to continue entering soils, rivers and seas freely. Over time, the release of contaminated waste may progress, negatively affecting both the environment and people of different ages and sexes. If an industrial facility is damaged or located in a combat zone, the hromada may lose access to reliable information about the nature of contamination, the level of danger, the need for evacuation, and measures to protect water, soils or food products.

For rural hromadas, a separate risk is posed by large agricultural enterprises and industrial livestock complexes. Such enterprises may use significant volumes of water, generate large volumes of manure,

²¹⁰ European Environment Agency. *Microplastics from textiles: towards a circular economy for textiles in Europe*. 2022.

<https://www.eea.europa.eu/en/analysis/publications/microplastics-from-textiles-towards-a-circular-economy-for-textiles-in-europe>

²¹¹ European Commission. *Revised Waste Framework Directive enters into force*. 2025. https://environment.ec.europa.eu/news/revised-waste-framework-directive-enters-force-2025-10-16_en

²¹² CEOBS. *The environmental consequences of the war against Ukraine: preliminary 12-month assessment, summary and recommendations*.

<https://ceobs.org/the-environmental-consequences-of-the-war-against-ukraine-preliminary-12-month-assessment-summary-and-recommendations/>

biological waste and wastewater, pollute the air with odors, ammonia and methane, and create risks for soils, water bodies, wells, kitchen gardens, apiaries, small livestock production and the health of local residents. For industrial livestock production, the main environmental risks are the management of large volumes of manure and wastewater, emissions of ammonia and methane, odor burden, water use, and the risk that nutrients and microorganisms may enter surface and groundwater. The impact depends on animal housing technologies, storage and application of manure, the condition of treatment facilities, and compliance with sanitary and environmental requirements.²¹³ A 2014 study by the **National Ecological Centre of Ukraine**²¹⁴ examined the main hazardous waste streams in livestock production: animal mortality, animal remains after processing, and manure. It also noted significant effects on ambient air from emissions from heat generators, ventilation systems, disinfection barriers and sanitary checkpoints, power stations and enterprise vehicles. The study also drew attention to emissions from animals themselves: respiratory products, including carbon dioxide, and digestive products, including methane, which are greenhouse gases and have significant effects on biodiversity, the life and well-being of local populations, and climate change.

Pollution associated with large livestock complexes has several main dimensions: air pollution from odors, ammonia and methane; contamination of soils and groundwater by manure, biological waste, wastewater and chemicals; impact on rivers, ponds, wells and other water sources; and risks to the health of local residents, including children, pregnant women, older people, people with chronic diseases, and the employees of the enterprises themselves.

“Sometimes it is impossible to breathe and live near livestock farms; everything is washed into the river and dumped on fields or near our homes, especially if it is a large farm and the owners live in other cities. They do not care about our lives: they come, get their profit, check things and leave. Local leadership either does not care or also profits from that owner.”

Training participant

“Villages located near a pig farm constantly experience a strong unpleasant odor. Sometimes the smell is so strong that it becomes impossible to work outside on the household plot. Women residents talk about feeling unwell because of the stench, especially in the morning, while still having to work their kitchen gardens and care for animals. Women often come across places where farm workers dump dead animals and manure. All this creates a hazardous liquid that then seeps into soil and groundwater, and rain washes it into rivers. Fish die, drinking water in wells is poisoned, people become ill, including small children, and women have to care for them while also complaining about their own health.”

Training participant

In addition to livestock complexes, excessive use of fertilizers, pesticides and chemical plant protection products, the destruction of shelterbelts, contamination of water bodies and high water consumption by agricultural production also create risks for rural hromadas. The infiltration of chemicals, nitrates and other pollutants into groundwater may make well water unsafe for drinking, cooking, infant feeding, watering kitchen gardens and keeping animals.²¹⁵

²¹³ FAO. *Livestock and the environment. The State of Food and Agriculture 2009: Livestock in the Balance*. <https://www.fao.org/4/i0680e/i0680e04.pdf>

²¹⁴ *Development of Livestock Production in Ukraine: Problems and Recommendations* (Розвиток тваринництва в Україні. Проблеми та рекомендації). Prepared by the National Ecological Centre of Ukraine with the support of the European Union, Both Ends and the United Nations Democracy Fund, 2014. https://necu.org.ua/wp-content/uploads/Fermabook-UA_s.pdf

²¹⁵ Examples of such cases: <https://suspilne.media/zhytomyr/723838-na-zitomirsinii-otruilas-nitratami-dvomisacna-ditina-akij-davali-sumisi-prigotovani-na-kolodaznij-vodii/>; <https://zhzh.com.ua/podiyi/dvomisachna-ditina-otruilas-vodoiu-iz-kolodiazia-na-zhitomirshchini.html>; <https://kh.cdc.gov.ua/news/otruyennya-nitratami-u-harkivskij-oblasti/>; <https://kr.cdc.gov.ua/news/vypadok-metgemoglobinemiyi-u-dytny-na-kirovogradshyni/>; <https://ck.cdc.gov.ua/news/na-cherkashyni-zafiksovano-vypadok-metgemoglobinemiyi-v-chotyrymsyachnogo-nemovlyaty/>.

Improper or excessive use of pesticides, herbicides and other plant protection products is a separate risk for rural hromadas. At the international level, pesticides are considered one of the factors that may negatively affect pollinators, soil and water ecosystems, biodiversity and human health. At the same time, pollination is a critical ecosystem service for plant reproduction, biodiversity and food production. According to the **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services**,²¹⁶ around 75 per cent of major food crops and almost 90 per cent of wild flowering plants depend at least partly on animal pollination.

For Ukraine, this problem has a practical dimension because there are regular reports of bee deaths after fields are treated with plant protection products. Ukrainian legislation provides for a special **Instruction on preventing and establishing the fact of bee poisoning by plant protection products**, which defines the main causes of bee poisoning, prevention measures and the procedure for establishing the fact of poisoning.²¹⁷ In particular, Suspilne reported in 2026 on confirmed cases of bee deaths after field treatment in Kirovohrad oblast and cited the assessment of the Union of Beekeepers of Ukraine regarding significant economic losses suffered by the sector from bee deaths in the previous year.²¹⁸

Therefore, in hromadas with intensive agricultural production, the use of pesticides and herbicides should be considered not only as a production or agronomic issue, but also as a matter of environmental security, access to information, health protection, the preservation of pollinators, apiaries, household production and local food security. For women in rural hromadas, this may have additional importance because they are often responsible for family nutrition, childcare, kitchen gardens, small livestock, household water use and responding to deteriorating health among household members.

These problems often intensify where local authorities have limited resources, environmental control is weak, and the hromada lacks sufficient information or mechanisms to influence businesses. The project materials include testimonies from hromadas where residents considered their ability to influence large local businesses to be limited, particularly because of the lack of accessible environmental information, weak control or the absence of a clear response to complaints.

“Women in villages are more unprotected than in cities. There is a plant in the village; the owner is not local and does not care that our fields and forests are ruined by his chemicals. Nobody monitors this. Where can we complain? The hromada leadership is in another village and is not visible here. This is how we survive without authorities and without laws.”

Training participant

These testimonies show that industrial and agricultural pollution affects women not only as residents of contaminated territories, but also as people who continue to perform daily work in such conditions: tending kitchen gardens, caring for animals, cooking, caring for children and older relatives, contacting local authorities, seeking medical assistance and trying to preserve the household.

²¹⁶ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). *Summary for policymakers of the assessment report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on pollinators, pollination and food production*. 2016. https://files.ipbes.net/ipbes-web-prod-public-files/spm_deliverable_3a_pollination_20170222.pdf

²¹⁷ Ministry for Development of Economy, Trade and Agriculture of Ukraine. Order of 19 February 2021 No. 338 “On approving the Instruction on preventing and establishing the fact of bee poisoning by plant protection products” (Міністерство розвитку економіки, торгівлі та сільського господарства України. Наказ від 19.02.2021 № 338 «Про затвердження Інструкції з профілактики та встановлення факту отруєння бджіл засобами захисту рослин»). <https://zakon.rada.gov.ua/go/z0283-21>

²¹⁸ Suspilne Kropyvnytskyi. “Bee deaths after field treatment in Kirovohrad oblast: how beekeepers and farmers can avoid this” (Суспільне Кропивницький. «Загибель бджіл після обробки полів на Кіровоградщині: як пасічникам та аграріям цього уникати»). 24 June 2026. <https://suspilne.media/kropyvnytskyi/1339032-zagibel-bdzil-pisla-obrobki-poliv-na-kirovogradsini-ak-pasicnikam-ta-agrariam-cogo-unikati/>

A separate dimension is the situation of women employed in agriculture, including in large and medium-sized agricultural enterprises and industrial farms. An **FAO** study²¹⁹ on the impact of the war on agricultural enterprises in Ukraine shows that the war has created a complex set of interrelated problems for producers: infrastructure damage, electricity disruptions, contamination of land with mines and explosive remnants, rising costs, logistical difficulties and labor shortages. According to a survey of 2,612 agricultural enterprises in 23 oblasts, labor shortages were among the main problems and affected 69.6 per cent of enterprises. A **CMR Spotlight** study²²⁰ by the Centre of Migration Research at the University of Warsaw also emphasizes that during the war Ukrainian agriculture has faced labor shortages and the spread of flexible and intermediary employment schemes, which may increase the vulnerability of women and men workers. It notes that even before the full-scale war, informal employment was particularly widespread in the agricultural sector: according to pre-war estimates, it involved around 46 per cent of people employed in agriculture.

The gender dimension of this employment was visible even before the full-scale invasion. According to **FAO and United Nations in Ukraine materials**,²²¹ men accounted for 71 per cent of formally employed workers in agriculture, forestry and fisheries, while women in this sector more often worked informally. Women mainly performed manual labor, including growing, planting, weeding and harvesting vegetables, berries and herbs, as well as work related to dairy production and caring for cows, while men were more often concentrated in mechanized work and the transportation of products. These inequalities did not disappear after 2022: a **World Bank review of female employment in Ukraine**²²² shows that gender gaps in the labor market and occupational segregation existed before the full-scale invasion and persisted, and in some cases deepened, in 2023-2024. Among the factors identified are persistent gender norms, the unequal distribution of care responsibilities and regulatory gaps. A **study on female labor supply in rural Ukraine**²²³ also records that the war simultaneously increased the workload of rural women and created new opportunities for their entry into the labor market, while also exacerbating the mismatch between women's education and available jobs. Therefore, expanding women's participation in agricultural labor should not automatically be treated only as positive empowerment. To assess the situation of women workers on industrial farms and other agricultural enterprises, it is important to consider the quality of employment: pay levels, the formalization of labor relations, occupational safety, access to social protection, training, transport and childcare, and the possibility of moving from low-paid seasonal or manual labor to more stable and qualified employment.

“Mostly women work on livestock farms, because since the beginning of the war there are fewer men. Women have to do all the work without protective equipment. Many middle-aged and older women who work on these farms say that constant odors cause allergic reactions, and because not all buildings are heated, they have to work through sharp temperature fluctuations, and there is not water everywhere. The impossibility of working with protective equipment undermines their health, and it is difficult to find other work in the village.”

Training participant

²¹⁹ FAO. *Ukraine: FAO surveys impact of war on agricultural enterprises*. 23 September 2025. <https://www.fao.org/countryprofiles/news-archive/detail-news/en/c/1742727/>

²²⁰ Hryhorieva Y., Fihel A. *Labour Shortages, Informality, and Migrant Precarity in Ukraine's Agricultural Sector During Wartime*. CMR Spotlight 11 (77), 2025. Centre of Migration Research, University of Warsaw. <https://www.migracje.uw.edu.pl/wp-content/uploads/2025/12/Spotlight-NOVEMBER-2025.pdf>

²²¹ FAO / United Nations in Ukraine. *Helping women fulfil potential in rural Ukraine can make agriculture sector more efficient*. 13 July 2021. <https://ukraine.un.org/en/135805-helping-women-fulfil-potential-rural-ukraine-can-make-agriculture-sector-more-efficient>

²²² World Bank. *Female Employment in Ukraine*. 2025. <https://openknowledge.worldbank.org/entities/publication/232aaddf-180d-4cf0-90d9-7f28e26f2aa7>

²²³ Sarioglu V., Kuranda A. *Anticipation of Female Labor Supply in Rural Area of Ukraine: A Microsimulation Approach*. *Problemy Polityki Społecznej / Social Policy Issues*, 2025. <https://www.problemypolitykispolecznej.pl/pdf-205811-127160?filename=127160.pdf>

Industrial and agricultural pollution also has a reproductive and child health dimension. Contamination of water, soils and air may be especially dangerous for pregnant women, infants, children, people with chronic diseases, and women and men workers who regularly come into contact with hazardous substances. For women, these risks are often intensified by care responsibilities: they more often organize food, treatment, care for children and older relatives, and respond to the consequences of deteriorating health in the family.

The problem of industrial and agricultural pollution is connected not only with technical control, but also with access to justice, environmental information and community participation in decision-making. If residents do not know where to turn, do not have inspection results, do not see a response from local authorities or fear conflict with local businesses, pollution becomes part of everyday life. People may live for years with odors, contaminated water, illness, fish deaths, worsening harvests, the loss of apiaries and reduced opportunities for household production.

For women in such hromadas, this may mean the loss of household production opportunities, deteriorating health of children, increased expenses for water, food and treatment, more care work and reduced economic independence. For men, this may also mean job loss, lower income, health risks, dangerous working conditions and dependence on enterprises that are both employers and sources of pollution. Industrial and agricultural pollution should therefore be considered as an issue of health, economic justice, access to water, occupational safety, local control, the hromada's right to information and people's participation in decision-making.

4.10. Air Pollution, Acoustic Burden and Public Health

Air pollution in Ukraine is linked to industrial emissions, transport, waste burning, fires, the use of generators, the destruction of buildings, dust, shelling, explosions and fuel combustion. In wartime conditions, traditional sources of pollution are joined by fires after missile strikes and drone attacks, the destruction of industrial facilities, the use of backup energy sources, the movement of military equipment, construction work following destruction, and the accumulation of demolition waste.

Air pollution affects the health of the whole population, but it is especially dangerous for children, pregnant women, older people, people with chronic diseases, persons with disabilities, people living in poverty or with limited access to medical services, and workers who spend a lot of time outdoors. It increases risks for the respiratory and cardiovascular systems, may worsen chronic diseases, and may affect sleep, work capacity, concentration and overall health.

For women, these risks often have an additional care dimension. They affect not only women's own health but also their daily work caring for children, older relatives, persons with disabilities or chronic illnesses. When the health of family members deteriorates because of air pollution, noise, heat, blackouts or stress, unpaid work and women's responsibility often increase.

Acoustic burden

A separate dimension of the war is the **acoustic burden**. Constant drone attacks and missile strikes, air defense operations, sirens, explosions, shock waves, generators, emergency services and military equipment affect the sleep of everyone living in Ukraine, both people and animals. Explosions and shock waves also have a traumatic and security dimension, while repeated night attacks disrupt sleep and the ability to recover. Constant acoustic terror has already affected the health of women, men and children, although a full assessment of the situation will be possible only after the end of active

hostilities.²²⁴ A Ukrainian study of the experience of living under missile attacks, post-traumatic stress symptoms and sleep found an association between the intensity of wartime experiences, post-traumatic symptoms and sleep disturbances.²²⁵

Because of systematic shelling, the population of large cities finds itself in a situation of mass chronic stress. This condition is caused by acute stress from shock waves, the constant sounds of near and distant explosions, secondary factors, and the “background violence” characteristic of war as a whole. **Chronic stress** manifests in changes in psychological state, nervous tension, sleep disorders, the inability to recover in wartime conditions, and the continuation of acoustic terror. Women are often affected by shock waves, loud sounds, information messages about destruction, the deaths of relatives, friends, acquaintances, fellow citizens, wild animals, pets and domestic animals, uncertainty, the spread of fear, witnessing the destruction of urban spaces and the expectation of bad events, while at the same time supporting children, older relatives and the everyday life of the family.

“Probably because we constantly hear sirens and explosions, we are already beginning to fear even the sounds of household appliances and cars. I live in a building with windows facing the street and I am used to constant car noise, but then there are people who like speeding, especially on motorcycles or mopeds, mostly without mufflers. Sometimes you wake up from their sounds and can no longer sleep. How can you go to work if this also wakes and frightens a child already scared by the sounds of Shaheds?”

Training participant

“Russian missiles constantly fly over our village. These sounds are so terrifying that animals cannot withstand them, their ears bleed, children cry, and adults do not know what to grab first.”

Training participant

Noise pollution is not always perceived as an environmental problem, but in wartime conditions and daily danger it becomes part of the broader environmental impact on health and quality of life. It affects sleep, mental health, the cardiovascular system, the ability to work, study, care for children and recover from traumatic events.

In cities, the problem of noise pollution is especially urgent. The **World Health Organization** considers noise the second most important environmental risk factor for health after ambient air pollution.²²⁶ In cities, noise levels above sanitary standards are caused, among other things, by the growing number of vehicles, both public and private; the concentration of vehicles in relatively limited spaces; intensive traffic; construction work; generators; commercial activity and the concentration of people in confined areas; sirens; emergency services; military equipment; and other sources of constant sound.²²⁷

Noise pollution increases the risks of sleep disturbances, headaches, irritability, chronic fatigue, impaired concentration, cardiovascular disease, psycho-emotional exhaustion, cognitive impairments and other health consequences. In European policy, noise is considered one of the leading environmental health risks after air pollution.²²⁸ For children, noise may complicate learning,

²²⁴ “Acoustic Terror as a Method of Torture: Legal and Regulatory Challenges and Accountability Practice” (Акустичний терор як метод катування: нормативно-правові виклики та практика притягнення до відповідальності). <https://maidan.org.ua/2025/05/akustychnyy-teror-iak-metod-katuvannia-normatyvno-pravovi-vyklyky-ta-praktyka-prytyahennia-do-vidpovidalnosti/>

²²⁵ Study on war exposure, post-traumatic stress symptoms and sleep among Ukrainians. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11295682/>

²²⁶ World Health Organization. *Compendium of WHO and other UN guidance on health and environment: environmental noise*. <https://www.who.int/tools/compendium-on-health-and-environment/environmental-noise>

²²⁷ “Noise in Vinnytsia: Exceeding Standards and Health Risks” (Шум у Вінниці: перевищення норм і ризику для здоров’я).

<https://vn.cdc.gov.ua/news/shum-u-vinnytsi-perevyshhennya-norm-i-ryzyky-dlya-zdorov-ya/>

²²⁸ European Environment Agency. *Exposure of Europe’s population to environmental noise*.

<https://www.eea.europa.eu/en/analysis/indicators/exposure-of-europe-population-to-noise>

concentration and recovery, while for people already living under wartime stress, it increases the overall burden on the nervous system and contributes to depressive states.

Sanitary standards for noise in Ukraine are established by Order of the Ministry of Health of Ukraine of 22 February 2019 No. 463 **“On approving the State Sanitary Norms for Permissible Noise Levels in Residential and Public Buildings and on the Territory of Residential Development.”**²²⁹

The social and gender dimensions of noise and air burden should be analyzed through working conditions, care routes, access to quiet and safe housing, health status, and the ability to avoid exposure. Women use public transport more often, accompany children, older relatives and persons with disabilities, and combine several routes during the day: work, school, kindergarten, shop, hospital and social institution. They more often spend time in public spaces where noise is combined with heat, air pollution, lack of shade, absence of toilets, unsafe routes and long waits for transport. For people who work outdoors or under conditions of constant movement through the city, noise and air pollution become part of working conditions. This concerns women and men workers in communal services, transport, trade, delivery, construction, cleaning, social and humanitarian services. Without access to water, breaks, personal protective equipment, safe transport and medical care, these risks directly affect health and work capacity.²³⁰

Generators have become a separate source of acoustic and atmospheric pollution in wartime. Because of damage to energy infrastructure and power supply disruptions, generators are used near shops, pharmacies, catering establishments, offices, residential buildings, medical facilities and other sites. They ensure the functioning of essential infrastructure, but at the same time pollute the air, increase background noise levels, create risks of exhaust gas poisoning when used improperly, and worsen living conditions for people who live nearby.²³¹

This situation is particularly difficult for people living in dense urban areas, in apartments above shops or near places where generators operate continuously. Under such conditions, people may simultaneously be exposed to noise, exhaust fumes, poor sleep, stress from air-raid alerts, transport, sirens and explosions. For children, older people, pregnant women, people with chronic diseases and persons with disabilities, this may be an additional risk factor.

