

PRACTICAL GUIDE

TO SAFETY AUDITS FOR TERRITORIES, SHELTERS,
TRANSPORT AND RESPONSE TO SAFETY CHALLENGES
IN ACCORDANCE WITH THE NEEDS CLAIMED BY
VARIOUS GROUPS OF WOMEN AND MEN



The Practical Guide to Safety Audits for Territories, Shelters, Transport and Response to Safety Challenges in Accordance with the Needs Claimed by Various Groups of Women and Men (hereinafter also referred to as “the Guide”) has been designed by the Working Group established by the Apparatus of the Government Commissioner for Gender Equality Policy, with direct support provided by the Apparatus of the Government Commissioner for Gender Equality Policy and Ministry of Social Policy of Ukraine in close cooperation and interaction with ICF “Ukrainian Foundation for Public Health” under the “Women. Peace. Security: Acting Together” Project.

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TABLE OF CONTENTS

TERMS AND DEFINITIONS	5
INTRODUCTION	9
CHAPTER 1. Purpose and Primary Objectives of a Safety Audit	11
1.1 Concepts, Relevance and Components of a Safe Space	11
1.2. Guide Drafting Phases.....	12
1.3. Global Expertise in Safety Audits	13
1.4. Ukrainian Expertise in Safety Audits for Territories, Shelters, Transport and Response to Safety Challenges in Accordance with the Needs Claimed by Various Groups of Women and Men.....	16
CHAPTER 2. Organization and Implementation of a Territorial Safety Audit	19
2.1. Legal Framework of a Territorial Safety Audit	19
2.2. Methodology of a Territorial Safety Audit.....	21
2.3. Organization and Implementation Procedure of a Territorial Safety Audit.....	28
CHAPTER 3. Organization and Implementation of a Shelter Safety Audit	33
3.1. Legal Framework of a Shelter Safety Audit: Global Standards and National Laws	33
3.2. Organization and Implementation of a Shelter Safety Audit.....	36
3.3. Preparing Findings and Recommendations Based on a Shelter Safety Audit Results	51
3.4. Decision-Making Based on Shelter Safety Audit Results.....	51
CHAPTER 4. Organization and Implementation of a Transport Safety Audit	52
4.1. Legal Framework for Transport Safety: Global Standards and National Laws	52
4.2. Organization and Implementation Procedure of a Transport Safety Audit.....	53
4.3. Phases of a Transport Safety Audit	70
FINDINGS	72
ANNEXES	73
Annex 1.1. Schematic Algorithm for a Safety Audit	73
Annex 1.2. Standard Instruction Issued by an Enterprise/Institution/Organization/Local Self-Governance Body of a Territorial Community to Implement a Gender-Sensitive Safety Audit for Territory, Shelter and Transport.....	74
Annex 2.1. Standard Survey Form on Territorial Safety	77
Annex 2.3. Standard Checklist on Territory Observation.....	82
Annex 2.4: Standard Structure of a Final Report on a Territorial Safety Audit.....	84
Annex 3.1. Safety Audit Form for a Shelter/Dual-Use Structure Classified as a Shelter by its Protective Properties	86

Annex 3.2. Safety Audit Form for an Anti-Radiation Shelter/Dual-Use Structure Classified as an Anti-Radiation Shelter by its Protective Properties	92
Annex 3.3. Safety Audit Form for a Basic Shelter.....	99
Annex 3.4 Final Report Form (General Information on a Conducted Shelter Safety Audit).....	105
Annex 3.5 Form on Findings and Recommendations Based on a Conducted Shelter Safety Audit (Selected in Accordance with a Type of a Safety-Audited Shelter)	106
Annex 4.1. Checklist on a Road Transport Safety Audit, Including Buses.....	120
Annex 4.2. Checklist on a Sea and River Transport Safety Audit.....	121
Annex 4.3. Checklist on a Railway Transport Safety Audit.....	122
Annex 4.4. Checklist on an Air Transport Safety Audit.....	123
Annex 4.5. Checklist on an Urban Electric Transport Safety Audit	124
Annex 4.6. Checklist on a Subway Safety Audit.....	124
Annex 4.7. Recommendations Based on Results of a Transport Safety Audit	126
Annex 5. Schematic Decision-Making Algorithm Based on Results of a Conducted Safety Audit	131
REFERENCE LIST.....	132



TERMS AND DEFINITIONS

ARS	Anti-radiation shelter
ASC	Administrative service centre
BN	State building and construction norms of Ukraine
CEB	Central executive bodies
CEN	European Committee for Standardization
CMU	Cabinet of Ministers of Ukraine
CSO	Civic society organization
DSTU	National standards of Ukraine
DUS	Dual-use structures
EDRPOU	Unified State Register of Enterprises and Organizations of Ukraine
EE	Emergency event
EU	European Union
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMO	International Maritime Organization
IRAP	International Road Assessment Programme
ISO	International Organization for Standardization
JSC	Joint-stock company
LSGB	Local self-governance bodies
MDCT	Ministry for Development of Communities and Territories of Ukraine
MDT	Multidisciplinary teams
MIA	Ministry of Internal Affairs of Ukraine
MOH	Ministry of Health of Ukraine

NTUU “KPI”	National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”
OMA	Oblast military administration
PLM	People with limited mobility
RA	Road accident
RSA	Road safety audit
RTS	Road traffic safety
RTS Standard	Road traffic safety management systems certification standard
SC	Shipping company
SC SMS	Shipping company’s safety management system
SES	State Emergency Service of Ukraine
SE “UkrNDN C”	State Enterprise “Ukrainian Scientific Research and Training Centre for Standardization, Certification and Quality Problems”
SMS	Safety management system
SRS SMS	Sea and river shipping safety management system
SRT	Sea and river transport
SS	Shipping safety
SSUFSCP	State Service of Ukraine on Food Safety and Consumer Protection
STANAG	NATO Standardization Agreement
TPIDCR N	Tax payer ID card registration number
UIC	International Union of Railways
UN	United Nations Organization
WV	Wheeled vehicle

The full-scale war waged by Russian Federation against Ukraine has completely changed the vision of security and safety in our country. Continuous missile and drone attacks, disruption of critical infrastructure, mine and environmental threats as well as escalation of the information frontline have been imaging a new reality with safe spaces in its core.

Every day accompanied with air alert sounds makes us assume that safety and security are no longer some abstract concepts – they are the matters of national survival, invincibility and resilience.

An environment as such requires a proactive safety assessment tool to detect risks, define needs and elaborate practical solutions.

This Guide has been designed as a practical tool to assess security and safety in three critical areas – territories, shelters and transportation. The quality of infrastructure, preparedness of protection structures and reliability of the transport system would impact not only comfort, but also the capacity of both women and men to respond to danger in a timely manner, keep their nerve and stay calm even when a situation looks extremely grim.

The Guide provides a unified methodology involving collection of data, assessment of facilities by structured criteria, preparation of recommendations and presentation of results for their further putting to good use. This isn't merely a set of checklists, but a way to see threats and change the reality for the better.

Its techniques are based on the valid Ukrainian laws, global approaches and provisions of the National Action Plan for implementation of the UN Security Council Resolution 1325 "Women, Peace and Security". While developing the techniques concerned, the authors accounted for the current inclusion, accessibility and gender sensitivity principles.

This Guide isn't a common technical manual, but rather a call for action. It relates to the responsibility we all carry for the present and future of the safe, strong and democratic Ukraine.

Even in dire times, Ukraine must remain a state caring for each and every person. A safe space is not a privilege, but a basic need, and our common duty is to make this need to be accounted for.



Kateryna LEVCHENKO

Government Commissioner for Gender Equality Policy

Ukraine is going through one of the most difficult periods in its history due to the full-scale war launched by the Russian Federation against our country.

Missile strikes are destroying infrastructure, power stations, and industrial facilities. The destruction of certain industrial sites creates severe environmental hazards, posing risks to the health and lives of millions of people. These challenges are not only humanitarian or ecological – they also exacerbate gender inequalities.

Ukraine has already developed a National Recovery Plan, built on five core principles: an immediate start followed by gradual progress; building fair and inclusive prosperity; integration into the European



Union; rebuilding better than before, at both national and regional levels; and mobilizing private investment.

Today, we must unite all efforts toward ensuring a gender-responsive recovery – one that addresses the specific needs of diverse groups of women and men, and guarantees their equal participation in the recovering of war-affected regions and communities.

Ensuring the safety of girls, boys, women, and men – regardless of where they live – and creating conditions for comfortable living, unobstructed access to essential services, and meaningful participation in community development, is a shared responsibility of government authorities, local self-governments, and civil society organizations.

The Practical Guide for Conducting Safety Audits of public spaces, shelters, transport, and crisis response – with attention to the needs of different groups of women and men – is a valuable tool for achieving social justice. It contributes to inclusive participation, resilience to safety threats, gender-based violence prevention, institutional strengthening, and post-war recovery.

This Guide is a call to action – a roadmap for recovering Ukraine as a free, safe, and resilient to security challenges state, where equal rights and opportunities prevail.

Iryna POSTOLOVSKA

Deputy Minister of Social Policy, Family, and Unity of Ukraine for European Integration

The toughest times give birth to new meanings. Now, when Ukraine is amidst the unprecedented challenges of war, the very concept of safety and security gets a deeper and more humanistic sense. The safety and security are not only about protection from shelling – they are also about cities, villages and communities where dignity, trust, equality and possibilities exist for each and every person regardless of his or her sex or social position.

The actual safety is when a community becomes a place where every person feels heard, accepted and secure. This is about the streets along which a person is not afraid to walk back home in the dark, about accessible shelters and transportation, about respect for human dignity as the basis for any security and safety policy.

This is where trust to decisions and institutions is born – amongst people. And this is where they ask at once whether we are really establishing a space for everyone to feel safe.

In 2021, the International Charitable Foundation “Ukrainian Foundation for Public Health” partnered with UN Women to design and adapt methodological guidelines for safety audits based on the UN Global Flagship Initiative “Safe Cities and Safe Public Spaces for Women and Girls”. Our work back then was primarily focused on communities in Luhansk, Donetsk and Zaporizhzhia Oblasts to reduce risks of sexual harassment and other forms of violence.

In 2023, with the British Government’s support and in partnership with the Apparatus of the Government Commissioner for Gender Equality Policy of Ukraine and Ukrainian Women’s Fund, we presented a Methodological Guide titled “Creating Safe Public Space: Safety Audits and Recommendations”. This practical tool had positive feedback from more than 60 communities all over Ukraine.

In 2025, we hereby present an updated and extended version of that guide, which accounts for the wartime reality and challenges we are to face during the post-war recovery. The new Guide crosses the boundaries of traditional concepts of a safe space by covering not only streets and squares, but also shelters, transport and crisis response algorithms.

We emphasize on the gender and social dimension of security and safety. What is considered convenient by some might be viewed as a barrier or a threat by others. Therefore, the inclusive and gender-sensitive approach for us is not an option but a major prerequisite.

Safety and security for us are components of human rights protection. We are proud to contribute to this Guide, and we call for communities not only to use this Guide, but make it their reliable partner in transformation initiatives. A safety audit involves taking responsibility, having a broader view, acting decisively and caring for everybody.

We’d like to thank everybody who contributed not only infrastructural changes, but also facilitation of a new culture of respect, equality, care and trust.

Let this Guide become source of inspiration as the true strength of Ukraine lies in its communities – those who act with love for humanity at their core.



Halyna SKIPALSKA

HealthRight International, Country Director in Ukraine, and ICF “Ukrainian Foundation for Public Health”, Executive Director

INTRODUCTION

The war unleashed by Russian Federation (RF) against Ukraine launched in 2014, and especially its full-scale invasion part in February 2022, has resulted in systematic mass rocket-bomb and drone strikes as well as artillery shelling. As of early March 2025, the whole Ukraine had witnessed more than 56,000 air alert cases. When life and health threats got constant, the safety and security areas have become of paramount importance for the country.

The war waged by RF, as an aggressor, expands the range of threats significantly. Mine threats, disruption of critical infrastructure and gender-based violence are magnified by environmental threats such as water and air pollution caused by destruction of industrial facilities and warfare. Explosions and fires emit dangerous substances that have their impact on public health.

Many regions have been suffering from power outages, disrupted water and heat supply, worsened access to health, educational and social services. The war has a significant impact on public mental health and boosts cybersecurity risks such as the spread of disinformation and personal data breaches.

Public territories, transport system and shelters are the three key elements of a safe environment which must meet the current challenges and ensure equal access for all citizens. Territorial safety anticipates high-quality infrastructure, proper lighting, safe pathways as well as shelters available in critical areas.

Transport safety is of decisive significance at the time of war as transport is used not only for carriage, but also for evacuation of population and delivery of humanitarian aid. Under constant attacks against the critical infrastructure, ensuring public transport functioning and safety became one of the major tasks posed for the authorities.

The war took its greatest toll on vulnerable groups of men, women and children – specifically, people with disabilities, the elderly and internally displaced persons. It's of paramount importance to address their needs while recovering and reinforcing security and safety systems. A safety audit would allow not only to assess the current condition of available territories, shelters and transport, but also to define the key needs and to develop practical solutions focused on improvement of safety and accessibility levels for all groups of Ukrainian population.

The safety audit methodology provided within the Guide is based on global expertise, national legal requirements and approaches defined by the National Action Plan for implementation of the UN Security Council Resolution 1325 “Women, Peace and Security” till 2025. It includes several phases:

1. Preliminary analysis of safety challenges – collection of data on infrastructure, available issues and public complaints.
2. Implementation of a safety audit – assessment of territories, shelters and transport under predesigned ad hoc checklists and public surveys.
3. Preparation of recommendations – drafting specific proposals on safety improvements based on gender equality and inclusion principles.
4. Advocacy of changes – presentation of audit results for the authorities, civic society organizations and stakeholders to introduce related solutions.

This Guide would be of use for representatives of the state authorities, local self-governance bodies, security and defence sectors, civic society organizations, experts and activists involved in ensuring public safety and human rights. It

contains detailed algorithms for safety assessment, survey forms, checklists and other practical tools which can be used to conduct community safety audits.

Results of an audit as such can be further used for the following:

- to prepare development strategies for territorial communities;
- to prepare action plans for further implementation of the European Charter for Equality of Women and Men in Local Life (for those communities that joined the Charter concerned);
- to prepare and update local safety and security programmes in accordance with the needs expressed by various population groups;
- to make policies on better transport safety, public space and shelter safety;
- to provide proposals on legal amendments and changes in state programmes for the state authorities;
- to apply the gender approach to the budget process; and
- to funnel budgetary funds on improvement of the infrastructure used to ensure civilian safety and security.

Therefore, the Guide is not only a manual used to assess safety, but also a tool of impact on decision-making in the areas of safety and security, gender-responsible and inclusive recovery as well as continuous community development. The terms and definitions of the Guide are based on the principles and recommendations of the “Barrier-Free Glossary”¹ – a modern guideline on appropriate communications reflecting the relevant norms of inclusive language.



¹ “Barrier-Free Glossary”, <https://bf.in.ua/glossary/>

CHAPTER 1. PURPOSE AND PRIMARY OBJECTIVES OF A SAFETY AUDIT

1.1 Concepts, Relevance and Components of a Safe Space

Safety is a complicated and multifaceted concept covering a number of various of aspects and dimensions of life for a human, nation and state. This concept is not restricted with physical protection from pending threats, but also includes mental safety, information, economic, environmental safety, etc. The above aspects interact with each other while creating an integral system to ensure protection from potential risks and threats.

There are a number of definitions for the “safety” concept. One of them specifically defines “safety” as a state of security for vital interests of a person, community, society and the state itself from both internal and external threats. “Safety” is also a property to preserve items, phenomena and processes under ruinous influence². The Guide will maintain relevance for both of the above definitions since the matter of a safe space will be considered within the context of a safety audit for territories, transport and shelters.

Meeting safety needs is of high importance as safety belongs to the basic fundamental human needs. A failure to ensure ultimate safety for a person results in his or her inability to fully develop and function as an individual. Just the same, a society and a state can’t demonstrate their continuous development without safety. Additionally, safety is one of the highest social values (alongside with human life and health, dignity, honour and immunity), as stipulated under Part 1, Article 3 of the Constitution of Ukraine.

With the unprovoked wide-scale russian war against Ukraine, the concept of safety is a prerequisite for national survival. Therefore, a safe space is a decisive element to ensure life of a society.

A safe space is an environment used to ensure physical, mental and social protection for people within it.

The establishment of a safe space is a key step towards ensuring reliable public protection, and it needs a systematic approach, including the involvement of experts, civic society and authorities in order to reduce risks and improve overall safety and security.

This concept is of specific relevance under increasing threats such as the all-out russian war against Ukraine (mass attacks against the civilian population and infrastructure (rocket and drone attacks, artillery shelling), technological accidents caused by the rf war against Ukraine (the destruction of the Kakhovka Dam by russian invaders in 2023), other technological accidents (the Chornobyl Disaster in 1986), natural disasters and traffic accidents, etc.

Therefore, it’s extremely important for both the state and civic society to respond to safety and security challenges that require timely and systematic actions focused on risk reduction and efficient crisis management. Such a response assumes not only the detection of potential threats, but also the development of mechanisms for their removal. Yet another important part of this process involves raising public awareness, better coordination between different branches of power and civic society as well as application of advanced technologies for safety audits, monitoring and potential risk forecasting.

A safe space consists of the following primary components:

- ✓ individual physical safety – the current state of a person’s protection from direct threats to his or her life, health, bodily integrity and personal liberties;

- ✓ mental safety – a specific emotional condition caused by mental welfare, security, comfort, lack of anxiety, fear, stresses and frustration, possible successful interaction with an environment, independence and autonomy of opinions and beliefs ;

- ✓ social security – ensuring decent and high-quality personal welfare regardless of a person’s age, sex, income rates and other factors ; and

² Great Ukrainian Encyclopaedia, <https://vue.gov.ua/%D0%91%D0%B5%D0%B7%D0%BF%D0%B5%D0%BA%D0%B0>

³ Scientific Periodicals of Karazin University, “Psychology” Series, Issue 73, 2022, O.V. Fedchuk, <https://periodicals.karazin.ua/psychology/article/download/21322/20025/>

⁴ Ministry of Economic Development and Trade of Ukraine, Order #1277 “On approval of methodological recommendations on estimations of economic security rates of Ukraine” of 29.10.2013, <https://ips.ligazakon.net/document/TM048291>

✓ information security – individual mental and conscious protection from dangerous information impacts: manipulation of consciousness, disinformation, insults, etc.⁵

Therefore, the comprehensive approach provided in the Guide to resolve the issues of safety and safe spaces combining the components listed above allows addressing the needs expressed by various population groups and ensuring harmonious development of both specific communities and a society as a whole.

1.2. Guide Drafting Phases

The Guide has been drafted in accordance with a clear and structured methodology including the following phases:

1. Analysis of regulatory and legal framework and international standards

- The national legislation researched in details, including the Code of Civil Protection of Ukraine, transport-related laws, BNs (state building and construction norms) as well as other regulatory and legal acts. The attention was specifically focused on the provisions related to territorial, transport and shelter safety.
- International standards researched, such as ISO 39001 Road Safety Management and recommendations of the United Nations Organization.

Activities performed to analyse the regulatory and legal framework and international standards ensured the structure to design practical guidelines and define safety assessment criteria.

2. Collection and systematization of empirical data

- Results of actual safety audits conducted on related territories, transport and shelters used.
- Standard flaws and risks recorded in previous audit reports analysed with special focus on flaws related to ensuring accessibility and inclusion.

3. Integration of global expertise

- Global safety audit practices researched and adapted, including the UN Women Global Flagship Initiative “Safe Cities and Safe Public Spaces for Women and Girls”, EU Standards on public space safety and World Bank’s recommendations.
- Practical examples from the countries such as Brazil, Canada and Sweden used to develop an audit toolkit to assess both physical and mental public safety.

4. Development of a procedure and practical tools used to conduct a safety audit

- Specific steps developed to arrange a territorial, shelter and transport safety audit in accordance with the collected data, global expertise and approbation results. These steps cover the methodology, organization and procedure used to conduct a safety audit.
- Each chapter of the Guide includes practical tools such as survey forms, checklists and action algorithms for various audit types.

5. Involvement of experts from various fields

The Guide’s preparation process involved gender equality and inclusion, civil defence and transport experts. The authoring team included gender equality and inclusion experts who designed the first draft Guide. The analysis and discussion of the designed draft involved representatives of civil defence and transport areas.

6. Review and revisions

- The draft Guide has passed three stages of internal reviews performed by the authoring team. The feedback and comments received at each specific stage were processed in details in order to ensure full compliance of the final text with the needs claimed by the target audience.
- External reviews. External reviews were conducted afterwards and involved representatives of civil defence and transport areas. Their comments were taken on board in order to update the draft Guide.

7. Approbation in practice

The major tools and techniques described within the Guide were approbated during trainings and pilot audits in different Ukrainian regions. These enabled to detect and remove flaws at the drafting phase already. Specifically, checklists and other practical tools for transport, shelter and territorial audits were verified.

8. Updates of the Guide based on approbation results

- The Guide and, specifically, related checklists and survey forms, updated in accordance with the approbation results.

⁵ Individual Information Security: Theoretical and Methodology Analysis, P. Kvitkin, I. Dyatlova, L. Petrova, <http://fil.nlu.edu.ua/article/view/241998/242020>

- Additionally, action algorithms for working groups adapted in order to ensure convenience and clarity while conducting an audit in a complicated environment (e.g., with restricted access to infrastructure). A detailed action algorithm for a safety audit presented in Annex 1.1.

In order to ensure a well-organized and responsible approach to a safety audit, the Guide includes the *Standard Instruction (such an instruction can be issued by a village, town, city mayor, a head of a city rayon, rayon or oblast council in accordance with the assigned mandate)*, which can be used by executive committees of local self-governance bodies, enterprises and organizations. This document is recommended as a sample for official decision-making on a gender-sensitive safety audit for territories, shelters, transport infrastructure facilities or responses to safety and security challenges. See Annex 1.2 for the Standard Instruction.

1.3. Global Expertise in Safety Audits

A safety audit is an important tool used to detect and assess risks which can threaten the safety of people in public spaces, transport systems and shelters both globally and in specific foreign countries. This process allows defining both structural and social issues affecting safety, specifically, in accordance with the needs claimed by different population groups. Global expertise in such audits demonstrates the significance of a comprehensive approach, including involvement of state authorities, civic society organizations and related citizens. Consequently, these audits not only assist with detecting specific threats, but also facilitate the preparation of related resolution strategies.

UN Expertise

One of the major initiatives implemented under the UN umbrella is the Global Flagship Initiative “Safe Cities and Safe Public Spaces for Women and Girls” focused on ensuring safety of women and girls in public spaces⁶. The initiative was launched in 2010 and has been implemented in tens of countries, including Ukraine. Its general purpose is to improve security and safety of women and girls through safety audits in public locations such as parks, streets, transport stops and other public spaces. An audit covers not only physical safety, but also mental aspects in accordance with threat perception regarding the locations concerned in girls and women.

The initiative assumes the development of ad hoc safety assessment methodologies involving local communities – specifically, women and girls – which provides for a better understanding of actual issues and safety/security needs on their behalf. For instance, this initiative in Brazil was used to implement the analysis of street space focused on sexual harassment and violence. The collected data allowed to take measures which would facilitate better lighting, public transport stop safety and reduced violence rates.

Additionally, UN Women have designed methodological guidelines for public space safety audits including audit organization and implementation phases as well as standards to account for in order to ensure inclusion and involvement of all population groups⁷. Yet another important aspect is the involvement of women as active audit parties, which allows addressing their specific needs in the safety assessment process.

Other international organizations have been also actively facilitating the development of safety audit methodologies. For example, the World Bank has been drafting public space safety standards under its infrastructural development projects. The above standards cover not only physical security, but also the assessment of impact on public morale, social integration and equal access to safety for different groups⁸. The methodology suggested by the World Bank is focused on provision of access to safe spaces for women, girls and people with disabilities, which is an important aspect to ensure social inclusion.

Global initiatives and methodologies from UN and other organizations provide important milestones to create public space safety standards while focusing on the needs claimed by women and vulnerable groups. This expertise is important to adjust similar approaches in Ukraine where safety and access to public spaces for various population groups are highly relevant.

⁶ See UN Women Global Flagship Initiative “Safe Cities and Safe Public Spaces for Women and Girls”. <https://www.unwomen.org/en/digital-library/publications/2020/02/safe-cities-and-safe-public-spaces-international-compendium-of-practices-2>

⁷ Methodological guidelines on safety audits and implementation of the UN Women Global Flagship Initiative “Safe Cities and Safe Public Spaces for Women and Girls”. https://ukraine.unwomen.org/uk/digital-library/publications/2021/10/methodical-recommendation-on-how-to-conduct-safety-audit_europe

⁸ The World Bank. Environmental, Health, and Safety General Guidelines. <https://documents1.worldbank.org/curated/zh/157871484635724258/pdf/112110-WP-Final-General-EHS-Guidelines.pdf>

EU Expertise

The European Union has been actively working to ensure public space safety via a number of initiatives and regulatory acts related not only to physical, but also mental public safety, which specifically relates to equal access for all population groups, including women, people with disabilities and vulnerable groups. One of the major tools used to ensure safety in EU is the introduction of ad hoc standards and methodologies as well as funding of projects focused on infrastructural improvements. Such tools include comprehensive approaches to public space safety monitoring designed to reduce levels of violence in public spaces, which specifically affects women and girls. Hence, EU supports the cities intending to introduce innovative safety improvement measures, specifically, through barrier-free standards and introduction of conditions for mitigated social tensions in public spaces. One such example are guidelines on public space safety and inclusion (“Making Urban Public Spaces Safer and More Inclusive”) providing EU mayors and communities with specific safety measures, specifically, through better lighting, introduction of video surveillance and reinforced patrolling routines⁹.

In 2024, EU introduced its Directive of the European Parliament and of the Council on combating violence against women and domestic violence¹⁰ covering the measures focused on improved safety for women in public spaces. The Directive also involves legal initiatives allowing to introduce safety standards in European cities, improve protection of victims of violence and create safe spaces for women within urban environments.

EU has been actively supporting global initiatives focused on the development of safety standards in public spaces addressing various needs of different population groups, including women. One such example is the use of ISO 37120 standards defining indicators for continuous urban development and safety while ensuring integration of environmental, economic and social aspects of safety¹¹.

Practical Examples from Other Countries

Many countries all over the world have been implementing efficient programmes and initiatives to improve safety in public spaces, which could be of use for Ukraine.

Hence, Brazil, supported the UN-Habitat, has implemented the Safer Cities Programme focused on combating violence and sexual harassment against women in public spaces¹². The Programme includes safety audits in big cities such as Rio de Janeiro and Sao Paulo in order to assess safety in parks, streets, public transport stops, etc. The audits involved women, which allowed for better understanding of their specific needs and experience.

In accordance with the audit results, specific measures have been taken, such as better street lighting, installation of additional video surveillance cameras and establishment of safe routes for women. Additionally, each public transport station had an information panel installed to remind women of their rights, and about how to respond to incidents of violence. This programme has significantly improved women’s safety in large Brazilian cities and facilitated reduced number of sexual violence cases in public spaces.

The UN Women Global Flagship Initiative “Safe Cities and Safe Public Spaces for Women and Girls” in Canada has been conducting safety audits in public spaces involving local communities.¹³ The goal of the initiative is to provide women and girls with a safe environment to move in public spaces and public transport.

The initiative has been using safety assessment methods which include cooperation between local self-governance bodies, law enforcement authorities and civic society organizations as well as direct involvement of women to define the most dangerous locations. The related activities have been implemented to support result monitoring and performance analysis. Reduced number of violent incidents in the streets and at public transport stops has become one of the initiative’s successes thanks to better street lighting and installation of such infrastructural elements as benches and secure recreation areas.

⁹ European Forum for Urban Security. Making urban public spaces safer and more inclusive. <https://efus.eu/topics/public-spaces/public-spaces-safer-and-more-inclusive/>

¹⁰ Directive of the European Parliament and of the Council on combating violence against women and domestic violence. <https://data.consilium.europa.eu/doc/document/PE-33-2024-INIT/en/pdf>

¹¹ ISO 37120:2018 Sustainable cities and communities – Indicators for city services and quality of life. <https://www.iso.org/standard/68498.html>

¹² In Rio de Janeiro’s favelas, a new online tool tackles violence against women and girls. <https://www.un.org/youthenvoy/2013/08/in-rio-de-janeiros-favelas-a-new-online-tool-tackles-violence-against-women-and-girls/>

¹³ UN Safe Cities and Safe Public Spaces initiative. <https://vancouver.ca/people-programs/un-safe-cities-and-safe-public-spaces-initiative.aspx>

Sweden has conducted research on the incidence of violence against women and girls in public spaces, which includes recommendations on safe urban planning. The major focus has been set on the establishment of public spaces in accordance with the needs of different population groups, including women, girls and the elderly¹⁴.