“Since men use private cars more often than women, the most effective approach may be to encourage the use of alternative forms of transport: public transport, e-scooters and bicycles, with appropriate areas and lanes for their use. It would also be useful to introduce closed zones and paid entry.”

Training participant

Reducing noise and air pollution in cities requires not only control over individual sources, but also the development of safe and accessible alternative mobility: public transport, cycling infrastructure, pedestrian zones, limited-traffic areas, safe routes for children, women, older people and persons with disabilities, the planning of quieter residential spaces, and the proper placement and operation of backup energy sources.

²²⁹ Order of the Ministry of Health of Ukraine of 22 February 2019 No. 463 “On approving the State Sanitary Norms for Permissible Noise Levels in Residential and Public Buildings and on the Territory of Residential Development” (Наказ Міністерства охорони здоров’я України від 22.02.2019 № 463 «Про затвердження Державних санітарних норм допустимих рівнів шуму в приміщеннях житлових та громадських будинків і на території житлової забудови»). <https://zakon.rada.gov.ua/laws/show/z0281-19#Text>

²³⁰ Centers for Disease Control and Prevention. *Natural disasters and severe weather communication resources*. <https://www.cdc.gov/natural-disasters/communication-resources/index.html>

²³¹ CDC. *Communication Resources: Natural Disasters — Generator Safety*. <https://www.cdc.gov/natural-disasters/communication-resources/index.html>

Air pollution and acoustic burden should be taken into account in the public health system. Information about air quality, smoke from fires, safe generator use, noise burden, heat, air-raid alerts and ways to reduce risks should be accessible to different population groups, including older people, families with children, pregnant women, people with chronic diseases, IDPs, persons with disabilities, and residents of frontline and de-occupied hromadas.

It is also necessary to consider that women predominate in lower-level positions in health care, social services, education, communal services and the care sector. When the number of people needing assistance increases because of noise, air pollution, heat, stress, blackouts or other environmental factors, the workload of these women workers also increases.

Thus, air pollution, acoustic burden and impacts on public health should be considered as interconnected problems. They concern not only environmental control, but also urban planning, transport, energy resilience, health care, working conditions, psychosocial support, care work and people's ability to recover in wartime conditions. Effective response requires monitoring of air quality and noise, safe generator use, accessible information for the population, protection of people who work outdoors, and consideration of the needs of groups with increased vulnerability.

4.11. Radiation and Nuclear Safety

Radiation and nuclear safety is one of the most sensitive and critical issues for Ukraine. The country hosts nuclear power plants, including Zaporizhzhia NPP²³² and Chornobyl NPP,²³³ the Shelter facility, radioactive waste storage facilities, nuclear research installations, industrial and medical sources of ionizing radiation, and uranium mining facilities, all of which remain under constant threat because of Russian shelling. A separate example of wartime risk to nuclear research infrastructure is the **Neutron Source** nuclear subcritical installation at the National Science Center "Kharkiv Institute of Physics and Technology,"²³⁴ which has sustained damage and lost external power supply as a result of Russian attacks.²³⁵

Damage to these facilities may significantly undermine radiation safety not only in Ukraine, but also in Europe and the Black Sea region. Ukraine also has the experience of the Chornobyl disaster, whose consequences remain an important factor for environmental policy, public health, radiation monitoring and communication with the population. After the beginning of the full-scale invasion, these risks increased because of the occupation of the Chornobyl zone, the seizure of Zaporizhzhia NPP, shelling near nuclear facilities, damage to energy infrastructure, the mining of territories, risks of losing control over facilities, and problems with experts' access to monitoring and response.

One of the most critical threats for Zaporizhzhia oblast remains the situation around Zaporizhzhia Nuclear Power Plant, the largest NPP in Europe. Hromadas and territories around ZNPP that are included in official emergency response plans would require mandatory evacuation in the event of an accident. This zone includes rural and settlement hromadas, including Bilenke, Dolynska, Dniprorudne, Enerhodar, Kamianka-Dniprovska and Velyka Bilozerka hromadas, as well as part of the city of Zaporizhzhia, including Khortytskyi district. Military occupation, regular shelling, unstable electricity

²³² "IAEA reports night-time Russian shelling" (МАГАТЕ через нічний обстріл РФ).

https://lb.ua/society/2025/12/06/710513_magate_cherez_nichniy_obstril_rf.html

²³³ "An IAEA mission for a comprehensive safety assessment has begun work at Chornobyl NPP" (На Чорнобильській АЕС розпочалася робота місії МАГАТЕ з комплексної оцінки безпеки). <https://www.chnpp.gov.ua/ua/infotsentr/novyny/6483-na-chornobilskij-aes-rozpochalasya-robota-misiji-magate-z-kompleksnoji-otsinki-bezpeki>

²³⁴ NucNet. *Ukraine / IAEA Confirms Shelling Of Nuclear Research Facility, Calls For Action To Avert Accidents*. <https://www.nucnet.org/news/iaea-confirms-shelling-of-nuclear-research-facility-calls-for-action-to-avert-accidents-3-2-2022>

²³⁵ *The New Voice of Ukraine*. *Russian strike cuts power to nuclear "Neutron Source" facility in Kharkiv, IAEA says*.

<https://english.nv.ua/nation/russian-strike-cuts-power-to-nuclear-neutron-source-facility-in-kharkiv-iaea-says-50593439.html>

supply, risks of disruption to cooling systems and limited access for specialists create a constant threat of a nuclear accident. Even without a direct strike on the reactors, the very presence of hostilities around such a facility poses an exceptional danger to the population, natural ecosystems and water resources not only in the oblast but also in a much wider region.

In addition to six power units, the Zaporizhzhia NPP site contains a spent nuclear fuel storage facility. Radioactive nuclides generated by electricity production at an NPP are mainly contained in spent nuclear fuel, which is stored in special storage facilities on the industrial sites of nuclear power plants. Damage to such a storage facility as a result of shelling could lead to a radioactive release, which makes the protection of these facilities critically important. All six reactors are in cold shutdown, but the site continues to require reliable electricity and water supplies to perform nuclear safety functions, including cooling reactors and spent fuel pools. On 26 April 2026, the plant lost all external power supply for the fifteenth time since the beginning of the war, again forcing it to rely on emergency diesel generators.²³⁶

Separate risks are associated with Chornobyl NPP and the exclusion zone. After the occupying forces entered the territory of Chornobyl NPP, fundamental safety requirements for reactor installations and radiation-hazardous facilities were violated. After Russian troops withdrew, mines, damage and other dangerous consequences of the military presence remained in the exclusion zone. This complicates monitoring, expert access, safe movement, work and the restoration of full control.

Radiation risks exist not only around nuclear power plants. Ukraine has radioactive waste storage facilities, enterprises that use ionizing radiation sources, research installations, and facilities related to uranium mining and uranium processing. Special attention is required for the occupied territories of Donetsk and Luhansk oblasts, where sources of ionizing radiation, radioactive waste storage sites, mines and industrial facilities have remained since 2014 and their condition cannot always be fully monitored. The closure and flooding of mines, including those where radioactive or other hazardous waste is stored, may create long-term risks of groundwater and surface water contamination.

Ionizing radiation cannot be seen, heard, smelled or tasted, but it can cause serious harm to health. Radionuclides may enter the body through air, water, food, dust or other pathways, accumulate in tissues and cause internal exposure over a prolonged period. Radiation risks therefore require special monitoring, clear communication and practical instructions for the population.

Radiation risks are long-term in nature. They concern not only possible accidents, but also contamination of water, soils, plants, food products, dust, construction materials, firewood, milk, fish, mushrooms, berries and other products that people may use in everyday life. Special attention is needed for rural, frontline and de-occupied hromadas, where people are more dependent on local water, kitchen gardens, livestock, fish, forest resources and household production.

The impact of **ionizing radiation** may differ depending on age, health status, sex, life stage, type of exposure, duration of exposure and the route by which radionuclides enter the body. Particular attention should be paid to children, embryos, pregnant women, people of reproductive age, people with chronic diseases, and workers who may come into contact with sources of radiation risk. For women, important risks are those related to pregnancy, breastfeeding, reproductive health and children's health, as well as oncological risks. For men, reproductive, oncological and occupational risks

²³⁶ IAEA. *Update 348 — IAEA Director General Statement on Situation in Ukraine*. <https://www.iaea.org/newscenter/pressreleases/update-348-iaea-director-general-statement-on-situation-in-ukraine>

are important, including in cases of work in hazardous zones or participation in eliminating the consequences of accidents, shelling or contamination.

Radiation risks may also affect women and men differently because of the distribution of social roles. In the event of a radiation or nuclear accident, women who care for children, older relatives, persons with disabilities or ill family members may face greater difficulties with evacuation, obtaining information, and preparing documents, medicines, water, food and hygiene products. If information about risks is presented in a complicated, delayed or contradictory way, the responsibility for searching for and verifying information often falls on women.

In the event of an accident or threat of an accident, evacuation and population protection will be especially difficult for people who cannot act quickly on their own: children, pregnant women, older people, persons with disabilities, patients of medical institutions, people in places of detention, people without their own transport, and women and men who care for other family members. For such households, evacuation means not only relocation, but also finding housing, medicines, documents, care, transport, income, schools, kindergartens, medical and social support.

The situation may be especially complicated in rural, frontline and de-occupied hromadas. People in such hromadas may use well water, local food products, vegetables from kitchen gardens, milk, fish, berries, mushrooms or firewood. In the event of radioactive contamination or the risk of such contamination, accessible instructions are needed on which water can be used, which products should not be consumed, and how to handle livestock, kitchen gardens, feed, dust, clothing, firewood, ash, milk and infant food. Such instructions must be clear, practical and adapted to the conditions of different hromadas.

Radiation safety is connected with trust in state institutions. If the population does not have regular, clear and verified information about radiation levels, the condition of nuclear facilities, rules of conduct, evacuation routes, shelter locations, access to iodine prophylaxis, water, transport and medical assistance, anxiety increases and people may either underestimate the risks or act in panic. It is therefore important to avoid both minimizing risks and using unfounded catastrophic language. Communication should rely on verified data, regular monitoring, the readiness of response services, and consideration of the different impacts on different population groups.

Response plans for radiation and nuclear risks should include:

- regular monitoring of radiation levels and public information in clear language;
- separate action algorithms for hromadas within the 50-kilometer zone around ZNPP and other potentially dangerous facilities;
- readiness to evacuate children, pregnant women, older people, persons with disabilities, patients of medical institutions, people in places of detention and people without their own transport;
- instructions on water, food products, milk, vegetables from kitchen gardens, feed, livestock, fish, mushrooms, berries, firewood and dust in the event of radioactive contamination;
- training for medical, social, educational and communal services on working during a radiation threat;
- communication with women's, rural, youth and veteran organizations, as well as organizations of persons with disabilities;
- psychosocial support for the population, especially children, parents, older people and people who already have experience of the Chornobyl disaster or forced displacement.

Communication on iodine prophylaxis should state directly that stable iodine preparations are taken only upon instruction from competent authorities when there is a risk of radioactive iodine intake; they are not a universal means of protection against all radionuclides.²³⁷

Thus, radiation and nuclear safety is not only a technical or energy issue. It is a matter of public health, trust in the state, access to information, evacuation, water, food, child protection, the reproductive health of women and men, the safety of women and men workers, the state of the environment, and the ability of hromadas to act without panic and on the basis of verified data. In wartime, this issue requires special attention, systematic monitoring and inclusion in recovery plans, hromada security planning and the Women, Peace and Security agenda.

4.12. Children, Pregnancy, Childbirth and Early Motherhood under Combined Climate and Wartime Risks

Children

The war has already placed an extraordinary burden on children in Ukraine. In 2024, UNICEF noted that 13 per cent of educational infrastructure had been damaged or destroyed, 20 per cent of primary and secondary education institutions were not functioning because of insufficient access to shelters, and half of Ukraine's 3.8 million schoolchildren were studying online or in a blended format.²³⁸ In February 2024, UNICEF also reported that during the first two years of the full-scale war, children in cities in frontline areas had been forced to spend between 3,000 and 5,000 hours, or approximately four to almost seven months, in basements and underground shelters; half of surveyed children aged 13-15 had trouble sleeping, and one in five reported intrusive memories and flashbacks.²³⁹

In 2025, UNICEF recorded further deterioration in the situation. On the third anniversary of the full-scale war, the organization reported that one in five children in Ukraine had lost a close relative or friend; the number of UN-verified cases of children killed and injured in 2024 had increased by more than 50 per cent compared with 2023; more than 2,520 children had been killed or injured since February 2022; and more than 1,600 education facilities and nearly 790 health facilities had been verified as damaged or destroyed during the first three years of the full-scale war.²⁴⁰ In November 2025, UNICEF reported that more than 340 education facilities had been damaged or destroyed in that year alone; the total number of damaged or destroyed schools since February 2022 had reached 1,611; 4.6 million children were facing barriers to education; and many schools, especially in frontline areas, remained closed because of hostilities or the lack of adequate shelters, forcing almost 1 million children to study online.²⁴¹

At the beginning of 2026, against the background of another winter of war, UNICEF reported an increase in verified child casualties in 2025 compared with the previous year, including at least 92 children killed and 652 injured in 2025, as well as more than 3,200 children killed or injured since the beginning of the full-scale war.²⁴² On the fourth anniversary of the full-scale invasion, UNICEF also noted that more than 1,700 schools and other educational facilities had been damaged or destroyed,

²³⁷ CDC. *Potassium Iodide (KI) — Radiation Emergencies*. <https://www.cdc.gov/radiation-emergencies/treatment/potassium-iodide.html>

²³⁸ UNICEF. *Situation Analysis of Children in Ukraine: 2024. Executive Summary*. 2024.

https://www.unicef.org/ukraine/en/media/49211/file/UNICEF_SitAn_Summary_2024_ENG.pdf

²³⁹ UNICEF. *Ukraine two years: Children in frontline areas forced to spend up to 5,000 hours — equivalent to nearly 7 months — sheltering underground*. 23 February 2024. <https://www.unicef.org/ukraine/en/press-releases/ukraine-two-years>

²⁴⁰ UNICEF. *More than 340 educational facilities damaged or destroyed in Ukraine this year*. 25 November 2025.

<https://www.unicef.org/ukraine/en/press-releases/more-340-educational-facilities-damaged-or-destroyed-ukraine-year>

²⁴¹ UNICEF. *One in five children in Ukraine has lost a relative or friend since the escalation of war three years ago*. 21 February 2025.

<https://www.unicef.org/ukraine/en/press-release/3-year-mark-of-war>

²⁴² UNICEF. *Child casualties in Ukraine increase by 65 per cent over the past month*. 16 April 2026. <https://www.unicef.org/ukraine/en/press-releases/child-casualties-ukraine-increase-65-cent-over-past-month>

and that one in three children could not attend in-person learning full time.²⁴³ In April 2026, UNICEF, referring to the latest verified data of the UN Human Rights Monitoring Mission in Ukraine, reported that in March 2026 alone 89 children had been killed or injured, 65 per cent more than in February, and that the total number of verified cases of children killed or injured since February 2022 had reached at least 3,452.²⁴⁴

These data show that for children the war means not only the risk of physical harm. It simultaneously destroys or damages schools, hospitals, water supply systems, energy and heating infrastructure, restricts access to in-person learning, forces children to spend thousands of hours in shelters, and deepens psychological exhaustion. One of the key reasons for limited access to in-person education remains the shortage of safe shelters in educational institutions: without them, schools cannot operate stably in person even where teachers, children and the need to return to a normal learning environment are present.

Prolonged remote or blended learning helps maintain access to education in conditions of danger, but it cannot fully replace school as a space for socialization, adult support and interaction with peers. UNICEF noted that most adolescents in Ukraine had been isolated from their peers and had lost opportunities for social interaction and support from teachers; this intensifies the impact of the war on learning and worsens adolescents' psycho-emotional well-being.²⁴⁵ At the same time, increased time online heightens the importance of children's safety in the digital environment: in 2025, UNICEF Ukraine reported that one third of surveyed children and young people had encountered online fraud, hacking attacks or phishing, while 45 per cent had experienced some form of cyberbullying.²⁴⁶ UNICEF also warns of the risks of technology-facilitated sexual exploitation and violence, and UNICEF Ukraine materials specifically draw attention to the danger of online grooming.²⁴⁷ Therefore, remote learning must be accompanied not only by access to devices and the internet, but also by systematic support for digital safety, psychosocial well-being, parental awareness and school-based response mechanisms.

Climate and environmental risks are added to this wartime burden. Even before the full-scale invasion, UNICEF classified Ukraine among countries with a moderately high level of climate risk for children and noted elevated indicators of exposure to temperature anomalies, including heatwaves, baseline water stress and riverine floods. The same brief emphasized that the consequences of climate and environmental hazards for children are interlinked and affect health, water, sanitation and hygiene, child protection and education.²⁴⁸ Children are increasingly exposed to prolonged heatwaves, water shortages, air pollution, fires and other hazardous events. Children's physiological vulnerability is combined with their dependence on health-care, water supply, education and social protection systems; if these systems are weak or disrupted, the consequences of climate hazards become more severe.

The combination of physical and psychological burden is also important. For children in frontline hromadas, danger means not only the risk of physical harm, but also prolonged time in shelters,

²⁴³ UNICEF. *More than a third of Ukraine's children remain displaced four years into war*. 19 February 2026. <https://www.unicef.org/press-releases/more-third-ukraines-children-remain-displaced-four-years-war-unicef>

²⁴⁴ UNICEF. *Under fire and freezing: children in Ukraine endure harshest winter of war*. 16 January 2026. <https://www.unicef.org/ukraine/en/press-releases/under-fire-and-freezing-children-ukraine-endure-harshest-winter-war>

²⁴⁵ UNICEF Europe and Central Asia. *Three years of full-scale war for Ukraine's children*. 21 February 2025. <https://www.unicef.org/eca/stories/three-years-full-scale-war-ukraines-children>

²⁴⁶ UNICEF Ukraine. *Nearly 95 per cent of children and young people actively check online sources*. 11 February 2025. <https://www.unicef.org/ukraine/en/press-releases/actively-check-online-sources>

²⁴⁷ UNICEF. *Keeping children safe online*. <https://www.unicef.org/protection/keeping-children-safe-online>; UNICEF Ukraine. *How to protect oneself from online grooming*. <https://www.unicef.org/ukraine/en/documents/how-protect-oneself-online-grooming>

²⁴⁸ UNICEF. *Potential climate and environment impacts on children in Ukraine*. 2021. <https://www.unicef.org/ukraine/media/15736/file/Brief.%20Climate%20and%20environment%20for%20children.pdf>

disruption of learning, isolation and psychological exhaustion.²⁴⁹ UNICEF reported that during the first two years of the full-scale war, children in cities in frontline areas were forced to spend between 3,000 and 5,000 hours, or approximately four to almost seven months, in basements and underground shelters;²⁵⁰ half of surveyed children aged 13-15 had trouble sleeping, and one in five reported intrusive memories and flashbacks.²⁵¹ At the same time, climate-risk studies show that heat, water shortages and air pollution create an additional physiological burden for children and may negatively affect sleep, well-being and cognitive functions. For children who regularly spend time in basements and bomb shelters, summer heat, lack of water or poor ventilation may therefore become additional factors of exhaustion against the background of existing wartime stress.²⁵²

A separate risk is posed by winter attacks on energy, heating and water infrastructure. UNICEF described the winter of 2025/2026 as the harshest for children since the beginning of the full-scale war: millions of families remained without heating, electricity and water in extremely low temperatures, while schools and kindergartens in some hromadas had to move to remote learning, which itself was interrupted by power outages.²⁵³ For children, such conditions have both physical and psycho-emotional consequences: cold, darkness and interruptions in basic services intensify fear, stress and health risks.²⁵⁴

For Ukraine, the critical issue is precisely the layering of these risks. Damage to hospitals, schools, kindergartens, water pipelines, heating networks, power grids and transport infrastructure weakens the systems that are supposed to protect children during heat, cold, air pollution, water shortages, fires, flooding or other hazardous events. In cities, this combines with the urban heat island effect, the lack of trees, shade, open soil and safe public spaces; in rural areas, with water shortages, damaged roads, destroyed green spaces and limited access to medical, educational and social services. The absence of shade at bus stops, near schools, kindergartens and other places where children spend time every day increases the risks of overheating and dehydration for children in both cities and villages. This is compounded by air pollution from shelling, explosions and fires: smoke, soot, dust and toxic substances worsen air quality precisely when a child's body is already under increased strain because of heat.

“In summer, heat is added to the constant anxiety: children complain of headaches and exhaustion, and often there is simply nowhere to hide in a cool place.”

Training participant

Thus, for children, climate and environmental risks in wartime do not act in isolation: heat may coincide with time spent in shelters and electricity cuts; air pollution with fires after shelling; water shortages with damaged water pipelines; and psychological exhaustion with the impossibility of studying, resting

²⁴⁹ Save the Children. *Ukraine: Mental health toll of war leaves children with speech defects, twitching and sleep disorders*. 9 December 2024. <https://www.savethechildren.net/news/ukraine-mental-health-toll-war-leaves-children-speech-defects-twitching-and-sleep-disorders>

²⁵⁰ UNICEF. *Ukraine two years: Children in frontline areas forced to spend up to 5,000 hours — equivalent to nearly 7 months — sheltering underground*. 23 February 2024. <https://www.unicef.org/moldova/en/press-releases/ukraine-two-years-children-frontline-areas-forced-spend-5000-hours-equivalent-nearly-7>

²⁵¹ UNICEF. *Ukraine two years: Children in frontline areas forced to spend up to 5,000 hours — equivalent to nearly 7 months — sheltering underground*. 23 February 2024. <https://www.unicef.org/ukraine/en/press-releases/ukraine-two-years>

²⁵² Save the Children International. *Surviving is Just the Beginning: The Impact of Conflict on Children's Mental Health*. 2025. <https://www.savethechildren.net/blog/surviving-just-beginning-impact-conflict-children-s-mental-health>

²⁵³ UNICEF. *Under fire and freezing, children in Ukraine endure the harshest winter of war*. 16 January 2026. <https://www.unicef.org/ukraine/en/press-releases/under-fire-and-freezing-children-ukraine-endure-harshest-winter-war>

²⁵⁴ UNICEF. *Under fire and freezing: children in Ukraine endure the harshest winter of war*. 16 January 2026. <https://www.unicef.org/ukraine/en/press-releases/under-fire-and-freezing-children-ukraine-endure-harshest-winter-war>

and spending time outdoors normally.²⁵⁵ In a specific hromada, these factors may overlap, increasing children's exhaustion and the care burden on families. This is why children's needs must be taken into account not only in child protection policy, but also in plans for climate adaptation, infrastructure recovery, public health, education, digital safety and humanitarian response.

Pregnancy, childbirth and early motherhood

Pregnant women, women who have recently given birth, mothers of infants and newborns require separate attention. In wartime conditions, their vulnerability is shaped not only by the direct danger of shelling, but also by displacement, loss of housing, disruption of health-care facilities, interruptions in water supply, electricity and transport, heightened stress and restricted access to regular pregnancy monitoring, safe childbirth and postpartum support. These factors are situated at the intersection of military, medical, social, environmental and climate security.

Several Ukrainian and international studies published after the beginning of the full-scale invasion already point to the impact of war on pregnancy and early motherhood. A study by Krupelnytska and co-authors on relocated pregnant women and new mothers showed high levels of stress, anxiety and depressive symptoms among internally displaced women and refugee women, as well as the importance of financial burdens, disrupted access to services and social isolation.²⁵⁶ A study by M. Malachynska on pregnant displaced women in Ukraine also confirms the impact of hostilities and displacement on the psycho-emotional state of pregnant women.²⁵⁷ These studies do not exhaust the topic, but they show that pregnancy and early motherhood under wartime conditions require a systematic public-health and psychosocial response.

A separate 2026 study, *Bravery of giving birth in the homeland*, analyzed the decisions of pregnant women and new mothers who remained in Ukraine during the war.²⁵⁸ It is important that this study does not reduce women's decisions to individual "resilience" or "heroism". The authors show that decisions to stay, relocate within Ukraine or leave the country are shaped by a complex combination of family ties, access to services, finances, work, housing, safety assessments and obligations to other family members. This approach is important for this Review as well: the vulnerability of pregnant women and mothers of infants should not be understood as a personal trait, but as the result of specific conditions in which they must make decisions.

There is also emerging evidence on the direct perinatal effects of the war. Arbuzova and co-authors, using data on pregnancies in Kyiv, found evidence of reduced birthweight after the beginning of the Russian invasion: in a sample of 706 pregnancies, median birthweight decreased from 3,500 grams to 3,350 grams after 24 February 2022.²⁵⁹ A national surveillance study by Artyomenko and co-authors for 2022-2024 found an association between armed conflict and an increase in extreme preterm births, pre-

²⁵⁵ UNICEF. *Potential climate and environment impacts on children in Ukraine*.

<https://www.unicef.org/ukraine/media/15736/file/Brief.%20Climate%20and%20environment%20for%20children.pdf>

²⁵⁶ Krupelnytska L., Morozova-Larina O., Yatsenko N., Vavilova A. *War in Ukraine vs. Motherhood: Mental health self-perceptions of relocated pregnant women and new mothers*. *BMC Pregnancy and Childbirth*. 2025;25:253. DOI: 10.1186/s12884-025-07346-0.

<https://link.springer.com/article/10.1186/s12884-025-07346-0>

²⁵⁷ Malachynska M. Y. *The impact of hostilities on the psycho-emotional state of pregnant displaced women* (Малачинська М. Й. «Вплив воєнних дій на психоемоційний стан вагітних жінок-переселенок»). Український журнал «Здоров'я жінки». 2025;4(179):64-72. DOI:

10.15574/HW.2025.4(179).6472. <https://med-expert.com.ua/journals/ua/vpliv-voiennih-dij-na-psihoemocijnij-stan-vagitnih-zhinok-pereselenok/>

²⁵⁸ Krupelnytska L. et al. *Bravery of giving birth in the homeland: pregnant women's and new mothers' decisions on staying in Ukraine during the war*. *BMC Public Health*. 2026. DOI: 10.1186/s12889-026-28160-z. <https://link.springer.com/article/10.1186/s12889-026-28160-z>

²⁵⁹ Arbuzova S., Nikolenko M., Atramentova L., Cuckle H. *Evidence of reduced birthweight in Ukraine following the Russian invasion*. *Scientific Reports*. 2025;15:14413. <https://www.nature.com/articles/s41598-025-98668-8>

eclampsia and eclampsia.²⁶⁰ A local study from Kharkiv also drew attention to adverse perinatal outcomes under wartime conditions.²⁶¹ These findings require cautious interpretation, as pregnancy outcomes are influenced by many factors, including access to care, socioeconomic conditions, displacement, nutrition, stress and regional differences. However, they confirm that the impact of war on pregnancy and childbirth is not limited to psychological stress; it may also be reflected in measurable health outcomes.

The Ukrainian media and professional context also contains important evidence from physicians and women themselves. Such materials are not statistical studies, but they show how the war affects the organization of childbirth and the experience of pregnancy loss, fear, movement between cities, access to services and the readiness of medical institutions.²⁶² In interviews, Ukrainian obstetrician-gynecologists drew attention to the fact that war changed childbirth conditions: alarms, shelters, blackouts, the need to move patients, disruptions in hospital work and psychological stress all became part of maternity care.²⁶³ These observations should be treated as professional and media evidence of practical conditions, not as representative epidemiological data.

Infant feeding in crisis conditions is a separate issue. A qualitative study by Iellamo and co-authors on the impact of the war on infant feeding among Ukrainian women documented how displacement, stress, pressure from medical staff, formula donations, lack of information and language barriers affected breastfeeding and the use of commercial milk formula.²⁶⁴ The study was based on 75 in-depth interviews with mothers of infants under 12 months of age, including women in Ukraine and refugee women in Poland. Among other things, it showed that many women needed practical information and support for breastfeeding, while women who used commercial milk formula needed safe water, clean utensils, adequate sanitation and clear instructions for safe preparation.²⁶⁵

For this Review, this means that infant feeding cannot be separated from environmental security. If a hromada has problems with water quality, sanitation, electricity, heating, access to pharmacies and health services, these directly affect the safety of infant feeding. Support for breastfeeding should be part of humanitarian response, but it should not become pressure on mothers. At the same time, families using formula must have stable access to safe water, clean dishes, hygiene conditions, enough formula and accurate information. In wartime and during climate crises, these issues are connected with water, sanitation, electricity, transport, waste management and primary health care.

A particularly important practical point is that stress is often simplistically described as a factor that “makes milk disappear”. Such formulations may create additional pressure and guilt for mothers. Stress, fatigue, dehydration, lack of sleep, fear and lack of support may complicate breastfeeding, affect let-down reflex, reduce the feeling of confidence and increase perceived milk insufficiency. However, breastfeeding is a physiological and social process that can often be supported if a woman

²⁶⁰ Artyomenko V. V. et al. *Association of armed conflict with extreme preterm birth and pre-eclampsia and eclampsia in Ukraine, 2022-24: a repeated cross-sectional national surveillance study*. *The Lancet Obstetrics, Gynaecology & Women's Health*. 2026. [https://www.thelancet.com/journals/lanogw/article/PIIS3050-5038\(26\)00118-4/fulltext](https://www.thelancet.com/journals/lanogw/article/PIIS3050-5038(26)00118-4/fulltext)

²⁶¹ Lakhno I. *The Impact of Wartime on Perinatal Outcomes in Kharkiv*. *Cureus*. 2025;17(10):e94327. DOI: 10.7759/cureus.94327. <https://pmc.ncbi.nlm.nih.gov/articles/PMC12515017/>

²⁶² Wonderzine Ukraine. “*There is emptiness inside. I lost a pregnancy because of the war*” (Wonderzine Україна. «Усередині порожнеча». Я втратила вагітність через війну). 2022. <https://www.wonderzine.com.ua/wonderzine/life/experience/11109-useredini-porozhnecha-ya-vtratilavagitnist-cherez-viynu>

²⁶³ 24 Kanal. *How childbirth in Ukraine has changed during the war: interview with a gynecologist* (24 Канал. «Як змінились пологи в Україні під час війни: інтерв'ю з гінекологинею»). 2024. https://zdorovya.24tv.ua/pologi-ukrayini-yakiy-ye-pliv-viyni-narodzhuvanist_n2671158

²⁶⁴ Iellamo A., Wong C. M., Bilukha O., Smith J. P., Ververs M., Gribble K., Walczak B., Wesolowska A., Al Samman S., O'Brien M., Brown A. N., Stillman T., Thomas B. “*I could not find the strength to resist the pressure of the medical staff, to refuse to give commercial milk formula*”: a qualitative study on effects of the war on Ukrainian women's infant feeding. *Frontiers in Nutrition*. 2024;11:1225940. DOI: 10.3389/fnut.2024.1225940. <https://www.frontiersin.org/journals/nutrition/articles/10.3389/fnut.2024.1225940/full>

²⁶⁵ Ibid.

receives calm, respectful and practical help. Therefore, response measures should combine support for breastfeeding with non-judgmental support for families using formula.

The connection between pregnancy, early motherhood and environmental risks is not limited to the war. International evidence shows that heat, air pollution, water and sanitation problems, floods, fires and other climate-related hazards can have consequences for maternal, fetal and newborn health. WHO, UNICEF and UNFPA have called for the protection of maternal, newborn and child health from the impacts of climate change.²⁶⁶ Reviews of evidence also point to links between heat exposure, air pollution and adverse pregnancy and birth outcomes, including preterm birth, low birthweight, hypertensive disorders and other risks.

Climate Central's 2025 analysis of pregnancy heat-risk days estimated that climate change has substantially increased the number of days with dangerous heat for pregnant women in many countries and cities.²⁶⁷ Such global estimates do not replace Ukrainian epidemiological research, but they provide an additional argument for including pregnant women, women who have recently given birth and newborns in heat response plans, public-health communication and local adaptation measures.

For Ukraine, these climate risks must be analyzed together with war-related disruption. Heatwaves may coincide with air alerts, time in shelters, damaged hospitals, blackouts, lack of air conditioning, transport disruptions and a shortage of medical staff. Water quality is critical for pregnant women, women who have recently given birth and families with infants, especially where water is used for preparing formula, washing dishes, hygiene and caring for newborns. Air pollution from fires, explosions, generators, destroyed industrial facilities and dust from damaged buildings may interact with heat and stress. Each of these factors must be assessed locally, because the risks differ between large cities, small towns, rural hromadas, frontline areas, de-occupied territories and receiving hromadas.

Therefore, the key gap is the lack of systematic Ukrainian research on the combined impact of war, heat, air pollution, water quality, energy disruptions and damage to health-care infrastructure on pregnancy, childbirth, early motherhood and newborn health. Existing studies on the impact of the war and the international evidence base on climate risks together show the need to take children, pregnant women, women who have recently given birth, mothers of infants and newborns into account separately in environmental security, public health, climate adaptation, humanitarian response and recovery policies. For Ukraine, it is especially important not to limit policy to a general list of "vulnerable groups", but to examine specific risk mechanisms, regional differences and access to water, energy, transport, medical care and safe housing.

²⁶⁶ WHO, UNICEF, UNFPA. *Protecting maternal, newborn and child health from the impacts of climate change: A call for action*. 2023. ISBN 978-92-4-008535-0. <https://www.who.int/publications/i/item/9789240085350>; Conway F., Portela A., Filippi V., Chou D., Kovats S. *Climate change, air pollution and maternal and newborn health: An overview of reviews of health outcomes*. *Journal of Global Health*. 2024;14:04128. DOI: 10.7189/jogh.14.04128. <https://jogh.org/2024/jogh-14-04128/>; Lakhoo D. P. et al. *A systematic review and meta-analysis of heat exposure impacts on maternal, fetal and neonatal health*. *Nature Medicine*. 2025. <https://www.nature.com/articles/s41591-024-03395-8>; Bonell A. et al. *An expert review of environmental heat exposure and stillbirth in the face of climate change*. *BJOG*. 2024. <https://heathealth.info/wp-content/uploads/BJOG-2023-Bonell-An-expert-review-of-environmental-heat-exposure-and-stillbirth-in-the-face-of-climate-change-.pdf>

²⁶⁷ Climate Central. *Climate change increasing pregnancy risks around the world due to extreme heat*. 14 May 2025. <https://www.climatecentral.org/report/pregnancy-heat-risks>; Climate Central. *Pregnancy Heat-Risk Days Added by Climate Change*. 2025. <https://www.climatecentral.org/climate-matters/pregnancy-heat-risk-days>

4.13. Population Mobility, Frontline, De-occupied and Receiving Hromadas

Climate, environmental and wartime risks may affect people's decisions to leave their hromadas. Water scarcity, declining yields, soil degradation, loss of income, contamination of territories, frequent flooding, destruction of infrastructure, mine contamination and the lack of access to medical and social services can make life in a hromada increasingly unsafe and economically unviable.

In Ukraine, population displacement is driven primarily by the war, while environmental factors often operate as part of a broader loss of a territory's suitability for safe life: through destroyed water supply, mine contamination, pollution, loss of land and income, and damaged medical and social infrastructure. For older persons and persons with disabilities, as well as for families with small children living on upper floors in cities, the inability to use elevators during air alerts and blackouts may mean being unable to leave their homes when necessary. Available data on internal displacement do not provide grounds for quantitatively identifying a separate flow of "climate migrants" within Ukraine.²⁶⁸

A separate consequence of the war is the growing risk of homelessness and housing instability. According to the study *Homelessness in Ukraine in Wartime: Situation Assessment and Public Attitudes*,²⁶⁹ conducted in April 2026 by the Depaul Ukraine Charitable Foundation, the Rating Sociological Group and the Ptoukha Institute for Demography and Social Studies of the National Academy of Sciences of Ukraine, for 46 per cent of homeless people the main reason for losing housing was hostilities or occupation, while 40 per cent of homeless people were internally displaced persons. The study also shows that people with disabilities and single older people are substantially represented among homeless people. This matters for environmental and climate policy because people without stable housing, or with insecure access to housing, are especially dependent on the availability of safe shelter, water, sanitation, heating, cooling, medical care, transport and social services, including during heat, cold, shelling, evacuation or damage to critical infrastructure.²⁷⁰

For women who have moved to other hromadas or abroad, environmental and economic factors may also be interconnected. Project participants noted that women find it more difficult to maintain businesses, especially "green" ones, because of higher costs, a heavy workload and the need to confront corrupt schemes that may be created by hromada leaders, local council deputies or heads of business structures interested in appropriating territories or other resources. As a result, some women are forced to close their businesses or move abroad, where they open businesses or work as employees. These observations require further verification, but they are important for planning open consultations, clear criteria and complaint mechanisms. This aspect is important for the analysis of environmental migration because it is not only about natural phenomena. People may also leave because they lack fair access to water, land, ponds, local infrastructure, business support, local government decisions and mechanisms for protecting rights. If hromada resources are controlled non-transparently, and women cannot access water, land or financing, an environmental problem becomes a form of economic displacement.

For women, relocation often means losing not only housing but also support networks: neighbors, relatives, a kindergarten, school, doctor, social worker, land, a vegetable garden, an orchard, and familiar ways of earning a living or exchanging assistance. Women with children, older relatives,

²⁶⁸ IOM. *Ukraine: Displacement and Return Trends, Drivers and Intentions*. June 2025.

²⁶⁹ *Homelessness in Ukraine in Wartime: Situation Assessment and Public Attitudes* (Бездомність в Україні в умовах війни: оцінка ситуації та суспільні настрої). <https://www.ratinggroup.ua/news/homeless-apr2026>

²⁷⁰ https://cdn.prod.website-files.com/6852aaf9d3bb0b11ce3a6b1e/6a4e5b8a8ef0e41a486f0637_doslidzhennia-short-web_compressed.pdf

persons with disabilities or chronically ill family members face greater logistical and financial barriers to relocation, finding housing, employment and access to services.

In rural hromadas, environmental migration is often connected with water, land and the loss of the ability to maintain a household. If wells dry up, drinking water becomes more expensive, yields decline, it becomes impossible to keep poultry or livestock, and land becomes contaminated, mined or unfit for cultivation, people gradually lose reasons to remain in the hromada. This is especially important for older women, women of retirement age, women who maintain household farms and families for whom a vegetable garden, orchard, livestock or poultry is part of food security.

The National Council of Women of Ukraine conducted research one and two years after occupation in the village of Shestovytsia, Chernihiv Oblast, where massive artillery shelling and mine contamination had taken place and where approximately 500 units of enemy military equipment had been stationed, one third of which was damaged in the same area. The studies showed that one and two years after occupation, contaminated soil and water were practically within permissible sanitary standards for the concentration of heavy metal salts (lead, cadmium, mercury, arsenic, zinc) and petroleum products. Two years after occupation, elevated levels of these indicators were also not found in food products (meat, milk, eggs, potatoes). These results suggest relatively rapid cleansing of the territory, but they require further research.²⁷¹

Moving from a village to a city does not always mean an improvement in economic status. Part of the rural population works as employees in cities or in other villages, but spends a significant share of earnings on transport, rent, food, water, treatment and other basic needs. Food that previously could be grown in the village has to be purchased. For women, this may mean a simultaneous loss of part of their self-provisioning, increased expenses, greater stress and the need to maintain links with family members who remain in the village. Project materials also show that displacement may divide care networks between villages, cities and other countries. Participants described situations in which older parents remain in rural hromadas, adult daughters support them from a distance and at the same time care for their own children. Such transnational and interregional care work may increase financial and psychological burdens, especially when access to water, transport, medical care or social services in the hromada of origin deteriorates.

A separate group is women who cannot or do not want to leave frontline areas because they remain to care for livestock, household farms, older relatives, persons with disabilities or property. For such women, environmental security is part of daily survival: where to find water, how to feed children or older relatives, how to keep animals, whether it is possible to go to a field or a water body, whether it is safe to use a well, whether it is possible to stay in a house after shelling, where to seek assistance and whether evacuation will be possible if the situation deteriorates.

After de-occupation, part of the local population returns to liberated territories. According to project participants' observations, among those who return or remain there are often women with children and older people, the majority of whom are women. They face destroyed resources for life: damaged housing, lack of water or poor water quality, destroyed roads, limited access to medical and social services, mined fields, polluted water bodies, unexploded ordnance, lack of work and transport shortages.

For such hromadas, drinking water becomes a matter of survival. If a water pipeline is damaged, wells are contaminated or dried up, and water delivery depends on humanitarian aid, volunteers or local

²⁷¹ Prepared for publication.

authorities, people lose basic security. For women who care for children, older relatives or persons with disabilities, this means additional responsibility and an inability to stabilize everyday life quickly.