The recommendations specifically involve such measures as better street lighting, proper maintenance and control of buildings and territories as well as ensuring equal access to safe areas. Moreover, Sweden has been actively developing its transport safety monitoring system allowing for timely response to any threats or situational changes.

Global Challenges and Issues

A safety audit for public spaces, transport and shelters is an important tool to improve public safety, but the related process faces a number of challenges that are specifically related to coordination, public involvement, mental implications and integration of respective results into subsequent managerial decisions.

There are the following risks faced by different countries when arranging a safety audit:

1) Insufficient coordination between different authorities. The lack of proper coordination between different powers at both the national and local levels remains one of the major challenges. It can result in inefficient use of resources and delayed implementation of measures defined during the audit. For example, planning of activities for safety improvements is often blocked due to diverse approaches to security and safety matters applied in different regions. The latter might cause duplication of effort or complete lack thereof in some regions due to a failure to define clear safety improvement measures in other regions or the lack of their coordination with other parts of a country.

2) Lack of public engagement. Active involvement of civic society, which specifically relates to local organizations working with vulnerable groups, is an important aspect of an efficient safety audit. However, this aspect is often underrated, which lowers the overall audit performance. According to the current experience, those projects that failed to involve civic society organizations or initiative groups produce audit results that are less reflective in terms of actual community needs. Audit results might never meet actual needs of covered communities without active public engagement in data collection and identification of safety priorities. Some specific safety aspects, such as ensuring access to safe routes or proper lighting, might be ignored due to the lack of feedback from local activists and residents.

3) Possible mental implications for audited parties. A safety audit, and specifically – the one related to gender-based or any other form of violence – might provoke significant mental implications in audited parties. Interviews and focus groups with victims of violence might result in trauma relapse, which requires ad hoc psychological support. The parties might sometimes refuse to take part in the follow-up events due to their fear and stress, which becomes the reason of lower performance of further data collection and recommendations on better safety.

Potential issues with integration of audit results into political and managerial decisions are also worth mentioning. This specifically refers to the following:

1) Ignoring results on the political level. Issues and problems with integration of results into policy-making are often resulting from underrated importance of research by political elites. Politicians are quite often known to demonstrate reluctance to change an infrastructure or policy because of budgetary restrictions or insufficient political will. The above might lead to a situation when recommendations on safety improvements, such as better lighting in public locations or reinforced violence prevention actions, might never be implemented in practice – even if supported by a related community.

2) Low efficiency of applying results on the local level. It's quite a frequent case when safety audit results are never integrated into specific local managerial decisions due to low understanding of their importance or the lack of mechanisms for their introduction. In such cases, local authorities might decline the introduction of all the required measures due to the lack of a clear strategy or liability dispersed between several agencies, which complicates the implementation of audit results in practice.

¹⁴ Violence against women and girls in public spaces. <https://sievietestransporta.lv/wp-content/uploads/2024/10/Violence-in-public-spaces.pdf>

3) Difficulties with introduction of changes under current financial restrictions. Insufficient funding is one of the major barriers for integration of audit results, which specifically relates to the countries in difficult economic conditions. Considering the need for significant infrastructure investments, such an audit might often face issues with implementing related recommendations. Local authorities might not be capable of taking all the recommended measures due to a limited budget, which lowers audit performance and delays general security and safety improvements.

The challenges faced when arranging and conducting an audit might have a significant impact on performance of this process. The lack of proper coordination, public involvement as well as issues with the integration of audit results into political and managerial decisions need to be resolved for a greater effect of implemented initiatives.

Findings for Ukraine

Global expertise in safety audits can be adjusted for Ukraine in accordance with gender aspects of safety and infrastructural issues as well as specific challenges caused by the Russian full-scale war against Ukraine.

In times of war, it's highly important to focus on ensuring shelter and transport safety wherein the risks for civilians are high due to possible shelling and other technological threats. The global expertise, and specifically the one earned under the UN Women Global Flagship Initiative "Safe Cities and Safe Public Spaces for Women and Girls" or transport safety projects, can be tailored by conducting an ad hoc audit in order to define weak points in public locations, transport and shelters.

Global expertise underlines the importance of addressing the needs claimed by various population groups under a safety audit. Ukraine needs to focus on ensuring the safety of vulnerable groups of women, girls, men and boys at the time of a full-scale war in accordance with the higher risk of violence and sexual harassments. It is recommended to ensure continuous engagement of civic society organizations, local activists and representatives of vulnerable groups in all phases of a safety audit. It is also advised to establish feedback platforms for communities to report on their regional safety issues and to introduce regular counselling for vulnerable groups.

For safety audit results to have direct impact on local policies and managerial decisions, it is advised to develop standardized procedures used to integrate audit results into planning of local infrastructural projects and security/safety policies. Those might include the development of roadmaps with clear implementation schedules and responsible executives.

With the rapid technology development in mind, it is recommended to integrate advanced safety monitoring tools, such as video surveillance systems, mobile apps for notifications on security breaches and platforms for real-time data collection, into audits. The above would let respond to any changes of a security or safety situation and apply efficient improvement measures in a timely manner.

1.4. Ukrainian Expertise in Safety Audits for Territories, Shelters, Transport and Response to Safety Challenges in Accordance with the Needs Claimed by Various Groups of Women and Men

In 2018, Ukraine joined the UN Global Flagship Initiative "Safe Cities and Safe Public Spaces for Women and Girls" (the Global Initiative) launched in November 2010 (see p.15 of the Guide). The Methodological guidelines for safety audits and implementation of the UN Global Flagship Initiative designed by the UN Women structure in partnership with the International Charitable Foundation "Ukrainian Foundation for Public Health" form the vision on definition of the problems, audit organization and implementation phases, analysis of results and removal of flaws identified under the audit. The Methodological guidelines were adapted for practical use in Ukrainian territorial communities under the "Rubizhne Safe City" pilot in the city of Rubizhne, Luhansk Oblast.

The general purpose of a safety audit is to detect risks related to sexual harassment and other forms of sexual violence against women and girls in public spaces by assessing local infrastructure. An audit is conducted by multidisciplinary teams (MDTs), with half of their members being women and girls. Additionally, it is recommended to involve representatives of the National Police into audits. Organization and conduction of focus group discussions with various target groups that can be affected by gender-based violence and sexual violence, specifically, in public spaces, is yet another positive aspect of a safety audit.

The safety audit algorithm under the initiative has been designed in a way not only to unite community residents under an audit, but also to facilitate resolution of key issues; and to form a vision on their resolution involving community residents. The proposed methodology includes an important stage considering managerial decision-making focused on resolution of detected issues through the development and adoption of a target programme with a clear definition of responsible units, deadlines and funding.

Involvement of women and girls, especially victims of gender-based violence, in all development phases of the “Safe Cities and Safe Public Spaces for Women and Girls” programmes is a practical mechanism to counteract gender-based violence which addresses the claims of people in need of aid and capacity of territorial communities to meet those claims.

The “Territorial Safety Audit. Safe for a Woman Means Safe for All” leaflet is a practical tool developed in 2018 which defines the tasks, purpose and guidelines on territorial safety audits. It was designed by NGO “Women’s Information Consultative Center” and funded by the Swiss Agency for Development and Cooperation¹⁵.

The adoption of the State Strategy “On ensuring equal rights and opportunities for women and men till 2030” by the Cabinet of Ministers of Ukraine caused the necessity to make a unified state policy aimed at ensuring equal rights and opportunities for women and men in all areas of social life¹⁶ and required the society to revise its approaches to the organization and conduction of a safety audit.

On the other hand, the wide-scale russian invasion into Ukraine and the new challenges and threats it caused for ensuring equal access to safety and comfort for women and men, boys and girls, has become a reason to revise the Methodological guidelines for safety audits and implementation of the UN Global Flagship Initiative.

In 2023, the authors cooperated with ICF “Ukrainian Foundation for Public Health” under the “Women, Peace, and Security: Response to the Challenges of War” Project funded by the Government of the United Kingdom to draft the Methodological Guide to Conducting Safety Audits in Communities titled “Creating Safe Public Space: Safety Audits and Recommendations”¹⁷. An audit as such is focused not only on fighting against gender-based violence, but also on covering the establishment of conditions for women, men, girls and boys to feel secure and confident.

Safe community spaces are established with active involvement of structural units of local executive bodies, local self-governance bodies and representatives of civic society, as decided by local authorities and local self-governance bodies. A community-based safety audit has an important step of presenting audit results for community decision-makers.

The russian full-scale war against Ukraine has provoked a number of new challenges for the transport system. A critical objective in a war is to ensure the safety of transportation as traffic routes, including those used to evacuate population and transport humanitarian cargo, are often shelled. Therefore, the transport infrastructure in numerous Ukrainian regions, which had been outdated even before the war, was damaged due to warfare. The shelling of the energy infrastructure and resulting blackouts have a negative impact on operations of public transport (specifically, railway and city railway transport). The above adds up to the current risks for passengers’ safety.

The tasks of upgrading the public transport system in order to improve passengers’ safety and forming better terms of carriage currently remain relevant. In order to upgrade the infrastructure and adapt it to the current environment, we need to conduct extensive research to define priority areas for state investments and infrastructural projects focused on ensuring a stable, efficient and safe transport system meeting the challenges of today – at the time of war and post-war recovery.

Yet another critical matter during the war in Ukraine to save people’s lives and health is the shelter maintenance. Public shelters to meet the current safety and comfort requirements. Moreover, shelters to be accessible for all population groups, including people with disabilities, the elderly and families with little children. However, the availability and quality of shelters often leave much to be desired.

The “Women. Peace. Security: Acting Together” Project funded by the Government of the United Kingdom used its two pilots to form the vision of meeting the needs related to transport services; safety and security services (shelter maintenance) in August-September 2024. Those initiatives were the first to research the matter of ensuring passengers’ safety at city public transport, suburban and intercity bus transport, suburban and intercity railway transport; and they were the first to assess available shelters while focusing on such components as availability, accessibility, safety and comfort of stay for various population groups, which specifically covers gender, social and inclusive equality.

The research methodology was based on results of an online poll using a predesigned standard survey form posted on the Microsoft Forms platform.

The target group of the survey were 18+ men and women residing in all regions of Ukraine.

¹⁵“Territorial Safety Audit. Safe for a Woman Means Safe for All”, https://wicc.net.ua/media/Audyt_BT.pdf

¹⁶ CMU Instruction #752-r “On adoption of the State Strategy “On ensuring equal rights and opportunities for women and men till 2030”” of 12.08.2022, <https://www.kmu.gov.ua/npas/pro-skhalennia-derzhavnoi-stratehii-zabezpechennia-rivnykh-prav-ta-mozhlyvosti-752-120822>

¹⁷ Methodological Guide to Conducting Safety Audits in Communities titled “Creating Safe Public Space: Safety Audits and Recommendations”, https://www.healthright.org.ua/wp-content/uploads/2024/01/stvorennia_bezpechnogo_gromadskogo_prostoru_a5.pdf

The researched geography covered all the basic social-economic Ukrainian regions, specifically including the following:

- Centre, including Vinnytsia, Poltava, Cherkasy and Kirovohrad Oblasts;
- West, including Lviv, Rivne, Volyn, Ternopil, Khmelnytskyi, Ivano-Frankivsk, Zakarpattia and Chernivtsi Oblasts;
- East, including Kharkiv, Donetsk, Dnipropetrovsk and Zaporizhzhia Oblasts;
- South, including Odesa, Kherson and Mykolaiv Oblasts;
- North, including Sumy, Zhytomyr, Chernihiv, Kyiv Oblasts and the city of Kyiv.

The research demonstrated that the full-scale Russian war against Ukraine had provoked new challenges for the transportation system. Ensuring the safety of transportation is a critical task in the context of full-scale war. Transport routes – including roads and railway connections used for the evacuation of civilians and the delivery of humanitarian aid – are frequently subjected to shelling. In many regions of Ukraine, the transport infrastructure, which was already worn out, has suffered additional damage as a result of military actions. Attacks on energy infrastructure and the resulting blackouts have a negative impact on the operation of public transportation – particularly railway and urban electric transport – creating additional risks for passenger safety.

The tasks of upgrading the public transport system in order to improve passengers' safety and forming better terms of carriage currently remain relevant. In order to upgrade the infrastructure and adapt it to the current environment, we need to conduct extensive research to define priority areas for state investments and infrastructural projects focused on ensuring a stable, efficient and safe transport system meeting the challenges of today – at the time of war and post-war recovery.

The researched shelters prove that their number is insufficient – especially in rural areas. Yet another relevant issue is the irregular placement of shelters across different settlements, which results in a situation when residents of specific rayons/boroughs/villages have no proper access to such shelters. Barrier-free access to shelters for people with limited mobility⁶ such as families with little children, the elderly, etc., is a huge issue due to the lack of ramps and proper stair arrangement (the lack of handrails, lighting, etc.).

Improper shelter resource allocation (e.g., the lack of drinking and industrial water, restrooms, first aid kits, backup power sources, Internet access, mobile communications, etc.) and poor sanitary conditions of shelters remain relevant, too.

The respondents also complained about a number of issues making the stay inside a shelter uncomfortable for visitors – especially for mothers/families with little children, the elderly, people with limited mobility, etc. This is of paramount importance during lengthy air alerts (several hours or more). They specifically mention the lack/insufficient number of seats, the lack of heating during the cold season, the lack of working sockets for charging their gadgets, and the lack of specially equipped seats to care for neonates.

The research findings have become the basis for development of specific recommendations on improvement of approaches to a transport safety audit. Additionally, the research might become the core to draft new legal initiatives and to facilitate additional fundraising in order to upgrade and construct properly equipped shelters required to improve safety and quality of public living, especially amidst the modern threats.



CHAPTER 2. ORGANIZATION AND IMPLEMENTATION OF A TERRITORIAL SAFETY AUDIT

2.1. Legal Framework of a Territorial Safety Audit

The arrangement and implementation of a territorial safety audit in Ukraine is based on a number of legal and regulatory-legal acts governing security and safety matters for public spaces, residential and non-residential buildings as well as adjacent territories. See below for the basic provisions and norms ensuring the legal framework for audits.

1. Code of Civil Protection of Ukraine¹⁸

- 1) Article 46¹: Fire and technological safety audit. It regulates a facility inspection procedure in terms of its compliance with safety norms.
- 2) Article 49 (Part 3): Requirements for liability coverage for the damage inflicted by emergencies.
- 3) Article 66 (Part 2, §9): Describes the mechanisms of state supervision and control in the areas of fire and technological safety.

The Code is the main legislation act for fire and technological safety audits. It defines the basic risk assessment and supervision principles, but it doesn't contain any provisions related to inclusion or needs of people with limited mobility. The level of details under the articles is brought down to general safety and security requirements, and they don't cover any specific social or gender risks, such as lighting or isolation of specific territories.

For example:

- Article 46¹: Regulates the audit procedure, but pays no heed to the needs expressed by various groups of population such as people with limited mobility or families with little children.
- Article 66: Sets state supervision mechanisms, but provides no details regarding accessibility aspects for vulnerable groups.

2. Decrees of the Cabinet of Ministers of Ukraine

- 1) Decree #436 “On approval of the Fire and Technological Safety Audit Procedure” of May 2, 2023: Sets a fire and technological safety audit procedure, including safety assessment criteria¹⁹.
- 2) Decree #426 “On approval of the Professional Certification Procedure for experts on fire and technological safety and withdrawal of qualification certificates” of May 2, 2023: Regulates professional certification of experts conducting fire safety audits as well as the qualification certificate withdrawal procedure²⁰.

Decrees issued by the Cabinet of Ministers of Ukraine is the main tool used to detail norms and procedures. They regulate the order of performed activities, but are commonly focused on technical aspects, while often ignoring inclusion, accessibility and gender equality matters. Decrees are oriented on standardization of processes, but current documents lack provisions addressing the needs expressed by vulnerable groups, such as people with disabilities, families with prams, etc. The above refers to the following:

- Decree #436 of May 2, 2023: Regulates the fire and technological safety audit procedure, but it contains no provisions addressing the needs of people with limited mobility or other inclusion aspects.
- Decree #426 of May 2, 2023: Describes the requirements for professional certification of experts, but it neither sets any knowledge-related requirements nor accounts for gender specifics and inclusion principles.

3. Orders of the Ministry of Internal Affairs of Ukraine

- 1) Order #838 “On approval of the Standard Form for an act compiled in accordance with results of a fire and technological safety audit” of December 22, 2022: A standard form for an act based on results of a fire and technological safety audit²¹.

¹⁸ Code of Civil Protection of Ukraine, <https://zakon.rada.gov.ua/laws/show/5403-17>

¹⁹ Decree #436 of the Cabinet of Ministers of Ukraine “On approval of the Fire and Technological Safety Audit Procedure” of May 2, 2023, <https://zakon.rada.gov.ua/laws/show/436-2023-%D0%BF#Text>

²⁰ Decree #426 of the Cabinet of Ministers of Ukraine “On approval of the Professional Certification Procedure for experts on fire and technological safety and withdrawal of qualification certificates” of May 2, 2023, <https://zakon.rada.gov.ua/laws/show/426-2023-%D0%BF#Text>

²¹ Order #838 of the Ministry of Internal Affairs of Ukraine “On approval of the Standard Form for an act compiled in accordance with results of a fire and technological safety audit” of December 22, 2022, <https://zakon.rada.gov.ua/laws/show/z0128-23#Text>

- 2) Order #73 “On approval of a Notification Procedure on signing and early termination of an agreement on liability insurance for the damage that might be inflicted upon third parties due to emergencies, dangerous accidents, including fires and accidents on the territory and/or real estate sites for the State Emergency Service of Ukraine” of February 7, 2023: A procedure used to notify SES of signing or early termination of a liability insurance agreement²².
- 3) Order #829 “On approval of the Provision on the professional certification commission for fire and technological safety experts” of October 10, 2023: A provision on the professional certification commission for experts²³.
- 4) Order #277 “On approval of the Criteria to be met by organizations conducting fire and technological safety audits” of April 5, 2023: The criteria to be met by organizations conducting fire and technological safety audits²⁴.

MIA orders design an important tool for practical application of safety standards. They ensure the elaboration of processes such as reporting forms or expert-related requirements. However, these orders, just like CMU decrees, are primarily technical by their nature, and they don’t address certain needs of specific population groups such as the safety of women, girls, men and boys during the dark hours or access to shelters for people with limited mobility. The above refers to the following:

- Order #838 of December 22, 2022: Approves a standard form for an act compiled in accordance with results of a fire and technological safety audit. The standard form lacks provisions assessing territory accessibility or accounting for gender-based specifics, though.
- Order #277 of April 5, 2023: Defines the criteria for organizations conducting audits, but it lacks requirements for integration of gender-based approaches or assessment of facility inclusion.

4. State building and construction norms of Ukraine (BN)

- 1) BN.2.3-5:2018: Settlement streets and roads²⁵.
- 2) BN.2.2-9:2018: Public buildings and structures²⁶.
- 3) BN.2.2-40:2018: Building and structure inclusion principles. Regulates accessibility for people with limited mobility²⁷.
- 4) BN.1.2-9:2021: Main safety and accessibility requirements for buildings and structures²⁸.

State Building and Construction Norms are the most detailed of all types of regulatory acts since they also regulate physical infrastructure of the territories. They address inclusion through their accessibility requirements, but it is uncommon for them to cover the needs expressed by families with little children or the needs related to the feeling of safety in women and girls when using certain spaces. A number of specific examples are listed below:

- BN.2.3-5:2018: Sets the requirements for street and road lighting, which is important to ensure safety for women and girls during the dark hours.
- BN.2.2-9:2018: Regulates the principles used to establish safe spaces in public buildings, but it provides no details on gender-based aspects, such as the seats available for families with little children.
- BN.2.2-40:2018: Regulates building and structure inclusion while ensuring the basic accessibility principles for people with disabilities, but it is not focused on gender-based or age-based needs.
- BN.1.2-9:2021: Describes the general safety and accessibility requirements for buildings and structures.

At the same time, it lacks proper regulation of gender specifics, such as the needs expressed by families with little children or needs related to the feeling of safety in women and girls, men and boys using a specific space.

²² Order #73 of the Ministry of Internal Affairs of Ukraine “On approval of a Notification Procedure on signing and early termination of an agreement on liability insurance for the damage that might be inflicted upon third parties due to emergencies, dangerous accidents, including fires and accidents on the territory and/or real estate sites for the State Emergency Service of Ukraine” of February 7, 2023, <https://zakon.rada.gov.ua/laws/show/z0307-23#Text>

²³ Order #829 of the Ministry of Internal Affairs of Ukraine “On approval of the Provision on the professional certification commission for fire and technological safety experts” of October 10, 2023, <https://zakon.rada.gov.ua/laws/show/z1991-23#Text>

²⁴ Order #277 of the Ministry of Internal Affairs of Ukraine “On approval of the Criteria to be met by organizations conducting fire and technological safety audits” of April 5, 2023, <https://zakon.rada.gov.ua/laws/show/z0790-23#Text>

²⁵ BN.2.3-5:2018: Settlement streets and roads, https://e-construction.gov.ua/laws_detail/3199686959802877315?doc_type=2

²⁶ BN.2.2-9:2018: Public buildings and structures, https://e-construction.gov.ua/laws_detail/3199648113669179181?doc_type=2

²⁷ BN.2.2-40:2018: Building and structure inclusion, https://e-construction.gov.ua/laws_detail/3192362160978134152?doc_type=2

²⁸ BN.1.2-9:2021: Main safety and accessibility requirements for buildings and structures, https://e-construction.gov.ua/laws_detail/3074797473579927547?doc_type=2

5. Other documents

- 1) Methodological guidelines for safety audits (designed with UN Women's support). The document provides a toolkit for public space risk assessment²⁹.
- 2) DSTU accessibility standards: They include recommendations on the development of a universal design fit for all population groups and specifically – for people with disabilities³⁰.

The methodological guidelines for safety audits are the only of the researched documents that are clearly focused on gender equality. They specifically include risk assessment for women and girls, men and boys, while covering such risks as safety during the dark hours or available high-risk areas.

Moreover, the DSTU EN 17161:2022 accessibility standard assumes the development of inclusive designs to ensure accessibility, but the document lacks such gender-based aspects as the assessment of specific needs claimed by women and girls, men and boys.

NB: Though provisions of the analysed regulatory and legal acts don't set any direct requirements to address the needs expressed by various population groups, including families with little children, people with limited mobility, etc., it is important to remember about those groups when conducting an audit as such practice raises the value and applicability of further territorial safety audit results.

Those who conduct a territorial safety audit during the full-scale war waged by rf against Ukraine must address new challenges such as:

1. Demining – available mines, explosive devices and unexploded shells. This requires coordination with experts and related authorities in order to define safe areas.
2. Danger alerts – efficiency of an air alert, rocket alert or technological accident alert system. This must include the analysis of access to information for all population categories.
3. Environmental pollution:
 - Air pollution caused by shelling, fires and explosions at chemical facilities.
 - Water pollution caused by destruction of water supply infrastructure, and specifically those sites that are located in warzones.
4. Damaged infrastructure:
 - Condition of roads and transport communications influencing population's mobility.
 - Hazardous areas related to ruined infrastructure facilities.
5. Lighting of territories – insufficiently illuminated public spaces, including forced lighting shutdowns caused by russian strikes on the Ukrainian energy infrastructure, which provokes additional safety and security risks. There is a need to account for specific gender-based aspects related to the feeling of safety during the night hours.
6. Safety in public locations – identification of potentially hazardous areas (parks, squares, pedestrian areas) that might suffer from attacks or other threats while addressing the needs expressed by various population groups.
7. Accessibility for people with limited mobility – assessment of access to territories for people with disabilities, the elderly, parents with prams, etc. Particular attention to be paid to removal of physical barriers in public spaces.

2.2. Methodology of a Territorial Safety Audit

Methodology of a territorial safety audit is focused on assessment of territorial compliance with safety needs expressed by various groups of women and men, and specifically – people with disabilities, families with little children, youth and the elderly. It is based on the valid Laws of Ukraine, safety and inclusion standards as well as current gender and social aspects.

1. Preparation Phase

The audit preparation phase is extremely important as it considers collection and analysis of all necessary data, which allows designing a clear audit plan for further work. Special attention is commonly paid to the analysis of infrastructure condition, access to territories for various population groups as well as detection of key safety-related challenges.

1.1. Source information collection

- 1) Document / report analysis:

²⁹ Methodological guidelines for safety audits and implementation of the UN Women's Global Flagship Initiative, <https://eca.unwomen.org/sites/default/files/Field%20Office%20ECA/Attachments/Publications/2021/10/Methodical%20recommendation%20on%20how%20to%20conduct%20safety%20audit%20in%20the%20framework%20of%20UN%20Women%20global%20flagshi.pdf>

³⁰ DSTU EN 17161:2022 Design for all people: Accessibility through a design approach for all people in products, goods and services. Expanding user diversity, https://online.budstandart.com/ua/catalog/doc-page.html?id_doc=100058

- Assessment of cartographic materials to identify potentially hazardous areas in need of demining and marking of cleared areas.
 - Technical documents on lighting (power, lamp positioning, power supply system condition) and accessibility (ramps, sidewalk width, available elevators).
 - Regional air and water environmental monitoring data, including those that cover concentration of hazardous substances that might appear due to shelling or technological accidents.
 - Documents that regulate landscaping and safety measures under martial law.
 - Inspection of evacuation routes defined by territorial plans.
 - Demographical data on territory users, including a share of people with disabilities, families with little children, the elderly / gender profiles of territorial communities (as per the Order #359 of the Ministry of Social Policy of Ukraine “On approval of Methodological recommendations on implementation of the gender-based approach and the approach based on human rights protection at the territorial community level” of 27.12.2022³¹).
 - Information on crime sites (thefts, robberies, rapes, grievous and moderate bodily harm) as well as on the most hazardous accident locations with the greatest number of road accidents resulting in injuries and death of involved parties.
 - Analysis of reports on road and transport communication condition, including information on damaged bridges and missing coating.
- 2) Analysis of previous complaints and petitions from local residents:
- Collection of information on repeated problems, such as the lack of lighting by schools or children playgrounds, sidewalk impassability, hazardous areas, etc.
 - Studying notifications of assaults or violent cases in dimly lit or isolated locations.
 - Addressing complaints on access to shelters from people with limited mobility, including missing ramps or elevators in multi-storeyed buildings.
- 3) Addressing new war-related challenges:
- Identification of areas in need of demining efforts in accordance with the data provided by SES sapper units and international organizations.
 - Analysis of the alert system: available sound alarms, mobile network coverage, access to notification software apps, etc.
 - Inspection of shelter condition: available seats, ventilation systems, restrooms, access to drinking water, etc.
 - Assessment of shelter transport accessibility for people with visual and hearing impairments as well as people in wheelchairs.
- 1.2. Establishment of a working group on safety audits
- 1) Members:
- Safety and security experts: experts on fire safety, demining, building technical maintenance, a community police officer, employees of Citizens’ Safety Centres (if available), etc.
 - A representative of a unit responsible for ensuring equal rights and opportunities for women and men, a counsellor on ensuring equal rights and opportunities for women and men, prevention and combatting gender-based violence (as per the Decree #930 of the Cabinet of Ministers of Ukraine of 09.10.2020³²);
 - Environmental experts: experts on air, water and soil quality monitoring in warzones.
 - Gender experts: to assess risks in public spaces in accordance with the specific needs expressed by men and women.
 - Community representatives: people with disabilities, youth, people with limited mobility, and specifically – persons using wheelchairs or moving with prams.
 - Social workers: to keep track of cases of violence or discrimination in public spaces.
 - Information technology experts: to analyse and improve notification and alert systems.
- 2) Recommendations:

³¹Order #359 of the Ministry of Social Policy of Ukraine “On approval of Methodological recommendations on implementation of the gender-based approach and the approach based on human rights protection at the territorial community level” of 27.12.2022, <https://zakon.rada.gov.ua/rada/show/v0359739-22#Text>

³²CMU Decree #930 “Specific matters on ensuring equal rights and opportunities for women and men” of 09.10.2020, <https://zakon.rada.gov.ua/laws/show/930-2020-%D0%BF#Text>

- To involve people with hands-on experience in using public spaces, such as families with little children, the elderly and local activists, as a mandatory requirement.
- To engage law enforcement officers in order to consult on safety matters during the dark hours and ensure territory patrolling routine.

1.3. Preparation of an audit plan

- 1) Definition of areas for inspection:
 - Marking of hazardous areas in accordance with the data on assaults, road accidents or mining.
 - Inspection of routes to schools, hospitals and markets frequently used by various population groups.
- 2) Creation of an audit toolkit:
 - Checklists (see Annex 2.3):
 - Are there lights available along the routes to public transport stops, parks or shelters?
 - Are there sidewalks accessible for people with disabilities and prams?
 - Are the demined areas marked properly?
 - Survey forms (see Annex 2.1):
 - Assessment of the feeling of safety at different times.
 - Access to information on hazards available through mobile apps or notifications.
 - Schedule:
 - Setting the time to inspect related areas during the daylight and dark hours.
 - Audit map:
 - Marking areas with the highest risk rates for vulnerable groups.
- 3) Emerging threat tracking:
 - Planning evacuation routes in accordance with damaged infrastructure.
 - Inspection of available and accessible shelters in each audited area.