At the same time, returning to a de-occupied hromada does not always mean returning to the previous way of life. An orchard, a vegetable garden, a pasture, a forest, a pond, a well, a school, an outpatient clinic, a transport route and social ties may all be destroyed, mined, contaminated or inaccessible. A family may return to the physical place but lack the conditions for living, working, children's education, treatment, care or maintaining a household.

Frontline, de-occupied and receiving hromadas face different but connected challenges. Frontline hromadas face shelling, destruction, mine contamination and danger to life. De-occupied hromadas face the return of the population to conditions of destroyed infrastructure, a polluted environment, water shortages and health risks. Receiving hromadas face additional pressure on housing, schools, kindergartens, hospitals, transport, labor markets, social protection systems and municipal services.

A separate dimension of environmental migration and life in frontline, de-occupied and receiving hromadas is public health. People may leave hromadas or decide not to return not only because of shelling or destroyed housing, but also because of lack of access to medical care, medicines, clean water, safe food, transport, social services, rehabilitation, psychosocial support and a safe environment for children, older people and persons with disabilities.

In de-occupied and frontline hromadas, environmental risks often combine with damaged or inaccessible medical infrastructure, shortages of medical staff, mined territories, water and soil pollution, debris from destruction, power outages, transport isolation and psychological exhaustion of the population. In receiving hromadas, by contrast, the burden on hospitals, outpatient clinics, social services, schools, kindergartens, transport, housing, water supply and municipal services increases.

Climate change and environmental degradation may also increase public-health risks through heat, water scarcity, deteriorating food quality, air pollution, mold in damaged housing, the spread of waterborne, foodborne and vector-borne infections, and the exacerbation of chronic diseases. In hromadas where the health-care system has been weakened by the war or overloaded by population displacement, these risks become especially dangerous.

Some groups of the population have increased vulnerability to such risks because of poverty, lack of safe housing, limited access to documents, transport, medical care, information and social services. These may include older people, women with children, pregnant women, persons with disabilities, people with chronic or socially dangerous diseases, homeless people, people in informal settlements, Roma communities, people released from places of detention, internally displaced persons and people who do not have stable support from family or the hromada.

People living in informal, temporary or segregated settlements, including some Roma communities, require separate attention in environmental, climate and recovery policy. The point is not that such communities are a source of environmental problems, but that they often have limited access to basic infrastructure and services that are critical during environmental, climate and wartime crises: safe water, sanitation, household waste removal, electricity, transport, medical care, documents, formal housing and recovery programs.²⁷² *The Strategy to Promote the Realization of the Rights and Opportunities of Persons Belonging to the Roma National Minority in Ukrainian Society for the Period until*

²⁷² UN Ukraine / OHCHR. *Briefing Note: The impact of the COVID-19 pandemic on the human rights of Roma in Ukraine*. 3 June 2020. <https://ukraine.un.org/sites/default/files/2021-06/BN%20C19%20Roma%20ENG.pdf>; UNICEF Ukraine. *How UNICEF is helping to prevent COVID-19 in Roma communities*. 13 January 2021. <https://www.unicef.org/ukraine/en/stories/how-unicef-helping-prevent-covid-19-roma-communities>

2030 (Стратегія сприяння реалізації прав і можливостей осіб, які належать до ромської національної меншини, в українському суспільстві на період до 2030 року) directly recognizes that segregated and temporary Roma settlements are often characterized by unsatisfactory housing and living conditions and isolation from infrastructure and municipal services, including water supply and household waste removal, which creates unsatisfactory sanitary conditions and harms life, health and the environment.²⁷³

Under wartime conditions, these risks intensify. People living in informal or undocumented housing may have fewer opportunities to receive assistance for the recovery of damaged or destroyed housing, prove their place of residence, obtain evacuation or humanitarian assistance, or move to a safer place.²⁷⁴ For Roma women, children, older people and persons with disabilities, this may mean increased dependence on informal support networks and greater difficulties in accessing water, hygiene, health care, education, social services and protection from violence.²⁷⁵ Therefore, such settlements should be visible in local recovery plans, WASH measures, housing programs, evacuation, social protection and climate adaptation, without stigmatizing Roma communities and without shifting responsibility for infrastructure neglect onto them.

For such groups, environmental and climate risks often combine with barriers to accessing assistance. A person may formally have the right to medical, social or humanitarian support, but in practice may lack documents, transport, information, a safe route, communication, money or trust in services. In frontline, de-occupied and receiving hromadas, this may mean that the most vulnerable people remain the least visible to the response system.

For women, these risks often have an additional care dimension. If a child, an older relative, a person with a disability or a chronic disease lacks access to a doctor, medicines, transport, clean water or safe housing, women often organize care, treatment, the search for assistance, communication with services and household adaptation. This increases unpaid work and limits opportunities for paid employment, participation in public life, rest and recovery.

All these types of hromadas require environmental analysis in recovery plans. If recovery plans are built only around repairing buildings and roads, but do not take into account water, land, waste, mine contamination, pollution, access to medical and social services, and the needs of women with children, older women, persons with disabilities and internally displaced persons, they will not be able to ensure real return or integration of people.

Policy on support for internally displaced persons, housing policy, social protection, public health, humanitarian response, hromada recovery and climate adaptation must be considered together. If environmental risks are not taken into account in recovery plans, hromadas may be rebuilt without taking account of the reasons why people cannot or do not want to return. If receiving hromadas do not receive support to adapt housing, water supply, transport, education, health care and social

²⁷³ Order of the Cabinet of Ministers of Ukraine No. 866-r of 28 July 2021 *On Approval of the Strategy to Promote the Realization of the Rights and Opportunities of Persons Belonging to the Roma National Minority in Ukrainian Society for the Period until 2030* (Розпорядження Кабінету Міністрів України від 28 липня 2021 року № 866-р «Про схвалення Стратегії сприяння реалізації прав і можливостей осіб, які належать до ромської національної меншини, в українському суспільстві на період до 2030 року»). <https://zakon.rada.gov.ua/go/866-2021-%D1%80>

²⁷⁴ OHCHR. *Report on the human rights situation in Ukraine, 1 June - 30 November 2025*. 9 December 2025. <https://ukraine.ohchr.org/en/Report-on-the-Human-Rights-Situation-in-Ukraine-1-June-30-November-2025>; Committee on the Elimination of Racial Discrimination. *Concluding observations on the combined twenty-fourth to twenty-sixth periodic reports of Ukraine (CERD/C/UKR/CO/24-26)*. 9 May 2025.

https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/DownloadDraft.aspx?key=IBJLKF7UsBwL%2Fs2htdmvTAoJWK8nM55nbg8u3R2MYWYPgMaoQvx9cyUnHRdAl6YF

²⁷⁵ OSCE Office for Democratic Institutions and Human Rights (ODIHR). *Report on the Human Rights Situation of Internally Displaced Roma People in Ukraine*. 26 July 2024. <https://odihhr.osce.org/sites/default/files/f/documents/3/6/573736.pdf>

services to population changes, this may worsen the accessibility and quality of services both for the local population and for internally displaced persons, and may create tension between these groups.

Effective policy requires data on who leaves, who stays, who returns, who has no possibility to leave, which environmental factors influence people's decisions, which groups need support, and which hromada resources have been destroyed or are inaccessible. Such data should be collected with disaggregation by sex, age, disability, internally displaced person status, household type, presence of children, place of residence, and access to water, land, housing, transport and services.

It is especially important to consult women who remain in frontline hromadas, return to de-occupied territories or live as internally displaced persons in receiving hromadas. They can describe most precisely what is actually needed for life: water, electricity, transport, shelters, medical care, social services, kindergartens, schools, safe routes, care support, access to land, restoration of household farms, work, compensation, information and protection from violence.

Thus, population mobility in Ukraine is shaped at the intersection of war, infrastructure destruction, water scarcity, loss of income, contamination of territories, mine contamination, declining soil fertility and deteriorating access to services. Some people leave because life in the hromada becomes unsafe or economically impossible. Others remain or return because they have housing, land, a household farm, relatives, care responsibilities or no resources to relocate. This is why recovery policy must take into account not only physical infrastructure, but also the conditions that make life in a hromada possible: water, health, safety, social services, accessible transport, care support, protection of rights and the participation of women themselves and other population groups in decision-making.

4.14. Environmental Crises and Risks of Male Violence against Women

Discussions of the negative consequences of climate change usually focus on heat, flooding, fires, storms, droughts, water scarcity, environmental pollution, and losses for the economy and agriculture. At the same time, the impact on the population, especially on groups most vulnerable to negative climate changes, is often mentioned last. Even less attention is paid to which groups of women and men, of which age, social status and place of residence, suffer most from drought, lack of water, loss of income, destruction of housing or forced displacement. This is a very important and complex issue because the impact of climate change goes far beyond environmental consequences alone: it affects social relations, the economy and people's security, especially the security of women and children. They become more vulnerable during climate change and reduced access to resources. Natural disasters are not always perceived as factors that intensify violence, but they may be a powerful factor in aggravating already existing cruelty.

Climate-related and crisis-related displacement has a gender dimension, but women and girls are not a homogeneous group; risks depend on income, access to resources, documents, transport, housing, safety, care responsibilities and the functioning of support services.

Environmental and climate crises are not the cause of male violence against women. Responsibility for violence always lies with the perpetrator, and it is rooted in unequal power relations, control and the ability to use violence. At the same time, crises can act as factors that intensify existing risks: they destroy income and housing, cause displacement, break social ties, restrict the functioning of services and limit access to safe housing, transport, communication, and medical, social and legal assistance.

Climate, environmental, wartime and economic crises may create conditions in which women and girls face increased risks of exploitation and trafficking in human beings. When a family loses income, housing, land, water, work, social ties or access to assistance, and women do not have their own resources for a safe exit from the situation, dependence on people who control resources or exploit the vulnerability of others increases.²⁷⁶

The international evidence base shows a connection between disasters and increased risks of violence against women and girls, but this connection cannot be reduced to a single universal percentage. A global mixed-methods systematic review published in *BMJ Global Health*²⁷⁷ found that, in many of the contexts studied, the risks of violence against women and girls increased after disasters. At the same time, the authors emphasize the heterogeneity of the evidence, underreporting of violence and the strong dependence of consequences on the social and institutional context.

Some studies also identify a link between high temperature and intimate partner violence in specific countries. For example, a study of almost 195,000 women in India, Nepal and Pakistan found an association between a 1°C increase in annual average temperature and an increase of approximately 4.5 per cent in the prevalence of intimate partner violence.²⁷⁸

For Ukraine, there is currently a lack of research that would quantitatively assess the specific impact of climate or environmental crises on male violence against women. Therefore, in the Ukrainian context, it is more appropriate to speak about risk mechanisms that may emerge at the intersection of war, environmental danger, population displacement, poverty, destruction of infrastructure and restrictions on the work of support services. Research shows that climate change can indeed contribute to an increase in violence against women for several reasons:

*The first mechanism is **loss of economic independence**.* Droughts, fires, flooding, pollution of water and land, loss of crops, livestock, housing or work may reduce household income. For a woman who does not have her own income, housing or access to money, this may increase dependence on the perpetrator and make a safe exit from violence more difficult. In rural hromadas, this risk may combine with an additional care burden, responsibility for children, older relatives, persons with disabilities and the household farm. In many hromadas, women are responsible for collecting water and firewood and for caring for children and sick relatives. If climate change makes these tasks more difficult, the burden on women increases, and with it the risk of violence if family or community expectations are not met. In poverty and instability, levels of domestic violence often rise: men under stress from losing work or resources may be more likely to display aggression, use coercion and blackmail. When resources such as water, food and land become scarce, competition for survival intensifies. Under such conditions, inequality deepens and women become more vulnerable to violence. Stereotypes that the man is the head of the family and must survive still exist. Men may use their physical power and may also use women and girls as resources for survival, especially through child marriage or forced involvement in prostitution.

*The second mechanism is **control over scarce resources**.* When access to water, housing, transport, land, money, humanitarian assistance or documents depends on another person, this control may be used for coercion, isolation or blackmail. Therefore, the distribution of humanitarian assistance, water,

²⁷⁶ UNFPA ESARO. *Intimate Partner Violence and Climate Change*. https://esaro.unfpa.org/sites/default/files/pub-pdf/2024-09/2024_IPV%20and%20Climate%20Report_FINAL.pdf

²⁷⁷ BMJ Global Health. *Violence against women and girls in the context of disasters: a mixed-methods systematic review*. <https://gh.bmj.com/content/6/4/e004377>

²⁷⁸ Study on ambient temperature and intimate partner violence in South Asia. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10308303/>

housing and other resources should include transparent procedures, confidential complaint mechanisms and access to support services.

The third mechanism is **forced displacement and loss of support networks**. Evacuation and relocation may leave women without familiar social ties, their own income, safe housing or knowledge of the local assistance system. In camps for displaced persons, women and girls may face greater risks of sexual violence, forced marriage and trafficking in human beings, as they may be more easily blackmailed and intimidated with threats of killing or violence against children and relatives. Temporary accommodation sites and collective centers should be planned with regard to privacy, safety, lighting, access to sanitation facilities, transport and confidential assistance.

The fourth mechanism is **disruption of communication, transport and the functioning of services**. Blackouts, damaged roads, mobile communication interruptions, danger during movement and the overburdening of police, social services, health-care facilities and civil society organizations may make it more difficult to seek help, evacuate from a dangerous situation, document the consequences of violence and receive medical, legal and psychological support.

The fifth mechanism is **risks of exploitation and trafficking in human beings in conditions of loss of housing, income, documents and social ties**. International studies and programs of the United Nations Population Fund²⁷⁹ describe how climate and humanitarian crises may increase the risks of violence, sexual exploitation, trafficking in human beings and other forms of gender-based violence. In crisis conditions, the risks of coercion, exploitation, involvement in prostitution, begging or other forms of trafficking in human beings increase. In some cases, women are forced into begging and sexual slavery for the survival of the family, especially when women and girls do not have safe housing, income, documents, support or access to assistance services.

Climate change causes the spread of disease and a shortage of medical resources. This complicates women's access to assistance after violence and therefore makes them less protected from infections, disease and treatment needs in cases of rape and violence.

It is important to emphasize that **climate and environmental factors are not in themselves the cause of male violence. Violence is caused by the perpetrator's choice and unequal power relations**. However, environmental crises may create conditions in which it is harder for women to protect themselves, receive support or leave a dangerous situation. If resources for survival are controlled by the perpetrator or by another person who has power in the family or hromada, environmental and economic vulnerability may become a tool of control.

"A woman with three children came to our village. There is no gas or water in her village, and she agreed to live with an alcohol-dependent man from our village for the sake of water, gas and a house with living conditions. He commits violence, but she is forced to endure it for the sake of resources."

Training participant

Access to water, heat, housing, gas, electricity, transport and safe household conditions may directly affect a woman's ability to leave a dangerous relationship. If a woman has no alternative housing, income, support from family or the hromada, transport, access to services or ability to provide children with basic resources, the formal possibility of seeking help does not always mean a real exit from violence.

²⁷⁹ UNFPA. *Intimate Partner Violence and Climate Change*. https://esaro.unfpa.org/sites/default/files/pub-pdf/2024-09/2024_IPV%20and%20Climate%20Report_FINAL.pdf

What International Research Shows

International studies and observations show that climate change and disasters may increase the risks of male violence against women through several interconnected mechanisms: economic vulnerability, growing social tension, forced displacement, family dependence on limited resources, loss of housing or income, breakdown of social ties, and limited access to medical care, legal support and safe housing.

A CARE article²⁸⁰ on the links between climate change and violence draws attention to the fact that the climate crisis may deepen poverty, dependence on resources, stress, displacement and social isolation. All this may increase the risks of violence against women and girls, especially where unequal power relations already exist and women have limited access to their own income, land, housing, transport, legal assistance or support services.

A UNDP article²⁸¹ notes that women and children are much more likely than men to die as a result of climate disasters. This indicator is not direct evidence of an increase in violence, but it demonstrates the disproportionate vulnerability of women and children during disasters and the need to take their needs into account in systems of early warning, evacuation, humanitarian response, recovery and protection. Climate disasters, including floods, droughts and wildfires, destroy sources of income, especially in agrarian hromadas where household well-being depends on land, water, livestock, harvests and local natural resources.

Some studies also draw attention to risks related to access to water. If women have to walk or travel long distances to collect water, especially along unsafe, poorly lit or deserted routes, this may increase risks of harassment, assault or other forms of violence by third parties.²⁸² For Ukraine, this problem may be relevant in villages, frontline, de-occupied and infrastructure-damaged hromadas where water pipelines are damaged, wells have dried up or are contaminated, and water delivery depends on volunteers, humanitarian assistance or local authorities.

Because of the climate crisis, people are forced to leave their homes and seek better lives elsewhere. According to some estimates, **four out of five displaced persons, often referred to as climate refugees, are women and girls.**²⁸³ In general, under conditions of weather-related instability, domestic violence increases significantly:²⁸⁴ gender stereotypes and inequality deepen, and women become more vulnerable to male violence. **Research on the consequences of storms, floods and landslides indicates a connection between such events and higher risks of violence against women in the subsequent period.**²⁸⁵ Even warming trends have consequences: studies have shown that **a 1°C increase in average temperature is accompanied by an increase in family violence cases of approximately 4-5 per cent,**²⁸⁶ and that during periods of abnormal heat, **femicide, meaning the killing of a woman by a partner, increases by about 28 per cent.**²⁸⁷

²⁸⁰ CARE. *Six ways climate change fuels gender-based violence and what you can do to fight it.* <https://www.care.org/news-and-stories/six-ways-climate-change-and-what-you-can-do-to-fight-it/>

²⁸¹ UNDP. *Women are hit hardest by disasters, so why are responses too often gender-blind?* <https://www.undp.org/blog/women-are-hit-hardest-disasters-so-why-are-responses-too-often-gender-blind>

²⁸² Wilson Center. *Climate Change & GBV in East Africa.* <https://www.wilsoncenter.org/blog-post/climate-change-gbv-east-africa>

²⁸³ Wilson Center. *Climate Change & GBV in East Africa.* <https://www.wilsoncenter.org/blog-post/climate-change-gbv-east-africa>

²⁸⁴ <https://sph.unc.edu/sph-news/storms-floods-landslides-associated-with-intimate-partner-violence-against-women-two-years-later/>

²⁸⁵ UNC Gillings School of Global Public Health. *Storms, floods, landslides associated with intimate partner violence against women two years later.* <https://sph.unc.edu/sph-news/storms-floods-landslides-associated-with-intimate-partner-violence-against-women-two-years-later/>

²⁸⁶ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10308303/>

²⁸⁷ Spotlight Initiative. *Colliding Crises: How the climate crisis fuels gender-based violence.*

https://spotlightinitiative.org/sites/default/files/publication/2025-04/Colliding%20Crises%20How%20the%20climate%20crisis%20fuels%20gender-based%20violence_0.pdf

Risks of Exploitation

Climate, environmental, wartime and economic crises may create conditions in which women and girls face increased risks of exploitation. When a family loses income, housing, land, water, work, social ties or access to assistance, and women do not have their own resources for a safe exit from the situation,²⁸⁸ men may more often display aggression and use force, coercion and blackmail, including to use women and girls as a resource for survival: forcing them into begging, prostitution or surrogacy. Women without protection from their hromada may become victims of trafficking in human beings.²⁸⁹ **Child marriage may also be used for family survival.**²⁹⁰ Such practices violate girls' rights and should be considered part of the broader risk of exploitation in crisis conditions.

In this context, it is important to see the common mechanism behind these forms of violence: loss of resources, housing, income, connections and access to assistance may increase the dependence of women and girls on people who control resources or exploit their vulnerability. This is why response policy for environmental and climate crises should include not only infrastructure measures, but also protection from violence, exploitation and trafficking in human beings.

Economic instability increases the risk that men will use various psychoactive substances, including alcohol and drugs, which also increases violence against women, both domestic violence and gender-based violence more broadly. At the same time, it is important not to explain violence solely by stress, poverty or alcohol use: these factors may increase risks, but responsibility for violence always lies with the perpetrator.

The climate crisis also affects the health of women and girls and access to health services. UNFPA²⁹¹ warns that the global climate crisis creates serious risks for women and girls, including through worsening access to services, reproductive health, safe living conditions and support during crises. In the context of violence, this is important because worsening access to medical care, transport, medicines, psychological support and confidential assistance may reduce women's ability to receive protection, treatment, documentation of the consequences of violence and further support.