The audit preparation phase lays down the basis for the whole auditing process while ensuring collection of necessary data and establishment of a team addressing various population needs. Key issues and challenges defined under this phase allow for efficient planning of further activities.

2. Data Collection Phase

The data collection phase is the key one for any audit as it ensures access to accurate and structured information on territorial safety. Special attention is paid to addressing the needs of various population groups, including people with disabilities, the elderly and families with little children.

2.1. Data collection methods

- 1) Public survey. A survey allows identifying the subjective perception of safety by various population groups and assessing their needs.
 - Target groups:
 - Women and girls,
 - Men and boys,
 - Elderly,
 - Youth,
 - People with disabilities (including people in wheelchairs, those with visual and hearing impairments),
 - Families with little children.
 - Survey form questions (samples):
 - How would You assess the lighting level around Your block?
 - Are there shelters or other safe spaces accessible for people with disabilities?
 - Do you feel yourself safe when You're out in the evening?
 - Which locations on Your territory do You consider dangerous?
 - Additional notes:
 - Answers can be predesigned (yes/no) or open-ended.
 - See Annex 2.1 for the Standard Survey Form.
- 2) Focus groups. Focus groups are used for in-depth analysis, allowing to understand the reasons and details on risks defined during the surveying activities.
 - Members:

- Groups are formed under such criteria as age, sex and physical mobility degree.
- Optimum number of members: 8-12 people.
- Points for discussion:
 - Accessibility of pathways to medical facilities, schools, higher educational establishments, social protection facilities, aid centres for victims of the war, administrative service centres, other institutions frequently visited by various population groups.
 - Transportation issues due to bad road coating.
 - Vulnerability of public spaces during the dark hours.
- Standard findings:
 - Focus groups might detect hidden issues, such as the fear of assaults in dim-lit alleys or inconveniences due the missing ramps.
- See Annex 2.2 for the Standard Guide on Territorial Safety for Focus Groups.
- 3) Observation. This method allows to track the physical condition of territories and assess compliance of the related infrastructure with user needs.
 - Observation process:
 - Tracking flaws through checklists (see Annex 2.3).
 - Assessment of lighting, sidewalk and public transport stop condition.
 - Identification of risk areas due to mining or inflicted damage.
 - Special areas for observation:
 - Squares, parks, children playgrounds.
 - Pathways to shelters and public transport stops.
 - Areas with obstructed view.
 - Sample observations:
 - Lack of marking for demined territories.
 - Available barriers for movement of persons with vision impairments.
- 4) Document analysis. Official documents related to territorial planning and landscaping are checked.
 - Document types:
 - Shelter and evacuation route layouts, road condition.
 - Data on facility accident and safety rates for specific territories (reports submitted by SES and local authorities).
 - Reports on committed crimes and recorded road accidents.
 - Recommendations provided under previous audits.
 - Example:
 - The analysis proved that specific pathways leading to the shelters lacked pointers and had roads damaged.

2.2. Involvement of residents in data collection

- 1) Interviews. Individual interviews allow to access personalized responses on the needs claimed by specific residents.
 - Main questions:
 - Which areas do You consider the most dangerous?
 - Have You ever experienced issues with access to shelters?
 - Which improvements would You like to see around your block?
 - Standard results:
 - Interviews assist to detect subtle problems, such as inconvenient-to-use children's playgrounds due to the lack of seating benches, canopies and trees for shade (during the summer time), missing stairs to the playground, etc.
- 2) Activists and local initiatives. Involvement of activists and residents in data collection facilitates access to various information.
 - Example:
 - Activists assemble to discuss security and safety matters as well as involvement of local residents in inspection of public areas.

2.3. Data tracking

- 1) Checklists. Checklists are used to systematize received information and create a unified issue database.

- Standard checklist lines:
 - Proper lighting available.
 - Barriers for people with disabilities not detected.
 - Demined territories clearly marked.
- 2) Photographic evidence. Recording identified problematic areas with a photo mentioning the following data:
 - Geotags.
 - Specific issues (missing ramps, narrow sidewalks).
- 3) Documentation. Detailed description of problematic areas:
 - Locations (addresses, landmarks).
 - Issues (e.g., “Lighting missing by the school on Tsentral’na St.).
 - Possible recommendations on flaw removal.

The Data Collection Phase is finalized by available data on generation of a full picture on territorial safety while referring to information received from various sources. This enables clear definition of priorities to remove detected flaws and prepare for the following phases.

3. Data Analysis Phase

The Data Analysis Phase is decisive to identify key issues and challenges for territorial safety. The main goal of this phase is to convert received information into clear findings and recommendations accounting for the specifics of different population groups and new challenges resulting from the Russian full-scale war against Ukraine.

3.1. Gender analysis

Gender analysis is focused on detection of differences in perception and experience in the use of territories by various groups of women and men. It allows to accept specific needs claimed by various social groups, specifically, the elderly, people with disabilities, youth, families with little children and people with limited mobility.

- 1) Survey form analysis:
 - Defining differences in responses received from various groups:
 - Women often point out at the lack of lighting and isolation of areas as major risk factors.
 - People with disabilities emphasize on physical barriers, such missing ramps or touch strips.
 - Details:
 - 65% of women and girls defined locations with dim lighting as a risk, while there were only 30% of men and boys who thought the same.
 - 40% of people with disabilities mention that sidewalks are unfit for use due to the roughness and barriers on the way.
 - See Annex 2.1 for the Standard Survey Form.
- 2) Focus group analysis:
 - Problem disclosure:
 - Youth often underlines the importance of access to sports and recreation areas.
 - Elderly people are focused on the lack of comfort, such as benches and canopies.
 - Example:
 - The focus group defined a hazard at the territories around shelters due to isolation and lack of related pathways.
 - See Annex 2.2 for the Standard Guide for Focus Groups on Territorial Safety.
- 3) Risk analysis for women, girls, men and boys:
 - Identification of hazardous areas:
 - Lack of surveillance cameras and proper lighting during the dark hours are major risks.
 - Disruption of infrastructure boosts hazards due to area isolation.
 - Example:
 - A non-lit park with restricted access is identified as a critical area for women during the dark hours.

3.2. Comparison with regulatory requirements

An assessment of territorial conformity to the valid legislation and building standards is performed to ensure safety and security for all population groups.

- 1) Basic norms and standards:
 - BN.2.3-5:2018 Lighting:
 - Ensuring even illumination for public spaces and pathways to shelters.

- BN.2.2-40:2018 Accessibility for people with limited mobility:
 - Requirements for sidewalk width, available ramps and touch strips.
- 2) Sample analysis:
 - Lack of touch strips for people with visual impairments is a violation of accessibility standards.
 - Non-conformity of the sidewalk width values to standards complicates movement for people in wheelchairs.
 - Pathways without pointer signage to shelters generate additional risks.

3.3. Segmentation of problematic areas

Territories are divided into the following three categories in accordance with collected data:

- 1) Critical areas:
 - High-risk areas, such as dim-lit and isolated territories with mining risks.
 - Example: An unlit and isolated park area.
- 2) Increased-risk areas:
 - Territories in need of better access and safety.
 - Example: A rough sidewalk presenting difficulties for people with disabilities.
- 3) Safe areas:
 - Areas compliant with standard requirements and needs of various population groups.
 - Example: A properly illuminated space with available pathways and recreation areas.

Challenges of war demand special attention to the following aspects:

1. Demining:
 - Identification of areas with potential risks due to available explosive remains. Coordination with sapper units to ensure safety.
2. Infrastructure condition:
 - Assessment of damaged roads, routes and bridges which impact residents' mobility.
3. Threat alerts and notifications:
 - Inspection of threat notification and alert system performance for all population categories, including people with visual and hearing impairments.
4. Environmental pollution:
 - Identification of areas with heavy air, water and soil pollution considered dangerous for population.

The Data Analysis Phase is finalized with identification of key problematic areas, their comparison with regulatory requirements and addressing war-related challenges. Analysis results establish the basis to draft follow-up recommendations and action plans in order to remove detected flaws.

4. Report Generation Phase

Report generation is the final phase of an audit. Its main purpose is to generalize all the received data, clearly define the key issues and suggest specific resolutions. A report becomes the major tool in managerial decision-making and change planning.

4.1. Report structure

- 1) Introduction:
 - Audit purpose: To assess territorial safety in accordance with the needs expressed by various population groups.
 - Territory background:
 - Territory type (a public space, transport stop).
 - Key specifications (total area, number of users).
 - Data collection methods:
 - Surveys (see Annex 2.1).
 - Focus groups (see Annex 2.2).
 - Document analysis.
 - Observations with the use of checklists (see Annex 2.3).
- 2) Auditing technique:
 - Details on data collection approaches (criteria, tools).
 - Team members:
 - Safety experts, gender experts, community representatives, social workers.

4.2. Results

- 1) Survey data:
 - Percentage distribution of survey results by groups.
 - Example: “45% of women and 28% of men mentioned that the lighting by the school area is insufficient.”
- 2) Problematic areas:
 - Details on each area with defined issues.
 - Example:
 - “A critical area on X Street: A children playground. Issues: No fence and benches for resting, dim lighting.”
- 3) Standard conformity analysis:
 - Territorial conformity assessment regarding the set standards.
 - Examples:
 - “A sidewalk by the school entrance fails to meet the requirements set by the BN.2.2-40:2018 Accessibility Document.”
 - “Missing pointers to the closest shelter, which violates recommendations on evacuation safety.”
- 4) Analysis of new challenges provoked by the war:
 - Addressing the areas in need of demining.
 - Damaged infrastructure assessment (roads, bridges, lighting).
 - Inspection of a notification and alert system performance.

4.3. General findings

- 1) General territorial safety level (low, average, high).
- 2) Assessment of needs of various population groups that were taken on board and claimed by:
 - Women and girls,
 - Men and boys,
 - People with disabilities,
 - People with limited mobility,
 - Youth and elderly people,
 - Other groups that might be considered vulnerable in terms of territorial safety and accessibility.
- 3) Definition of key areas in need of an urgent intervention.

4.4. Annexes

- 1) Photographic evidence:
 - Identified problematic areas.
 - Sample positive decisions (if any).
- 2) Survey forms and checklists:
 - Used during an audit (see Annexes 2.1 and 2.3).
- 3) Tables:
 - Survey results, distribution of answers by groups.

The war context demands attention to the following aspects:

- 1) Demining:
 - Inclusion of data on potentially hazardous areas due to heavy mining.
 - Recommendations on coordination with SES to ensure safety.
- 2) Damaged infrastructure:
 - Inclusion of details on ruined roads, bridges and lighting.
 - Proposals on recovery priorities for critical areas.
- 3) Threat alerts and notifications:
 - Assessment of access to notification and alert systems for various population groups (including people with visual and hearing impairments).
- 4) Environmental pollution:
 - Analysis of areas with heavy air, water and soil pollution.
 - Recommendations on notifications and alerts of risks for the general public.

The Report Generation Phase is finalized with creation of an integrated document containing details on territorial safety conditions, findings and recommendations. A report to account for the challenges of war and needs expressed by population groups while providing the basis to apply follow-up changes and improve safety conditions.

2.3. Organization and Implementation Procedure of a Territorial Safety Audit

Organization and implementation procedure of a territorial safety audit is based on a clear structure regulated by the valid laws of Ukraine in accordance with requirements for accessibility, safety and addressing the needs claimed by various groups of women and men. This process consists of planning, implementation, agreement and preparation of final documentation.

Phase 1. Planning

Planning of an audit is a fundamental phase ensuring clear arrangement of the whole process. Its purpose is to define territories for inspection, engage responsible people, agree actions with all interested parties and draft a detailed implementation plan. This phase requires focus on both general needs of a community and specific challenges related to the Russian war against Ukraine.

1.1. Defining an audited territory

1) Territorial scale:

- Defining specific areas to be audited. Those can be public spaces (parks, squares), shelters, routes to public transport stops, pathways to schools, hospitals, facilities and institutions as well as other locations frequently visited by community residents.
- Example: “The square by the city administration building, which is a place of large gatherings, routes adjacent to shelters as well as transport hubs used by residents for evacuation were selected for auditing.”

2) Territorial selection criteria:

- Territories with a great number of users: Specifically, a central square, public recreation locations, sports grounds.
- Areas with a great number of complaints: For example, residents might send petitions on poor sidewalk condition, missing lighting or inaccessible shelters.
- Critical areas for people with limited mobility: Routes to hospitals, pharmacies, administrative institutions, schools.
- Example: “The territory by a multi-storied residential complex covers a shelter, parking lot and school route which will be inspected for their accessibility and safety.”

1.2. Agreement with responsible authorities

1) Cooperation with key institutions:

- Local self-governance bodies: Agreement of priority areas, involvement of technical resources to ensure audits.
- Law enforcement authorities: Ensuring safety during an audit, especially during the dark hours, and identification of areas with high criminal activities.
- Civic society organizations and activists: Accounting for their opinions on safety and monitoring involvement.

2) Document execution:

- Issuing instructions on the members of an audit team, a list of areas to be inspected and audit implementation schedule.
- Example: “The instruction includes the lines related to pathways to local schools, shelter inspection and lighting analysis for adjacent streets.”

3) Audit plan details:

- Identification of specific sites to be inspected, audit schedule and necessary resources.
- Example: “The plan considers that lighting at the central square to be inspected in the evening, and sidewalk accessibility to be assessed in the morning while involving people with disabilities and representatives of other people with limited mobility.”

1.3. Establishment of an audit working group

Recommendations on the establishment of a working group:

- To ensure representation of people from different social groups as well as parity representation by sex and age.
- To include local residents using territories on the daily basis.
- To ensure interaction with law enforcement authorities to control increased-risk areas.

The full-scale war requires special attention to be paid to the following aspects:

- 1) Demining:
 - Assessment of areas with possible mine threats. Coverage of territories near playgrounds, schools and public parks by an audit.
- 2) Damaged infrastructure:
 - Assessment of condition of damaged roads, bridges and ruined buildings influencing public mobility.
- 3) Notification and alert performance:
 - Inspection of sound alarms and notification systems. Accessibility analysis of notifications and alerts for people with visual and hearing impairments.
- 4) Environmental pollution:
 - Detection of areas with heavy air, water and soil pollution considered dangerous for population.

The Audit Planning Phase is the basis for further activities. It allows providing a clear definition of priorities, involving key experts and interested parties as well as drafting an efficient audit plan. Addressing specific challenges provoked by the war guarantees that an audit will be focused on resolution of the most critical issues.

Phase 2. Implementation

Implementation of an audit is a core activity of the process used to provide detailed and structured information on territory condition. The general purpose of this phase is to record the actual condition of infrastructure, identify risks and collect feedback from territory users.

2.1. Learning about a territory

- 1) Preliminary visit:
 - Representatives of an audit working group perform a preliminary visit/territory check to define its condition and set key points for further inspection.
 - Example: “The preliminary visit detected that the major route to the school has a damaged sidewalk and no lighting.”
- 2) Mapping:
 - Preparation of territory maps marking the areas to be inspected, including shelters, public spaces and routes to key sites.
 - Example: “The map marks all the shelters and public transport stops with details on condition of the adjacent infrastructure.”
- 3) Audit timing:
 - Planning observations during the daylight and dark hours to assess the level of safety in different conditions.
 - Example: “Inspection of the park lighting is scheduled for the evening, while the sidewalk condition assessment is scheduled for the morning.”

2.2. Setting points for assessment

- 1) Key locations for inspection:
 - Public transport stops: Assessment of available lighting, benches and canopies from the weather.
 - Isolated areas: Territories with obstructed visibility or no lighting.
 - Routes to shelters: Route safety and accessibility checks, including pointers and ramps.
 - Example: “It was found that there were no pointer signage on the route to the shelter, and the sidewalks were blocked with cars.”
- 2) Risk area details:
 - Identification of increased-risk territories, such as those with no lighting or with potential mining risks.
 - Example: “The isolated area by the park has no lighting and no installed surveillance cameras.”

2.3. Observations

- 1) Use of checklists:
 - An audit working group fills the checklists to record specific territory condition (see Annex 2.3).
 - Standard checklist lines:
 - Are there lights along the routes?
 - Are there sidewalks in place for people with disabilities and representatives of people with limited mobility?
 - Are the safe areas marked?
- 2) Photographic evidence:

- Identified problematic areas mentioning their mapping.
 - Example: “Photos of the too narrow unlit sidewalk attached to the report.”
- 3) Problem background:
- Each problem is recorded with specific geotags.
 - Example: “The route from the station to the hospital reveals that the sidewalk width is less than 1m, which makes it impossible for people in wheelchairs to move around.”

2.4. Surveys

- 1) Interviews with territory users (visitors):
- Implementation of individual and group surveys to detect subjective perception of safety.
 - Sample questions:
 - Do You feel yourself safe on this territory?
 - Have You observed any issues on the routes to the shelters?
 - Do You find sidewalks and public transport stops comfortable?
- 2) Recording proposals:
- All the user proposals are recorded to be addressed within a related report.
 - Example: “The residents propose to install additional benches by public transport stops.”
- 3) Use of Survey Forms:
- Filling Standard Survey Forms designed in accordance with the needs claimed by various population groups (see Annex 2.1).

The war context demands attention to the following aspects:

- 1) Demining:
- Identification of areas with potential risks due to available explosive remains.
 - Example: “Park inspections for potentially laid mines.”
- 2) Damaged infrastructure:
- Condition analysis of the roads that can be dangerous due to ruination.
 - Example: “The ruined bridge blocks the route to the closest shelter.”
- 3) Alerts and notifications:
- Performance tests for notification and alert systems such as sound alarms and mobile apps.
 - Example: “Sound alarms can’t be heard across the audited territory due to the low signal power.”
- 4) Environmental pollution:
- Defining areas with high pollution rates that can bear risks for health.
 - Example: “The territories by industrial sites need additional environmental monitoring.”

The Audit Implementation Phase is finalized with collection of data enabling to assess the safety condition of an audited territory. Observations, surveys and photographic evidence ensure a detailed view of the problems and needs expressed by residents, including the challenges provoked by the war. These data to become the basis for further analysis and recommendation development.

Phase 3. Result Agreement

The agreement of results enables to analyse collected data, identify problematic areas and engage key interested parties in discussion of findings and possible solutions. This phase guarantees transparency of an audit process and addressing the needs of all population groups.

3.1. Primary analysis

- 1) Team discussion of results:
- An audit working group holds a joint meeting to analyse preliminary results.
 - Example: “The members discuss the identified high-risk areas such as isolated areas by unlit public transport stops.”
- 2) Classification of problematic areas:
- Critical areas:
 - High-risk territories in need of urgent interventions (missing lighting, dangerous routes to shelters, mined areas).
 - Example: “The unlit area by the school provokes assault and violence risks during the dark hours.”
 - Increased-risk areas:
 - Territories in need of better safety that are not critically dangerous, still.

- Example: “Roughly coated sidewalks complicating the movement of people with disabilities and representatives of other people with limited mobility.”
- 3) Risk mapping:
 - An interactive map is designed to demonstrate all the identified problematic areas linked to their specifications (lighting, accessibility, safety).
 - Example: “The map identifies the critical area by the children playground with no fence and an increased-risk area by the public transport stop with poor visibility.”
- 3.2. Consulting with interested parties
 - 1) Agreement of findings with local authorities:
 - Presentation of preliminary audit results for representatives of local self-governance bodies to develop a joint action plan.
 - Example: “The meeting at the local council was used to discuss the need for installation of additional lights for the routes leading to shelters.”
 - 2) Joint discussions with activists and civic society organizations:
 - Holding open meetings with residents and representatives of civic society organizations to address their proposals.
 - Example: “Local activists propose to create surveilled areas in isolated and unlit parts of the parks and arrange the patrolling routine during the dark hours”.
 - 3) Integration of proposals into the action plan:
 - All the concerns and proposals are recorded and included into a report as recommendations.
 - Example: “Civic society organizations emphasized on the need to adapt shelters for people with disabilities and representatives of other people with limited mobility, which was turned into a recommendation within the final report.”

The Result Agreement Phase is finalized with consolidation of collected information, classification of problematic areas and inclusion of proposals submitted by interested parties into the report. Such an approach allows generating recommendations that address relevant challenges of the full-scale war and needs expressed by various population groups.

Phase 4. Final Documentation

The Final Documentation Phase is of paramount importance to finalize an audit. This phase is used to generate a final report containing full analysis of territory conditions, findings and recommendations as well as reflecting the needs expressed by various population groups and challenges provoked by the russian full-scale war against Ukraine.

4.1. Report compilation

- 1) Report structure:
 - Introduction:
 - Audit purpose: Comprehensive assessment of a territory safety condition.
 - Brief territory background: A territory type (a public space, public transport stop) and key specifications (total area, number of users).
 - Methodology:
 - Implementation procedure: Used data collection methods (surveys, focus groups, observations).
 - Team members: A list of experts and their roles (gender experts, ecologists, community representatives).
 - Detected issues:
 - Details on each critical area with geotagged photo evidence.
 - Example: “The sidewalk by the school is less than 1m wide, which makes it impossible for people in wheelchairs to move around. It is suggested to widen the sidewalk up to 1.5 m.”
 - Agreed proposals:
 - Recommendations on infrastructural, safety and accessibility improvements.
 - Example: “To install additional lights by the routes to shelters and adapt them for people with disabilities and representatives of other people with limited mobility.”
- 2) Detailed report structure:
 - It is recommended to use a standard structure presented in Annex 2.4 which includes detailed sections on each aspect of an audit.

4.2. Submitting results

- 1) Submission of a report to responsible authorities:

- A final report is submitted to local authorities, law enforcement authorities and civic society organizations to implement related recommendations.
- Example: “The report containing proposals on repairs of damaged roads and installation of additional alarm equipment has been submitted to the local council”.

2) Presentation of results:

- Arrangement of a final meeting with community representatives, activists and other interested parties to discuss findings and recommendations.
- Example: “The audit results are presented at open hearings with the residents to discuss specific steps in order to improve territory conditions”.

3) Public involvement in implementation:

- Holding public consulting sessions to address additional proposals regarding the implementation of an action plan submitted by residents.
- Example: “The activists propose to engage volunteers in the monitoring over the implementation of results.”

Preparation of final documentation ends up with the generation of a final report reflecting all the collected information, addressing the challenges provoked by the full-scale war and suggesting specific solutions to improve territorial safety. This report is a key tool to implement the changes that might follow.

The following principles to be adhered to when generating findings and recommendations based on results of a related safety audit:

- **Objectivity and impartiality** (all the findings to be based on actual data received during an audit. Personal opinions or assumptions to be omitted).
- **Clarity and readability** (information to be presented in a logical manner, with a clear structure and use of familiar definitions. Language constructs and professional definitions that can be misinterpreted by an average reader to be avoided).
- **Specificity and practicality of provided recommendations** (recommendations to be realistic and feasible). They should account for capacities of specific authorities (a central executive body, local executive body, local self-governance body), balance holders, etc. in terms of their resources and time). Recommendations should be stratified by their priority: urgent measures (in 1 month); short-term measures (up to 6 months); and long-term measures (up to 1 year or longer).

See Annex 5 of the Guide for the Schematic Decision-Making Algorithm Based on Results of a Conducted Safety Audit



CHAPTER 3. ORGANIZATION AND IMPLEMENTATION OF A SHELTER SAFETY AUDIT

3.1. Legal Framework of a Shelter Safety Audit: Global Standards and National Laws

International laws governing organization, standards and maintenance of civil defence protection structures in order to ensure civilian safety during wars, armed conflicts, natural disasters and other emergencies include the following:

- Provisions of the Geneva Convention Concerning the Protection of Civilians in Time of War³³ (ratified by Ukraine on July 3, 1954) and Additional Protocols of 1949 and 1977³⁴ (ratified by Ukraine on August 18, 1989). These documents oblige the signatory states to ensure protection of civilian population in time of war and armed conflicts, which includes the establishment and maintenance of protection structures meeting the needs of civilian population. The Protocols also underline the necessity for ensuring humanitarian access to protection structures regardless of the circumstances at hand as well as demand to ensure the conditions to preserve human lives and health at related shelters.
- UN Emergency Shelter Solutions and Standards³⁵. These recommendations include guidelines to the positioning, equipment and maintenance of protection structures. UN emphasizes on the need for the establishment of shelters in accordance with the requirements on accessibility, shock resistance and ensuring basic conditions for long stay of people. Also, UN advises to ensure inclusion principles at protection structures (access for all population groups, including people with disabilities, the elderly, children and other vulnerable groups).
- NATO standards on civil protection structures are provided by STANAG (Standardization Agreements) documents³⁶. These standards define common requirements for all Alliance member states. The key documents include the following:
 - STANAG 2280: Defines standards on protection structures, including specific requirements related to their design and safety.
 - STANAG 2281: Describes assessment and audit procedures for protection structures while ensuring their conformity to the set standards.

Access to full versions of STANAG documents is restricted only for the Alliance member states.

- European standards on protection structures. The European Union has drafted building and maintenance standards for protection structures accounting for various regional specifics. European standards define the requirements on structure strength, sanitation, fire safety and recommendations on minimum area per person as well as ventilation systems. Detailed technical specifications are available through national standardization agencies (SE “UkrNDNC” in Ukraine³⁷) or the European Committee for Standardization (CEN)³⁸.

These international documents and recommendations form the basic principles of building and operations of civil protection structures and create the basis for implementation of safety audits in order to support the readiness and conformity of protection structures to the current safety standards. They are focused on the establishment of a safe and secure environment as well as ensuring proper conditions for long-term stay of civilian population inside shelters during wars, armed conflicts and emergencies.

The national legislation regulating the requirements on design, building, equipment and maintenance of civil protection structures includes the following documents:

- Constitution of Ukraine (the Fundamental Law of Ukraine), as the basis of civil protection and defence in Ukraine³⁹.
- Code of Civil Protection of Ukraine⁴⁰ regulates relations associated with the protection of the population, territories, environment and property from emergencies, respective response and operations of a unified state civil defence system as well as defines the mandates of state authorities, rights and duties of the citizens, enterprises, institutions and organizations.

³³ Geneva Convention Concerning the Protection of Civilians in Time of War, https://zakon.rada.gov.ua/laws/show/995_154#Text

³⁴ Additional Protocol to the Geneva Convention of August 12, 1949, on the protection of civilian victims of international armed conflicts (Protocol I) ratified on June 8, 1977, and the Additional Protocol to the Geneva Convention of August 12, 1949, on the protection of civilian victims of armed conflict to non-international armed conflicts (Protocol II), https://zakon.rada.gov.ua/laws/show/995_200#Text

³⁵ UN Emergency Shelter Solutions and Standards, <https://emergency.unhcr.org/emergency-assistance/shelter-camp-and-settlement/shelter-and-housing/emergency-shelter-solutions-and-standards>

³⁶ NATO standards on civil protection structures, https://www.nato.int/cps/en/natohq/topics_124879.htm

³⁷ SE “UkrNDNC” national standardization agency, <https://uas.gov.ua/>

³⁸ European Committee for Standardization, <https://www.cencenelec.eu/european-standardization/>

³⁹ Constitution of Ukraine, <https://zakon.rada.gov.ua/laws/show/254%D0%BA/96-%D0%B2%D1%80#Text>

⁴⁰ Code of Civil Protection of Ukraine, <https://zakon.rada.gov.ua/laws/show/5403-17#Text>

- Law of Ukraine “On state building and construction norms of Ukraine”⁴¹ defines legal and organizational fundamentals of drafting, agreement, approval, registration and application of building and construction norms, which specifically includes the following documents:
 - BN.2.2-5:2023 “Civil protection structures”⁴² sets the requirements on design and construction of civil protection structures (shelters, anti-radiation shelters) and dual-use structures classified as shelters or anti-radiation shelters by their protective properties.
 - BN.2.2-40:2018 “Building and structure inclusion principles. Main provisions”⁴³ sets the general provisions on ensuring access to buildings and structures as well as their smart adjustment in accordance with the needs expressed by PLM.
 - BN.1.1-7:2016 “Fire safety at construction sites. General requirements”⁴⁴ sets the general fire safety requirements for houses, buildings and other structures to contain the spread of fire between different buildings and within buildings, ensure safe evacuation of people, ensure fire extinguishment and rescue of people during fires as well as apply fire protection systems.
- CMU Decree #138 “On the establishment and maintenance of the Civil Protection Structure Pool, addition and removal of related facilities to and from the pool as well as keeping pool records” of March 10, 2017⁴⁵.
- CMU Instruction #183-r “On approval of the Civil Protection Structure Pool Development Strategy till 2034 and approval of its Action Plan” of March 4, 2025⁴⁶.
- Order of the Ministry of Internal Affairs of Ukraine #579 “On approval of requirements for use and records on the Civil Protection Structure Pool” of July 09, 2018, as registered at the Ministry of Justice of Ukraine under #879/32331 on July 30, 2018⁴⁷.
- Order of the Ministry of Internal Affairs of Ukraine #1417 “On fire safety rules in Ukraine” of December 30, 2014, as registered at the Ministry of Justice of Ukraine under #252/26697 on March 05, 2015⁴⁸.
- Order #400 of the Ministry of Health of Ukraine “State sanitation rules on “Hygienic requirements for drinking water fit for human consumption”” of May 12, 2010, as registered at the Ministry of Justice of Ukraine under #452/17747 on July 01, 2010⁴⁹.
- State Standards of Ukraine, and specifically, the following documents:
 - DSTU 7525:2014 “Requirements and quality control methods for drinking water” Standard⁵⁰ contains quality norms for drinking water and sets requirements for its control methods in both centralized and non-centralized supply systems.
 - DSTU EN 3-7:2004 “Portable Fire Extinguishers – Part 7: Characteristics, Performance Requirements and Test Methods” Standard⁵¹ in the field of fire safety sets the specifications, requirements for operating parameters and test methods for portable fire extinguishers.