The available source base does not provide grounds for quantitatively assessing the impact of climate or environmental crises on the risks of male violence against women specifically in Ukraine. Therefore, in the Ukrainian context, it is more appropriate to speak not about a proven direct causal link, but about risk mechanisms that may emerge at the intersection of war, environmental danger, displacement, poverty, destruction of infrastructure and restrictions on the work of support services.

Ukrainian Context

For Ukraine, these risks are especially important because environmental and climate challenges are combined with the consequences of the war. Hostilities, destruction of housing, blackouts, water shortages, damaged infrastructure, evacuation, forced displacement, loss of income, psychological strain, mine contamination, pollution of territories and overburdened services may complicate women's access to protection and support.

The loss of vital resources - water, food, land, crops, livestock and housing - means financial losses and a decline in living standards. For rural women, this may mean not only economic losses but also greater

²⁸⁸ <https://earth.org/gender-based-violence-on-the-rise-as-climate-crisis-intensifies/>

²⁸⁹ Ibid.

²⁹⁰ <https://earth.org/gender-based-violence-on-the-rise-as-climate-crisis-intensifies/>

²⁹¹ UNFPA. *Global climate crisis putting women and girls in extreme danger*. <https://www.unfpa.org/press/global-climate-crisis-putting-women-and-girls-extreme-danger-unfpa-warns-new-data>

dependence on people who control housing, resources, transport, money or access to assistance. Because of social pressure, women more often resort to self-sacrifice for the family and may give up food, water, rest, treatment or their own needs in favor of children, older relatives or other family members. In situations of resource scarcity, this negatively affects their physical and mental health and may also reduce their ability to seek help or make decisions about their own safety.

Forced displacement may also increase risks of violence, exploitation and trafficking in human beings. In search of housing, work, transport, humanitarian assistance or temporary shelter, women may find themselves in unfamiliar environments, without familiar social ties, without their own income and without access to safe and confidential assistance. This is especially dangerous for women with children, women with disabilities, older women, internally displaced women, women in frontline and de-occupied hromadas and women who do not have support from family or the hromada.

Combined with the consequences of the war, environmental and climate crises may increase the risks of male violence against women through several mechanisms.

First, they may destroy sources of income. Droughts, fires, flooding, pollution of water or land, declining yields, and the death of livestock or poultry may deprive a family of means of subsistence. This may increase women's economic dependence, limit their ability to leave the perpetrator and intensify tension in the household.

Second, environmental crises may increase dependence on people who control resources. If access to water, housing, land, transport, work, humanitarian assistance or money depends on a perpetrator, relative, employer, official or another person, a woman may have fewer opportunities to leave violence safely.

Third, shortages of water, food, medicines, transport or safe housing may make women more isolated. Under such conditions, it is more difficult to seek help, leave a dangerous situation, move children, obtain documents, find shelter, reach the police, a social service, a doctor, an assistance center or a civil society organization.

Fourth, blackouts, communication interruptions, transport inaccessibility and lack of private space may reduce real access to assistance. A woman may not be able to safely make a phone call, write a message, get to a service, arrange a meeting or explain the situation without the perpetrator being present.

Fifth, the war and environmental crises overburden the services that are supposed to respond to violence. Police, social services, health-care facilities, mobile teams, humanitarian programs and civil society organizations may simultaneously be dealing with evacuation, destruction, humanitarian assistance, blackouts, population displacement, lack of transport and security risks. Under such conditions, cases of violence may become less visible, and access to assistance less stable.

Groups of Women Who May Have Increased Vulnerability

Women may have increased vulnerability when several barriers combine at the same time: women with children, older women, women with disabilities, internally displaced women, rural women, women in frontline and de-occupied hromadas, women with a high care burden, as well as women without their own income, safe housing, transport, documents or support from family and the hromada. It is important not to view these groups as passive or "naturally vulnerable": risk emerges because of specific barriers to resources, safety and assistance.

For these groups, environmental crises may mean not only deterioration of the environment, but also deterioration of access to safety. Loss of water, housing, income, transport or medical care may increase dependence on a perpetrator, relatives, employers, landlords, local officials, humanitarian intermediaries or other people who control resources. If assistance is inaccessible, unsafe, non-confidential or too far away, women may remain in situations of violence longer than they would under other conditions.

“When a woman has nowhere to go, and there is water, gas and a roof over her head in the house, she endures more than she might endure in another situation. Because she has to think about the children, about elderly parents, about where to get food tomorrow and where to sleep.”

Training participant

This case illustrates one of the key risk mechanisms: violence becomes harder to overcome when leaving it means simultaneously losing water, housing, heat, food, children’s safety, care for older relatives, access to transport and social support.

Legal and Policy Dimension

For policy, this means the need to connect the system for preventing and combating violence against women and domestic violence with climate adaptation plans, emergency response, humanitarian assistance, support for internally displaced persons and hromada recovery. When planning responses to heat, flooding, blackouts, evacuation, water shortages or infrastructure destruction, it is necessary to take into account safe transport, confidential communication, access to crisis accommodation, medical, social, legal and psychological assistance, and the ability of services to continue operating during a crisis.

The link between environmental crises and risks of male violence against women should be reflected in the broader legal and policy framework. Combating violence against women cannot be separated from humanitarian response, climate adaptation, support for internally displaced persons, social protection, public health, recovery and community security.

International standards in the field of women’s rights and combating violence require states to prevent violence, protect women and children, and ensure access to support, justice, medical, social and psychological assistance. Documents in the fields of disaster risk reduction, climate adaptation, humanitarian response and recovery also proceed from the understanding that crises affect different groups of the population differently and that women’s needs should be taken into account in planning, response, budgeting and monitoring.

Thus, environmental crises and climate change do not “create” male violence against women, but they may worsen safety conditions, increase economic and resource dependence, destroy support networks and make assistance less accessible. For Ukraine, this is an important area for further research: it is necessary to separately study how the environmental consequences of the war, water scarcity, blackouts, displacement, and destruction of housing and infrastructure affect women’s access to safety and support.

For Ukraine, this means that climate adaptation, environmental security, support for internally displaced persons, humanitarian response, recovery plans, local security and the system for preventing and combating violence against women and domestic violence must be interconnected. When planning responses to blackouts, heat, flooding, evacuation, infrastructure destruction, water shortages, transport disruptions or humanitarian crises, it is necessary to take into account the safety of women

and children, risks of isolation, access to communication, transport, confidential assistance, legal support, temporary housing and protection mechanisms. The response to environmental and climate crises should include not only infrastructure solutions, but also social support, access to housing, water, income, transport, medical care, justice and support services.

Environmental crises and climate change do not “create” male violence against women, but they may intensify conditions in which it becomes more frequent, less visible and harder to overcome. This is why environmental, climate, social, humanitarian and security policies must take into account the risks of gender-based violence, while policy on combating violence must take into account environmental and climate risks. If these areas are considered separately, some women living in situations of double or triple vulnerability may remain invisible to the support system.

4.15. Conclusion

The problems reviewed show that environmental risks in wartime combine environmental, social, security and gender dimensions. They affect water, health, income, mobility, care work, access to services and people’s ability to remain in their homelands. Therefore, the further analysis focuses on policy gaps that prevent these differentiated impacts from being seen and translated into practical solutions.

5. Main Gaps

The previous sections of the Review show that Ukraine has international obligations, national legislation, individual government documents, methodological recommendations, donor-funded projects and civil society initiatives that make it possible to integrate the approach of equal rights and opportunities for women and men into environmental security, climate change and green recovery. At the same time, a significant gap remains between the existing regulatory framework and actual practice.

The problem is not only the lack of individual measures or trainings. The main gap is the absence of a systemic approach that would link environmental, climate, energy, social, security and recovery policies with an analysis of their different impacts on women and men, girls and boys, people of different ages, places of residence, health status, income levels and access to resources.

5.1. Lack of Data Disaggregated by Sex and Other Characteristics

One of the key gaps is the lack of data that would make it possible to assess how environmental and climate risks affect different population groups. Ukraine has a large body of environmental, climate, energy, water, health, social and security data, but these data often do not answer the questions of who exactly is most affected by a specific risk, which groups have fewer resources for adaptation and who needs priority support.

In many areas, data disaggregated by sex, age, place of residence, disability, internally displaced person status, household type, income, the presence of children or care responsibilities are lacking. This concerns access to water, the consequences of heat, the impact of air pollution, losses caused by flooding, the consequences of infrastructure destruction, access to energy, the impact of blackouts, waste management, environmental migration, health and participation in decision-making. Without such data, policy may see the problem of water, heat, waste or pollution, but fail to see how exactly these problems affect different groups of women and men and who needs priority support.

This gap is particularly visible in the agricultural sector. There is a lack of systematic data disaggregated by sex and other relevant characteristics on the ownership and management of agricultural holdings, access to state support, land, financing, technologies and training, participation in development programs, income and participation in decision-making. Without such data, it is difficult to assess who actually gains access to resources and support and which groups remain excluded.

A separate research gap is the lack of Ukrainian data on the combined impact of the war and climate and environmental risks on pregnancy, childbirth, the postpartum period, the health of newborns and children. Existing studies already show the impact of the war on perinatal mental health and certain perinatal outcomes, but there is a lack of systematic analysis of how these factors interact with heat, air pollution, lack of safe water, fires, electricity disruptions and the destruction of health-care infrastructure.

5.2. Gender-Responsive Approach Often Remains Formal

Ukrainian legislation and strategic documents contain provisions on equal rights and opportunities for women and men, non-discrimination, participation in decision-making, gender analysis, gender expertise, gender audits and gender-responsive budgeting. However, in the environmental sector these tools are often not applied systematically.

In some documents, gender equality is mentioned as a principle, but is not translated into concrete tasks, measures, indicators, budget mechanisms, responsibilities of implementers and a monitoring system. Under such conditions, the gender-responsive approach may remain declarative and may have insufficient influence on the planning and implementation of programs in water supply, waste management, climate adaptation, energy, recovery, public health and response to the environmental consequences of the war. A formal reference to the principle of equal rights and opportunities is not sufficient without an analysis of policy impacts on different population groups, objectives, indicators, resources, defined accountability mechanisms and monitoring of results.

Agricultural policy also demonstrates this problem. The existence of separate measures to support certain groups of women and training for women in rural areas does not replace systematic gender analysis of agricultural programs, access to state support, land, financing, technologies and markets, or the assessment of policy outcomes for different groups of rural women and men.

5.3. Trainings Are Conducted, but Do Not Always Lead to Institutional Changes

Trainings, roundtables and consultations on the gender-responsive approach have already been conducted in environmental policy, energy, public administration and local self-government. However, they do not always lead to the revision of policies, changes in statistical forms, updates to local programs, sustained consultations with women's organizations, budget decisions and public reporting on results. Systemic impact requires further institutional support after trainings.

5.4. Women Are Involved in Activities, but Not Always in Decisions

Women's participation in trainings, consultations or information campaigns does not always mean influence over decisions. It is important that women and women's organizations are involved at the stages of problem identification, strategy development, budget planning, implementation, monitoring and evaluation of results, not only after a decision has already been prepared.

5.5. Environmental, Climate, Social and Security Policies Are Insufficiently Coordinated

Environmental problems in Ukraine increasingly have a complex character. Water scarcity is linked not only to climate, but also to war, infrastructure, health, care work, income and migration. Blackouts affect not only the energy sector, but also women's safety, child care, health services, education, work and everyday life. War waste is simultaneously an environmental, security, medical, municipal and social problem.

Despite this, national and local policies are often planned separately: environmental policy separately, social policy separately, health policy separately, security policy separately, recovery separately, and the Women, Peace and Security agenda separately. As a result, responses to complex risks may remain fragmented, and some needs of the population may fall outside existing mechanisms for planning, financing and service provision. This need for an intersectoral approach corresponds to the conclusions of the UN Women study *Strengthening Climate Resilience within the Women, Peace and Security Agenda: Addressing the Human Security Implications* (2025), which emphasized the need to integrate climate resilience into Women, Peace and Security frameworks and to examine the interconnections among climate change, conflict and gender inequality through a human security lens. The practical implementation of this approach requires linking climate, gender and peacebuilding policies and ensuring women's meaningful participation in relevant decisions.

Similar fragmentation is visible in rural development policy. Separate mechanisms to support rural women, entrepreneurship, training, access to services, data collection and participation in planning are distributed across agricultural, gender and regional policies. However, they lack systemic links, shared indicators, data exchange and a unified mechanism for assessing how state support and rural development affect different groups of women and men.

For hromadas, this means that a problem may be visible to people but have no responsible institution or budget. For example, a hromada may simultaneously need repairs to a water supply system, safe water delivery, support for women with children, health monitoring, an information campaign, protection from violence and financing for adaptation measures. If policies are not linked, the response will be fragmented.

5.6. Local-Level Resources, Capacity and Practical Tools Are Insufficient

Local self-government bodies and local military administrations operate under heavy pressure. They are simultaneously responding to the consequences of the war, budget constraints, population displacement, infrastructure destruction, social needs, security risks and recovery requirements. Under such conditions, environmental and climate issues may be postponed or treated as less of a priority. At the same time, it is at the local level that people face a lack of water, waste, polluted air, flooding, heat, absence of shade, unsafe routes, destroyed infrastructure, illegal dumpsites, the consequences of shelling and a lack of services in their everyday lives.

Local authorities often lack practical tools: how to conduct a gender-responsive analysis of an environmental problem; how to collect data; how to consult different groups of women and men; how to include needs in a budget; how to assess the impact of a decision; how to work with youth, women's organizations, businesses and municipal enterprises. Without methodological, financial and expert support, even interested hromadas may lack the capacity to implement systemic solutions.

5.7. Donor Projects Do Not Always Become Sustainable Policies

Many innovative practices in ecology, climate adaptation, energy, women's participation and green recovery are introduced in Ukraine with support from international organizations and donors. Such projects create opportunities to test new approaches, conduct training, research and consultations, and implement local pilot solutions.

A gap arises when, at the planning stage, it is not defined who will continue the work after external funding ends, from which resources the created infrastructure or service will be maintained, who will update the data and methodologies, and how the project results will be integrated into existing programs, budgets and procedures.

Therefore, the sustainability of donor projects requires not only the transfer of knowledge, but also the identification of an institutional owner of the result, sources of further financing, mechanisms to maintain the tools created and links between project solutions and national and local planning.

5.8. Environmental Education Remains Non-Systemic

Among the reasons that reduce the level of environmental security or hinder its improvement, participants in the activities identified:

- the absence of systematic mass education on environmental topics;
- a low level of awareness in the field of environmental security;
- a lack of waste-management culture;
- the absence of a culture of waste disposal and the emergence of illegal dumpsites;
- the low capacity of the population, especially in rural areas, to pay for waste collection services;
- the absence of adequate financing and incentives for sorting waste and refuse, especially in small towns and rural areas;
- the consequences of the war and risks during shelling;
- the absence of environmental literacy among representatives of executive authorities, local self-government bodies and local councils;
- insufficient attention from decision-makers and the absence of intersectoral interaction among authorities.

Accessible practical information on climate change, heat, fires, water quality and safe water use, air pollution, hazardous materials, radiation risks, behavior after shelling and the handling of medical and certain types of war waste is particularly important. The format and channels of communication should take into account the needs of different population groups, including older persons, the rural population, persons with disabilities, internally displaced persons and residents of frontline hromadas.

At the same time, training is needed not only for the population, but also for people who make and implement decisions: representatives of authorities and local self-government, local council members, municipal enterprises, educational, social and health-care institutions. An understanding of the problem is required. It is necessary to create a unified center specifically within a state structure, because the implementers should include the Ministry of Education and Science, the Ministry of Economy, Environment and Agriculture of Ukraine, the Ministry of Culture of Ukraine, as well as numerous civil society organizations. It would be most appropriate to subordinate such a center to the State

Environmental Service of Ukraine. Without this, environmental education for the population is not connected with the capacity of institutions to turn knowledge and public demand into decisions, infrastructure, programs and budget financing.

5.9. Insufficient Link between Environmental Security and Violence Prevention

Environmental and climate crises may intensify certain risk factors for male violence against women and worsen survivors' access to assistance. At the same time, the connection between environmental crises, emergencies, population displacement and risks of violence is not sufficiently integrated into preparedness and response planning. Mobile teams, social services, police, health-care facilities, humanitarian programs and local referral mechanisms must be prepared to work in conditions of heat, blackouts, water scarcity, displacement, infrastructure destruction, lack of transport and deteriorating access to services.

6. Recommendations for Stakeholders

The recommendations of this Review are aimed at ensuring that environmental security, climate change, green recovery and response to the consequences of the war are considered not only as technical, infrastructure-related or nature-protection issues. They should be part of policies on human rights, equal rights and opportunities for women and men, public health, social justice, homeland security and Ukraine's sustainable recovery.

Environmental and climate risks affect the entire population, but they do so differently. Therefore, decisions in the areas of water supply, energy, waste management, infrastructure recovery, spatial planning, health care, social protection, agricultural policy, demining and response to the consequences of the war should take into account the different needs of women and men, girls and boys, people of different ages, places of residence, health status, disability, internally displaced person status, income, family status and care responsibilities.

Cross-cutting priorities for all stakeholders are:

- collection and use of data disaggregated by sex and other characteristics;
- consultations with women and women's organizations before decisions are made;
- gender analysis, gender impact assessment and, where required by law, gender-legal expertise of relevant documents and decisions, including those related to environmental protection, response and adaptation to climate change and post-war recovery;
- gender-responsive budgeting;
- intersectoral coordination;
- regular monitoring of policy impacts on different population groups;
- public reporting on results.

The recommendations below are presented by main stakeholder groups.

6.1. To the Verkhovna Rada of Ukraine

The Verkhovna Rada of Ukraine should ensure the systematic consideration of the principle of equal rights and opportunities for women and men when reviewing draft laws in environmental and climate policy, energy, agriculture, water resources, recovery and territorial development. When new

programs, financing mechanisms, data systems or participation procedures are introduced, their possible impact on different groups of women and men should be assessed.

It is important to strengthen parliamentary oversight of the implementation of state strategies and plans related to environmental security, climate change, sustainable development, recovery, equal rights and opportunities for women and men and the Women, Peace and Security agenda. Within such oversight, it would be advisable to hear information from the Cabinet of Ministers of Ukraine and the responsible central executive authorities, government information and reports from relevant ministries with the participation of civil society and donor organizations, not only on activities conducted but also on results achieved, financing, implementation of indicators and policy impact on different population groups.

Parliamentary committees should hold thematic committee hearings and discussions on the impact of climate change, the environmental consequences of the war and the destruction of infrastructure on different population groups. Women's, environmental, human rights, youth and veterans' organizations, experts in public health, representatives of frontline, de-occupied and rural hromadas, internally displaced persons and organizations of persons with disabilities should be involved in such discussions.

When working on legislation in the areas of labor, employment, vocational education and occupational safety, it is necessary to take into account the needs of Ukraine's green transition and recovery. It is important to remove discriminatory barriers to women's participation in technical and green professions and to ensure proper labor and social protection for women and men workers, safe working conditions, access to professional training and opportunities for professional development.

6.2. To the Cabinet of Ministers of Ukraine

The Cabinet of Ministers of Ukraine should ensure coordination of environmental, climate, economic, social, security and recovery policies. During the development and revision of strategies, state programs and recovery plans, the different impact of decisions on women and men, girls and boys of different ages, places of residence, health status, disability status, internally displaced person status and care responsibilities should be taken into account.

It would be advisable to instruct the responsible central executive authorities to review statistical and administrative reporting systems in the areas where this is necessary for analyzing the impact of environmental and climate risks and to ensure data coordination among the relevant authorities. It is necessary to define which data disaggregated by sex, age, place of residence, disability, internally displaced person status and other relevant characteristics are needed to formulate specific policies and monitor their results.

Government reporting on climate policy and recovery should reflect not only a list of activities conducted, but also results: which population groups gained access to resources and services, who was involved in consultations, which barriers were identified and which measures are planned to remove them.

State programs, public investment projects and international assistance projects implemented in cooperation with public authorities in the areas of green recovery, energy, water supply, waste management, hromada reconstruction and response to the consequences of the war should include analysis of impact on different population groups, proper public participation and measurable result indicators.

It would be advisable to ensure the coordination of vocational training, retraining and employment programs for Ukraine's green transition and recovery, including promoting women's access to professions in energy efficiency, renewable energy, waste management, water resources, environmental monitoring, climate adaptation, agricultural innovations, nature-based solutions, spatial planning and energy-efficient construction.

When developing financial instruments to support green entrepreneurship, it is necessary to analyze the actual barriers faced by different groups of women and men entrepreneurs in accessing financing. Where confirmed gender gaps exist, targeted measures should be applied to overcome them, including information, advisory, mentoring and financial support.

A separate area should be the coordination of agricultural, regional, gender, environmental and climate policies on rural development: shared objectives, mutually aligned indicators, data exchange and assessment of the impact of state support programs on different groups of the rural population.

6.3. To the Ministry of Economy, Environment and Agriculture of Ukraine

The Ministry of Economy, Environment and Agriculture of Ukraine should develop practical tools for integrating the approach of equal rights and opportunities for women and men into environmental, climate, agricultural, water and recovery policies. This includes methodologies for gender analysis of environmental programs, indicators, data-collection templates, recommendations for hromadas, examples of consultations with women and requirements for monitoring the impact of decisions on different population groups.

The Ministry should analyze key strategies and programs in the areas of environment, climate change, water, waste, agriculture, energy and green recovery to determine whether they contain specific objectives, indicators and measures for women and men of different groups. Based on the results of such analysis, proposals should be prepared for amending documents in which the gender-responsive approach is absent or only formal.

It is also worth ensuring the systematic integration of the gender-responsive approach in the implementation, monitoring and revision of the Strategy for the Development of Agriculture and Rural Areas, including analysis of women's and men's access to land, state support, financing, technologies, training, markets and participation in decision-making.

Data disaggregated by sex and other relevant characteristics should be collected and published on owners and managers of agricultural holdings, recipients of state support, participants in development programs, and access to financing, technologies and training.

When developing programs of state support for agriculture and rural development, transparent criteria for the assessment and selection of projects should be provided so that identified gender inequalities and the needs of groups with limited access to resources and opportunities can be taken into account.

It is necessary to ensure the implementation of state policy provisions on the equal participation of women and men in decision-making in environmental policy and equal access to natural resources. This should include women's participation in working groups, advisory bodies, public consultations, the development of strategies, climate adaptation plans, water supply programs, waste management, agricultural policy and hromada recovery.

The Ministry should, in cooperation with the Ministry of Health, the Ministry of Social Policy, Family and Unity and other responsible bodies, ensure the conduct and practical use of the research envisaged in state documents on the impact of climate change on the health and lives of different groups of women

and men, girls and boys. Such research should cover urban, rural, frontline, de-occupied and receiving hromadas, as well as hromadas that already face water scarcity, droughts, flooding, industrial pollution or the consequences of infrastructure destruction.

A separate area should concern rural hromadas. Practical solutions should be developed for hromadas where wells are drying up, water quality is deteriorating, the cost of drinking water is rising and the burden is increasing on women who maintain households and care for children, older relatives and domestic animals. Such solutions should include not only infrastructure measures, but also social analysis, household support, information campaigns, local water-quality monitoring and accessible complaint mechanisms.

When developing environmental, climate, agricultural and recovery policies, the Ministry should consult women's, rural, youth, environmental and veterans' organizations, organizations of persons with disabilities and women representatives of hromadas directly affected by environmental risks.

It is important to ensure that programs supporting small and medium-sized businesses, farming, cooperatives, energy efficiency and green entrepreneurship are accessible to women, including rural women, internally displaced women, women veterans and women from frontline hromadas. This requires not only formal openness of programs, but also simple participation conditions, information support, mentoring, consultations, access to financing and consideration of care responsibilities.

6.4. To the Ministry of Social Policy, Family and Unity of Ukraine and Other Actors of the National Mechanism for Ensuring Equal Rights and Opportunities for Women and Men

The Ministry of Social Policy and the national mechanism for ensuring equal rights and opportunities for women and men should include environmental and climate security in systematic gender mainstreaming work. Particular attention should be paid to methodological support for central authorities, oblast military administrations, hromadas and sectoral institutions on assessing the gender impact of environmental and climate decisions.

In monitoring the implementation of the State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030, measures related to ecology, climate change, access to natural resources, energy, green professions and green recovery should be tracked separately. Reporting should show not only that trainings were held, but also changes in policies, programs, budgets, statistics and women's participation in decisions.

It would be advisable to support training for women's organizations on participation in environmental policy, local programs, budgets, climate plans, consultations and monitoring of decisions. Women's organizations should receive tools to influence local plans for water supply, waste management, greening, energy saving, recovery and response to the consequences of the war.

The Ministry should also ensure a link between environmental and climate risks and social protection policy. Water scarcity, heat, blackouts, infrastructure destruction, environmental migration and environmental pollution affect families with children, older persons, persons with disabilities, internally displaced persons, single mothers and women who care for relatives in different ways. These groups should be taken into account in support programs.

The topic of environmental and climate risks should be separately integrated into the policy of preventing gender-based violence. Blackouts, forced displacement, loss of income, water scarcity, housing instability, the destruction of social ties and increased stress may raise the risks of male

violence, increase survivors' dependence and isolation and make access to assistance more difficult. Support services should be prepared to work under these conditions.

6.5. To Oblast Military Administrations, Rayon State Administrations and Local Self-Government Bodies

Planning, budgeting and gender analysis

Oblast military administrations, rayon state administrations and local self-government bodies should, within their powers, include gender-responsive analysis in local strategies, recovery plans, water supply programs, waste management, greening, public transport, energy efficiency, emergency response and adaptation to heat.

When regional and local climate adaptation plans are developed, population groups with increased vulnerability to specific risks should be identified, including children, pregnant women, older persons, persons with chronic diseases and persons with disabilities. Priorities should be determined on the basis of an assessment of actual local risks: heat, water scarcity, droughts, fires, flooding, industrial pollution, infrastructure destruction, war-related pollution and pressure on services.

Consultations and participation of different population groups

At the local level, it is particularly important to conduct regular consultations with women of different ages, rural women, women with children, older women, women with disabilities, internally displaced women, women veterans, representatives of local women's organizations and women working in the social, medical, educational and municipal sectors. These consultations should take place before decisions are made, not after documents have already been prepared.

It would be advisable to involve young people in consultations on local environmental programs, recovery plans, waste management, greening, water supply, energy saving and public space. Young people should not only be participants in trainings, but also partners in the development and monitoring of decisions.

Water, waste and basic environmental services

Hromadas should assess the accessibility of drinking water in villages and small settlements: water quality, the condition of wells and boreholes, the cost of bottled water, delivery logistics, the need for filters, and risks for women-headed households, families with children, older persons and persons with disabilities. The results of such assessments should be included in local programs and budgets.

It is necessary to develop or update local waste-management programs that combine infrastructure, education and incentives. This includes containers for separate collection, accessible collection points for recyclable materials, removal of hazardous waste, prevention of waste and plant-residue burning, informing the population about risks and responsibility, providing accessible alternatives for waste management, and working with households, schools, businesses and municipal services.

It is important to ensure transparency in waste management: to inform people where waste is taken, what is actually recycled, which companies are responsible for collection, what funds are allocated for this and how the hromada can monitor implementation. Without trust in the system, people will not sort waste on a mass scale even if they have the relevant knowledge.

Spatial adaptation to heat, droughts, heavy rains and flooding

Local authorities should adapt urban, settlement and rural infrastructure to climate change. Such measures include:

- greening stops and pedestrian routes, creating shaded canopies, ensuring access to drinking water, public toilets and safe transport waiting areas, especially near hospitals, schools, markets, social institutions, administrative buildings and transport hubs;
- creating shaded and accessible routes, stops and public spaces near schools, kindergartens, hospitals and women's consultations, both in cities and in villages;
- cooling and ventilation of shelters, schools, hospitals and other places of prolonged stay;
- using nature-based solutions to adapt hromadas to heat, droughts, heavy rains and flooding: preserving and restoring trees, green corridors, protective forest belts, floodplains and wetlands; creating rain gardens, green stops, permeable surfaces and rainwater harvesting systems.

When planning such solutions, it is important to take into account the routes used by children, women with small children, pregnant women, older persons, persons with disabilities and people who depend on public transport and pedestrian infrastructure.

Safe working conditions in the context of climate and environmental risks

When organizing the work of municipal enterprises and other institutions under hromada management, measures should be provided to protect women and men workers from heat, air pollution and other dangerous weather and environmental conditions. Local self-government bodies should also disseminate information about relevant risks among local employers and take occupational safety requirements into account when procuring and contracting work in the hromada.

The needs of people who work outdoors should be taken into account: women and men working in transport, market trade, agriculture, construction, delivery, social, medical and humanitarian services. During periods of heat, air pollution, fires, flooding or emergencies, they need access to water, shade, breaks, protective equipment, transport and clear rules for safe work.

Rural territories, women's economic participation and green initiatives

When planning rural development, it is important to assess not only the state of agriculture, but also the availability of infrastructure and services on which women's economic and civic participation depends: transport, health and social services, education and vocational training, digital connectivity, child-care services and care services for other family members. Rural development programs should also support women's participation in local entrepreneurship, cooperation, green tourism, environmentally sustainable production and decision-making on the use of local resources.

Local self-government bodies should support women's cooperatives, local initiatives, green entrepreneurship, small environmental projects, recycling initiatives, energy efficiency, sustainable agriculture and care for natural resources. Such initiatives can combine environmental impact with employment, women's economic autonomy and hromada resilience.

Recovery after shelling, flooding, fires and environmental accidents

Recovery plans after shelling, flooding, fires, destruction or environmental accidents should take into account the needs of different groups of women and men, access to water, transport, shelters, health services, social protection, safe housing, information and mechanisms for protection from violence. Such plans should also include climate adaptation issues: restoring protective forest belts, green spaces

and natural barriers against dry winds, dust storms and overheating, as well as stopping illegal logging in liberated territories.

6.6. To the State Environmental Inspectorate and Other Control Bodies

The State Environmental Inspectorate and other control bodies should, within their powers, strengthen risk-based control over compliance with environmental legislation, especially in territories with high levels of industrial, agricultural or war-related pollution and in hromadas where several environmental risks are accumulating.

To assess the impact of pollution on the health and safety of different population groups, it is necessary to develop information exchange and cooperation between the State Environmental Inspectorate, public health authorities, local authorities and other institutions that have relevant data and powers.

It is important to ensure public access to clear information about the results of inspections, identified violations, response measures taken, compliance with orders and the legally available complaint mechanisms for environmental violations. Public information should be understandable not only to specialists, but also to women and men residents of hromadas.

During the training of women and men inspectors, attention should be paid to communication with hromadas, handling citizens' appeals, cooperation with local civil society organizations and proper informing of the population about environmental risks and the results of control measures.

6.7. To the Ministry of Health of Ukraine, Public Health System Institutions and Health-Care Facilities

The Ministry of Health of Ukraine and public health system institutions should strengthen monitoring and analysis of the impact of climate and environmental risks on population health. Health-care facilities should use relevant recommendations when planning assistance, informing patients and ensuring continuity of work in conditions of heat, pollution, water and electricity supply disruptions and other crises.

Accessible information materials should be developed for the population on actions to take during heat, water contamination, smoke from fires, flooding, the risk of intestinal infections, air pollution, noise exposure and radiation risks. Such materials should be understandable for older persons, persons with disabilities, families with children and women and men residents of rural and frontline hromadas.

Primary health-care workers should receive instructions on climate and environmental risks for pregnant women, children, older persons, people with cardiovascular and respiratory diseases, persons with disabilities and persons with chronic illnesses.

Health-care institutions should provide for backup power supply, a reserve of safe water and continuity plans for maternity wards, perinatal centers, children's hospitals and primary health-care facilities during blackouts, heat, water supply disruptions and other crises.

Training and professional development programs for health-care workers should include topics on the impact of climate change, environmental pollution, water-related hazards, heat, blackouts and war on the health of women, children and older persons.

Safe handling of medical waste should be a separate area, especially in conditions of war, mobile medicine, humanitarian response and increased pressure on hospitals. Improper handling of medical waste creates risks for medical staff, patients, cleaners, volunteers, hromadas and the environment.

Humanitarian response and local emergency response plans should provide for breastfeeding support, access to safe water and clear information on the safe preparation of infant formula under conditions of water and electricity disruptions.

6.8. To Services Working on the Prevention of Gender-Based Violence and Support for Survivors

Services working on the prevention of gender-based violence and support for survivors should include environmental and climate risks in vulnerability assessment and assistance planning. Mobile teams, social services, police, health-care facilities, children's services, survivor assistance centers, humanitarian programs and local referral mechanisms should be prepared to work in conditions of heat, blackouts, water scarcity, infrastructure destruction, transport inaccessibility and forced displacement.

Information materials should be prepared for women in rural, frontline, de-occupied hromadas and hromadas affected by environmental crises on access to assistance, safe movement, social support, legal aid and protection from violence.

Response plans for blackouts, heat, flooding, evacuation, infrastructure destruction and humanitarian crises should take into account the safety of women and children, risks of isolation, access to communication, transport, safe housing and confidential assistance.

6.9. To Educational Institutions, Higher Education Institutions and Youth Organizations

Educational institutions, higher education institutions and youth organizations should combine environmental education with training on participation in decision-making by involving young people in consultations on local strategies, recovery plans, waste management programs, greening, water supply, energy saving and public space. Young people should receive not only knowledge about climate change, water, waste and energy, but also practical skills in working with local programs, budgets, consultations, appeals, public speaking and civic monitoring, as well as knowledge of procedures for participation in decision-making, preparing appeals to authorities, environmental monitoring and advocacy.

Particular attention should be paid to supporting girls and young women in STEM, ecology, energy, agricultural innovations, water resource management, spatial planning, green entrepreneurship and technical professions. Girls should see themselves not only as participants in environmental actions, but also as future experts, engineers, managers, entrepreneurs and leaders of green recovery.

It would be advisable to conduct joint training for young people, educators, local authorities, local council members, parents and the older generation, and to support partnerships among schools, youth councils, women's organizations, environmental initiatives, municipal services and local authorities. This will help develop a shared understanding of environmental problems, support intergenerational dialogue and create practical partnerships around local environmental decisions.

Spaces for real youth participation should be created: youth councils, working groups, small grants, consultations on local programs, partnerships with schools, civil society organizations, municipal enterprises and local authorities; transparent information should also be provided on what happens with waste, water, green spaces, budgets and local environmental programs.

6.10. To Civil Society Organizations

Civil society organizations should move from separate training activities to longer programs of support for hromadas: problem analysis, consultations with women, preparation of local action plans, budget

advocacy, monitoring of implementation and public reporting. It is also important to create coalitions among women's, environmental, youth, veterans', human rights and local organizations to influence recovery and climate adaptation policy.

Women's, environmental, human rights, youth and local organizations should document local testimonies of women about access to water, waste, droughts, flooding, industrial pollution, the consequences of shelling, health risks, increased care work, problems with transport, safe housing and medical and social services. The collection and use of such testimonies should take place with informed consent and with the protection of personal data, confidentiality and participants' safety.

Civil society organizations should conduct civic monitoring of the implementation of environmental, climate and gender commitments at the national, oblast and local levels. It is especially important to monitor not only the existence of documents, but also whether there are budgets, implementers, deadlines, indicators and real results for hromadas.

The participation of women from hromadas in consultations, working groups, budget hearings, recovery planning and local programs on water supply, waste management, greening and safety should be supported.

Civil society organizations can also play an important role in disseminating understandable information to the population about environmental risks, people's rights, complaint mechanisms, local budgets, environmental programs and participation opportunities.

6.11. To International Organizations and Donors

International organizations and donors should support not only short-term trainings, but also long-term programs of institutional change in hromadas, oblast military administrations, central authorities, the State Environmental Inspectorate and civil society organizations. Projects on ecology, climate, energy, water, waste, recovery and response to the consequences of the war should include analysis of impact on women and men, consultations with local women's organizations, a budget for their participation and measurable indicators.

Local women's organizations should be treated as full partners in green reconstruction, not only as participants in consultations or beneficiaries of projects. This means participation in project design, budgeting, implementation, monitoring, evaluation and communication of results.

It would be advisable to finance applied research on the impact of climate change, war-related pollution and environmental risks on women and men of different ages, in particular in rural, frontline, de-occupied and receiving hromadas.

It is important to support programs that provide women with access to green professions, technical education, energy efficiency, renewable energy, waste management, environmental monitoring, green entrepreneurship and local leadership.

When designing projects, it is necessary to determine in advance which of their results should continue after funding ends, who will be their institutional owner, from which resources the created services, infrastructure, data and tools will be maintained, and how they will be integrated into state or local programs, budgets, regulations, educational programs, monitoring systems and public reporting.

7. Conclusions

The Review shows that environmental security in Ukraine in the context of war and climate change is not only a matter of nature protection, technical regulation or the fulfilment of international climate obligations. It is a matter of human rights, women's rights, health, access to water, land, energy, housing, safe infrastructure, social services and participation in decision-making.

Ukraine is experiencing a combined crisis in which the consequences of climate change are layered onto the destructive impact of Russia's war against Ukraine. Droughts, heat, water scarcity, fires, flooding, industrial pollution, waste, damage to energy and water infrastructure, mine contamination of territories and forced population displacement together create a new level of risk for hromadas.

These risks affect the entire population, but their consequences depend on age, sex, health status, place of residence, income, household composition, disability, internally displaced person status, access to transport, safe housing, water, land, energy, information and services. Therefore, environmental policy should analyze not only territories and infrastructure, but also the people who live every day with the consequences of these risks.

Women are not only a group affected by environmental crises. They already participate in responding to them: they organize mutual assistance, support hromadas, promote environmental practices, and work in green energy, demining, education, social, medical, municipal and civil society sectors. At the same time, their participation should move from participation in activities to real influence over priorities, budgets, programs, monitoring and evaluation of results.

Ukraine already has international obligations, national legislation and methodological tools that make it possible to integrate the principle of equal rights and opportunities for women and men into environmental, climate, energy, water, agricultural and recovery policies. The main problem is not the absence of a framework, but the fact that it does not always translate into data, indicators, budgeting, participation procedures, accountability of implementers and regular reporting.

Ukraine's further recovery will be more resilient if environmental security, climate adaptation, social policy, public health, violence prevention and the Women, Peace and Security agenda are treated as interconnected areas. This requires systematic data collection, the participation of women and different population groups in decision-making, gender-responsive budgeting, local tools for hromadas and a shift from separate projects to sustainable policies.

Without this, environmental policy will see temperature, water, waste, emissions, destruction and infrastructure, but will not always see the people who live every day with the consequences of these problems. Taking into account the experience of women, local hromadas and different population groups can make environmental policy more precise, fairer and more effective, and Ukraine's recovery safer, more sustainable and more humane.

Appendix 1. Comparative Analysis of the Integration of a Gender-Responsive Approach in Ukraine's Strategic Documents on Agriculture, Gender Equality and Regional Development

The table compares selected requirements and approaches of the EU Common Agricultural Policy (CAP) for 2023-2027 and other EU documents on rural development with the provisions of three interconnected areas of Ukraine's state policy: the development of agriculture and rural areas, ensuring equal rights and opportunities for women and men, and regional development. These documents have different regulatory purposes; therefore, the table does not assess them as direct equivalents. Instead, it shows where the relevant EU approaches are already reflected in Ukrainian policy, where they are reflected partially, and where they are not provided for in the analyzed documents.

The designation "not provided" in the table means that the relevant approach was not identified in the specific analyzed document. It does not mean that the relevant norms, programs or mechanisms are absent from Ukrainian legislation and state policy as a whole.