⁴¹ Law of Ukraine #1704-VI “On state building and construction norms of Ukraine” of 05.11.2009, <https://zakon.rada.gov.ua/laws/show/1704-17#Text>

⁴² BN.2.2-5:2023 “Civil protection structures”, https://e-construction.gov.ua/laws_detail/3225773063500990463?doc_type=2

⁴³ BN.2.2-40:2018 “Building and structure inclusion principles. Main provisions”, https://e-construction.gov.ua/laws_detail/3192362160978134152?doc_type=2

⁴⁴ BN.1.1-7:2016 “Fire safety at construction sites. General requirements”, https://e-construction.gov.ua/laws_detail/3080743763845318619?doc_type=2

⁴⁵ Decree #138 of the Cabinet of Ministers of Ukraine “On the establishment and maintenance of the Civil Protection Structure Pool, addition and removal of related sites to and from the pool as well as keeping pool records” of March 10, 2017, <https://zakon.rada.gov.ua/laws/show/138-2017-%D0%BF#Text>

⁴⁶ Instruction #183-r of the Cabinet of Ministers of Ukraine “On approval of the Civil Protection Structure Pool Development Strategy till 2034 and approval of its Action Plan” of March 4, 2025, <https://zakon.rada.gov.ua/laws/show/183-2025-%D1%80#Text>

⁴⁷ Order of the Ministry of Internal Affairs of Ukraine #579 “On approval of requirements for use and records on the Civil Protection Structure Pool” of July 09, 2018, as registered at the Ministry of Justice of Ukraine under #879/32331 on July 30, 2018, <https://zakon.rada.gov.ua/laws/show/z0879-18#Text>

⁴⁸ Order of the Ministry of Internal Affairs of Ukraine #1417 “On fire safety rules in Ukraine” of December 30, 2014, as registered at the Ministry of Justice of Ukraine under #252/26697 on March 05, 2015, <https://zakon.rada.gov.ua/laws/show/z0252-15>

⁴⁹ Order #400 of the Ministry of Health of Ukraine “State sanitation rules on “Hygienic requirements for drinking water fit for human consumption”” of May 12, 2010, as registered at the Ministry of Justice of Ukraine under #452/17747 on July 01, 2010, <https://zakon.rada.gov.ua/laws/show/z0452-10#Text>

⁵⁰ State Standard of Ukraine 7525:2014 “Requirements and quality control methods for drinking water”, https://zakon.isu.net.ua/sites/default/files/normdocs/1-10672-dstu_voda_pytna.pdf

⁵¹ State Standard of Ukraine “Portable Fire Extinguishers – Part 7: Characteristics, Performance Requirements and Test Methods”, https://online.budstandart.com.ua/catalog/doc-page?id_doc=90305

The above regulatory-legal acts and administrative documents build the basis for shelter safety audits in Ukraine required by the National Action Plan for implementation of the UN Security Council Resolution 1325 “Women, Peace and Security” till 2025⁵².

It’s worth mentioning that the “shelter” definition commonly used by Ukrainians in their daily lives should be interpreted within the context of the Civil Protection Structure Pool (as per the valid legislation) designed for temporary stay of people during emergencies.

In accordance with Chapter 7, Article 32 of the Code of Civil Protection of Ukraine, the Civil Protection Structure Pool includes civil protection structures (shelters and anti-radiation shelters), dual-use structures, primary (mobile) and basic shelters.

1) **shelter** is a sealed structure providing conditions for stay and protection of people for a certain period of time (at least 48 hours) by removing or reducing the estimated impact of hazardous factors which might occur due to an emergency, use of weapons of mass destruction and conventional weapons during military (combat) actions and/or acts of terror.

2) **anti-radiation structure** is a non-sealed structure providing conditions for stay and protection of people for a certain period of time (at least 48 hours) by removing or reducing the estimated impact of hazardous factors which might occur due to an emergency and ionising radiation impact caused by a radiation accident and radioactive contamination as well as indirect action of conventional weapons during military (combat) actions and acts/or of terror.

3) **dual-use structures** are buildings, structures or their parts initially constructed for social or economic use which also have respective protective features and designed, constructed or adjusted in a way to provide conditions for temporary stay of people in case of hazards for their life and health during an emergency, military (combat) actions and acts of terror.

The most common dual-use structures are subway stations and passages, road and pedestrian tunnels, car parks and parking lots, garages, underground shopping malls, catering enterprises, etc.

4) **basic shelter** is a ground or basement floor room, or other underground structure providing conditions for temporary stay of people (at least 48 hours) in case of hazards for their life and health to reduce indirect action of conventional weapons during military (combat) actions and/or acts of terror. Basements of multi-storeyed residential apartment buildings can be defined as basic shelters.

5) **primary (mobile) shelter** is a technical product, including module-type blocks, designed for short-term (up to 4 hours) public protection in the field by reducing indirect action of conventional weapons during military (combat) actions. They are located at estimated crowded places (public transport stops, parks, recreation areas, etc.) during the special period.

Shelters and anti-radiation shelters to meet specific requirements for their location, design, construction, reconstruction and equipment (in accordance with the norms drafted under the Law of Ukraine “On state building and construction norms”).

Dual-use structures (DUS) are covered by the above requirements in accordance with their types: DUS Classified as a Shelter by its Protective Properties and DUS Classified as an Anti-Radiation Shelter by its Protective Properties.

The requirements defined for protective properties of basic shelters are not covered by any norms or standards, but they have their own equipment specifics.

A primary (mobile) shelter is installed or manufactured in accordance with the national standards and/or technical regulations, which means it is considered a technical product and not a construction site – therefore, such shelters are not covered by any building and construction norms.

All the above facilities belong to collective protection equipment and bear decisive strategic value to ensure protection of civilians during a war or emergency.

With the daily life in Ukraine in mind, it is the shelters that have become a safe haven for the population during explosions and shelling, and they do save human lives.

According to the information provided by the Civil Protection Structure Pool Development Strategy till 2034, the total number of the pool facilities on the territory controlled by the Government of Ukraine in December 2024 was 62,655 facilities which provided shelter for 48.8% of the population. At the same time, 19,541 of those facilities were civil protection structures and dual-use structures, and the remaining 42,443 facilities were basic shelters.

The capacity of the civil protection structures and dual-use structures is approximated as 17.5% of the sheltered population, and basic shelters – as 31.3% of the sheltered population. Hence, it can be assumed that they can shelter almost a half of the Ukrainian population.

Additionally, 54,167 (85.3%) facilities from the Civil Protection Structure Pool were prepared for their intended use in March 2025. Of those, the major share of unprepared facilities were specifically civil protection structures (12.4%), which effectively reduces the number of facilities that can be used as shelters for the civilian population.

Therefore, it is quite the time to prevent potential threats and respond to possible challenges – specifically, by conducting shelter safety audits based on the gender approach (this is a strategy to meet the interests and experience claimed by both women and men, as an integrated component for planning, implementation, monitoring and evaluation

⁵² CMU Instruction #1544-r “National Action Plan for implementation of the UN Security Council Resolution 1325 “Women, Peace and Security” till 2025” of 28.10.2020, <https://zakon.rada.gov.ua/laws/show/1544-2020-%D1%80#Text>

of policies and programmes in political, economic, cultural and social areas to ensure equal welfare for women and men)⁵³ and inclusive approach (assuming the creation of equal opportunities and conditions to involve different layers of the national population in active work across all the fields of social reproduction – economic, political, cultural, etc.)⁵⁴.

3.2. Organization and Implementation of a Shelter Safety Audit

A shelter safety audit is a systematic inspection of shelter preparedness and conditions for use during military actions and emergencies.

The general purpose of an audit as such is to assess shelter conformity to the related safety and comfort standards, detect respective risks and flaws and ensure comfortable conditions for all population groups, and specifically – for people with limited mobility (PLM). An audit assists with drafting further recommendations on better accessibility, inclusion and safety in accordance with the needs expressed by various groups of girls and boys, women and men.

The Ukrainian realities have such audits focused on the assessment of shelter conformity to legal norms and standards, detection and removal of flaws in design, equipment, accessibility and maintenance in order to prepare a protection structure for its intended purpose.

Auditing expertise enables to propose the following types of auditing activities:

- I. Technical audit – inspection of reliability of building constructions, engineering systems, sealing, water supply and disposal, power supply, temperature, relative humidity, etc.
- II. Accessibility audit – determination of conformity to the requirements for comfortable and safe access for all population groups, including people with limited mobility (PLM).
- III. Fire safety audit – analysis of fire protection systems (fire alarms, fire extinguishers), available evacuation routes and stocks in case of fire.
- IV. Sheltered people audit – inspection of conditions available for stay of different population groups, available tools for prevention of gender-based violence and discrimination (communication channels – specifically, phones or walkie-talkies for emergency calls to the National Police of Ukraine; information materials explaining the indicators of violence and the ways to prevent it; available social workers or volunteers warning, preventing and responding to assumed cases of violence or discrimination in a timely manner; available lighting facilitating to ensure a controlled and visible environment).
- V. Sanitary and hygienic audit – assessment of available water and medicine stocks as well as sanitary conditions for safe stay of people.
- VI. Resource and stock audit – analysis of available necessary resources such as food, tools for repairs, etc.
- VII. Communication audit – inspection of the equipment used to access information and coordinate activities.

The effectiveness of a shelter safety audit depends on the comprehensive assessment of a shelter condition, its conformity to the valid safety standards and norms as well as detection and removal of potential risks.

The following phases are recommended in order to conduct an effective shelter safety audit of high quality:

1. Establishment of a Working Group;
2. Training on a comprehensive and generic approach to shelter safety audits for members of the Working Group;
3. Document review by members of the Working Group established for a specific audited facility;
4. Compilation and approval of an audit plan; and
5. Implementation of an actual field safety audit at a specific site.

The primary phase of a shelter safety audit assumes the establishment of a related Working Group by issuing an administrative document approved by a related authority (a central executive body, local executive body or local self-governance body).

The document to approve members of the Working Group (up to 10 people) and appoint the Chairman/Chairwoman of the Working Group. Such an approach ensures clear process management, proper activity coordination as well as defines responsible persons and facilitates the better quality of an audit in accordance with the set safety standards.

The Working Group must include the top management (heads of central and local authorities, officials of local self-governance bodies), experts from structural units on urban planning and architecture, social welfare, education and science, civil protection, health, finances, a commander of a maintenance team for a specific protection structure as well as experts from territorial authorities and local units of SES, State Consumer Protection Service, an authorized person (coordinator) on ensuring equal rights and opportunities for women and men, gender equality experts (possible involvement of experts from the Gender Advisor Network on their consent*), representatives of civic society organizations and audited communities (people with disabilities: in a wheelchair, people with visual impairments or complete/partial visual loss, people with hearing impairments or complete/partial hearing loss and people with other impairments) – *if available within a specific community*.

⁵³ Gender-Oriented Governance: Guidelines, <https://shorturl.at/q5WZg>

⁵⁴ STATE POLICY TO COVER GENDER GAPS UNDER THE INCLUSIVE APPROACH / Scientific Notes of Taurida National V. I. Vernadsky University, Series: Public Governance and Administration, Volume 35 (74) #3, 2024, D.M. Tyurina https://www.pubadm.vernadskyjournals.in.ua/journals/2024/3_2024/16.pdf

*NB:

The Gender Advisor Network unites male and female gender advisors for state authorities and local self-governance bodies, enterprises, organizations, institutions and civic associations.

Contact details: <https://www.facebook.com/groups/genadsnetwork>

The second phase launched on approval of Working Group members assumes that the latter must pass training on a comprehensive and generic approach to shelter safety audits under a predefined curriculum.

The third phase of an audit considers it essential to collect (e.g., by sending a related request to a CEB/OMA/LSGB) and analyse available documents on a protection structure to be audited as every shelter type has its own requirements for purpose, capacity, construction specifics, strength, sealing, available stocks and other important factors, as per the valid Ukrainian legislation. This phase would allow Working Group members to assess the current condition of an audited facility and assist with the further field inspection.

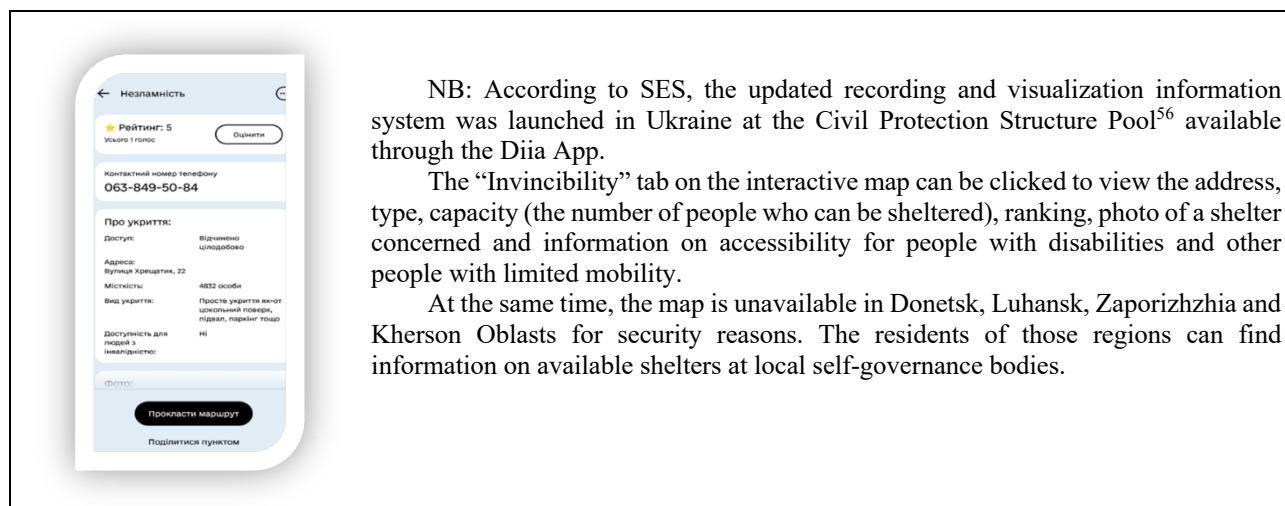
The Working Group to use the third phase in order to analyse the following:

- facility reference number (exclusively for a protection structure/dual-use structure);
- facility type from the Civil Protection Structure Pool (a shelter, anti-radiation shelter, dual-use structure classified as a shelter by its protective properties, dual-use structure classified as an anti-radiation shelter by its protective properties or basic shelter);
- area (m²);
- volume (m³);
- capacity (people);
- structure type depending on the positioning within a building (structure);
- group or class depending on protective properties (for protection structures/dual-use structures, as per BN.2.2-5:2023 “Civil protection structures”);
- address or location (for those facilities that can’t be considered standalone real estate sites that have no assigned address);
- geographic coordinates of a location (main entrance) and brief background of the facility location;
- registration date;
- photo evidence (entrance with a plaque installed nearby, main premises for stay of people as well as other premises (if possible);
- scanned copy of a passport for a protection structure/dual-use structure;
- scanned copy of a technical passport issued under the technical inventory of a facility as a related structure, and/or a certificate issued by state architecture-construction control authorities in accordance with the commissioning of a completed construction site;
- facility (building, structure or premises) inspection act on its possible use as a public shelter (as a basic shelter);
- balance holder(s) details (name of a legal entity or individual, abbreviated name, EDRPOU/TPIDCRN Code, contact phone number, email, legal address or mailing address);
- information on available ownership rights (ownership certificate number, ownership certificate date, name of an issuing authority) and form of ownership;
- state of preparedness and the date of the last preparedness (suitability) assessment as well as a scanned copy of a last assessment act on preparedness for intended use or an act of any other preparedness inspection;
- agency affinity;
- ventilation system type (natural, artificial, combined);
- available filter modes (clean, filter, recovery);
- accessibility (meeting inclusion requirements, including access for people with limited mobility);
- ensuring access to a facility during a special period (in case another access procedure is set, it has to be specifically described and properly mentioned);
- information on the use of a protection structure in time of peace or the main functional purpose of a dual-use structure;
- information on the technical and sanitary conditions;
- information on implementation of technical inventory of a facility as a protection structure or dual-use structure (name of an organization implementing technical inventory, inventory case number or completed construction site identifier, implementation date);
- available information transfer tools (wire or wireless internet access points and their proper functioning);
- structure registration number within the Unified Register of State Property Items (if any);
- name, surname and patronymics of a person responsible for maintenance and operations of a specific facility, his/her contact phone number and the place used for storage of the keys, documents (specifically – address);
- commissioning year (commissioning of a completed construction site);
- category of population to be sheltered at a specific facility;
- number of entrances (exits) and emergency exits; and

- information on heating, ventilation, power supply, water supply and sewage systems, fire safety condition, available measuring devices and other property (tools, accessories, units and machinery) as well as a city line radio receiving station.

Source: *Reporting requirements for facilities from the Civil Protection Structure Pool*⁵⁵.

The Working Group can also use the following app to access the required shelter-related information:



By studying documents for a selected audited facility, the Working Group can collect necessary information, form an impression of an audited facility and prepare for a more detailed and accurate shelter safety analysis during the field phase (conducting an audit directly at a selected facility).

The fourth phase of an audit to be used by the Working Group to compile and approve an audit plan with a defined list of tasks, deadlines and responsible employees, as an administrative document.

The fifth phase assumes the actual shelter safety audit in the field.

Members of a Working Group to follow the valid Ukrainian legislation regulating the requirements for design, building and construction, equipment and maintenance of civil protection structures during an audit. The above documents specifically include the Order of the Ministry of Internal Affairs of Ukraine #579 “On approval of requirements for use and records on the Civil Protection Structure Pool” of July 09, 2018, as registered at the Ministry of Justice of Ukraine under #879/32331 on July 30, 2018, in accordance with the norms defined by the BN.2.2-5:2023 “Civil protection structures” document, etc.

I. The first area suggested for a shelter safety audit by the authors is the technical audit.

As per the valid law, the requirements for a protection structure technical condition related to shelters, anti-radiation shelters and basic shelters can differ. Dual-use structures (DUS) are covered by the above requirements depending on their type: a DUS classified as a shelter by its protective properties and a DUS classified as an anti-radiation shelter by its protective properties.

1. Shelters

- **Construction strength:** Shelters to ensure protection from an air shock wave, fragments and other blast threats. Constructions to hold the designed loads, as required under *Section 14, BN.2.2-5:2023*.
- **Wall thickness:** The thickness of the walls to be calculated in accordance with a used material and design loads. As per *BN.2.2-5:2023*, the minimum thickness of a reinforced concrete wall to be 0.2 m in order to ensure protection from shock waves and other threats.
- **Sealing:** Shelters to be equipped with sealed doors, hatches and other elements ensuring complete isolation from an external environment, and specifically – from penetration of radioactive, chemical and biological substances (*BN.2.2-5:2023, 7.5.1.4*).
- **Engineering systems:** Shelters to be equipped with filter-based ventilation systems, autonomous power sources, water supply and sewage systems ensuring vital activities of sheltered people during the set time (*BN.2.2-5:2023, 11.1*).
- **Water supply:** Shelters to be provided with stocks of drinking water at the rate of 2 litres per person daily. Water can be kept in sealed containers or provided through a water supply system fit with check valves to prevent back flows (*BN.2.2-5:2023, 11.3*).

⁵⁵ Order #579 of the Ministry of Internal Affairs of Ukraine “On approval of requirements for use and records on the Civil Protection Structure Pool” of July 09, 2018, <https://zakon.rada.gov.ua/laws/show/z0880-18#n4>

⁵⁶ Recording and visualization information system at the at the Civil Protection Structure Pool, <https://dsns.gov.ua/news/ostanni-novini/v-ukrayini-zaprachiuvata-onovlena-elektronna-sistema-obliku-fondu-ukrittiv-dlia-civilnogo-naseleennia>

- **Sewage:** A waste water disposal system to be considered. Such a system can include sealed containers for waste collection or connections to a centralized sewage network through check valves (*BN.2.2-5:2023, 11.4*).
- **Power supply:** Shelters to have both the main and backup power sources. A backup power source (e.g., a diesel generator) to ensure operations of a ventilation system, lighting and other critical systems for at least 48 hours (*BN.2.2-5:2023, 11.5*).
- **Lighting:** Shelters to be equipped with both main and emergency lighting. Should the main power source be shutdown, there is a need to ensure emergency lighting that can be powered by autonomous sources (batteries or generators). The emergency lighting to ensure safe evacuation of people from the premises (*BN.2.2-5:2023, 11.5.11*).
- **Temperature:** The recommended temperature inside a shelter to remain within the range from +18°C to +25°C in order to ensure a comfortable environment for the stay of people (*BN.2.2-5:2023, 9.9.1, 11.2.1.7*).
- **Relative humidity:** The relative air humidity to be maintained within the range of 60%-75%, which conforms to the norms on ensuring normal health in sheltered people (*BN.2.2-5:2023, 11.2.1.7*).
- **Anti-Radiation Shelters (ARS)**
- **Construction strength:** ARS constructions to ensure protection from radiation through the use of highly protective materials. Constructions to hold the designed loads required under *Section 14, BN.2.2-5:2023*.
- **Wall thickness:** Wall thickness to be calculated in accordance with the required radiation-hazard attenuation factor. The thickness value for brick walls to be 510 mm or more – depending on the required protection class. Thickness and materials for walls to be defined in accordance with *Annex D to BN.2.2-5:2023*.
- **Sealing:** It is not mandatory for ARSs to be fully sealed, but they are to ensure reduced penetration of radioactive substances.
- **Engineering systems:** ARSs to be equipped with natural or forced ventilation systems, they can have autonomous power sources and minimum water supply means (*BN.2.2-5:2023, 11.1.2*).
- **Water supply:** ARSs to be provided with stocks of drinking water at the rate of 2 litres per person daily. Water can be kept in sealed containers or supplied through a water supply system fit with check valves (*BN.2.2-5:2023, 11.3.1*).
- **Sewage:** A waste water disposal system to be considered. Such a system can include sealed containers for waste collection or connections to a centralized sewage network through check valves (*BN.2.2-5:2023, 11.4*).
- **Power supply:** ARSs to have both the main and backup power sources. A backup source to ensure operations of a ventilation system, lighting and other critical systems for at least 24 hours (*BN.2.2-5:2023, 11.5*).
- **Lighting:** ARSs to be equipped with both main and emergency lighting. Should the main power source be shutdown, there is a need to ensure emergency lighting that can be powered by autonomous sources (batteries or generators). The emergency lighting to ensure safe evacuation of people from the premises (*BN.2.2-5:2023, 11.5.14*).
- **Temperature:** The temperature inside ARSs to remain within the range from +18°C to +25°C in order to reduce the negative impact on human health during the stay in a shelter (*BN.2.2-5:2023, 11.2.1.7*).
- **Relative humidity:** The optimum humidity to be maintained within the range of 60%-75%, which ensures comfortable stay and prevents condensate accumulation on the walls and ceiling (*BN.2.2-5:2023, 11.2.1.7*).
- **Basic Shelters**
- **Construction strength:** Basic shelters are designed to protect from fragments and light blast threats. Constructions to ensure the minimum level of protection and be collapse-resilient. The valid legislation provides no requirements for these sites, yet the necessary protective properties for a basic shelter commonly involve brick walls of 2-2.5 brick thick or 56 cm thick walls made of whole reinforced concrete constructions (blocks, panels), a layer of soil of 67-78 cm thick (a bag of sand (soil) laid across a construction (row)). In case of thinner building constructions, it is possible to reinforce their protective properties with additional layers of bags of soil (sand), installed screens of reinforced concrete (panels, blocks, etc.) and/or in a combined way. In case of underground building and construction sites of reinforced concrete or brick, with their upper part failing to meet the recommendations mentioned above, it is possible to boost their protective properties by reinforcing them with laid bags of soil (sand), land diking, etc.
- **Wall thickness:** There are no specifically defined requirements for wall thickness at basic shelters, but it is recommended to use walls at least 250 mm thick for brick constructions, and at least 200 mm thick – for concrete constructions.
- **Sealing:** Sealing for basic shelters is not mandatory.
- **Engineering systems:** Basic shelters are not commonly equipped with any ad hoc engineering systems, but they can contain some elementary ventilation and lighting means.
- **Water supply:** Basic shelters have no mandatory requirements for water supply, but it is recommended to have stocks of drinking water at the rate of 2 litres per person daily (*BN.2.2-5:2023, 11.3*).
- **Sewage:** A stationary sewage system is not mandatory. It is recommended to use portable sanitation means or sealed containers for waste collection (*BN.2.2-5:2023, 11.4*).
- **Power supply:** Basic shelters don't have any mandatory requirements for power supply. It is recommended to have portable light sources such as battery-powered lamps (*BN.2.2-5:2023, 9.4.2*).

- **Lighting:** Basic shelters to be provided with backup artificial lighting (electric lamps, gas lamps, etc.).
- **Temperature:** Basic shelters are not strictly regulated in terms of their internal temperature, but it is recommended to ensure conditions approximate to the range of +18°C-+25°C whenever possible (*BN.2.2-5:2023, 11.2.1.7*).
- **Relative humidity:** Basic shelters have no clear humidity requirements, either, but it is recommended to maintain this value under 75% in order to prevent unfavourable conditions (*BN.2.2-5:2023, 11.2.1.7*).

A technical audit of a protection structure is conducted by the Working Group through external inspection and assessment of the following:

- overall condition of premises, entrances, emergency exit end walls, waterproofing, air intake and exhaust channels, diking at standalone protection structures and bedding of coating at inbuilt protection structures, roofs and lateral surfaces at mine workings as well as fittings and protective-sealing bridges;
- doors (gates and shutters), closing machinery, ventilation systems, water supply and sewage systems, power supply systems, automatic and other engineering equipment;
- temperature and relative air humidity inside a protection structure;
- sealing of a protection structure (for a shelter), etc.

When researching the reliability of building constructions and devices used protect the technical condition of a protection structure, the Working Group to inspect the following in accordance with the type of a facility to be audited (a shelter, anti-radiation shelter, dual-use structure, basic shelter) and requirements for maintenance and use of civil protection structures:

Shelters/ Dual-Use Structures Classified as Shelters by Their Protective Properties				
#	Assessment Criteria*	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Unprotected openings in enclosures which can be exploited to connect the structure internal premises with the external atmosphere.			
2.	Damage inflicted upon the major building constructions of a protection structure which reduces its bearing capacity and/or protective properties.			
3.	Improper installation of sealed protective gates or doors based on their opening direction and protective properties, their loose coaming adhesion as well as malfunctioning closing machinery.			
4.	Missing or malfunctioning anti-explosive devices and expansion chambers at air intakes.			
5.	Missing or malfunctioning sealed vent valves defined by design documentation.			
6.	Missing shutoff valves at water supply, sewage, heating systems, sealing and other devices at places of cable and pipeline laying.			
7.	Non-conformity of ventilation system end wall constructions and emergency exits to requirements set by related building and construction norms.			
8.	Missing equipment for ventilation systems, deviations of air duct wall thickness values from standard requirements or their thorough corrosion.			
9.	Flooding of the premises of a protection structure.			
10.	Missing engineering networks defined by design documentation (power and water supply, heating, sewage, communications and alerts).			
11.	Missing, malfunctioning or incomplete equipment defined by design documentation:			
11.1	fans;			
11.2	electric hand fan gearboxes;			
11.3	diesel power stations and related start-up equipment;			
11.4	sewage pumps and sewage tank containers;			
11.5	power grids and electric equipment;			
11.6	water containers and consumption systems.			