Main sources of EU law and policy:

- Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD), and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013²⁹²
- Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "A long-term Vision for the EU's Rural Areas – Towards stronger, connected, resilient and prosperous rural areas by 2040" (COM(2021) 345 final)²⁹³
- EU Rural Action Plan, Annex to COM(2021) 345 final²⁹⁴
- Commission Implementing Regulation (EU) 2022/1475 of 6 September 2022 laying down detailed rules for implementing Regulation (EU) 2021/2115 of the European Parliament and of the Council as regards the evaluation of the CAP Strategic Plans and the provision of information for monitoring and evaluation²⁹⁵
- European Commission. Women in farming in the EU²⁹⁶
- European Commission. Socially sustainable CAP²⁹⁷

Additional analytical source:

Starikova, L. Common Agricultural Policy of the EU and Ukraine's tasks in the context of European integration (policy approximation and legislative harmonization plan). German-Ukrainian Agricultural Policy Dialogue, 2023.²⁹⁸

²⁹²Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013. <https://eur-lex.europa.eu/eli/reg/2021/2115/oj/eng>

²⁹³Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A long-term Vision for the EU's Rural Areas -- Towards stronger, connected, resilient and prosperous rural areas by 2040. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0345>

²⁹⁴EU Rural Action Plan, Annex to COM(2021) 345 final. https://eur-lex.europa.eu/resource.html?format=PDF&uri=cellar%3A6c924246-da52-11eb-895a-01aa75ed71a1.0003.02%2FDOC_2

²⁹⁵Commission Implementing Regulation (EU) 2022/1475 of 6 September 2022 laying down detailed rules for implementation of Regulation (EU) 2021/2115 of the European Parliament and of the Council as regards the evaluation of the CAP Strategic Plans and the provision of information for monitoring and evaluation. https://eur-lex.europa.eu/eli/reg_impl/2022/1475/oj/eng

²⁹⁶European Commission. Women in farming in the EU. https://agriculture.ec.europa.eu/overview-vision-agriculture-food/women-farmers_en

²⁹⁷European Commission. Socially sustainable CAP. https://agriculture.ec.europa.eu/cap-my-country/sustainability/socially-sustainable-cap_en

No.	Relevant EU requirements and approaches under the CAP and rural development policy	Strategy for the Development of Agriculture and Rural Areas in Ukraine for the Period up to 2030 and the Operational Action Plan for its Implementation in 2025-2027 ²⁹⁹	State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030 and the Operational Action Plan for its Implementation in 2025-2027 ³⁰⁰	State Strategy for Regional Development for 2021-2027, Operational Objectives and Main Tasks Ensuring the Achievement of Strategic Goals ³⁰¹
1	Consideration of gender equality, including women's participation in agriculture, as one of the CAP's specific objectives; integration of a gender-responsive approach into the preparation, implementation and evaluation of CAP Strategic Plans. Source: Regulation (EU) 2021/2115 of the European Parliament and of the Council, preamble, para. 33; Article 6(1)(h); Article 106(3).	Partially provided The Strategy contains specific targeted measures aimed at supporting women in rural areas and in agricultural entrepreneurship, in particular under Task 19 "Gender Equality." At the same time, the systematic integration of a gender-responsive approach into all stages of planning, implementation, monitoring and evaluation of agricultural policy is not separately defined.	Gender aspect reflected Strategic Objective 1. The national mechanism for ensuring equal rights and opportunities for women and men functions effectively in different spheres of public life and at all levels of management decision-making for Ukraine's recovery. Operational Objective 1. The principle of ensuring equal rights and opportunities for women and men is taken into account in policy formulation and implementation in all spheres of public life and at all levels. Task 1. Bringing Ukrainian legislation into line with international obligations and EU law to ensure equal rights and opportunities for women and men. Responsible for implementation: central executive authorities, Government Commissioner for Gender Policy. Task 2. Ensuring the application of a gender-responsive approach in the budget process at the state and local levels. Responsible for implementation: chief managers of state budget funds, local state administrations and local self-government bodies (with their consent).	Partially provided The Strategy provides for applying a gender-responsive approach to strategic planning and budgeting at regional and local levels, involving local women's organizations and collecting data disaggregated by sex and other characteristics. At the same time, these provisions do not have a specific focus on agricultural policy or on the situation of women in agriculture.
2	Assessment of the situation of women in agriculture, identification of relevant problems and needs, and their consideration in CAP Strategic Plans; use of up-to-date and reliable data for needs assessment, including sex-disaggregated data where available. Source: Regulation (EU) 2021/2115 of the European Parliament and of the Council, preamble, para. 33; Article 108.	A separate systematic assessment of the situation of women in agriculture, identification of gender gaps in access to land, financing, state support, technologies and markets, and a corresponding system of agricultural data disaggregated by sex are not provided for.	Gender aspect reflected Strategic Objective 1. The national mechanism for ensuring equal rights and opportunities for women and men functions effectively in different spheres of public life and at all levels of management decision-making for Ukraine's recovery. Operational Objective 1. The principle of ensuring equal rights and opportunities for women and men is taken into account in policy formulation and implementation in all spheres of public life and at all levels. Task 3. Ensuring the collection and publication of data for monitoring progress toward gender equality. Responsible for implementation: State Statistics Service, oblast and Kyiv city state administrations (military administrations), local self-government bodies (with their consent), civil society organizations and international organizations (with their consent). Strategic Objective 4. Women and men participate equally in various spheres of economic activity, benefit from sustainable economic development and have equal access to all types of economic resources. Operational Objective 2. Conditions have been created for the development of quality, reliable, sustainable and accessible	Partially provided The Strategy provides for the development of local statistics and the use of gender-disaggregated data in regional and local planning, but it does not contain a separate assessment of the situation of women in agriculture.

298Starikova, L. Common Agricultural Policy of the EU and Ukraine's tasks in the context of European integration (policy approximation and legislative harmonization plan) (Спільна аграрна політика ЄС і завдання України в контексті євроінтеграції (план наближення політик і гармонізації законодавства)). German-Ukrainian Agricultural Policy Dialogue, 2023. https://www.apd-ukraine.de/fileadmin/user_upload/Agrarpolitische_Berichte/Starikova_Alalyse_und_Empfehlungen_CAP_UA.pdf

299Strategy for the Development of Agriculture and Rural Areas in Ukraine for the Period up to 2030 (Стратегія розвитку сільського господарства та сільських територій в Україні на період до 2030 року). <https://zakon.rada.gov.ua/laws/show/1163-2024-%D1%80#Text>

300State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030 and the Operational Action Plan for its Implementation in 2025-2027 (Державна стратегія забезпечення рівних прав та можливостей жінок і чоловіків на період до 2030 року та операційний план заходів з її реалізації у 2025–2027 роках). <https://zakon.rada.gov.ua/laws/show/439-2025-%D1%80#Text>

301State Strategy for Regional Development for 2021-2027, as amended by Resolution of the Cabinet of Ministers of Ukraine No. 940 of 13 August 2024 (Державна стратегія регіонального розвитку на 2021–2027 роки, в редакції постанови Кабінету Міністрів України від 13 серпня 2024 р. № 940). <https://zakon.rada.gov.ua/laws/show/940-2024-%D0%BF#Text>

No.	Relevant EU requirements and approaches under the CAP and rural development policy	Strategy for the Development of Agriculture and Rural Areas in Ukraine for the Period up to 2030 and the Operational Action Plan for its Implementation in 2025-2027	State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030 and the Operational Action Plan for its Implementation in 2025-2027	State Strategy for Regional Development for 2021-2027, Operational Objectives and Main Tasks Ensuring the Achievement of Strategic Goals
			infrastructure for women and men, regardless of place of residence or other characteristics. 25. Applying a gender-responsive approach and the principle of inclusiveness during the rebuilding and reconstruction of infrastructure in cities and rural areas, taking into account the European Green Deal. 2) Conducting gender audits of territorial hromadas. Responsible for implementation: oblast and Kyiv city state administrations (military administrations), local self-government bodies (with their consent), civil society organizations and international organizations (with their consent). Operational Objective 3. Conditions have been created for equal participation of women and men in decision-making in the field of environmental policy and equal access. 26. Ensuring equal participation of women and men in decision-making on the preservation of, and equal access to, natural resources, environmental security and response to climate change. (Limited to research, training and awareness-raising activities.)	
3	Promotion of gender equality and women's participation in agriculture and rural development; the possibility of including targeted measures and increased support for women farmers in national CAP Strategic Plans. Sources: Regulation (EU) 2021/2115 of the European Parliament and of the Council, Article 6(1)(h); European Commission, "Women in farming in the EU."	Gender aspect reflected Strategic Objective 7. Creating conditions for the development of rural areas. Task 19. Gender Equality. Measure 1) support for farmers, including war veterans, wives of war veterans, wives of deceased war veterans, and wives of fallen (deceased) Defenders of Ukraine, in starting a business in the agricultural sector. Responsible for implementation: Ministry of Finance, Ministry of Economy, Ministry of Veterans Affairs.	Gender aspect reflected Strategic Objective 4. Women and men participate equally in various spheres of economic activity, benefit from sustainable economic development and have equal access to all types of economic resources. Operational Objective 4.1. Conditions have been created to ensure equal economic opportunities for women and men. Task 24. Creating conditions for expanding women's participation in entrepreneurship. 2) Creating support programs to promote micro-entrepreneurship among women, including women from vulnerable groups. Responsible for implementation: Ministry of Economy, state institution "Office for Entrepreneurship and Export Development" (with its consent), civil society organizations and international organizations (with their consent). 3) Conducting trainings and supporting women entrepreneurs who provide ancillary tourist services (food and production of environmentally friendly products, souvenir production, retail trade, mini-hotels, tour guides, guides, translators and interpreters, instructors, leisure organization). Responsible for implementation: oblast and Kyiv city state administrations (military administrations), local self-government bodies (with their consent). 5) Encouraging the participation of women entrepreneurs in clean energy sector projects, agroecological food systems and family farming. Responsible for implementation: Ministry of Economy, Ministry of Energy, Ministry of Agrarian Policy, oblast and Kyiv city state administrations (military administrations), international organizations (with their consent).	Specific measures to support women's participation in agriculture and specific support instruments for women farmers are not provided for.
4	Development of knowledge, skills and digital capacity among the rural population; support for rural women in entrepreneurship, participation in decision-making and access to services that help combine professional	Gender aspect reflected Strategic Objective 7. Creating conditions for the development of rural areas.	Gender aspect partially reflected Strategic Objective 3. Women and men enjoy equal rights and opportunities for human development in the fields of education,	General measures on access to education, services and rural development are provided for, but specific measures to develop the professional, entrepreneurial and digital skills of rural women are

No.	Relevant EU requirements and approaches under the CAP and rural development policy	Strategy for the Development of Agriculture and Rural Areas in Ukraine for the Period up to 2030 and the Operational Action Plan for its Implementation in 2025-2027	State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030 and the Operational Action Plan for its Implementation in 2025-2027	State Strategy for Regional Development for 2021-2027, Operational Objectives and Main Tasks Ensuring the Achievement of Strategic Goals
	activity and care responsibilities. Sources: European Commission Communication, “A long-term Vision for the EU’s Rural Areas – Towards stronger, connected, resilient and prosperous rural areas by 2040” (COM(2021) 345 final); EU Rural Action Plan.	Task 19. Gender Equality. Measure 2) improving qualifications and retraining women in rural areas. Responsible for implementation: Ministry of Economy, National Academy of Agrarian Sciences (with its consent), Q4 2027.	health care, social protection, culture and sports. Operational Objective 3. Equal access of girls and boys, women and men to education and vocational training is ensured. Task 18. Ensuring expanded access to lifelong learning, especially for women living in rural areas, older women, and women from other categories experiencing multiple discrimination: conducting measures to ensure access to lifelong learning for women living in rural areas, older women and women experiencing multiple discrimination. Responsible for implementation: Ministry of Education and Science, oblast and Kyiv city state administrations (military administrations), local self-government bodies (with their consent), civil society organizations and international organizations (with their consent).	not defined.
5	CAP social conditionality: linking certain CAP payments to compliance with defined requirements of EU legislation on working conditions, transparent and predictable employment conditions, and occupational safety and health. Sources: Regulation (EU) 2021/2115 of the European Parliament and of the Council, Article 14 and Annex IV; European Commission, “Socially sustainable CAP.”	A direct equivalent of the CAP social conditionality mechanism is not provided for. HOWEVER Strategic Objective 3. Ensuring the resilience of the agricultural sector, supporting a fair income for producers and increasing their competitiveness. Task 6. Supporting the recovery and resilience of the agricultural sector. Measure 1) improving the procedure and mechanisms for providing state support to farms and other agricultural producers. Responsible for implementation: Ministry of Economy. Task 7. Ensuring fair income for farms and the resilience of the agricultural sector. Measure 3) ensuring support for micro-, small- and medium-sized enterprises and individual entrepreneurs. Responsible for implementation: Ministry of Economy.	A direct equivalent of the CAP social conditionality mechanism is not provided for. HOWEVER Gender aspect reflected Strategic Objective 4. Women and men participate equally in various spheres of economic activity, benefit from sustainable economic development and have equal access to all types of economic resources. Operational Objective 4.1. Conditions have been created to ensure equal economic opportunities for women and men. Task 23. Creating conditions to increase women’s economic activity, especially among women aged 25-29, and opportunities for women’s formal employment in jobs with decent working conditions, including women living in rural areas and women belonging to vulnerable groups. Responsible for implementation: Ministry of Economy, Ministry of Social Policy. Task 24. Creating conditions for expanding women’s participation in entrepreneurship. Responsible for implementation: Ministry of Economy.	A direct equivalent of the CAP social conditionality mechanism is not provided for.
6	Inclusive rural development and improved access to basic infrastructure and services; support for rural women in entrepreneurship, participation in decision-making and access to services that help combine professional activity and care responsibilities. Sources: European Commission Communication, “A long-term Vision for the EU’s Rural Areas – Towards stronger, connected, resilient and prosperous rural areas by 2040” (COM(2021) 345 final); EU Rural Action Plan.	Gender aspect not reflected Strategic Objective 7. Creating conditions for the development of rural areas. Task 17. A new approach to rural development. Measure 1) development of a policy document on creating conditions for the development of rural areas in accordance with EU principles. Responsible for implementation: Ministry of Economy. Measure 3) creating conditions for the development of rural areas in accordance with EU principles. Responsible for implementation: Ministry of Economy, oblast and Kyiv city state administrations (military administrations).	Gender aspect reflected Strategic Objective 3. Women and men enjoy equal rights and opportunities for human development in the fields of education, health care, social protection, culture and sports. Operational Objective 1. Conditions have been created to ensure social protection for women and men belonging to different population groups in order to overcome poverty. Task 12. Simplifying access for vulnerable groups of women and men to social protection, administrative, social, medical, educational, cultural, transport services, physical culture and sports, and legal aid. Measure 4) ensuring the provision of social support services during inclusive education; day care for children with disabilities; respite care for parents or persons replacing them who care for children with disabilities. Responsible for implementation: National Social Service, oblast and Kyiv city state administrations (military administrations), local self-government bodies (with their consent). Operational Objective 2. Conditions have been created to ensure	Gender aspect partially reflected Strategic Objective: “Formation of a cohesive state in the social, humanitarian, economic, climate, environmental, security and spatial dimensions.” Operational Objective 1. Ensuring integrated territorial development with consideration of the interests of future generations. Task 5. Ensuring access of rural residents to social and administrative services, including in administrative centers of territorial hromadas and rayons. Operational Objective 2. Meeting the population’s need for quality administrative and public services. Task 1. Improving the material and technical base of educational institutions and ensuring the quality of educational services, including in rural areas. Task 13. Forming a system of social service provision in accordance with the needs of the population by modernizing existing services and introducing new

No.	Relevant EU requirements and approaches under the CAP and rural development policy	Strategy for the Development of Agriculture and Rural Areas in Ukraine for the Period up to 2030 and the Operational Action Plan for its Implementation in 2025-2027299	State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030 and the Operational Action Plan for its Implementation in 2025-2027300	State Strategy for Regional Development for 2021-2027, Operational Objectives and Main Tasks Ensuring the Achievement of Strategic Goals301
			equal rights and opportunities for girls and boys, women and men in the field of physical culture and sports. Task 13. Ensuring the involvement of the population in physical culture and sports, as well as physical culture and health and sports rehabilitation activities, taking into account the needs of women and men, including persons with disabilities and people with reduced mobility. Measure 2) involving girls and boys, women and men with disabilities in regular physical culture and sports, and ensuring the organization and conduct of their physical culture and health and sports rehabilitation. Responsible for implementation: Ministry of Youth and Sports, Ministry of Veterans Affairs, Ministry of Defense, oblast and Kyiv city state administrations (military administrations), local self-government bodies (with their consent). Operational Objective 4. Equal access of different groups of women and men to health care services is ensured. Task 20. Ensuring access to high-quality medical services (including assisted reproductive technologies), in particular reproductive and mental health services and psychological assistance, for girls and boys, women and men who have traumatic war experience, are in difficult life circumstances caused, in particular, by disability, incurable diseases or diseases requiring long-term treatment, homelessness, rural residence, or belonging to national minorities (communities), including Roma. Measure 1) conducting gender analysis and developing recommendations to expand access to high-quality medical services, in particular reproductive and mental health services, taking into account the needs of women and men veterans. Responsible for implementation: Ministry of Veterans Affairs, National Academy of Medical Sciences (with its consent), civil society organizations and international organizations (with their consent). Measure 2) ensuring the provision of psychosocial assistance and psychosocial services on mental health issues. Responsible for implementation: National Health Service of Ukraine, Ministry of Veterans Affairs, oblast and Kyiv city state administrations (military administrations), local self-government bodies (with their consent). 3) Creating travel routes and ensuring accessibility of mobile medical points. Responsible for implementation: oblast and Kyiv city state administrations (military administrations), local self-government bodies.	types of social services with consideration of gender aspects, including ensuring the development of quality and accessible care services, primarily on the basis of the existing network. Gender aspect reflected Task 18. Implementing, at the regional and local levels, state policy in the field of preventing and combating trafficking in human beings, domestic violence and gender-based violence, including providing assistance to persons affected by conflict-related sexual violence and ensuring equal rights and opportunities for women and men. Task 19. Creating conditions at the regional and local levels for achieving equal rights and equal opportunities for women and men in all spheres of public life.
7	Possibility of including targeted measures and differentiated levels of support for women farmers in national CAP Strategic Plans; general criteria for the selection of operations must ensure equal treatment of applicants and direct support in accordance with the objectives of the relevant intervention. Sources: Regulation (EU) 2021/2115 of the European Parliament and of the Council, Article 79;	not provided	not provided	not provided

No.	Relevant EU requirements and approaches under the CAP and rural development policy	Strategy for the Development of Agriculture and Rural Areas in Ukraine for the Period up to 2030 and the Operational Action Plan for its Implementation in 2025-2027299	State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030 and the Operational Action Plan for its Implementation in 2025-2027300	State Strategy for Regional Development for 2021-2027, Operational Objectives and Main Tasks Ensuring the Achievement of Strategic Goals301
	European Commission, “Women in farming in the EU.”			
8	Use of sex-disaggregated data for needs assessment during the preparation of CAP Strategic Plans and collection of information on the sex of beneficiaries in the CAP monitoring and evaluation system. Sources: Regulation (EU) 2021/2115 of the European Parliament and of the Council, Article 108; Commission Implementing Regulation (EU) 2022/1475, data field Bo20 “Gender.”	A separate system for using sex-disaggregated data to assess agricultural policy needs and for systematically monitoring the sex of recipients of state agricultural support is not provided for.	Gender aspect partially reflected Operational Objective 1. The principle of ensuring equal rights and opportunities for women and men is taken into account in policy formulation and implementation in all spheres of public life and at all levels. Task 3. Ensuring the collection and publication of data for monitoring progress toward gender equality. Measure 2) developing “gender profiles” of territorial hromadas and including indicators on vulnerable groups in hromada profiles, disaggregated by sex, age, disability status and family status, in accordance with the Order of the Ministry of Social Policy of 27 December 2022 No. 359 “On approving the Methodological Recommendations on implementing a gender-responsive approach and a human rights-based approach at the level of territorial hromadas.” Responsible for implementation: oblast and Kyiv city state administrations (military administrations), local self-government bodies (with their consent), civil society organizations and international organizations (with their consent). Measure 4) conducting gender audits to identify hidden gender discrimination. Responsible for implementation: Government Commissioner for Gender Policy, central executive authorities, oblast and Kyiv city state administrations (military administrations), local self-government bodies (with their consent), civil society organizations and international organizations (with their consent). Measure 6) reviewing and making necessary amendments to statistical and administrative reporting forms to introduce indicators disaggregated by sex, age, place of residence, disability and other relevant characteristics necessary for analyzing/assessing the situation of different groups of women and men. Responsible for implementation: central executive authorities. Strategic Objective 4. Women and men participate equally in various spheres of economic activity, benefit from sustainable economic development and have equal access to all types of economic resources. Operational Objective 3. Conditions have been created for equal participation of women and men in decision-making in environmental policy and for equal access of women and men to natural resources. 26. Ensuring equal participation of women and men in decision-making on the preservation of and equal access to natural resources, environmental security and response to climate change (among the measures, only trainings and research are included). 27. Ensuring equal rights and opportunities for women and men in the use of new technologies in the energy sector. Measure 2) conducting information and awareness-raising activities to ensure gender-responsive services using new technologies in the energy sector, environmentally friendly food and separate waste collection. Responsible for implementation: Ministry of Environment, oblast and Kyiv city state administrations (military administrations), local self-	Gender aspect reflected Strategic Objective: “Building effective multi-level governance.” Operational Objective 1. Developing the institutional capacity of public authorities with consideration of EU best practices. 3. Introducing local statistics and creating tools for collecting, storing and processing local statistics data, including gender-disaggregated data. 5. Creating conditions to increase the accountability and transparency of state authorities and local self-government bodies at all levels; involving residents, including internally displaced persons, in decision-making; disseminating best practices for creating bodies of self-organization of the population; and introducing mechanisms for electronic public consultations. 8. Ensuring the application of a gender-responsive approach to strategic planning and budgeting processes at the regional and local levels, involving local women’s organizations and persons experiencing different forms of discrimination in this process. Ensuring the collection of data disaggregated by sex, age, place of residence and other necessary characteristics so that they can be taken into account when developing regional and local development programs and plans, as well as when forming budgets.