Shelters/ Dual-Use Structures Classified as Shelters by Their Protective Properties				
#	Assessment Criteria*	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
12.	Missing fuel and lubricants for diesel power stations (for protection structures in permanent preparedness for intended use).			
	Additionally:			
13.	Temporary power and other engineering networks as well as unfixed electric equipment and lamps.			
14.	Lamps with unprotected incandescent bulbs (<i>not permitted for use</i>).			
15.	Use of fluorescent lamps (<i>not permitted for use</i>).			
16.	Non-conformity to the set internal relative humidity and temperature requirements at a protection structure (<i>shelter internal temperature to be maintained within the range from +10°C to +30°C, and humidity – 50%-70%</i>).			
	Other detected flaws (if any).			

*Annex 13 to the Maintenance and operational requirements for civil protection structures (Clause 9, Chapter 2, Section VI), MIA Order #579 of 09 July, 2018.

Anti-Radiation Shelters/ Dual-Use Structures Classified as Anti-Radiation Shelters by Their Protective Properties				
#	Assessment Criteria*	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Damage inflicted upon the major building constructions of a protection structure which reduces its bearing capacity and/or protective properties.			
2.	Missing doors at entrances and exits, and hatches – at emergency exits.			
3.	Missing equipment for ventilation systems that is defined by design documentation.			
4.	Deviations of air duct wall thickness values from standard requirements or their thorough corrosion.			
5.	Flooding of the premises of a protection structure.			
6.	Missing engineering networks defined by design documentation (power and water supply, heating, sewage, communications and alerts).			
7.	Missing, malfunctioning or incomplete equipment defined by design documentation:			
7.1	fans;			
7.2	electric hand or hand fan gearboxes;			
7.3	power grids and electric equipment.			
	Additionally:			
8.	Temporary power and other engineering networks as well as unfixed electric equipment and lamps.			
9.	Lamps with unprotected incandescent bulbs (<i>not permitted for use</i>).			
10.	Use of fluorescent lamps (<i>not permitted for use</i>).			
11.	Non-conformity to the set internal relative humidity and temperature requirements at a protection structure (<i>shelter internal temperature to be maintained within the range from +10°C to +30°C, and humidity – 50%-70%</i>).			
	Other detected flaws (if any).			

*Annex 13 to the Maintenance and operational requirements for civil protection structures (Clause 9, Chapter 2, Section VI), MIA Order #579 of 09 July, 2018.

Regarding the requirements for basic shelters, the valid Ukrainian legislation currently has no clearly defined requirements for external enclosures, their materials, space-planning and design solutions for buildings (structures, premises). At the same time, in order to ensure protection from conventional weapons, it is important that all the bearing and external enclosures (walls, overlaps and coatings) at basic shelters are made of reinforced concrete, bricks or other stone materials. It's also possible to use buildings (structures, premises) made of other materials if those are placed underground.

Basic Shelters				
#	Assessment Criteria*	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Large unprotected openings in external enclosures.			

Basic Shelters				
#	Assessment Criteria*	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
2.	Openings (unless they are doors) with no opportunity to reinforce them (with bags of sand or soil, concrete blocks, brickwork, etc.).			
3.	At least two evacuation exits – one of them can be used as an emergency exit.**			
4.	Water supply or sewage lines, other building utilities passing through the premises designed for stay of sheltered people (unless those are internal building engineering networks).			
5.	Premises with rough floor coating unfit to install benches, bunks or other places for seating and lying.			
6.	Premises contain flammable, chemical and radiation hazardous substances, unsafe equipment that can't be dismantled at all or can't be dismantled in less than 24 hours.			
7.	Facility room height, and specifically – door height – is less than 2 m (<i>at least 1.8 m is permitted unless otherwise defined by the design documentation for building and construction</i>).			
8.	Less than 1.4 m distance to protruding parts of specific building constructions and building utilities (unless those are door openings).			
9.	Door openings overlap with building constructions or building utilities.			
10.	Entrance (exit) openings are closed with reinforced doors made of non-combustible materials (metal or wood reinforced with iron) or protective screens (stone, brick or reinforced concrete) for the height of at least 1.7 m.			
11.	Missing forced or natural ventilation inside the premises designed for stay of people.			
12.	Flooding of the premises of a protection structure.			
13.	Missing stocks of drinking water (at the rate of 2 litres per person daily) and process water (in case of unavailable centralized water supply).			
14.	Missing portable tightly closed containers for waste (for buildings and structures with no centralized sewage systems).			
15.	Missing main or backup artificial lighting (electrical lamps, candles, etc.).			
16.	Non-conformity to the recommended internal relative humidity and temperature requirements at a protection structure (the conditions close to the range from +10°C to +25°C, and humidity – no more than 75%), if possible.			
	Other detected flaws (if any).			

**When planning a shelter inside a dual-use structure or a basic shelter for less than 50 people, it is permitted to have a single evacuation exit available.

II. The second area suggested for a shelter safety audit by the authors is the *accessibility audit*.

An audit as such defines whether a shelter is in conformity with the requirements for comfortable and safe access for all population groups, including people with limited mobility (PLM).

NB: According to the Barrier-Free Glossary, people with limited mobility are defined as follows:

In addition to people with disabilities, this group also includes persons who face difficulties during their unassisted movement through an uncomfortable and otherwise inaccessible environment. This group covers people with temporary physical impairments; the elderly; pregnant women; children under the age of 7 with their parents or individuals accompanying them; parents with prams; and people with significantly greater or smaller than average body weight, higher or shorter than average height.

A shelter accessibility audit is an important step to boost preparedness of protection structures for their intended use by improving their performance and safety for all users. The valid Ukrainian legislation sets almost identical accessibility requirements for shelters, anti-radiation shelters and dual-use structures. Therefore, their assessment criteria are defined in the same form.

The main reasons to conduct an accessibility audit are as follows:

1. **Evacuation safety and effectiveness:** It's important for people to find and access a shelter fast in case of emergencies. An audit assists with detecting and removing the barriers that might hinder the access for people with limited mobility.
2. **Conformity to the legal requirements:** State building and construction norms as well as other regulatory acts set clear requirements for accessibility of protection structures. An audit helps to define whether a shelter meets the mentioned requirements and to ensure the shelter's conformity to the valid legislation.
3. **Protection of human rights and ensuring inclusion:** Accessibility is the basic rule for all people, including those with limited mobility and those in need of additional navigation tools such as touch or audio indicators. An audit allows to verify whether a shelter is fit for all regardless of their physical abilities.
4. **Better conditions of stay:** An accessibility audit also facilitates better comfort inside shelters. This might include proper lighting, availability of information signage and other elements which make it easier to navigate and move inside a shelter.

During a shelter accessibility audit, members of the Working Group to research the availability of unimpeded access to a protection structure depending on its type as well as to assess and check its conformity to the following criteria:

Shelters, Anti-Radiation Shelters and Dual-Use Structures				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Signage installed, posted or clearly painted along the pathways leading to protection structures.			
2.	Properly maintained approaches to external doors, doors and stairways.			
3.	Approaches to protection structures cleaned from dirt and garbage, or from snow and ice during the cold season.			
4.	Unimpeded approaches of sufficient capacity leading to protection structures that can be used by people with disabilities and other people with limited mobility.			
5.	A space enabling manoeuvres and 90°C turns in a wheelchair ensured by the front doors.			
6.	Location of a protection structure properly marked with a plaque (inscription) and pointer signage.			
7.	A 60x50 cm plaque with the "Shelter" inscription by the front doors to a protection structure containing a structure number, its owner or balance holder legal entity.			
8.	The plaque mounted at the 1.2-1.5 m from the ground and at 0.3 m to the right from the doors.			
9.	A place used to store keys, a person responsible for shelter maintenance and use in time of peace, his/her place of stay and his/her phone number mentioned on the plaque.			
10.	At least two sets of keys for a protective structure doors and shutters. One set kept by a responsible person, and another one – by an official or structural unit of a balance holder working 24/7.			
11.	A place of stay and phone number of an official (structural unit of a balance holder working 24/7) keeping another sealed set of keys mentioned on the plaque.			
12.	The entrance doors are at least 0.9 m wide (<i>at least 0.8 m is permitted, if defined by related building and construction design documentation</i>) to ensure comfortable passage for people in wheelchairs.			
13.	Thresholds in the door openings are not higher than 20 mm. A ramp installed for higher thresholds with the tilt of no more than 1:12 (8%).			
14.	A wall-mounted visual navigation system containing information on the purpose of the premises and necessary pathways.			
15.	A touch navigation system, including the one using touch information plaques, contrasting marking on the stairs (contrasting and touch strip, 60 cm wide), thresholds, door openings as well as passages narrowed in accordance with the corridor width, etc.			
16.	An audio navigation system for people with visual impairments and audio indicators.			
17.	The handrails along the corridor sections serving as evacuation routes installed at the height of 0.9 m. The size and mounting of the handrails compliant with the requirements defined by BN.2.2-40.			

Shelters, Anti-Radiation Shelters and Dual-Use Structures				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
18.	The handrail colour in contrast with the colour of the wall it is mounted on.			
	Other important criteria (if any).			

Basic Shelter				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Signage installed, posted or clearly painted along the pathways leading to protection structures.			
2.	Approaches to protection structures cleaned from dirt and garbage, or from snow and ice during the cold season.			
3.	Entrances protected from atmospheric precipitation by pavilions or canopies.			
4.	Emergency exits in place.***			
5.	Entrances equipped with tools for access used by people with disabilities and other people with limited mobility.			
6.	A space enabling manoeuvres and 90°C turns in a wheelchair ensured by the front doors.			
7.	The entrance doors are at least 0.9 m wide (at least 0.8 m is permitted, if defined by related building and construction design documentation) to ensure comfortable passage for people in wheelchairs.			
8.	Thresholds in the door openings are not higher than 20 mm. A ramp installed for higher thresholds with the tilt of no more than 1:12 (8%).			
9.	The shelter can be technically retrofitted to provide proper access for people with disabilities and other people with limited mobility in no later than 24 hours.			
10.	Pointer signage to the basic shelter location in place, and "Entrance" light signage turned on.			
11.	A 60x50 cm plaque with the "Shelter" inscription by the front doors to a basic shelter containing a structure location, its balance holder, phone number of a person responsible for maintenance and use of the shelter in time of peace, address and place for key storage.			
12.	The plaque mounted at the 1.2-1.5 m from the ground and at 0.3 m to the right from the doors.			
13.	A wall-mounted visual navigation system containing information on the purpose of the premises and necessary pathways.			
14.	A touch navigation system, including the one using touch information plaques, contrasting marking on the stairs (contrasting and touch strip, 60 cm wide), thresholds, door openings as well as passages narrowed in accordance with the corridor width, etc.			
15.	An audio navigation system for people with visual impairments and audio indicators.			
16.	The handrails along the corridor sections serving as evacuation routes installed at the height of 0.9 m. The size and mounting of the handrails compliant with the requirements defined by BN.2.2-40.			
17.	The handrail colour in contrast with the colour of the wall it is mounted on.			
	Other important criteria (if any).			

***When planning a shelter inside a dual-use structure or a basic shelter for less than 50 people, it is permitted to have a single evacuation exit available.

III. The third extremely important area suggested by the authors is the fire safety audit.

An audit as such is focused on ensuring a safe environment for people to stay in during emergencies. The main purpose of such audits is to assess a shelter's conformity to fire safety requirements, which reduces the risks of a fire and facilitates a safe evacuation of people in case of an emergency.

The main reasons to conduct a shelter fire safety audit are as follows:

1. **Protecting people's lives and health:** Shelters to be prepared to host a great number of people, which increases the risk of hazardous situations, including fires. An audit allows to verify whether a fire safety system operates properly, and whether evacuation routes are unimpeded and properly marked.
2. **Conformity to regulatory requirements:** Shelter fire safety is regulated by state standards and norms defining the necessity to install fire extinguishing systems, emergency lighting and other safety measures. An audit assists with detecting non-conformities and removing those, while ensuring a shelter's conformity to the set legal requirements.
3. **Ensuring equipment and infrastructure safety:** An audit inspects the fire alarm condition, proper functioning of ventilation systems, availability and accessibility of fire extinguishers as well as their proper positioning. These reduce the risk of damage for a shelter's infrastructure and equipment that might be in high demand for long stay of people.
4. **Effective evacuation arrangement:** Evacuation speed and clarity are critical in case of fire. A fire safety audit allows to inspect the availability and proper condition of evacuation routes, markings, emergency lighting and smoke venting systems, which makes it easier for a fast evacuation of people from a shelter.
5. **Fire risk prevention:** An audit allows to detect possible safety and security risks and prevent them by improving the level of fire prevention, specifically – due to proper positioning of power grids and compliance with the storage rules for flammable materials (e.g., fuel for diesel electric generators).

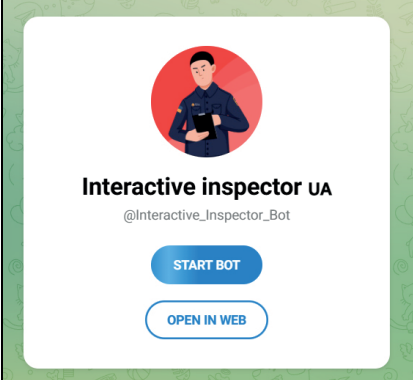
During a fire safety audit of shelters, anti-radiation shelters and basic shelters, members of the Working Group must verify whether there is conformity to the Fire Safety Rules in Ukraine approved by the Order #1417 of the Ministry of Internal Affairs of Ukraine of December 30, 2014, registered at the Ministry of Justice of Ukraine under #252/26697 on March 05, 2015, as well as related state building and construction norms (BN.1.1-7:2016 “Fire safety at construction sites. General requirements” and BN.2.2-5:2023 “Civil protection structures”) and national standards (specifically, DSTU EN 3-7:2004 “Portable fire extinguishers - Part 7: Characteristics, performance requirements and test methods”) valid in the field of fire safety and MIA Order #579 “On approval of requirements for use and records on the Civil Protection Structure Pool” of 09.07.2018.

Shelters, Anti-Radiation Shelters and Dual-Use Structures				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Protection structure equipped with primary fire extinguishing means, which specifically include fire extinguishers in the quantity defined in accordance with the valid norms, such as the DSTU EN 3-7:2004 Standard: - For premises up to 50 m²: A single fire extinguisher with a charge of 4-5 kg (powder-based) or 5 l (CO₂). - For premises from 50 m² to 100 m²: Two fire extinguishers of the same capacity. - For premises above 100 m²: The quantity of fire extinguishers to be defined at the rate of 1 fire extinguisher per each additional 50 m².			
2.	Fire extinguishers mounted in accessible places, such as entrances and evacuation exits.			
3.	Fire extinguishers mounted in a way so that their upper part is positioned at no more than 1.5 m from the floor. They are attached to a vertical surface (a wall or column) or installed in special mounts (<i>it is not permitted to place fire extinguishers directly on the floor</i>).			
4.	Internal fire safety water supply, fire safety automation and alarm systems.			
4.1.	Properly functioning internal fire safety water supply, fire safety automation and alarm systems			
5.	Properly equipped fire hydrants.			
6.	Ventilation systems at protection structures ensure the removal of combustion products and prevent the spread of smoke in case of fire.			
7.	Evacuation routes and exits ensure fast evacuation of people (free to move and unimpeded).			
8.	Locations for primary fire extinguishing tools and an evacuation plan for a protection structure are marked and illuminated.			

Shelters, Anti-Radiation Shelters and Dual-Use Structures				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
9.	Materials used to build a protection structure have a related fire hazard class that ensures proper fire resistance level.			
10.	Flammable synthetic materials used for manufacturing of bunks or other equipment placed inside a protection structure.			
11.	Pipelines used by internal fire safety water supply systems and other fire extinguishing systems painted red.			
12.	Flammable and explosive substances and items available inside a protection structure.			
13.	Premises with mounted recovery units (if any) equipped with fire extinguishing means – sandbags, asbestos blankets, certified CO2 or powder-based fire extinguishers.			
14.	People responsible for the use of a protection structure briefed on fire safety means (<i>related inputs to be recorded in specific briefing logs</i>).			
15.	A fire safety manual placed on a documentation board inside a protection structure.			
	Other important criteria (if any).			
Basic Shelter				
1.	Automated fire extinguishing and alarm systems.			
1.1.	Properly functioning automated fire extinguishing and alarm systems.			
2.	Entrance (exit) openings are closed with reinforced doors made of non-combustible materials (metal or wood reinforced with iron).			
3.	At least a single evacuation exit ensuring free outside access available (<i>a basic shelter for less than 50 people is permitted to have a single evacuation exit available</i>).			
4.	Shelters provided with primary fire extinguishing means, which specifically refers to fire extinguishers in accordance with the norms set for premises of related functional intended use.			
5.	Fire extinguishers mounted in accessible places, such as entrances and evacuation exits.			
6.	Fire extinguishers mounted in a way so that their upper part is positioned at no more than 1.5 m from the floor. They are attached to a vertical surface (a wall or column) or installed in special mounts (<i>it is not permitted to place fire extinguishers directly on the floor</i>).			
7.	Properly equipped fire hydrants.			
8.	Evacuation routes and exits ensure fast evacuation of people (free to move and unimpeded).			
9.	A ventilation system of a shelter (forced or natural) ensures removal of combustion products and prevents the spread of smoke in case of fire.			
10.	Locations for primary fire extinguishing tools and an evacuation plan for a protection structure are marked and illuminated.			
11.	Materials used to build a protection structure have a related fire hazard class that ensures proper fire resistance level.			
12.	Flammable synthetic materials used for manufacturing of bunks or other equipment placed inside a protection structure.			
13.	Premises contain flammable, chemical and radiation hazardous substances.			
14.	A fire safety manual placed on a documentation board inside a protection structure.			

Shelters, Anti-Radiation Shelters and Dual-Use Structures				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
15.	People responsible for the use of a protection structure briefed on fire safety means (<i>related inputs to be recorded in specific briefing logs</i>).			
	Other important criteria (if any).			

The Working Group might make use of the following:



The “Interactive Inspector” Service developed by the State Emergency Service of Ukraine

The purpose of the service (chatbot) is to simplify the procedure used to access information on the type and required quantity of fire extinguishers, assess the level of risk provoked by specific economic activities, define the categories of premises, buildings and external installations in terms of their explosive and fire safety, define an area class as well as assist with access to the SES electronic service portal⁵⁷ with a single click.

https://t.me/Interactive_Inspector_Bot

Compliance with fire safety requirements is a critical aspect of use for all types of protection structures ensuring safe stay of people during emergencies.

IV. The fourth area suggested by the authors is the *sheltered people audit*.

An audit as such is focused on conditions available for stay of different population groups, available tools for prevention of gender-based violence and discrimination (communication channels – specifically, phones or walkie-talkies for emergency calls to the National Police of Ukraine; information materials explaining the indicators of violence and the ways to prevent it; available social workers or volunteers warning, preventing and responding to assumed cases of violence or discrimination in a timely manner; available lighting facilitating to ensure a controlled and visible environment).

The general purpose of such audits is to make sure that a shelter is prepared to protect people and ensure the required (acceptable) conditions for their stay – even in difficult circumstances. This is a comprehensive approach aimed at the establishment of a reliable and safe space wherein each and every element is mapped out for efficient crisis responses.

When auditing sheltered people, members of the Working Group to assess and check conformity to the following criteria:

Shelters, Anti-Radiation Shelters, Dual-Use Structures and Basic Shelters				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	A structure’s capacity conforms to the norms defined by BN.2.2-5:2023 “Civil protection structures”.			
1.1	The minimum area of a shelter is 0.5 m ² per person.			
1.2.	The minimum area of an anti-radiation shelter is 0.6 m ² per person.			
1.3.	The minimum area of a basic shelter is 0.4 m ² per person (with three-tiered bunks).			
2.	Sufficient quantity of seats at the rate of 1 bunk (two- or three-tiered) per 4-6 people.			
3.	A standalone compartment or a special seat for people with children (<i>MIA Order #579, Section 4, Clause 3</i>).			
4.	A medical room or space by an enclosing – closer to air vents – for the elderly and those who feel bad (<i>MIA Order #579, Section 4, Clause 3</i>).			
5.	A standalone compartment or a special seat for people with pets in accordance with BN.2.2-5:2023 (7.2.2.2).			
6.	Standalone (separate) sanitary premises for women and men in accordance with BN.2.2-5:2023.			

⁵⁷ SES electronic service portal, <https://pl.dsns.gov.ua/interaktivnii-inspektor>

Shelters, Anti-Radiation Shelters, Dual-Use Structures and Basic Shelters				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
7.	Sanitary premises for people with disabilities and people with limited mobility (the minimum cabin size: width – 1.65 m, depth – 1.8 m, additional handrails and a space for a wheelchair or pram).			
8.	Special seats for feeding and diapering children in accordance with <i>BN.2.2-5:2023 (7.2.2.2)</i> .			
9.	A playing area for children under the age of 11 (a designated area), which facilitates psychological relief in accordance with <i>BN.2.2-5:2023 (7.2.2.2)</i> .			
10.	Separation of sleeping or recreation areas for long stay inside a protection structure in accordance with gender-based aspects.			
11.	Easy-to-access recreation areas – specifically, seats located at the optimal height for the elderly (in case of three-tier bunks, people with disabilities and PLMs to be allocated to the 1 st tier).			
12.	Volunteers or social workers assigned to a specific protection structure to help with the navigation around the shelter and provide people in need with required information.			
12.1.	Tools to prevent gender-based violence and discrimination at protection structures.			
12.2.	Information materials: posters, leaflets and other materials explaining the signs of violence and the ways to prevent it.			
12.3.	Qualified persons such as volunteers or social workers assigned to a specific shelter to warn, prevent and respond to possible cases of violence or discrimination in a timely manner.			
13.	Communication channels (specifically, phones or walkie-talkies for emergency calls) used to contact the National Police of Ukraine with a related claim, 1547 – a 24/7 free hotline on prevention of human trafficking, gender-based domestic violence and violence against children.			
14.	The available level of lighting facilitates the establishment of a controlled visible environment, which, in its own turn, helps to reduce the level of violence and aggression.			
	Other important criteria (if any).			

V. The fifth area suggested by the authors is the *sanitary and hygienic audit*.

This area is an important stage to ensure safety and comfort of stay for people during an emergency. A sanitary and hygienic audit considers inspection of hygienic conditions, available sanitation facilities and ensuring proper microclimate, which, in its own turn, might assist with detecting and removing risks for health which might be faced during the stay in a confined space whereat many people might have to stay together for a long time.

The main reasons to conduct a sanitary and hygienic audit are as follows:

1. **Health protection and disease prevention:**

- Confined spaces hosting a great number of people provoke a higher risk of transmission of infectious diseases. A related audit ensures proper level of cleanliness and access to sanitation facilities, which assists to reduce infection and incidence risks.

2. **Ensuring proper conditions for personal hygiene:**

- Inspection of sanitary conditions, such as restrooms and wash basins, enables to ensure a comfortable environment for people of different age and sex, especially from vulnerable population groups (the elderly, families with children).

3. **Maintaining mental comfort:**

- Access to clean sanitary and hygienic facilities forms the feeling of safety and comfort, which assists to reduce stress during the stay inside a shelter. Proper conditions for personal hygiene have positive impact on people's mental condition.

4. **Conformity to regulatory requirements:**

- A sanitary and hygienic audit guarantees shelter conformity to the valid regulatory acts and building and construction norms, which specifically refers to MIA Order #579 of 09.07.2018, MOH Order #400 of 12.05.2010 and the BN.2.2-5:2023 document. This allows to make sure that a shelter meets specific safety standards and is prepared for use.

5. Maintaining shelter preparedness for a long stay:

- An audit assists with the verification whether a shelter is provided with everything necessary for a long stay, such as water stocks and waste removal devices.

A sanitary and hygiene audit guarantees that a shelter is prepared to accept people, compliant with safety standards and creates a comfortable environment, which facilitates health protection and mental relief for all those who stay inside a shelter.

Members of the Working Group to research and assess conformity under the following criteria:

Shelters, Anti-Radiation Shelters, Dual-Use Structures and Basic Shelters				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	A properly operating water supply system.			
2.	A space for portable containers (tanks, reservoirs) for drinking water at the rate of 2 l per sheltered person daily if there is no available water supply system.			
3.	Tanks (containers) for drinking water ensure the quality of water required by the State sanitation rules on “Hygienic requirements for drinking water fit for human consumption”.			
4.	Water in containers decontaminated with ad hoc decontamination substances (solutions) authorized for use by the Ministry of Health of Ukraine.			
5.	The main shelter room split into separate premises/blocks.			
6.	A properly functioning sewage system that allows toilet flushing.			
7.	Waste tanks for the cases when a sewage or external water supply system is damaged or malfunctioning.			
8.	Separate restrooms arranged for men and women in accordance with the BN.2.2-5:2023 document and the number of sheltered people: a single toilet per each 50 people for women; a single toilet and a single urinal per each 100 people – for men.			
9.	A wash basin and detergents.			
10.	Universal sanitary and hygienic room for people with disabilities and PLM (for a protection structure with the capacity to shelter more than 200 people, an additional room for each additional 200 people), as per BN.2.2-40:2018.			
11.	Disinfectants for lavatories and rooms with installed portable waste tanks (e.g., a mixture containing the 0.5% solution of two thirds of calcium hypochlorite basic salt).			
12.	Disinfectants for hands and footwear used after visits to lavatories (rooms with installed portable waste tanks). The 0.3% chloramine solution is permitted as a hand disinfectant, and mats soaked with the 0.5% chloramine solution are permitted for footwear disinfection wiping.			
13.	Waste bags.			
14.	Chemical preservatives permitted for use by MOH Ukraine by adding them to bags filled with garbage and waste.			
15.	Medicines and medical products for medical stock inventory at protection structures (in accordance with Annex 21 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018)			
	Other important criteria (if any).			

VI. The sixth area suggested by the authors is the resource and stock audit.

This stage is used to check a shelter’s preparedness to meet vital needs of sheltered people for a lengthy and safe stay during an emergency. An audit as such includes the inspection of various resource categories – specifically, places for food storage, actual food products, inventory and catering items, tools for emergency repairs, repair materials, room cleaning inventory, etc.

Members of the Working Group to research and assess conformity under the following criteria:

Shelters, Anti-Radiation Shelters, Dual-Use Structures and Basic Shelters				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Containers for food storage.			
2.	Required stocks of food products with long shelf life.			
3.	Maintained sanitary supervision over food storage (if any).			
4.	A space for cooking.			
5.	Inventory and property for catering (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
6.	Trenching tools such as spades and shovels, crowbars, axes, wood and metal saws, etc. (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
7.	Repair materials (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
8.	Room cleaning inventory (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
	Other important criteria (if any).			

VII. The seventh and the final area suggested by the authors is the *communication audit*.

Communication systems at shelters comprise an important component ensuring communications both inside a shelter and with an external environment, which is particularly important during emergencies. In accordance with the valid Ukrainian legislation – specifically, the State Building and Construction Norms – such systems to meet specific requirements for ensuring reliable functioning even in case of power outages or ruined infrastructure.

An audit inspects availability of working communication equipment such as radio transmitters, mobile phone chargers and other communication tools (it is recommended to install Wi-Fi devices to provide internet access). Hence, in accordance with the BN.2.2-5:2023 11.7 document, protection structures and dual-use structures to be provided with internet access, including wireless internet access, designed in a way to cover the whole area of a civil protection structure through proper positioning of Wi-Fi access points.

Basic Components and Requirements for Internal Shelter Communication Systems

1. Basic means of communication:

- **Landlines:** The most of protection structures consider landline phones that can be used even during power outages. They are connected to autonomous or backup lines, which allows to stay in touch with external services.
- **Mobile communication:** Ensuring high-quality mobile coverage or availability of mobile signal amplifiers. This allows using mobile phones to contact rescue services or other organizations.

2. Internet connection:

- **Wi-Fi network:** Shelters are recommended to have wireless Wi-Fi access points installed, which allows internet communications. This is important to transfer data, send messages and receive information from rescue services.
- **Backup internet connection:** Backup modems or routers can be used to connect to mobile internet during power outages to ensure stable connection.

3. Radio communications:

- **Radio receivers:** Every shelter to have a radio receiver in order to receive information from state notification channels in case of an emergency. It is important that all radio receivers would be capable of being powered by batteries or autonomous power sources.
- **Radio stations (transceivers):** Whenever there is a need to transfer information between several shelters or keep in touch with civil defence authorities, portable or stationary radio stations to be used. These devices to operate at predefined frequencies to ensure fast and clear connection.

4. Notification systems and internal communications:

- **Loud speakers (reproducers):** Loud speakers allow sharing notifications and messages with all sheltered people while ensuring coordination of activities. Loud speakers to have backup power sources.

Members of the Working Group to research and assess conformity under the following criteria:

Shelters, Anti-Radiation Shelters, Dual-Use Structures and Basic Shelters				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	A phone set (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
2.	A radio station (in case of a set command post) (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
3.	A loud speaker (reproducer) in the quantity of 1 set per compartment (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
4.	A radio receiver (with no radio station in place) (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
5.	Mobile coverage or signal amplifier for mobile networks.			
6.	Internet access, Wi-Fi devices (<i>BN.2.2-5:2023 11.7.</i>)			
	Other important criteria (if any).			

See Annex 3.1., Annex 3.2. and Annex 3.3. attached hereto for consolidated information such as checklists used to implement safety audits at shelters, anti-radiation shelters, dual-use structures and basic shelters.

3.3. Preparing Findings and Recommendations Based on a Shelter Safety Audit Results

Once an audit at a protection structure (a shelter, anti-radiation shelter, dual-use structure or basic shelters) is complete, there is yet another important phase left, which is to prepare related findings and recommendations. This process is a strategic phase not only ensuring records on the current condition of a specific facility, but also generating a roadmap consequently used to improve the shelter's conformity to legal requirements and its safety level. The main purpose of findings and recommendations on completion of a shelter safety audit is to generate an integrated document summarizing inspection results, identifying flaws, defining the preparedness level of a protection structure, suggesting resolutions for identified flaws and generating recommendations on improvement of a protection structure and its safety level.

When generating findings and recommendations, we suggest to keep to the following principles:

- ✓ **Objectivity and impartiality;**
- ✓ **Clarity and readability; and**
- ✓ **Specificity and practicality of provided recommendations.**

It is recommended to compile a plan for flaw removal containing a schedule of related activities (with clearly defined deadlines) and mentioning responsible executives as well as cost estimates (if possible) (see Annex 3.4. and Annex 3.5.). The introductory part of a final report to provide the background of a conducted audit (see Annex 3.4):

Facility name and address: _____

Facility type, purpose and capacity: _____

(shelter, anti-radiation shelter, dual use structure or basic shelter)

Facility preparedness level: _____

(prepared, partially prepared, not prepared for intended use)

Audit date: _____

Audit purpose: _____

Working Group members: _____

We suggest to formalize findings and recommendations under a specific form (a form should be selected in accordance with the type of a conducted shelter safety audit) (see Annex 3.5.).

3.4. Decision-Making Based on Shelter Safety Audit Results

In accordance with the findings and proposals developed in accordance with results of a safety audit conducted at a protection structure, involved authorities make related decisions under their competence.

See Annex 5 below for schematic decision-making based on results of a conducted safety audit.

CHAPTER 4. ORGANIZATION AND IMPLEMENTATION OF A TRANSPORT SAFETY AUDIT

4.1. Legal Framework for Transport Safety: Global Standards and National Laws

Transport safety for different types of transport depends on type specifics and is regulated by respective global standards and regulatory-legal acts under transport law.

International laws on air carriage are regulated by the Chicago Convention of 1944⁵⁸ primarily focused on ensuring technical safety of aircrafts, airports, support services and airways. Illicit interference is yet another aspect of civil aviation safety.

The Tokyo Convention of 1963⁵⁹ was the first to provide a legal definition for challenges and threats related to hijacking that are faced by people on board an aircraft.

Only the Hague Convention of 1970⁶⁰ was the first to qualify an act of hijacking of an aircraft as a crime accompanied with violence or violent threats. In 1988, the Protocol supplementing the Montreal Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation of 1971⁶¹ defined a set of measures to counter acts of violence committed at airports.

The Convention concerning International Carriage by Rail (COTIF) of 1980 and the related Protocol for the Modification of 1999⁶² define the carrier's responsibility in case of death or injury inflicted upon passengers.

The Republic of Moldova adopted its Law "On transport" in 1997⁶³ to define that comparing to the previous international acts, transport safety belongs to the duty of transportation companies, which is to ensure safety of human life and health, safe operation of vehicles, communication routes, buildings, structures and environment.

The regulatory and legal acts mentioned above define transport safety as a single aspect. This can be vehicle technical support or otherwise – actions focused on ensuring passenger safety.

It's worth to start the process of organization and implementation of a transport safety audit with a comprehensive matter of transport safety as a whole. Article 16 of the Law of Ukraine "On transport"⁶⁴ defines that transport enterprises shall ensure human life and health safety, safe operation of vehicles and environmental protection. In its own turn, the Air Code of Ukraine⁶⁵ and its Section 3 underline the current aircraft safety mechanisms.

Article 11 of the Law of Ukraine "On railway transport"⁶⁶ emphasizes that enterprises operating public railway transport are to ensure the safety of life and health of passengers using their services as well as rail traffic safety and environmental protection.

Ensuring transport safety at various types of transport assumes the need to account for the specifics in accordance with the competences defined by the national laws of Ukraine.

Considering the specifics of economic activities in each area, it's worth reviewing transport safety at road, sea, river, rail, air transport, etc.

Transport safety is the state of security for transport infrastructural facilities, which allows to ensure national security and national interests in the field of transport activities, resilience of transport activities, capacity to prevent damage upon human life and health, property and environment, as well as to reduce all-national economic losses in transport activities.

The purpose of transport safety is to protect passengers, cargo owners, recipients and carriers, vehicle owners and users, transport sector and its employees as well as environment from related threats.

Transport safety to ensure the following:

1. transfer conditions considered safe for life and health of passengers;
2. safe baggage and cargo carriage;
3. safe operations and use of vehicles;
4. environmental safety;

⁵⁸ Chicago Convention of 1944, https://zakon.rada.gov.ua/laws/show/995_038#Text

⁵⁹ Tokyo Convention of 1963, https://ips.ligazakon.net/document/mu63k07u?ed=1963_09_14

⁶⁰ Hague Convention of 1970, https://zakon.rada.gov.ua/laws/show/995_922#Text

⁶¹ Protocol for the Montreal Convention of 1971, https://zakon.rada.gov.ua/laws/show/995_165#Text

⁶² Convention concerning International Carriage by Rail of 1980 and the related Protocol for the Modification of 1999, https://zakon.rada.gov.ua/laws/show/994_291#Text

⁶³ Law of Republic of Moldova "On transport", https://continent-online.com/Document/?doc_id=30445102

⁶⁴ Law of Ukraine "On transport", <https://zakon.rada.gov.ua/laws/show/232/94-%D0%B2%D1%80#Text>

⁶⁵ Air Code of Ukraine, <https://zakon.rada.gov.ua/laws/show/3393-17#Text>

⁶⁶ Law of Ukraine "On railway transport", <https://zakon.rada.gov.ua/laws/show/273/96-%D0%B2%D1%80#Text>

5. information security and cybersecurity;
6. fire safety;
7. sanitary safety; and
8. chemical, bacteriological, nuclear and radiation safety.

4.2. Organization and Implementation Procedure of a Transport Safety Audit

Problems related to transport safety are political priorities for numerous world countries which can be resolved with the use of a comprehensive approach based on accepted international standards.

The International Organization for Standardization (ISO) drafted the **ISO 39001:2012 – Road Traffic Safety Management Systems Standard**⁶⁷ in 2012. This global document provides a tool assisting organizations to reduce and ultimately – remove the risk of death and severe injuries caused by road accidents. Such focus might result in more efficient use of a traffic system.

The Standard sets the requirements for a road traffic safety (RTS) management system so that an organization dealing with a traffic system could reduce the number of fatalities and severe injuries related to road accidents it can influence. These requirements involve the making and introduction of a related RTS policy, definition of RTS targets and action plans addressing legal and other requirements undertaken by an organization as well as information on the RTS-related elements and criteria defined by an organization as those it can control and influence.

Organization and implementation of an audit is covered by the Standard.

Audit is a systematic, independent and properly recorded process used to access audit evidence and implement their objective assessment in order to define the rates of audit criteria performance.

An audit can be internal, external or a combination of two or more specialties. An audit to be conducted in accordance with a pre-set schedule while involving persons who are considered competent in specific audit areas and techniques. An audit is implemented through comparison of audit data with audit criteria and procedures defined by the valid legislation. Audit results to be recorded in any format and on any media. Efficiency assessment is another important aspect covering performance rates of planned activities and achievement of planned results.

Results to be measurable, involve control over condition of a system, process or activity and mention the goal and results to be achieved under an audit concerned. The goal can be strategic, tactical or operative. The objectives can be related to different specialties (finances, healthcare and public safety, environmental protection, etc.) and used on different levels.

The UN Convention on Road Traffic and Convention on Road Signs and Signals (the Vienna Convention) of 1968⁶⁸ set standards for road traffic, signs and signals, which simplifies the harmonization of traffic rules between different countries. This facilitates better transport safety, reduces the number of traffic accidents and makes it easier to implement a safety audit.

The International Road Assessment Program (iRAP) of 1968⁶⁹ provides the methodology to assess road safety in different countries. The Program is based on the analysis of road and traffic conditions and infrastructure while accounting for the risks faced by drivers, passengers, pedestrians and cyclists. An assessment helps to define dangerous areas and suggests practical recommendations on their improvement.

The standards introduced by the International Civil Aviation Organization (ICAO)⁷⁰ ensure safety for air transport. They include the standards for airport safety audits, air traffic control, aircraft maintenance and personnel qualification. They reduce the risks for passengers and ensure uninterrupted operations of the air transport system.

The European Road Infrastructure Safety Management Directive (2008/96/EC)⁷¹ defines the requirements to implement a road safety audit, including mandatory design, construction and commissioning audits for new roads. The Directive involves a systematic safety assessment of road infrastructure to reduce the number of road accidents and injuries.

International railway standards are drafted by the International Union of Railways (UIC)⁷². The standards ensure railway transport safety, including railway safety audits, train technical audits and audits related to qualification of maintenance personnel.

International standards on transport safety audits have been drafted to ensure traffic safety and risk management at all types of transport. They include the basic assessment principles for transport systems and recommendations on their

⁶⁷ ISO 39001:2012 – Road Traffic Safety Management Systems Standard, <https://www.iso.org/standard/44958.html#lifecycle>

⁶⁸ UN Convention on Road Traffic and Convention on Road Signs and Signals (the Vienna Convention), https://insat.org.ua/files/nav/law/4/konvenciya_1968_uk.pdf

⁶⁹ International Road Assessment Program (iRAP) of 1968, <https://internationaldriversassociation.com/uk/blog/1968-vienna-and-1949-geneva-convention/>

⁷⁰ International Civil Aviation Organization (ICAO) Standards <https://www.icao.int/safety/safetymanagement/pages/sarps.aspx>

⁷¹ European Road Infrastructure Safety Management Directive (Directive 2008/96/EC) <https://eur-lex.europa.eu/eli/dir/2008/96/oj/eng>

⁷² International railway standards by the International Union of Railways (UIC) <https://uic.org/standardisation>

improvement. Removal of potential non-conformities of audit results to legal norms, definition of the ways to remove flaws and make managerial and political decisions to achieve traffic safety goals are mandatory components of any audit.

Ukraine has adopted a number of regulatory and legal documents based on international standards in order to reduce the number of road traffic accidents.

Road Transport

The State Enterprise “State Road Transport Research Institute” drafted the National Standard of Ukraine “On road traffic safety management system. Requirements and guideline” in 2015 (ISO 39001:2012, IDT) DSTU ISO 39001:2015⁷³.

This standard sets the requirements for road traffic safety (RTS) management systems enabling organizations that interact with traffic systems to reduce fatality and injury rates caused by road traffic accidents. The requirements set by this standard cover the making and introduction of a related RTS policy, objectives and an action plan addressing the requirements set forth by the law and other requirements considered by an organization, as well as information on RTS components and indicators defined by an organization as those it can control and influence.

An important aspect of this standard is that it can and must be used by all traffic participants that plan to:

- a) improve RTS performance indicators;
- b) create, introduce, maintain and improve RTS management systems;
- c) ensure conformity to the set RTS principles, and
- d) demonstrate conformity to the requirements set by this standard.

The purpose of this standard is to resolve issues related to RTS management. It was never designed to set technical and quality requirements for carriage of goods and services (e.g., requirements for roads, road signs/lights, cars, trams, cargo and passenger carriage services, rescue and emergency services). By no means, it considers the same structure for all RTS management systems or equivalent documents.

RTS is a collective responsibility. The purpose of this standard is not to exempt traffic participants from their duty to abide the law and personal liability. It can support an organization and its efforts so that traffic participants would comply with legal requirements.

All the requirements posed by this standard are general.

Should a requirement set by this standard be impossible to meet due to the nature of activities of an organization and its products, it can be considered for withdrawal. This withdrawal and a reason thereof to be formalized under a related document.

In case of withdrawal, conformity to this standard can only be declared if the withdrawal is not related to an organization's capacity to successfully develop, support and improve an RTS management system.

The standard's norms reflect the norms defined by the **ISO 39001:2012 – Road Traffic Safety Management Systems Standard**⁷⁴.

Therefore, a road transport safety audit in Ukraine is a systematic analysis and assessment of road traffic conditions in a certain road area or a city in order to identify problematic situations, risks and opportunities to improve the safety and effectiveness of vehicle and pedestrian movement.

The main phases of a road transport safety audit include the following:

Step 1: Planning

- determining the influence of an organization on RTS, distribution of this influence between interested parties, determining the scope of an RTS management system in accordance with defined needs during the whole planning process (in accordance with the steps for Chapter 4 of the Standard);

- setting additional obligations for top management, including, among other things, adoption of long-term reduction concepts for fatality and severe injury rates achieved by acceptance of step-by-step tasks in the field of RTS and an action plan or approach to its implementation as well as resourcing to develop, introduce, maintain and continuously improve an RTS management system in order to achieve respective objectives;

- drafting, paperwork, communicating RTS policy, assignment of functional duties, responsibility and mandates (in accordance with the steps for Chapter 5 of the Standard); and

- identification of risks and opportunities by assessing the current indicators (if possible); working with each RTS performance indicator to develop those that are important for an organization and most important to improve the RTS area. Setting RTS targets (measurable, if possible) and measurable RTS tasks for each RTS performance indicator, while accounting for the needs on efficient management and action plan development (in accordance with the steps for Chapter 6 of the Standard).

⁷³ National Standard of Ukraine “On road traffic safety management system. Requirements and guideline” (ISO 39001:2012, IDT) DSTU ISO 39001:2015, https://zakon.isu.net.ua/sites/default/files/normdocs/39001-2015_0.pdf

⁷⁴ ISO 39001:2012 – Road Traffic Safety Management Systems, https://zakon.isu.net.ua/sites/default/files/normdocs/39001-2015_0.pdf

Step 2: Implementation

- introduction and functioning of an RTS management system while ensuring the provision of opportunities to implement key system functions that allow to define actions to be performed and ensuring the achievement of RTS targets and tasks (in accordance with the steps for Chapters 7-8 of the Standard).

Step 3: Verification

- monitoring and evaluation of RTS performance indicators, implementation of internal audits and regular critical analysis of the RTS management system in order to define opportunities for continuous improvement of results under the RTS scope and application of changes required within the RTS management system (in accordance with the steps for Chapter 9 of the Standard).

Step 4: Taking Measures

- improvement of the RTS management system on the regular basis, with the follow-up critical analysis of RTS performance indicators regarding RTS objectives and tasks, RTS management system performance indicators, flaws and non-conformities as well as definition of corrective actions and opportunities for preventive actions focused on reduction of accident and risk rates related to fatalities and severe injuries caused by road accidents (in accordance with the steps for Chapter 10 of the Standard).

A road transport audit can be implemented both before the implementation of new road construction or reconstruction projects and for the assessment of the available infrastructure in order to improve traffic safety and effectiveness.

An organization to identify intermediary result factors related to a safety audit from the following list in accordance with its general activity provisions:

1) road design and safe speed, while specifically accounting for the division (oncoming traffic and unprotected road traffic parties), roadsides and crossing design. Standards, rules and guidelines as well as related means and methods cover the planning for safety, design, construction, use, operation and maintenance of a road system. Illustrative, reliable and advanced methods used to combine safety and security system requirements continuously make the information technical policy on safety and planning that support new quality assessment for road infrastructure safety. Safety issues and requirements differ for functioning of roads, streets with traffic flows, their branching and access roads. High safety rates can be achieved by effectively combining the functions of roads and safe speed, their conformity to the predesigned indicators as well as related technical condition. Standard solutions for these problems cover the branching of road traffic into major speedways to prevent head-on car collisions installation of guardrails at roadsides to prevent car rollovers; ensuring safe speed at crossings to reduce the rates of side collisions and on mixed-use roads and streets where division of WVs (a wheeled vehicle) and unprotected traffic participants can be complicated. Many countries have significant differences between the level of road safety and top speed limits. Organizations to consider an opportunity of setting speed limits;

2) use of related roads depending on a WV type, users, cargo and equipment type. Some WVs and equipment types (or carriers of special/dangerous goods) are restricted with access to specific roads, and there can be predefined options for use of related road types;

3) use of personal protective equipment, especially, safety belts, child restrictive devices, bike helmets, motorcycle helmets, lighting devices and reflectors. Personal protective equipment – especially, safety belts, bike and motorcycle helmets, lighting devices, motorcycle protective gear as well as special equipment for child safety are required to supplement the internal safety level for a road transport system. Its safe use depends not only on a user/driver alongside with compliance with safety rules, but also on the assistance provided by law enforcement authorities, equipment used to reinforce control and additional equipment for drivers (e.g., safety belt reminders);

4) use of safe speed in accordance with a WV type, traffic and weather conditions. The main traffic problem is dangerous speed of a driven WV. In addition to engineering support, public attention and measures taken by law enforcement authorities, it's possible to use other technical equipment to assist a driver with maintaining permitted speed. That specifically includes the installation of speed control cameras and driving assistance systems such as speed limiters and driver monitoring systems. Other mandatory requirements include accounting for weather conditions, traffic conditions and – what's most important – driving a WV within the limits permitted by traffic rules;

5) drivers' health – especially accounting for fatigue, carelessness, alcohol and substance effect. The majority of road accidents occur due to traffic violations committed by drivers – especially due to fatigue, carelessness, alcohol and substance effect. Many countries have legislation and other technical requirements to counter the problems mentioned above. Driver monitoring systems are used more and more frequently now. Those include vehicle locking when a driver is affected by alcohol abuse. Other effective control means include the control and registration of commercial WVs and driver working hours;

6) travel safety planning that involves needs assessment for traveling, distance and a vehicle, selected route, WV and driver. Travel planning might have significant impact on an RTS. Other important factors include understanding of the need for travelling (e.g., phone communications can be as effective), the safest and most appropriate travel mode (by foot, by personal car or public transport). Proper assistance with these can be accessed through consumer programmes (e.g., a road assessment programme defining the safety of various roads) or travel planners; and

7) WV safety – especially considering the protection of passengers and other traffic participants (unprotected passengers and passengers of other WVs), prevention of road traffic accidents and reduction of their consequences, operational suitability, WV load capacity as well as both internal and external cargo securing.

With a transport safety audit in mind, it's worth considering yet another RTS component – road safety. The Law of Ukraine #200-IX “On amendments to specific Laws of Ukraine on road safety management” of October 17, 2019,⁷⁵ provides that a road safety audit shall be an independent, systematic, technical and detailed assessment of impact of specific design solutions on road safety. Such an assessment to be performed by road safety auditors.

As per Article 50 of the above Law, road safety management shall be implemented through the arrangement and implementation of a road safety audit, road safety inspections, identification of dangerous locations (areas) as well as road accident concentration locations and elimination of their causes.

The Ministry of Infrastructure of Ukraine – jointly with the State Regulatory Service of Ukraine, Ministry of Internal Affairs of Ukraine, Ministry for Development of Communities and Territories of Ukraine, Ukrainian Parliament Commissioner and Ministry of Digital Transformation of Ukraine – drafted and signed the Joint Order #204 in September 2021 registered by the Ministry of Justice of Ukraine under #738/36360⁷⁶ in June 2021.

Among other things, a road safety audit (RSA) procedure defines the following:

1. an RSA procedure and formalization of its results;
2. a list of persons entitled to implement an RSA;
3. RSA funding sources;
4. audit deadlines and phases, amount of labours and a number of auditors;
5. a recommendation preparation procedure and format; and
6. an audit report.

The actual passengers are important RTS subjects. Transport enterprises are obliged to ensure human life and health, vehicle operational safety and environmental protection.

Employees who are directly involved in ensuring road traffic safety to have proper professional training and demonstrate acceptable health condition for proper implementation of their duties. These employees and those affected by harmful and hazardous working conditions to pass medical examinations in accordance with the set procedure.

Carriage of passengers, cargo, baggage and mail by air and in some cases – by other types of transport – to undergo mandatory control of their conformity to safety requirements under a procedure defined by a central executive body ensuring the making and implementation of a state policy in the fields of transport, road economy, tourism and infrastructure in accordance with the valid Ukrainian legislation.

Public transport is one of the major areas of urban welfare and functioning. Quality of life for city residents is directly dependent on a city's comfort and convenience. Urban transport influences our lives much more than meets the eye.

Carriers' rights and duties are regulated by the Law of Ukraine “On transport”, Law of Ukraine “On road transport”⁷⁷, Law of Ukraine “On urban electric transport”⁷⁸, Rules for urban electric transport services for the population⁷⁹ and Rules for passenger road transport services⁸⁰.

Relations between carriers providing transportation services and passengers are regulated by the Rules for use of urban electric transport approved by related local self-governance bodies.

In accordance with the Rules for passenger road transport services and a related contract of bus carriage, a motor carrier shall transport a passenger to his/her destination safely; and deliver a passenger's baggage (if any) and return it to the passenger or a duly authorized person on demand.

In his/her own turn, a passenger shall pay a set fare and a baggage carriage charge (if any). Passengers to have a bus ticket (in case of a travel privilege – a defined ID or certificate used as a rationale for a related privilege). In case of an introduced automated fare payment system, passengers to have electronic tickets and documents of travel privilege. A ticket is only deemed as valid with a marked date and movement route. If a passenger has any baggage, he/she to have a receipt for baggage carriage.

So, what kind of duties do carriers have, and passengers must be aware of for making their travels safer? Yes, a motor carrier to ensure compliance with the legal requirements on road transport and consumer rights protection by its employees. When going for a trip, their safety is the primary matter considered by passengers. Therefore, one of the carriers' duty is to take measures in order to ensure a safe and comfortable travel for passengers as well as storage and/or delivery of their baggage in accordance with a related contract of carriage and traffic table. Yet another important duty is

⁷⁵ Law of Ukraine #200-IX “On amendments to specific Laws of Ukraine on road safety management” of October 17, 2019, <https://zakon.rada.gov.ua/laws/show/200-20#Text>

⁷⁶ Order #204 of the Ministry of Infrastructure of Ukraine “On approval of a road safety audit procedure” of 09.04.2021, <https://zakon.rada.gov.ua/laws/show/z0738-21#Text>

⁷⁷ Law of Ukraine “On road transport” #. 2344-III of 5.04.2001, <https://zakon.rada.gov.ua/laws/show/2344-14#Text>

⁷⁸ Law of Ukraine “On urban electric transport” # 1914-IX of 29.06.2004, <https://zakon.rada.gov.ua/laws/show/1914-15#Text>

⁷⁹ CMU Decree “On provision of urban electric transport services for the population” # 1735 of 23.12.2004, <https://zakon.rada.gov.ua/laws/show/1735-2004-%D0%BF#Text>

⁸⁰ CMU Decree “On provision of passenger road transport services” # 176 of 18.02.1997, <https://zakon.rada.gov.ua/laws/show/176-97-%D0%BF#Text>

to perform control over technical and sanitary condition of buses or cars before work. Regarding organization of work for its employees, a motor carrier shall organize a shift-based pre- and post-travel medical examination for vehicle drivers, provide drivers and other employees with documents required by the law; and possess authorization documents for carriage services required by the law.

Passengers also need to know that carriers' duties include proper technical and sanitary maintenance of their vehicles, ensuring their timely arrival for passengers' boarding and departure; organization of passenger carriage to a destination along the specified route with no additional funds spent by passengers, which specifically refers to people with disabilities, the elderly, pregnant women and passengers with preschool children. Should a travel be terminated due to a technical malfunction of a used vehicle or an emergency, or an Act of God; a carrier shall transport passengers with tickets and those entitled to travel privileges as well as ensure pre-sale and sale of tickets.

They shall also provide passengers with accurate and timely information on the names of stops and stations, possible transfers, the amount of fare, etc. Do pay attention that **depending on the type of traffic, the following information to be posted on buses:** in case of urban and suburban carriage – a bus frontal box to contain a route number, names of the travel start and destination points; the lateral box to contain the names of major stops and stations; and the back box – a route number. While operating in the express or fixed route taxi mode, bus frontal and side boxes to contain the “Express” in red and “Fixed Route Taxi Bus” in black above a route number, stop and station names; there should be also entrance and exit indicators by the doors. **While performing intercity and international carriage, bus frontal and lateral boxes to contain** the names of the travel start and destination points (in case of international carriage – information to be provided in two lines for different languages: the upper line to be in Ukrainian, and the lower one – in a language of a destination country).

A bus interior to have the following information posted: an excerpt from the abovementioned Rules for driver and passenger rights and duties, and in case of urban buses – an excerpt from the Rules for use of urban passenger transport; indicators for entrances and exits; inputs on the amount of fine for ticketless travel and unpaid baggage; inputs on a motor carrier and insurance company (a name, address and phone number); total passenger capacity value defining a number of passenger seats separately; indicators for locations of emergency exits (while mentioning their opening methods), a fire extinguisher, first aid kit and emergency stop button. The interior must also have the “No Smoking” and “Seats for Passengers with Children and People with Disabilities” signs posted and duplicated with the international symbol of accessibility and pram icon (urban and suburban routes); seats for people with disabilities marked with an embossed pictogram during intercity and international travels; seats in the cabin should be numbered.

Information posted on and inside buses to meet the requirements for passengers with visual impairments (specifically, printed with an enlarged font).

As for prevention and reimbursements for passengers, motor carriers to ensure mandatory personal insurance of passengers against road accidents and reimburse the damage inflicted upon a passenger's health and property by a motor carrier and/or its staff.

Please note a commonly neglected moment related to traveling and carrier duties. It is about cases when a bus carrying passengers along a defined urban route breaks down, and a motor carrier is obliged to compensate the full ticket value for affected passengers, and they will have to pay for the remaining trip at their own expense. If such a bus is equipped with an automated fare payment system, a motor carrier is obliged to ensure passengers' transfer to another bus with no repeated fares to be paid.

It goes without saying that **in addition to their duties, motor carriers also have respective rights that should not be forgotten by all the parties of a transportation process.** Hence, a motor carrier is entitled to cancel vehicle trips in case of emerging circumstances it could neither predict nor prevent while returning the paid fares to respective passengers. The above circumstances can include vehicle malfunctioning and weather conditions. Hence, carriers are entitled to restrict or cancel their activities in case of natural disasters, epidemics, epizootics or other emergencies; to stop the traffic of their vehicles in case of life- and health-threatening occurrences for their passengers; to mention the condition of baggage with external damage in a baggage receipt or refuse from its carriage altogether if a passenger refuses to accept a related mark.

In order to ensure their rights to carry out their activities, motor carriers are entitled to demand from an executive body or local self-governance body, service client and bus stations to meet the related contractual requirements; to take part in a passenger transport tender for specific trips; and to submit proposals on improvement of passenger servicing level to organizers of regular passenger carriage. Motor carriers are also entitled to provide passengers with privileges on fare payments and provide additional services for their passengers.

Sea and River Transport Audit

The Provision on sea and river shipping safety management (hereinafter also referred to as “the Provision”) was drafted to meet the requirements set forth by Article 3 and Article 4 of the [Law of Ukraine “On transport”](#) and Article 3 of the [Merchant Shipping Code of Ukraine](#). It was approved by the Order #904 of 20.11.2003 registered by the Ministry of Justice of Ukraine under #1193/8514 on December 19, 2003⁸¹.