No.	Relevant EU requirements and approaches under the CAP and rural development policy	Strategy for the Development of Agriculture and Rural Areas in Ukraine for the Period up to 2030 and the Operational Action Plan for its Implementation in 2025-2027 ²⁹⁹	State Strategy for Ensuring Equal Rights and Opportunities for Women and Men until 2030 and the Operational Action Plan for its Implementation in 2025-2027 ³⁰⁰	State Strategy for Regional Development for 2021-2027, Operational Objectives and Main Tasks Ensuring the Achievement of Strategic Goals ³⁰¹
			government bodies (with their consent).	
9	Introduction of social responsibility in all areas (from support for farmers to environmental protection and rural development) for those who fail to comply with labor or social legislation, which can help protect women workers in agriculture. Sources: Regulation (EU) 2021/2115 of the European Parliament and of the Council, Article 14 and Annex IV; European Commission, “Socially sustainable CAP.”	not provided	not provided	not provided

The comparison shows that individual elements of gender-responsive development of agriculture and rural areas are already present in Ukrainian strategic documents, but they are distributed across different policy areas.

The Strategy for the Development of Agriculture and Rural Areas contains separate targeted measures for women, but it does not ensure a systematic gender analysis of agricultural policy, relevant data, or monitoring of women’s participation in support programs.

The State Strategy for Ensuring Equal Rights and Opportunities for Women and Men creates a broad framework for gender analysis, data, participation and economic opportunities, but its practical implementation in agricultural policy depends on sectoral mechanisms.

The State Strategy for Regional Development contains important tools for gender-responsive planning, local statistics, participation and service development, but it does not have a separate systematic focus on the situation of rural women.

The main gap is not the complete absence of a gender-responsive approach, but insufficient coherence between agricultural, gender equality and regional policies. To approximate EU approaches, sectoral support programs need to be linked with gender analysis, data on women and men beneficiaries of assistance, evaluation of results, meaningful participation of women in policy development and, where confirmed inequalities are identified, targeted measures to address them.

Appendix 2. Gender-Inclusive Environmental Roadmap for Territorial Hromadas of Ukraine: Matrix of Priority Areas and Possible Measures

This matrix is intended to help territorial hromadas:

- link the main local environmental problems with their differentiated impact on population groups, the challenges of war and recovery, and the directions of Ukraine’s European integration in the areas of water, air, energy efficiency and climate;
- integrate gender sensitivity into all stages of work with the environmental tax;
- make Ukraine’s recovery more resilient, transparent and oriented toward the needs of the hromada. The proposed measures are indicative: each hromada should define specific priorities based on an assessment of local environmental risks, the state of infrastructure, population data and the results of consultations.

Sources of funding for each measure should be determined separately in accordance with the law. If the use of environmental tax revenues or local environmental protection funds is envisaged, the measure must comply with current budgetary requirements and with the list of activities classified as environmental protection measures.

Main sources and reference points

- List of activities classified as environmental protection measures, Resolution of the Cabinet of Ministers of Ukraine No. 1147
- Waste Framework Directive 2008/98/EC
- Regulation (EU) 2024/1991 on nature restoration
- EU Gender Equality Strategy 2026–2030
- Water Framework Directive 2000/60/EC; Directive 2006/118/EC on the protection of groundwater
- Directive (EU) 2020/2184 on the quality of water intended for human consumption
- Directive (EU) 2024/3019 concerning urban wastewater treatment
- Directive (EU) 2024/1275 on the energy performance of buildings
- Union of Skills – an EU initiative aimed at developing, updating and recognizing the skills needed, in particular, for the green and digital transitions; it is therefore an important reference point for vocational training, reskilling and expanding women’s access to employment in the sectors of the green transition and recovery
- Regulation (EU) 2021/1119 – the European Climate Law
- EU Strategy on Adaptation to Climate Change
- Directive 2007/60/EC on the assessment and management of flood risks
- Directive (EU) 2024/2881 on ambient air quality and cleaner air for Europe

No.	Problem / need	Gender and social dimension	Area of environmental policy	EU law and policy reference points	Specific features in the context of war and recovery	Possible hromada measures	Participation mechanisms and consideration of the needs of different population groups
	Safe and accessible management of household, hazardous and selected types of war-related waste	An ineffective waste management system affects the entire population, but the consequences may differ depending on the distribution of domestic and care work, living conditions, age, health status and access to services. The Review materials show that in many households women perform a significant share of the daily work related to maintaining the home, preparing food and providing care; therefore, the quality of the local household waste management system directly affects their workload.	Waste management and the circular economy	Waste Framework Directive 2008/98/EC and the principles of the waste hierarchy, waste prevention, reuse and recycling.	Increasing volumes of waste from destruction, damaged equipment, hazardous materials and other specific waste streams; damage to local waste collection, transportation and sorting infrastructure.	Develop separate collection; create convenient collection points for selected types of waste; eliminate illegal dumpsites; conduct information campaigns; inventory problem sites; plan safe management of demolition waste in accordance with legal requirements.	Consultations with women and men residents of different parts of the hromada; participation of women's, youth and environmental organizations and homeowner associations in assessing the accessibility of waste collection locations and testing new services; public monitoring of illegal dumpsites.
	Access to safe, accessible and comfortable green and public spaces	Accessibility of green spaces is especially important for people who spend much of their time within the hromada, have care responsibilities, have limited mobility or are more sensitive to heat. Planning should take into account the needs of people of different ages, parents with children, older people, people with disabilities, women and men veterans, and internally displaced persons.	Green spaces, urban adaptation and nature-based solutions	Regulation (EU) 2024/1991 on nature restoration; the New Leipzig Charter; EU Gender Equality Strategy 2026–2030.	Mined areas and contamination with explosive ordnance, damage to parks and other green infrastructure, tree felling, and the need to restore public spaces together with housing and transport infrastructure.	Restore and create green areas; preserve mature trees; provide shade on pedestrian routes and at public transport stops; create accessible routes; use nature-based solutions to reduce overheating and manage stormwater.	Co-design of spaces with different groups of women and men users; accessibility and safety audits of routes; consultations with women's, youth and veterans' organizations, organizations of internally displaced persons and organizations of people with disabilities.
	Access to vocational training, reskilling and employment in green transition and recovery sectors	Women may face barriers in access to technical occupations, vocational training, business financing and professional networks. At the same time, recovery and the green transition create demand for women and men specialists in energy efficiency, renewable energy, water resources, waste management, environmental monitoring and other related areas.	Green skills, employment and entrepreneurship	Union of Skills; EU policies on skills for the green and digital transitions and the just transition.	Loss of jobs and businesses, population displacement, labour shortages in some recovery sectors, and the need for reskilling and rapid recognition of acquired skills.	Analyze local skills demand; provide vocational training and reskilling; develop partnerships between hromadas, vocational education institutions and employers; support entrepreneurship; provide internships and career guidance.	Involve women's organizations, employers, educational institutions and employment services in programme planning; monitor women's and men's participation and employment outcomes; use mentoring and professional networks as an additional, not the only, mechanism.
	Energy-efficient, safe housing and public infrastructure resilient to power supply disruptions	Energy poverty and inefficient housing have a stronger impact on low-income households and on people who, because of care responsibilities, age, health status or limited mobility, depend more heavily on stable indoor temperatures and uninterrupted operation of electrical equipment.	Energy efficiency of buildings and distributed energy resilience	Directive (EU) 2024/1275 on the energy performance of buildings; EU legislation on energy efficiency and renewable energy.	Destruction of housing and energy infrastructure; prolonged emergency power outages; the need for backup power for critical services.	Thermal modernization of buildings; energy-efficient recovery; local renewable energy sources where technically and economically justified; backup power for critical facilities; energy audits.	Consultations with women and men residents on modernization priorities; women's participation in advisory and working groups; ensuring women's access to vocational training, procurement and business opportunities related to energy-efficient recovery.
	Protection from heat, droughts, fires, floods, waterlogging and other climate risks	Vulnerability to climate risks depends on age, health status, income, housing conditions, mobility, care responsibilities and access to transport, water, health care and information. Local plans should identify which groups are most vulnerable to each specific risk in the particular hromada.	Climate adaptation and disaster risk reduction	Regulation (EU) 2021/1119 – the European Climate Law; EU Strategy on Adaptation to Climate Change; Directive 2007/60/EC on the assessment and management of flood risks.	Damage to infrastructure, mined areas, limited capacity of emergency services, disruptions in water and energy supply, and population displacement may intensify the consequences of natural and climate hazards.	Early warning systems; local response plans for heat, fires and flooding; shading and cooling of public spaces; ensuring access to water; nature-based solutions; modernization of drainage systems; protection of critical infrastructure.	Representation of different population groups in adaptation planning; consultations on the accessibility of warning systems, evacuation routes and assistance points; participation of women's and civil society organizations in preparing and disseminating information and assessing the accessibility of solutions.
	Stable access to safe water and sanitation	Water scarcity increases the time burden, physical workload and household expenditures. The consequences are especially significant for people with care responsibilities, families with young children, older people, people with disabilities and residents of settlements without reliable centralized water supply.	Water resources, drinking water and sanitation	Water Framework Directive 2000/60/EC; Directive 2006/118/EC on the protection of groundwater; Directive (EU) 2020/2184 on the quality of water intended for human consumption; Directive (EU) 2024/3019 concerning urban wastewater treatment.	Damage to water pipelines, pumping stations, wastewater treatment facilities and power grids; contamination of sources; unstable water supply; the need for backup and mobile solutions.	Restore and modernize water supply and wastewater systems; monitor water quality; protect sources; provide backup power for critical water infrastructure; develop local solutions for communities without centralized water supply.	Consultations with women and men service users; inclusion of women and representatives of different population groups in working and advisory groups; public monitoring of the accessibility and quality of services; accessible information on water quality and emergency regimes.
	Clean air and reduced health impacts of pollution	Health risks depend on the level and duration of exposure to pollution, age, pregnancy, health status, occupation, place of residence and the ability to avoid hazardous exposure. Particular attention should be given to children, pregnant women, older people and people with cardiovascular and respiratory diseases.	Ambient air quality	Directive (EU) 2024/2881 on ambient air quality and cleaner air for Europe.	Fires, shelling, destruction of industrial and energy facilities, movement of dust and hazardous substances, and increased local use of backup energy sources may create additional episodes of air pollution.	Local air quality monitoring; accessible public information; measures to reduce dust and local emissions; greening where it is a justified part of a comprehensive solution; response plans for episodes of hazardous pollution.	Public consultations on the location of monitoring points; accessible publication of data; participation of civil society and patient organizations in identifying information needs; citizen science as an additional monitoring tool.

Appendix 3. Main Stages in Developing and Implementing a Local Environmental Programme with an Integrated Gender-Responsive Approach

This table proposes an indicative sequence for integrating a gender-responsive approach into the development and implementation of a local environmental programme. The specific procedure should take into account the statute of the territorial hromada, the rules of procedure of the local council, the local procedure for developing and implementing targeted programmes, the budget regulations and other hromada acts.

When developing the programme, it is advisable to use the Methodological Recommendations on the Content of Developing Regional Environmental Protection Programmes, approved by Order of the Ministry of Environmental Protection and Natural Resources of Ukraine No. 486 of 11 July 2023. These recommendations may also be used when developing local environmental programmes.³⁰²

A gender-responsive approach should be integrated into problem analysis, identification of target groups, consultations, selection of measures, budgeting, the indicator system, monitoring and evaluation. The hromada should determine specific target values for indicators on the basis of baseline data and the local context, rather than applying universal percentage quotas.

Additional legal and methodological materials

- Methodological Recommendations on Conducting Gender Analysis³⁰³
- Law of Ukraine “On Strategic Environmental Assessment”³⁰⁴
- Law of Ukraine “On Local Self-Government in Ukraine”³⁰⁵

Stage	Main measures	Indicative indicators / results
1. Initiating and organizing the process	• Adopting a decision to begin developing the programme in accordance with hromada procedures. • Identifying the responsible structural unit or official who will coordinate programme development. • Establishing an intersectoral working group involving representatives of structural units responsible for the environment, housing and communal services, finance, social protection, health care, education, spatial planning, economy and recovery. • Involving civil society representatives in the working group, including environmental, women’s, youth and veterans’ organizations, organizations of internally displaced persons and organizations of persons with disabilities, in accordance with the local context. • Approving a programme preparation plan indicating the main stages, responsible persons, timeframes and ways for the public to participate.	• the responsible developer and coordinator have been identified; • a working group has been established; • the working group includes key sectors and relevant civil society groups; • the programme preparation plan has been approved and published.
2. Situation analysis and preparation of a gender-responsive environmental profile of the hromada	• Collecting and analysing available data on the state of the environment, environmental risks, damaged infrastructure, climate threats and the population’s access to basic services. • Using data disaggregated by sex, age, place of residence, disability, IDP status and other characteristics when such disaggregation is necessary for analysing a specific problem.	• an environmental profile of the hromada has been prepared and published; • the main data sources and data gaps have been identified; • maps of the main risks have been prepared;

³⁰²Methodological Recommendations on the Content of Developing Regional Environmental Protection Programmes (Методичні рекомендації щодо змісту розроблення регіональних програм з охорони довкілля), approved by Order of the Ministry of Environmental Protection and Natural Resources of Ukraine No. 486 of 11 July 2023. <https://zakon.rada.gov.ua/rada/show/v0486926-23>

³⁰³Methodological Recommendations on Conducting Gender Analysis (Методичні рекомендації щодо проведення гендерного аналізу). <https://zakon.rada.gov.ua/laws/show/z0211-20#Text>

³⁰⁴Law of Ukraine “On Strategic Environmental Assessment” (Закон України «Про стратегічну екологічну оцінку»). <https://zakon.rada.gov.ua/laws/show/2354-19#Text>

³⁰⁵Law of Ukraine “On Local Self-Government in Ukraine” (Закон України «Про місцеве самоврядування в Україні»). <https://zakon.rada.gov.ua/laws/show/280/97-%D0%B2%D1%80#Text>

Stage	Main measures	Indicative indicators / results
	• Mapping environmental risks and problem areas: sources of pollution, illegal dumpsites, flood-prone areas, water scarcity, overheating, unsafe routes, damaged infrastructure and other problems relevant to the hromada. • Analysing which population groups are most affected by specific risks, what barriers they face in accessing resources, services and information, and how the time, labour and financial costs associated with addressing the consequences of environmental problems are distributed. • Where data are lacking, conducting surveys, focus groups, interviews, route audits and other methods for collecting qualitative and quantitative information.	• for each priority problem, the population groups most affected and the main barriers to access to resources and services have been identified.
3. Identifying problems, priorities and the programme concept	• On the basis of the environmental profile, identifying the list of key problems, their causes and the population groups affected by them. • Prioritizing problems according to transparent criteria, for example: the scale of risk to the environment and health, the number of people affected, the urgency of the problem, inequality of impacts, the hromada's ability to influence the problem, and the cost and sustainability of the possible solution. • Formulating the programme's goal, main directions and expected results. • Checking the consistency of the concept with national, regional and local strategic documents and recovery plans.	• priority problems have been identified and substantiated; • prioritization criteria have been published; • a draft concept has been prepared; • a preliminary expected result has been formulated for each direction.
4. Consultations and public participation	• Conducting consultations in various formats: public discussions, thematic meetings, focus groups, surveys, consultations in starosta districts, online discussions, route and spatial audits. • Ensuring the accessibility of consultations: convenient time and place, barrier-free access, the possibility of remote participation, clear information about the project and, where necessary, measures that reduce care-related and other barriers to participation. • Targeted informing of groups that may be underrepresented in ordinary public hearings. • Registering all proposals and publishing information on whether they were taken into account, partially taken into account or rejected, with reasons provided.	• consultations have been conducted in several accessible formats; • information about participants has been published with disaggregation relevant to the analysis; • a table of received proposals and the results of their consideration has been prepared and published; • groups that were underrepresented have been analysed, and this has been taken into account in further work.
5. Preparing the draft programme and financing plan	• Defining the programme's goals, tasks and specific measures on the basis of the identified problems and the results of consultations. • For each measure, identifying the responsible implementer, implementation period, expected result, indicator, baseline value of the indicator, target value, required financing and possible sources of financing. • Conducting gender analysis of the measures: who will use the result; which groups may lack access; what barriers exist; whether the solution creates indirect negative consequences; and what additional measures are needed to ensure equal access. • Aligning the draft programme with the capacity of the local budget and other realistic sources of financing. • Defining indicators that measure not only the number of activities carried out, but also changes in the state of the environment, accessibility of services, safety, health or quality of life.	• a draft programme has been prepared with all necessary structural elements; • implementers, timeframes, financing and indicators have been defined for all measures; • gender analysis has been conducted for relevant measures; • indicators have baseline and target values.
6. Impact review, coordination and finalization	• Review of the draft programme by responsible structural units for legal compliance, financial realism, consistency with the hromada's powers and alignment with other programmes. • Assessment of the possible impact of measures on different population groups, including analysis of the risk of indirect discrimination and access barriers. • Checking whether a strategic environmental assessment is required and carrying out the relevant	• internal coordination has been completed; • the results of the impact assessment have been recorded; • the need to apply strategic environmental assessment has been determined and, where grounds exist, the legally required stages have been completed;

Stage	Main measures	Indicative indicators / results
	procedure in cases defined by law. • Finalizing the draft on the basis of consultations, impact assessment and intersectoral coordination.	• the final version of the draft programme has been prepared.
7. Submission, approval and synchronization with the budget process	• Submitting the draft programme for consideration in accordance with local procedures. • Providing local council deputies with information on the problem, consultation results, expected environmental and social results, financial needs and the monitoring system. • Approving the programme in the manner defined by legislation and local acts. • Synchronizing programme measures with the hromada's budget process. • Including the necessary expenditures in budget requests and the local budget in accordance with budget capacity and the priority of measures. • Publishing the approved programme, financing plan and indicators openly.	• the programme has been approved; • programme measures are aligned with budget planning; • financing for the relevant budget period has been identified; • the programme and information on its financing have been published.
8. Programme implementation and change management	• Coordinating implementation of measures among responsible implementers. • Regularly tracking calendar and financial implementation. • Including requirements on barrier-free access, non-discrimination, safety and accessibility in technical specifications and contracts where they are relevant to the subject of the procurement or project. • Informing the public about progress in implementing the main measures. • Recording significant deviations from the plan, reasons for delays and changes in financing. • Assessing the impact of significant programme changes on expected results and different population groups.	• share of measures implemented according to plan; • level of financial implementation of the programme; • number and reasons for postponed or unimplemented measures; • information on implementation progress has been published; • significant programme changes have been justified and documented.
9. Monitoring, evaluation, reporting and programme review	• Regular monitoring of the indicators defined in the programme, with comparison against baseline and target values. • Collecting data with disaggregation relevant to specific measures by sex, age, place of residence, disability and other characteristics, where this is necessary for assessing accessibility and results. • Analysing not only implementation of measures and use of funds, but also achievement of environmental and social results. • Public reporting on progress, problems, unimplemented measures, use of funds and achievement of indicators. • Periodic consultations with users of the services and infrastructure created. • Preparing corrective measures on the basis of monitoring and evaluation data.	• monitoring reports are prepared and published within the timeframes defined by the programme; • up-to-date data are available for all target indicators; • reports include analysis of results for the population and, where relevant, for different groups of women and men; • necessary corrective measures have been identified on the basis of monitoring; • the final report contains an assessment of achievement of goals, use of resources and recommendations for the next programme cycle.