The following regulatory acts were considered while drafting the Provision:

- Law of Ukraine “On transport”;

⁸¹ Merchant Shipping Code of Ukraine, <https://zakon.rada.gov.ua/laws/show/176/95-%D0%B2%D1%80#Text>

- Merchant Shipping Code of Ukraine;
 - [Water Code of Ukraine](#)⁸²;
 - Surveillance procedure used to ensure transport traffic safety was approved by the Decree #204 of the Cabinet of Ministers of Ukraine of 04.03.1997⁸³;
 - Decree #1147 of the Cabinet of Ministers of Ukraine “On the border regime” of 27.07.1998⁸⁴;
 - Provision on the State Service for Maritime, Inland Waterway Transport and Shipping of Ukraine, approved by the Decree #1095 of the Cabinet of Ministers of Ukraine of September 06, 2017⁸⁵;
 - Provision on the unified state civil protection system, approved by the Decree #11 of the Cabinet of Ministers of Ukraine of January 09, 2014⁸⁶;
 - International Convention for the Safety of Life at Sea of 1974⁸⁷;
 - International Convention for the Prevention of Pollution from Ships of 1973, as amended by its Protocol of 1978⁸⁸;
 - International Convention on Maritime Search and Rescue of 1979⁸⁹;
 - International Management Code for the Safe Operation of Ships and for Pollution Prevention adopted on November 4, 1993, by the Resolution A.741(18) of the International Maritime Organization (IMO), as amended by the Resolution MSC.104 (73) by the IMO Maritime Safety Committee⁹⁰;
 - “General Principles for Ship Reporting Systems and Ship Reporting Requirements, Including Guidelines for Reporting Incidents Involving Dangerous Goods, Harmful Substances and/or Marine Pollutants” adopted on 27.11.1997 by the IMO Assembly Resolution A.851(20)⁹¹;
 - “Guidelines for a structure of an integrated system of contingency planning for shipboard emergencies” adopted on 27.11.1997 by the IMO Assembly Resolution A.852(20)⁹²; and
 - “Self-assessment of Flag State Performance” adopted on 29.11.2001 by the IMO Assembly Resolution A.912(22)⁹³.
 - A shipping safety management system covers the following matters:
 - human safety – protection of human life, health, property, rights to use territorial seas, inland waters and other water bodies of general use for labour, recreation, sports, use of water resources, including those for shipping purposes;
 - environmental protection – protection from negative impacts of shipping;
 - vessels – their conditions as well as conditions of sailing and stay of people on them;
 - waterways – their usability and sailing conditions; and
 - shore-based facilities – their conformity to shipping safety standards, preparedness and reliability.
- Safety control includes the following main phases:
- selection of sea and river shipping safety management system (SRS SMS) facilities for inspection and control parameters;
 - examination of selected facilities;
 - conformity assessment of actual data to shipping safety (SS) requirements; and

⁸² Water Code of Ukraine, <https://zakon.rada.gov.ua/laws/show/213/95-%D0%B2%D1%80#Text>

⁸³ CMU Decree “On the procedure used to ensure transport traffic safety”, <https://zakon.rada.gov.ua/laws/show/204-97-%D0%BF#Text>

⁸⁴ CMU Decree “On the border regime”, <https://zakon.rada.gov.ua/laws/show/1147-98-%D0%BF#Text>

⁸⁵ CMU Decree “On the provision on the State Service for Maritime, Inland Waterway Transport and Shipping of Ukraine”, <https://zakon.rada.gov.ua/laws/show/212-2022-%D0%BF#Text>

⁸⁶ CMU Decree “On the provision on the unified state civil protection system”, <https://zakon.rada.gov.ua/laws/show/11-2014-%D0%BF#Text>

⁸⁷ International Convention for the Safety of Life at Sea, <https://marad.gov.ua/ua/npa/mizhnarodna-konvenciya-pro-ohoronu-lyudskogo-zhittya-na-mori-1974-roku-solas-74>

⁸⁸ International Convention for the Prevention of Pollution from Ships of 1973, https://zakon.rada.gov.ua/laws/show/896_009#Text

⁸⁹ International Convention on Maritime Search and Rescue of 1979, <https://marad.gov.ua/ua/npa/mizhnarodna-konvenciya-pro-poshuk-i-ryatuvannya-na-mori-1979-roku>

⁹⁰ Amendments to the Convention on Maritime Search and Rescue, https://zakon.rada.gov.ua/laws/show/896_001-98#Text

⁹¹ “General Principles for Ship Reporting Systems and Ship Reporting Requirements, Including Guidelines for Reporting Incidents Involving Dangerous Goods, Harmful Substances and/or Marine Pollutants” adopted on 27.11.1997 by the IMO Assembly Resolution A.851(20),

<https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.851%2820%29.pdf>

⁹² “Guidelines for a structure of an integrated system of contingency planning for shipboard emergencies” adopted on 27.11.1997 by the IMO Assembly Resolution A.852(20),

<https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.852%2820%29.pdf>

⁹³ “Self-assessment of Flag State Performance” adopted on 29.11.2001 by the IMO Assembly Resolution A.912(22), <https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.912%2822%29.pdf>

- determining the need for decision-making, taking measures on removal of flaws and deviations from SS requirements.

There can be three types of inspections:

- comprehensive inspections;
- targeted inspections; and
- operational control.

Comprehensive inspection is a thorough all-round SS inspection at a controlled facility implemented in accordance with a related inspection schedule by a special commission involving representatives of authorities and control-supervisory bodies. Comprehensive inspections can be implemented as revisions in order to assess the performance of a shipping company safety management system (SC SMS).

A comprehensive inspection schedule for the next year is approved by the State Service for Maritime, Inland Waterway Transport and Shipping of Ukraine in December. Managed facilities (enterprises, institutions and organizations) are notified of a scheduled comprehensive inspection in writing no later than a month prior to its implementation.

An unscheduled comprehensive inspection is implemented during the investigation of an emergency event (EE) at sea and river transport (SRT).

Targeted inspection is an inspection at a controlled facility or a group of facilities dealing with the organization of SS support. It is conducted in accordance with a decision made by the State Service for Maritime, Inland Waterway Transport and Shipping of Ukraine. Such inspections can be also implemented after occurred accidents related to several enterprises, institutions and organizations.

Operational control is implemented at a specific facility, enterprise, institution or organization in the presence of a related facility director – as a rule, during a single day. It is conducted by officials of an executive body and control and supervisory body.

According to inspection results and operational control, a related act or a prescription(s) (if necessary) is compiled under a defined form.

Annex 1 to the Provision defines the basic functional requirements for a safety management system for self-propelled vessels with a gross tonnage of 500 units or more and passenger vessels regardless of their tonnage.

The related requirements include the following:

1. The primary SS management objective at a shipping company (SC)

1.1. The primary SC objective related to safety management is to ensure:

safe vessel operational practices and safe working conditions;
protection from all types of identified risks; and
continuous improvement of safety management skills in shore-based and vessel-based personnel, including preparedness for emergencies related to both safety and environmental protection.

1.2. SMS to ensure the following:
meeting mandatory SS requirements; and
maximum accounting for recommendations, codes, standards and other non-mandatory SS documents.

1.3. Functional SMS requirements.
Every SC to develop (in a comfortable format), introduce and maintain an SMS while meeting the following functional requirements:

SC safety and environmental protection policies in place;
guidelines and procedures used to ensure safe use of vessels and environmental protection in accordance with both the international and national laws in place;
defined extent of authority and communication tools between the shore-based and vessel-based personnel as well as internal communications in place;
a procedure used to transfer notifications of accidents and cases of violations of the set SS procedure, including SMS requirements;
a preparation procedure for emergencies and respective resolutions in place; and
a procedure for internal inspections and management review in place.

2. SC policy on safety and environmental protection

2.1. An SC to process its policy on safety and environmental protection considering the methods to achieve the objective mentioned in Clause 1 above.

2.2. An SC to ensure the making and implementation of this policy by both its shore-based and vessel-based personnel at all organization levels.

3. SC responsibility and authority

3.1. Should another legal entity or individual (not a vessel owner) be assigned responsible for operation of a vessel, it shall notify a related SRT licensing body, state registration body of a vessel and the State Service for Maritime, Inland Waterway Transport and Shipping of Ukraine thereof immediately.

3.2. An SC to define and formalize the responsibility, authority and interaction between the personnel dealing with the management, implementation and inspection of work related to safety and prevention of environmental

pollution or influence them. The formalization to be performed by inputting related provisions into job descriptions, provisions on structural units, list of duties and other documents regulating activities of an SC and its personnel.

3.3. An SC bears responsibility for providing an assigned person(s) with resources and shore-based support considered sufficient for implementation of their duties.

4. Assigned person(s)

Each SC to assign a shore-based person(s) with direct access to the SC director in order to ensure safe operation of each vessel and communication between the SC and vessel-based personnel. The responsibility and authority of an assigned person(s) to include control over compliance with SS requirements at each vessel as well as provision of vessels with sufficient resources and assistance from the shore. Anyone of the vessel personnel can become an assigned person.

5. Captain's responsibility and authority

5.1. An SC to clearly define and formalize a captain's responsibility on the following under related documents: implementation of SC policy on safety and environmental protection; urging the crew to comply with the policy concerned; issuing related orders and instructions in a comm and understandable way; verifying whether SS requirements are met; and reviewing SMS and transferring notifications of SMS flaws to an assigned person(s) and SC shore-based services.

5.2. An SC to ensure that a vessel SMS contains a clear proof of the captain's authority. An SC to check the SMS whether the captain has the basic authority and bears responsibility for making decisions on safety and prevention of environmental pollution as well as requests for required assistance to SC.

6. Resources and personnel

6.1. An SC to ensure that the captain:
is properly qualified for vessel management;
is fully aware of the SC SMS; and
has access to required support in order to implement his/her duties in a safe manner.

6.2. An SC to ensure that each vessel is provided with qualified, certified and medically fit crew members in accordance with the valid legislation.

6.3. An SC to set the procedures used to ensure proper awareness of the duties assigned to new personnel and employees transferred to new offices or positions related to shipping safety and environmental protection. All the instructions that the employees need to be aware of before a vessel's departure for a voyage to be defined, formalized as documents and provided to the personnel in a timely manner.

6.4. An SC to ensure that all the personnel related to SC SMS is properly aware of related SS requirements. All SC vessels and offices to have relevant (updated in accordance with the recent changes) text versions of international and national documents containing SS requirements.

6.5. An SC to set and ensure the compliance with the procedures used to define any training that might turn necessary to perform basic SMS functions as well as ensure implementation of training as such for all related personnel.

6.6. An SC to set the procedures ensuring vessel personnel's awareness of any SMS-related information in a working or understandable language.

6.7. An SC to ensure that vessel personnel are capable of effective communications while performing their SMS-duties.

7. Drafting action plans for vessel operations

An SC to set a procedure for drafting action plans and instructions on further safe vessel operational activities, including the lists of control checks (if necessary) on implementation of basic vessel operations related to safety and pollution prevention.

8. Preparedness for emergencies

8.1. An SC to set a procedure used to identify, describe and resolve possible emergencies on board the vessel.

8.2. An SC to compile training curricula for the crew as well as training sessions in case of emergencies.

8.3. SMS to involve measures ensuring SC capacity to respond to EEs related to its vessels at any time.

8.4. When designing specific SMS sections on emergencies, it is recommended to use the IMO's "Guidelines for a Structure of an Integrated System of Contingency Planning for Shipboard Emergencies" with related amendments and revisions thereto.

9. References to noncompliances with SS requirements, accidents, hazardous events and their analysis

9.1. SMS to cover procedures ensuring the transfer of SC notifications of the cases related to noncompliances with SS requirements, accidents, hazardous events, their investigation and analysis in order to improve the level of safety and prevent pollution.

9.2. An SC to set a procedure used to remove the detected flaws.

10. Technical maintenance and repairs of a vessel and equipment

10.1. An SC to set the procedure used to ensure technical maintenance and repairs of vessels in accordance with related norms and rules as well as any additional requirements that might be set by the SC.

10.2. An SC to ensure the following in order to meet the above requirements:
regular inspections;

transfer of notifications of any failures to meet the requirements while mentioning possible reasons (if known); related measures to remove flaws; and registration of the above measures.

10.3. An SC to set SMS procedures used to define equipment and technical systems that might cause hazardous situations in case of their sudden failure. An SMS to consider specific measures focused on ensuring reliability of such equipment or systems. These measures to include regular checks of backup devices and equipment or technical systems that are not regularly used.

10.4. Inspections considered under Clause 10.2 above as well as measures considered under Clause 10.3 above to be included into the current technical maintenance and repairs of a vessel during its use and operations.

11. Documentation

11.1. An SC to set and ensure conformity to control procedures for all SMS-related documents and data.

11.2. An SC to ensure the following:
valid documents available in all workplaces whenever they are deemed as necessary;
verification and agreement of all document amendments by authorized persons; and
timely removal of outdated documents.

11.3. Documents used to describe and implement an SMS to be packaged in a folder titled as “Safety Management Guidelines”. Documents to be formalized in the format considered the most efficient by an SC. Each vessel to have all the vessel-related documents on board.

11.4. SC SMS documents to be verified and approved by a classification society defined by the Cabinet of Ministers of Ukraine.

11.5. An SC to have a related document of conformity. A document of conformity is issued by a classification society defined by the Cabinet of Ministers of Ukraine provided that the SC conforms to the requirements of this Provision for at least five years.

In order to confirm the effectiveness of SC SMS operations and its conformity to the requirements set by this Provision, a document of conformity to be confirmed by an issuing classification society on the annual basis. A document of conformity is valid only for those vessel types that are mentioned thereunder provided that related inspections are conducted on the regular basis.

11.6. In order to facilitate the commissioning of a safety management system, an SC is entitled to acquire a temporary document of conformity for no longer than 6 months.

A temporary document of conformity is issued in the following cases:

for a newly established SC; and

if a valid document of conformity must be expanded to include new vessel types, and a related SC is responsible for operations of the latter.

11.7. Each SC vessel to have a copy of a document of conformity/temporary document of conformity.

11.8. A safety management certificate is issued by a classification society defined by the Cabinet of Ministers of Ukraine provided that an SC is active, and its onboard vessel management methods are implemented in accordance with an adopted SMS for no longer than five years.

Validity of a safety management certificate to be verified by an issuing classification society at least once during its validity period. In case of a single verification of a certificate remaining valid for 5 years, such a verification to be conducted between the second and the third annual dates. A safety management certificate remains valid provided that there's an intermediate verification implemented, and there's an available document of conformity.

11.9. In order to facilitate the introduction of a safety management system, a temporary safety management certificate can be issued for no longer than 6 months.

A temporary safety management certificate can be issued for:

new SC vessels; and

whenever an SC undertakes the responsibility for a new vessel's operation.

12. SMS performance inspection, review and assessment

12.1. An SC to conduct internal safety revisions in order to assess conformity of measures on safety and environmental pollution prevention. Such revisions to be conducted at least once a year.

12.2. An SC to implement regular SMS performance assessments and revise SMS activities in accordance with the procedures set by the SC (if necessary).

12.3. Revisions and possible measures taken to remove flaws to be conducted in accordance with the set SMS procedures.

12.4. Personnel responsible for revisions to remain independent from the types of inspected activities unless interfered with the size and nature of SC activities.

12.5. Personnel responsible for the related activities to be notified of respective revision and inspection results.

12.6. Management personnel responsible for a specific activity to take timely measures to remove detected flaws. Annex 8 to the Provision formalizes inspection results as follows:

ACT

Safety Management Performance Inspection Results for Sea and River Transport

(name of a company, institution, organization (legal entity) and body managing a state

enterprise)

(date of the Act)

(place of the Act)

Commission assigned under the Order # _____ of _____

(name of a body assigning the Commission)

Chairman/Chairwoman

(name and surname)

(position/office)

Members

(name
and surname)

(position/office)

conducted a performance inspection at _____

(name of an enterprise, institution, organization (legal entity))

on _____

(please specify the inspected areas)

from “___” _____ to “___” _____ 20__

1 During the inspection, THE COMMISSION IDENTIFIED:

SS performance is reviewed in accordance with a sample list of questions provided in Annex 8.

Implementation of recommendations proposed by the Commission during the previous inspection is assessed.

2 During the COMMISSION’S activities, the following safety flaws detected under the inspection were removed:

Please specify a list of flaws removed during the Commission’s activities.

3 THE COMMISSION HEREBY RECOMMENDS:

Specific recommendations on SS improvements, deadlines for specific activities and proposals on accountability for specific officials found guilty of a failure to meet SS requirements are provided.

I hereby certify that I have read and understood the Act of Inspection and received a single copy thereof

(director’s position of an inspected organization)

(signed)

(surname, initials)

Chairman/Chairwoman

(signed)

(surname, initials)

Commission Members

(signed)

(surname, initials)

Railway Transport

Railway transport safety in Ukraine, including carriage of passengers, is regulated by a number of regulatory and legal acts such as laws, decrees of the Cabinet of Ministers of Ukraine (CMU), orders issued by relevant ministries and agencies:

1. Laws of Ukraine

- Law of Ukraine “On transport” # 232/94-BP of 10.11.1994 regulates the functions of the Ukrainian transport system, including railway transport, and ensuring transportation safety.
- Law of Ukraine “On railway transport”⁹⁴ # 273/96-BP of 04.07.1996 defines the legal, economic and organizational fundamentals for rail transport, including transportation safety.
- Law of Ukraine “On carriage of dangerous goods”⁹⁵ #1644-III of 06.04.2000 is related to transportation of dangerous goods by rail.
- Law of Ukraine “On road traffic”⁹⁶ # 3353-XII of 30.06.1993 is applied to safety of vehicles crossing railway tracks and operations of railway crossings.

2. Decrees of the Cabinet of Ministers of Ukraine

- CMU Decree #553 “On approval of the Rules for passenger road transport service provision”⁹⁷ of 19.03.1997 contains norms partially related to integration with other types of transport, including railway transport.
- CMU Decree #65 “On approval of the Rules for carriage of passengers, cargo and baggage by rail in Ukraine”⁹⁸ of 04.02.1997 defines the procedure used to organize the carriage of passengers.

3. Orders issued by relevant agencies

- Order #644 of the Ministry of Transport of Ukraine “On approval of the Safety rules for citizens at railway transport in Ukraine”⁹⁹ of 01.11.1999 regulates the ensuring of passenger safety at railway stations, platforms and during their trips.
- Order #527 of the Ministry of Infrastructure of Ukraine “On approval of the Instruction for the arrangement of carriage of passengers and cargo by rail”¹⁰⁰ of 25.12.2014 contains specific requirements for train traffic and safety measures.

4. State standards and norms

- DSTU 4100-2020 “Railway transport. Operational requirements”¹⁰¹ sets the standards on safe railway transport operations.
- BN.2.3-19:2018 “Railway transport. Infrastructure and technical maintenance”¹⁰² document covers design and maintenance of railway infrastructure.

5. Other acts

- Recommendations of the State Service of Ukraine for Transport Safety (Ukrtransbezpeka).
- Internal rules and provisions of Public JSC “Ukrainian Railways” (“Ukrzaliznytsia”)¹⁰³.

Article 11 of the Law of Ukraine “On railway transport” underlines the obligations of public railway transport companies on ensuring safety for life and health of the citizens using their services as well as safety of train traffic and environmental protection.

State supervision over railway train traffic in Ukraine is performed by a central executive body ensuring the making and implementation of the state transport policy in accordance with the procedure set forth by the Cabinet of Ministers of Ukraine.

The Order #1196 of the Ministry of Transport and Communications of Ukraine “On approval of the Rules for carriage of passengers, baggage, cargo and mail by rail in Ukraine” of December 27, 2006¹⁰⁴ registered under #310/13577 by the Ministry of Justice of Ukraine on April 4, 2007, defines the rules applied to domestic carriage of passengers,

⁹⁴ Law of Ukraine “On railway transport”, <https://zakon.rada.gov.ua/laws/show/273/96-%D0%B2%D1%80#Text>

⁹⁵ Law of Ukraine “On carriage of dangerous goods”, <https://zakon.rada.gov.ua/laws/show/1644-14#Text>

⁹⁶ Law of Ukraine “On road traffic”, <https://zakon.rada.gov.ua/laws/show/3353-12#Text>

⁹⁷ CMU Decree #553 “On approval of the Rules for passenger road transport service provision”,

<https://zakon.rada.gov.ua/laws/show/176-97-%D0%BF#Text>

⁹⁸ CMU Decree #65 “On approval of the Rules for carriage of passengers, cargo and baggage by rail in Ukraine” of 04.02.1997,

<https://zakon.rada.gov.ua/laws/show/z0310-07#Text>

⁹⁹ Order #644 of the Ministry of Transport of Ukraine “On approval of the Safety rules for citizens at railway transport in Ukraine” of 01.11.1999, <https://zakon.rada.gov.ua/laws/show/z0193-98#Text>

¹⁰⁰ Order #527 of the Ministry of Infrastructure of Ukraine “On approval of the Instruction for the arrangement of carriage of passengers and cargo by rail” of 25.12.2014, <https://zakon.rada.gov.ua/laws/show/z0329-99#Text>

¹⁰¹ DSTU 4100-2020 “Railway transport. Operational requirements”,

https://zakon.isu.net.ua/sites/default/files/normdocs/dstu_4100_2021.pdf

¹⁰² BN.2.3-19:2018 “Railway transport. Infrastructure and technical maintenance”, <https://document.vobu.ua/wp-content/uploads/DBN/V2319.pdf>

¹⁰³ Internal rules and provisions of Public JSC “Ukrzaliznytsia”, <https://zakon.rada.gov.ua/laws/show/938-2018-%D0%BF#Text>

¹⁰⁴ Order #1196 of the Ministry of Transport and Communications of Ukraine “On approval of the Rules for carriage of passengers, baggage, cargoes and mail by rail in Ukraine” of December 27, 2006, <https://zakon.rada.gov.ua/laws/show/z0310-07#Text>

baggage, cargo and mail by public railways (within Ukraine) and inside the coaches owned by Public Joint Stock Company “Ukrainian Railways” (hereinafter also referred to as “Public JSC “Ukrzaliznytsia”) or other business entities dealing with carriage of passengers, baggage, cargo and mail, railway administrations (railways) and carriers from other states or coaches rented from them as well as coaches owned by enterprises, organizations, institutions or citizens, including those located beyond Ukraine (hereinafter also referred to as “business entities”).

Section 7 of the Order mentioned above titled “Carriage of passengers” defines passenger rights and carrier duties and obligations on the arrangement of seats for carriage of passengers, which specifically includes the following:

Passenger coaches to have posted information for passengers on a specific train schedule (a through coach), services provided in a train, location of a book of complaints, number of a coach hosting a train manager, location of a train coach owner, availability of a restaurant coach (diner), if any, and its placement in accordance with a train layout, its working hours, an evacuation plan, a memo for passengers containing hints in case of fire as well as excerpts from the Rules related to rights and duties of passengers and train attendants (stewards).

Throughout the entire trip, passengers are provided with an opportunity to use the two lavatories available inside a coach. A train attendant (steward) shall keep those unlocked for that matter.

It is not permitted to use the lavatories while a train is passing through stations and sanitary areas.

Passengers are entitled to use their sleeping berths anytime. Train attendants can lower and raise upper berths on a passenger’s request.

Passengers in all coaches with sleeping berths are provided with tea and coffee for an additional fee. Passenger transport and service control is implemented by a carrier’s officials and officers in accordance with the assigned mandate and only in the performance of their official duties.

Such employees check the following:

- whether passengers possess their travel documents, identity documents and/or privilege certificates/documents;
- formalization of travel and transport documents;
- validation of travel documents by train attendants (stewards);
- ensuring proper coach maintenance and passenger services by a train crew;
- adherence to the rules for public order by passengers inside trains, at railway stations as well as compliance with the requirements set by regulatory and legal acts on carriage of passengers, baggage and freight baggage by railway staff and passengers themselves;
- management of sales of travel documents and services provided for passengers at railway stations and inside trains;
- operations of luggage lockers and baggage compartments;
- terms of coach use (for own, rented coaches, etc.);
- linen cost records, quality and access to clean linen;
- formalization of a travel by a train manager, correctness of fine recovery, filling out official documents and timely payments;
- execution of their job descriptions by train attendants (stewards); and
- compliance with legal sanitary requirements.

Suburban trains enable their passengers to use lavatories. Smoking in suburban train (electric and diesel trains) coaches (including vestibules) is prohibited.

Services for people with disabilities are regulated by the Law of Ukraine “On the status of war veterans and guarantees for their social protection”¹⁰⁵ # 3551-XII of 22.10.1993, Law of Ukraine “[On the fundamentals of social protection of persons with disabilities in Ukraine](https://zakon.rada.gov.ua/laws/show/875-XII#Text)”¹⁰⁶ # 875-XII of 21.03.1991, other regulatory and legal acts, including these Rules.

Carriage of people with disabilities using their mobility aids to be performed by a carrier in special coaches equipped with technical means designed to provide services for this population group.

In order to transport people with disabilities using ad hoc technical or other rehab means (a wheelchair, walkers, crutches, canes, etc.), a carrier to take necessary measures in order to ensure access to information, trains and other facilities used for passenger servicing (ticket booths, information and inquiry services, waiting halls, recreation rooms, luggage lockers and baggage compartments) free-of-charge as well as to provide proper conditions for comfortable and safe use of railway station premises and trains.

Out-of-class railway stations as well as class one-three railway stations might assign specific employees responsible for servicing people with disabilities who use ad hoc technical or other rehab means (a wheelchair, walkers, crutches, canes, etc.). Related information is posted in readily available locations at premises (ticket booths) of railway stations as well as official websites of related carriers.

A carrier to provide people with disabilities and visual or hearing impairments with related information with the use of sound and visual notification systems.

¹⁰⁵Law of Ukraine “On the status of war veterans and guarantees for their social protection”,
<https://zakon.rada.gov.ua/laws/show/3551-12#Text>

¹⁰⁶ Law of Ukraine “On the fundamentals of social protection of persons with disabilities in Ukraine”,
<https://zakon.rada.gov.ua/laws/show/875-12#Text>

A carrier to provide people with disabilities as well as visual and hearing impairments with free verbal information on the purchase of a travel document, transportation in a coach, access to recreation rooms, operations of luggage lockers and baggage compartments, etc. on their demand. A carrier is also to provide free assistance if necessary.

Annex 6 to the Rules for carriage of passengers, baggage, freight baggage and mail by rail in Ukraine defines a classification system for passenger trains with the recommended comfort/service level:

Classification system for passenger trains with the recommended comfort/service level.																												
Train Category	IC+		IC					RE					OE			OF				R					O			
Coach Category/ Class	2+	1+	3p/i	2+	1+	e p/i	c p/i	3p/i	2+	1+	e p/i	c p/i	S p/i	L+	C+	S p/i	L+	C+	E+	3+	2+	1+	e p/i	c p/i	L p/i	C+	E+	
Mode	domestic																											
Comfort and service level:																												
blinds, curtains	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
carpet runners													B	B	B	B	B	B										
fridge (inside a service compartment for general needs)							A					A	A	A	A	A	A	A						A	A	A		
microwave oven							A					A	A	A	A	A	A	A						A	A	A		
Sockets for gadget charging:																												
every compartment													B	A	A	B	A	A										
coach interior	B	B			A		A		A	A		A		A	A		A	A			A	A		A	A	A		
internet (Wi-Fi)	B	A	A	A		A	A						A	A	A	A	A	A							A			
Serving hot drinks	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Serving cold drinks	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Bed linen						B	B				B	B	B	B	B	B	B	B	B				B	B	B	B	B	B
Available air conditioning	B	B		B	B		B		B	B	B	B	B	B	B	B	B	B	B					B	B			

An air carrier to ensure the following:

- equipment of an aircraft passenger cabin with technical means and systems for ensuring passenger safety;
- maintenance of appropriate temperature conditions within a cabin; and personalized technical means for passenger use (personalized lighting, fan, catering table, passenger restraint system, oxygen masks, etc.);
- maintenance of appropriate sanitary and hygienic conditions inside an aircraft cabin;
- serviceability and completeness of available equipment, inventory and passenger servicing facilities;
- seats for passengers with children in place;
- possible accommodation of people transported on stretchers (if permitted by an air carrier's rules), other people with disabilities or mobility disorders;
- assistance for passengers during boarding or deplaning an aircraft (looking for a seat, storing hand luggage, etc.);
- information and inquiry services – timely and accurate notification of passengers of the rules of conduct onboard, free and fee-based services that can be provided, flight conditions, use of emergency and rescue equipment, location designated inside an aircraft cabin for personal protective equipment and inflatable slides, designated locations for primary and emergency exits as well as conditions to be followed for aircraft evacuation in case of emergencies;
- first aid;
- drinking water on a passenger's demand; and
- use of lavatories.

An air carrier to notify passengers of the free services provided onboard as well as their provision procedure immediately after take-off.

In accordance with aircraft safety requirements:

1. An aircraft to be provided with a necessary set of emergency and rescue equipment and means for emergency evacuation of passengers during an accident.
2. It is prohibited to take containers, inventory and equipment aboard an aircraft unless there are designated sockets, racks or special fasteners for them.
3. The maximum number of people onboard an aircraft not to exceed the number of available seats and chairs equipped with seatbelts.
4. Before take-off, landing and in special cases, passengers to fasten their seatbelts, flight attendants to control the fastened seatbelts and their tension in each passenger. Children under the age of two transported without a separate seat to be placed on the knees of adult passengers who are obliged to hold them tightly with their hands and secured with special belts attached to adult seatbelts.
5. Flight attendants at each flight to do the following:
 - notify passengers of the locations designated for emergency equipment and the rules for its use in a timely and correct manner;
 - brief passengers on safety instructions;
 - thoroughly inspect all passenger compartments of an aircraft for foreign items;
 - thoroughly meet the balancing requirements, prevent the placement of bulky items on baggage racks and any items in the aisles, by the entrance doors and emergency exits when accepting and accommodating passengers onboard;
 - demand that passengers remain in their seats with fastened seatbelts during in-flight turbulence;
 - verify whether a ramp is installed properly before boarding and deplaning of passengers;
 - verify whether equipment and inventory are installed and fastened properly before take-off and landing of an aircraft; and prevent the movement of passengers through the cabin when the "Fasten Your Seatbelts" indicator is on.
6. Airplane bassinets to be installed during the take-off of an aircraft, and when the "Fasten Your Seatbelts" indicator is on. They are to be removed no earlier than the "Fasten Your Seatbelts" indicator is on before the landing.
7. An air carrier to ensure safety inside the cabin, proper and reliable placement of hand luggage, baggage, changeable equipment, etc.

Urban Electric Transport

Safety in Ukrainian subways, trams and trolleybuses is regulated by a number of regulatory and legal acts, including the following key documents:

1. Ukrainian legislation:

- Law of Ukraine "On transport" # 232/94-BP of 10.11.1994 sets forth the principal provisions on operations of a transport system, including transportation safety;
- Law of Ukraine "On road traffic" # 3353-XII of 30.06.1993 regulates road traffic safety while covering electric transport; and
- Law of Ukraine "On urban electric transport" #1926-IV of 29.06.2004¹¹⁴ contains provisions on operation of trams, trolleybuses and subways.

2. Decrees issued by the Cabinet of Ministers of Ukraine:

- CMU Decree #176 "On approval of the Rules for provision of road transport services" of February 18, 1997, approves the rules for provision of urban electric transport services; and

¹¹⁴ Law of Ukraine "On urban electric transport", <https://zakon.rada.gov.ua/laws/show/1914-15#Text>

- CMU Decree #1735 “Rules for provision of urban electric transport services”¹¹⁵ of December 23, 2004, includes the safety rules for electric transport passengers and operators.

3. *Orders and instructions issued by relevant ministries*

- Order #36 of the Ministry of Infrastructure of Ukraine “On approval of the Rules for technical operations of trams and trolleybuses” of 03.02.2020¹¹⁶ sets the requirements for transport technical conditions, operations and transportation safety; and
- Order #854 of the Ministry of Transport of Ukraine “On approval of regulatory and legal acts on Ukrainian subway safety”¹¹⁷ of 04.11.2003, ensures coordination and interaction between all subway links, their clear and continuous actions on ensuring traffic safety.

State supervision and control in the field of urban electric transport are defined by Article 10 of the Law of Ukraine “On urban electric transport” and executed by the central executive body ensuring the implementation of the state policy on ground transport safety. Supervision and control cover the technical condition of urban electric transport facilities, maintenance and operational conditions of the rolling stock.

Subway safety in Ukraine covers a number of important aspects, including the requirements for station structures and devices, alarm structures and devices (automatics, telemechanics for train movements and communications, tunnel access control devices, escalator structures and devices, engineering and technical equipment as well as electromechanical devices.

A commission chaired by the head of the remote traffic service or his/her deputy, head of the signalling distance (automatics) or his/her deputies and a station master inspect structures and devices at least once a quarter. The need for involvement of officials and experts of other services are defined by a chairman/chairwoman of the commission.

Inspection results and measures taken to remove the detected malfunctions, violations and concerns on current maintenance and repairs of structures and devices are recorded in related logs defining the deadlines to remove malfunctions, violations and concerns, responsible executives as well as implementation of scheduled activities.

Operational rules for trams and trolleybuses involve the requirements on operation of stations and terminal stations, contact network, cable network and earthing devices.

All the structures, elements of station and stop facilities to be maintained in proper condition and meet the traffic safety requirements.

Boarding platforms and approaches to them to be illuminated during the dark hours.

Stop point surfaces should be regularly cleaned of garbage, ice and snow. In case of glaze, ice layers at a boarding platform should be sprinkled with sand. The snowbank along a stop after cleaning the roadway should be removed for the length of a boarding platform and up to 5-10 m beyond each of its sides.

Trash bins installed at a stop should be emptied when filled with garbage.

Trash bin filling to be controlled once a day by employees of a structural unit of an enterprise assigned to maintain transport stops in proper sanitary condition.

Tracks and boarding platforms at terminal stations to be illuminated during the dark hours.

Tram terminal stations to have sufficient stocks of sand required to refill rolling stock sandboxes.

Mandatory visual information of an intercity passenger station to be designed in the format of tables, schemes, pointers, electronic displays and contain the following:

- layout of a passenger station;
- route schematics;
- train schedules containing boarding platform numbers;
- fare and baggage transport value tables;
- rules for carriage of passengers and baggage;
- layout and numbering of seats on different rolling stock models; and
- pointers and reference tables containing information on the location and working procedure of station staff premises.

Apart from the mandatory information, a passenger station can post additional information (a timetable) regarding other types of transport, information for people with disabilities, etc.

Unfortunately, regulatory and legal acts regulating operations of urban electric transport contain no provisions on passenger safety. At the same time, local self-governance bodies can adopt administrative documents underlining passenger safety rules during the stay in a subway.

The Kyiv City Administration suggests the following requirements to ensure passenger safety during their stay in the subway (Kyiv Metro):

¹¹⁵ CMU Decree #1735 “Rules for provision of urban electric transport services” of December 23, 2004, <https://www.kmu.gov.ua/npas/10513629>

¹¹⁶ Order #36 of the Ministry of Infrastructure of Ukraine “On approval of the Rules for technical operations of trams and trolleybuses” of 03.02.2020, <https://zakon.rada.gov.ua/laws/show/z0353-20#Text>

¹¹⁷ Order #854 of the Ministry of Transport of Ukraine “On approval of regulatory and legal acts on Ukrainian subway safety” of 04.11.2003, <https://zakon.rada.gov.ua/laws/show/z0590-04#n16>

Dear passengers! In order to ensure your personal safety and safety of other passengers during the use of the Metro, we hereby kindly suggest you to follow the following recommendations:

1. Considering that Metro tracks are under high voltage, it is prohibited to go down to the tracks and walk along the tracks.

In case of falling onto the Metro tracks, you must under no circumstances approach the platform nor attempt to leave a dangerous place on your own. Please follow the tracks to the far end of a station on the train departure side – under the electric clock. Should a station attendant be unavailable at the platform, contact him/her through other passengers or Metro employees.

Do not try recovering your personal belongings on your own in case of their falling to the tracks, but rather approach a station attendant.

2. When in the Metro with children, please watch them carefully. Do not allow children running around the platform. Preschool children should be held by hands, and little children should be carried.

It is prohibited to carry children in foldable prams on Metro escalators.

In order to prevent any and all injuries in children when using an escalator, please do not allow them:

- *moving along the escalator on their own;*
- *sitting on the steps, holding on to the steps with their hands or sticking their fingers between the steps and the balustrade stationary part;*
- *stepping on the restriction line drawn on the side edges of the steps;*
- *touching the balustrade stationary parts and sticking their fingers under the handrail; and*
- *pressing their footwear against the balustrade stationary parts and adjacent steps.*

Please teach children to adhere to the Metro Rules of Conduct!

3. When on the escalators and inside electric train coaches, please be attentive and cautious. You should hold onto the handrail at all times to avoid falling.

If you find it difficult to use the Metro, please approach the station personnel at a checkpoint.

4. It is prohibited to enter Metro stations in a state of intoxication since the use of the Metro presumes increased risks.

5. We kindly draw your attention to the fact that in accordance with the Law of Ukraine “On control and reduction of tobacco products and their adverse effects on public health” and Metro Rules of Conduct, it is strictly prohibited to smoke at stations, escalators and inside electric train coaches!

6. If there are signs of fire (smell of burning, smoke, flame, sparking electric equipment, etc.) or other emergencies as well as violations of public order, please notify Metro employees thereof immediately:

- *at a station – a station attendant with the “passenger-operator” communication device located by the escalator or at the station platform, controller, cashier or police officer; or*
- *inside a coach – a train driver with the “passenger-train driver” communication device located inside the coach, while mentioning the number of the coach indicated above the communication device.*
- *In case of fire at a Metro station, you need to comply with the following procedure:*
- *listen to the announcements delivered through the loud speaker attentively and leave the station immediately along the pathways indicated by Metro employees;*
- *stay calm;*
- *do not crowd; and*
- *help children, women and the elderly.*
- *In case of fire inside a moving train coach, you need to comply with the following procedure:*
- *notify a train driver thereof immediately with the “passenger-train driver” communication device located inside the coach, while mentioning the number of the coach indicated above the communication device;*
- *stay calm; and*
- *listen to the announcements of the train driver attentively.*
- *In case of fire inside a coach stationed between stations, you need to comply with the following procedure:*
- *listen to the announcements of the train driver attentively;*
- *leave the coach through the opened doors on his/her command;*
- *avoid panic; and*
- *stay calm and help children, women, people with disabilities and the elderly to leave the coach.*

When evacuating from the coaches, please leave the bulky items behind.

Follow the tunnel while carefully and attentively moving along the pathway pointed by the train driver and sticking to the right side of the tunnel when evacuating in the direction of a station the train was moving towards, or left side of the tunnel – when evacuating to a station the train was heading from. When passing through the tunnel, it is strictly prohibited to enter side tunnel workings and passages.

7. Upon detection of suspicious items in the Metro, we hereby kindly ask you to adhere to the following procedures:

Upon detection of suspicious items at a station, please notify a police officer or station attendant thereof. It is strictly prohibited to inspect, remove or dispose of a suspicious item on your own before the arrival of experts from the Explosive Technical Service. Please listen to the announcements attentively and leave the station immediately if necessary while

following the pathways defined by the operational staff. Please stay calm, do not crowd and help children, women and the elderly.

Upon detection of suspicious items inside a coach, please notify the train driver thereof with the “passenger-train driver” communication device located inside the coach, while mentioning the number of the coach indicated above the communication device.

At the same time, experts of the NTUU “KPI” Occupational, Industrial and Civil Safety Department, jointly with its Occupational Safety Service, have launched the “Safety Formula” column in the “Kyiv Polytechnic” newspaper. First and foremost, the column shares the global expertise on ensuring passenger comfort and safety.

EU member states have taken additional passenger safety measures. Hence, German subway trains open their doors only on pressing a special button beside them. This enables passengers to avoid being caught by the doors.

All the stations at the Paris Metro have partitions with sliding doors and are equipped with opening levers which separate waiting halls from rail tracks and prevent passengers from falling on the tracks. Such measures enabled to reduce the accident rates there.

Kyiv Metro trains have a high level of noise. European coach wheels are designed to be low-noise from the start, and the coaches themselves are insulated in a way people inside can even whisper or listen to music. German and French coaches ride smoothly, which would be highly appropriate for the city of Kyiv.

The Kyiv Metro is used by about 40% of the public transport passengers daily. It mitigates the load on ground transport significantly – especially during the peak hours. It is the peak hours that gather a great number of people on the platforms. Most people gather at platform edges or by the middle of a platform. Hence, in addition to the message to move fast to enter coaches, we need to add another message about the even spread along the platform. Therefore, the Kyiv Metro, as one of the most popular types of transport, must be significantly improved in terms of its passenger comfort and safety.

4.3. Phases of a Transport Safety Audit

The methodology for a transport safety audit is focused on the assessment of a vehicle’s technical condition; territorial (subway areas, suburban railway stations, intercity railway stations, and public transport stops) conformity to the safety needs expressed by various groups of women and men – especially, people with limited mobility, people with disabilities, people with children, youth and the elderly. It is based on the valid Ukrainian legislation, global safety and inclusion standards, and it addresses gender and social aspects. See Annex 1.1., below for the Schematic Algorithm for a Safety Audit.

At the same time, a Transport Safety Audit has its own specifics addressed at various phases:

1. Preparation

1.1. The establishment of a Working (Initiative) Group on organization and implementation of a transport safety audit in accordance with a transport type of choice is initiated by the head of a related territorial community, an organization responsible for transport safety audits at a specific territory and representatives of civic society.

The Working (Initiative) Group on organization and implementation of a transport safety audit can involve representatives of civic society.

1.2. Receiving a permission from an organization responsible for transport safety audits at a specific territory is a prerequisite for any audit.

1.3. Determination of a transport type for an audit; approval of an audit plan, arrangement and implementation of training for members of an audit team, which has to be of multispecialty nature and meet the requirements of a comprehensive approach in accordance with the needs claimed by various categories of women and men.

A reason for an audit is formalized as an order issued by an authority (organization) responsible for implementation of the audit. The order defines an audit team leader, its members, audit plan and related deadlines;

- Defining areas for inspection;
- Defining checklists in accordance with inspected areas:
 - Checklist on a Road Transport Safety Audit, Including Buses (Annex 4.1.);
 - Checklist on a Sea and River Transport Safety Audit (Annex 4.2.);
 - Checklist on a Railway Transport Safety Audit (Annex 4.3.);
 - Checklist on an Air Transport Safety Audit (Annex 4.4.);
 - Checklist on an Urban Electric Transport Safety Audit (Annex 4.5.);
 - Checklist on a Subway Safety Audit (Annex 4.6.);

1.4. Establishment of the Working Group.

Members:

- Chairman/Chairwoman of the Working Group – a representative of an authority responsible for organization and implementation of an audit;
- Members of the Working Group on safety in accordance with the selected type of transport; transport infrastructure; environmental protection and climate change adaptation, etc.
- Representatives of population groups interested in an audit: representatives of people with limited mobility, people with disabilities (the elderly, youth, people with disabilities).

1.5. Arrangement and implementation of training for Working Group members;

1.6. Research of technical documents in accordance with international standards and requirements set forth by the national legislation.

2. Organization and Implementation

2.1 Drafting and approval of an audit plan;

2.2. Determination of an audit toolkit;

2.3. Implementation of an audit in accordance with an approved schedule, filling checklists, Annexes 4.1.- 4.6.;

2.4. Preparation of findings and recommendations in accordance with Annex 4.7.;

2.5. Implementation of a passenger survey on meeting passenger needs for the use of a specific transport type (Annex 4.8.);

2.6. Review of audit results by managers and directors responsible for passenger safety at a specific territory and preparation of a roadmap used to remove related concerns as well as audit recommendations.

When drafting findings and recommendations based on results of an implemented safety audit, we hereby recommend to follow the principles mentioned below:

- **Objectivity and impartiality**
- **Clarity and readability**
- **Specificity and practicality**

See Annex 5 to the Guide below for the Schematic Decision-Making Algorithm Based on Results of a Conducted Safety Audit.



FINDINGS

The Guide has been drafted as a practical tool for territorial communities, enterprises, institutions and organizations willing to assess the level of territorial, shelter and transport safety in accordance with the needs expressed by various groups of women and men. It allows to organize a safety audit on sites – from preparation to presentation of results and follow-up decision-making.

The materials provided by the Guide can be used by officials, local council members, ASC employees, representatives of enterprises, institutions and organizations, civic society organizations and all the community members engaged in community safety matters. The Guide is based on the valid legislation and best practices for ensuring territorial, shelter and transport safety in accordance with the needs claimed by various groups of women and men.

Safety assessment covers various components such as territories, shelters, transport infrastructure as well as threats of social, technological, military and environmental nature. The Guide provides clear algorithms, instruction forms, sample survey forms, sample questions for focus groups and details on basic tools for data collection.

The above allows audit organizers to think fast, select relevant tools in accordance with community, enterprise or organization resources, while collecting data without extra pressure. All the techniques are focused on the efforts to make the process more realistic and accessible even in communities (at enterprises, institutions or organizations) with limited human or financial resources.

Gender sensitivity is the overarching principle of this approach. During an audit, it is recommended to address the needs claimed by women and men of various ages, people with disabilities, demobilized war veterans, victims of violence, parents with children, the elderly and other people with limited mobility. This allows not only identifying the threats, but also preventing discrimination regarding access to a safe environment.

Inclusion considers involvement of residents themselves in information collection and decision-making. Experience and observations of community residents (at an enterprise, institution or organization) are an important source of data which are considered no less trustworthy than official statistics.

The Guide is not attached to a single specific type of a community, enterprise, institution or organization. Its content can be adjusted to various territorial, infrastructural and safety conditions – such as those in cities, villages, frontline, border, mountain and remote territories. A community, institution or organization can use only a part of tools or conduct an audit step-by-step, if necessary.

A flexible approach as such can be applied during both post-war recovery and martial law. An audit can serve as the basis to draft budgetary programmes, development strategies, extra-budgetary fundraising and planning of safety measures.

Audit results enable to make more well-based decisions on the community, enterprise, institution or organization level. They can become a rationale to review evacuation routes, change a notification and alert system, recover shelters or arrange support services.

Therefore, the Guide is a practical step towards the establishment of a safer, more accessible and humanistic environment addressing the needs of all residents. Its use facilitates stronger trust, better quality for local decisions and reduced actual risks for human life and health.

ANNEXES

Annex 1.1. Schematic Algorithm for a Safety Audit



Establishment (approval) of a Working (Initiative, Audit) Group (Team)



Training on a comprehensive and generic approach to safety audits for members of the Working Group



Document review by members of the Working Group for a specific audited facility or item



Compilation and approval of an audit plan with a related schedule



Implementation of an actual field safety audit at a specific site



Finalization of findings and recommendations (generation of a report)



Generation of a roadmap for implementation of proposals and recommendations



Control over implementation of recommendations



Cost estimate on flaw removal (financial calculations)

Annex 1.2. Standard Instruction Issued by an Enterprise/Institution/Organization/Local Self-Governance Body of a Territorial Community to Implement a Gender-Sensitive Safety Audit for Territory, Shelter and Transport

[ENTITY NAME]

INSTRUCTION

_____ of _____

On implementation of a territorial, shelter, transport safety audit as well as response to safety challenges in accordance with specific needs expressed by various groups of women and men

In order to identify dangers, threats and barriers in access to a safe environment for various groups of women and men as well as to develop practical solutions for better safety in a territorial community in accordance with the needs of people with limited mobility – specifically, people with disabilities, children, the elderly as well as demobilized war veterans and victims of violence,

as per the Law of Ukraine “On local self-governance in Ukraine” # 280/97-BP of May 21, 1997, Law of Ukraine “On ensuring equal rights and opportunities for women and men”, Instruction of the Cabinet of Ministers of Ukraine #1447-r “On approval of the National Action Plan for implementation of the UN Security Council Resolution 1325 “Women, Peace and Security” till 2025” of October 28, 2020, and the UN Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW),

I HEREBY INSTRUCT:

1. To conduct a gender-sensitive safety audit at [specify the locations: on defined territories / in shelters / at transport infrastructure facilities, etc.] in accordance with the procedure set forth by the Methodological recommendations on implementation of the gender approach to conduct a territorial, shelter and transport safety audit as well as the Practical Guide to Safety Audits for Territories, Shelters, Transport and Response to Safety Challenges in Accordance with the Needs Claimed by Various Groups of Women and Men.
2. To establish an audit Working Group involving the following members:
 - safety and security experts: experts on fire safety, demining, building technical maintenance, a community police officer, employees of Citizens’ Safety Centres (if available), etc.);
 - environmental experts: experts on air, water and soil quality monitoring in warzones;
 - a representative of a unit responsible for ensuring equal rights and opportunities for women and men, a counsellor on ensuring equal rights and opportunities for women and men, prevention and combatting gender-based violence (as per the Decree #930 of the Cabinet of Ministers of Ukraine of 09.10.2020);
 - gender experts: to assess risks in public spaces in accordance with the specific needs expressed by men and women;
 - community representatives: people with disabilities, youth, people with limited mobility, and specifically – persons using wheelchairs or those moving with prams;
 - social workers: to keep track of cases of violence or discrimination in public spaces;
 - information technology experts: to analyse and improve notification and alert systems; and
 - members of local councils.

3. To ensure data collection in accordance with the methodology provided by the Practical Guide with the use of the following tools [a decision on the use of specific tools is made by the Working Group in accordance with the audited areas (see Clause 4 below) and available resources]:
 - surveys (online and paper survey forms at ASCs, institutions, village councils);
 - focus group discussions;
 - local observations;
 - consulting sessions with community representatives; and
 - comparison of official data (from the National Police and authorities) with local residents' claims and complaints.
4. To assess the safety of territories, transport infrastructure and shelters under the following areas [please select if applicable]:
 - availability and effectiveness of alert and notification systems;
 - accessibility of specific sites for various population groups, including people with limited mobility;
 - availability of physical and infrastructural risks (lighting, shelters, evacuation routes, etc.);
 - mental pressure and stress levels, especially during alarms;
 - environmental safety (air, water and soil quality – in case of available access to data);
 - safety of use for persons with visual, hearing and cognitive development impairments;
 - risks related to available explosive items and mine hazards; and
 - other threats of social, technological or environmental nature relevant for a specific territory.
5. To prepare a report with a list of identified risks and barriers, a map of hazards and an action plan with a clear definition of responsible persons/entities, deadlines and required resources in accordance with the audit results.
6. To arrange a presentation of audit results for community council members, facility management and community residents.
7. To assign [name of a unit / responsible department, such as the social protection department or safety and security department] as a person/entity responsible for the audit.
8. I hereby reserve the right to control the implementation of this Instruction.
9. The annexes to this Instruction are considered integrate parts thereof:
 - Annex 1 – Anticipated members of the Working Group;
 - Annex 2 – List of audited territories, transport facilities and/or shelters;
 - Annex 3 – Tentative audit schedule; and
 - Annex 4 – Tentative structure of an audit report.

Head [name of a community / enterprise / institution / organization]

[Signed by]

[Name and Surname]

[Date]

Annex 1. Anticipated Members of the Working Group

With a list of functions and categories of persons to become members of the Working Group:

- Safety and security experts: experts on fire safety, demining, building technical maintenance, a community police officer, employees of Citizens' Safety Centres (if available), etc.);
- Environmental experts: experts on air, water and soil quality monitoring in warzones;
- A representative of a unit responsible for ensuring equal rights and opportunities for women and men, a counsellor on ensuring equal rights and opportunities for women and men, prevention and combatting gender-based violence (as per the Decree #930 of the Cabinet of Ministers of Ukraine of 09.10.2020);
- Gender experts: to assess risks in public spaces in accordance with the specific needs expressed by men and women.
- Community representatives: people with disabilities, youth, people with limited mobility, and specifically – persons using wheelchairs or those moving with prams;
- Social workers: to keep track of cases of violence or discrimination in public spaces; and
- Information technology experts: to analyse and improve notification and alert systems.

Annex 2. List of Audited Territories or Facilities/Items

(To be filled separately for each enterprise/institution/organization/territorial community)

- Specific areas, routes, shelters, transport stops, areas around schools, etc.

Annex 3. Tentative Audit Schedule

- Preparation deadlines;
- Data collection deadlines;
- Report generation and result presentation deadlines; and
- Deadlines for inclusion of results into development plans or budgetary programmes.

Annex 4 – Tentative Structure of an Audit Report

- General specification of a facility / item / territory;
- Detected risks;
- Recommendations; and
- List of responsible entities.

Annex 2.1. Standard Survey Form on Territorial Safety

Dear respondents! This survey is focused on the assessment of territorial safety in accordance with the needs claimed by various population groups and challenges of war. Your responses will be of assistance to make this territory safer and convenient for all. This is an anonymous survey, and the received data will be used exclusively for the purposes of a respective safety audit.

1. Information on a respondent (optional):

1.1 Your sex:

- Female
- Male

1.2 Your age:

- Under 18
- 19–35
- 36–60
- 60+

1.3 Do You belong to the following population groups (you can tick multiple choices):

- People with disabilities
- Families with children under the age of 6
- Youth
- Elderly
- People living in a warzone
- Other: _____

1.4 How often do You use this territory?

- Every day
- Several times a week
- Several times a month
- Rarely

2. Sense of safety

2.1 How often do You feel safe on this territory?

- Always
- Often
- Rarely
- Never

2.2 Which time of the day do You consider the most dangerous?

- During the daytime

- During the night
- I always feel safe

2.3 Are there any areas You consider dangerous?

- Yes
- No

If “Yes”, please specify the locations (e.g., by a transport stop, in the park, etc.):

2.4 Have You ever faced any dangerous situations on this territory?

- Yes
- No

If “Yes”, please specify: _____

2.5 What is the reason for Your feeling of danger? (you can tick multiple choices):

- Bad lighting
- No surveillance cameras
- Available isolated areas
- Dangerous behaviour of other people
- Other: _____

3. Access to infrastructure

3.1 Do You consider the infrastructure on this territory accessible for You?

- Yes
- No
- In part

3.2 Which of the following infrastructural elements do You find difficult to tackle? (you can tick multiple choices):

- Lighting
- Sidewalks
- Ramps
- Recreational areas (benches, canopies)
- Shelters
- Access to restrooms
- Pointers and information plaques
- Other: _____

3.3 Which improvements would You apply to raise the accessibility?

3.4 Are there any locations on the territory that are specifically fit for:

- People with disabilities
- Families with little children
- Youth
- Elderly
- Other: _____

4. Interaction with other users

4.1 Do You often feel discomfort due to other people's behaviour on this territory?

- Yes
- No

If "Yes", please specify the situations: _____

4.2 Are there any locations facilitating interpersonal communication (e.g., benches, recreational areas)?

- Yes
- No

If "No", how would You improve that? _____

5. Challenges of war

5.1 Do You feel affected by the war when using the territory?

- Yes
- No
- If "Yes", please specify: _____

5.2 Are there any signs of damaged infrastructure on the territory (bridges, roads, shelters)?

- Yes
- No
- If "Yes", please specify: _____

5.3 Is there an operating notification or alert system on the territory?

- Yes
- No
- In part

6. Other comments and suggestions

6.1 Do You have any additional comments or proposals on better safety and accessibility of this territory?

Thank You for Your time and responses! Your contribution is important for better safety of our community.

Annex 2.2. Standard Guide on Territorial Safety for Focus Groups

Dear facilitator! This Guide will assist You with an efficient arrangement of a focus group to collect high-quality data on territorial safety and accessibility. The purpose of a focus group is to understand the experience, needs and proposals from all user groups of a territory concerned while specifically considering the challenges of the war.

1. Preparation for a focus group

1.1 Group participants

- It is recommended to include 8-12 participants representing different population categories:
 - Women and men of different ages.
 - People with disabilities.
 - Youth.
 - Elderly.
 - Families with children under the age of 6.
 - People residing in the regions affected by warfare.

1.2 Focus group duration (it is important to account for the time in accordance with a group's specifics – hence, people with little kids will not be happy with the time when they have to pick their kids from a kindergarten for a meeting).

- Optimal duration: 1.5-2 hours.

1.3 Premises

- Provide a comfortable and accessible room for all the participants.
- Make sure You have:
 - Chairs and tables.
 - Audio recorders (on participants' consent).
 - Tools for records (notebooks, markers).

1.4 Introduction

- Welcome the audience and thank the participants for their engagement.
- Introduce Yourself and announce the purpose of a meeting.
- Brief the audience on the rules:
 - Confidentiality.
 - Involvement of each person at will.
 - Careful listening without interruptions.
- Get their consent for audio recording (if applicable).

2. Points for discussion

2.1 Panel 1: Sense of safety

- How would You assess the general safety level of this territory?
- Which situations do You find the most dangerous?
- Are there any places you'd like to avoid? If so – which ones, and why?
- How does Your sense of safety change during the day?

2.2 Panel 2: Access to infrastructure

- How would You assess Your personal access to infrastructure?
- Are there any accessibility issues (e.g., bad lighting, missing ramps)?
- What would You change to make the territory more accessible?

2.3 Panel 3: Impact of the challenges resulting from the full-scale russian war against Ukraine

- Have consequences of the war had any impact (damaged infrastructure, mined areas) on Your sense of safety?
- How is the notification and alert system working on this territory? Do You receive any safety-related information in time?
- Which measures would You take to protect vulnerable groups in the current conditions?

2.4 Panel 4: Recommendations and suggestions

- What can be done for the territory to become safer?
- Which specific measures would You propose to take?
- How would You like to participate in the process of territorial improvement?

3. Facilitating a discussion

3.1 Facilitator role

- Ask open-ended questions to facilitate discussions.
- Encourage the participants to share their experience.
- Avoid assessments or criticism of responses.

3.2 Group management

- Watch the time carefully to cover all the points.
- Be polite and involve other participants in a discussion if a specific participant dominates the conversation.
- In case of conflicts, focus attention on positive matters and joint proposals.

3.3 Wrapping up

- Summarize the discussion.
- Thank the participants for their contributions.
- Ask if anyone has any additional comments or proposals.

4. Recording results

4.1 Records

- Keep notes during a focus group or use audio recording for further information processing.

4.2 Summary

- Summarize the major discussed points.
- Define the key issues and proposals mentioned by the participants.

4.3 Reporting

- Generate a report containing the following sections:
 - Brief participants' background (without identification).
 - Major points for discussion.
 - Detected issues.
 - Recommendations provided by the participants.

Thank You for using this Guide. Your professional attitude will assist us to make territories safer for all!

Annex 2.3. Standard Checklist on Territory Observation

Dear auditor! This checklist will assist You with systematic territorial safety and accessibility assessment. It contains the key criteria to be addressed during observations, including challenges of the war and specific needs expressed by various population groups.

1. General Territory Data

- 1.1 Location: _____
- 1.2 Territory type: _____
- Public space (a park, square, etc.)
 - A route leading to a shelter
 - Transport stop
 - Other: _____
- 1.3 Observation time: _____
- During the daytime
 - During the dark hours
- 1.4 Weather conditions: _____
- Dry
 - Rain/snow
 - Other: _____

2. Lighting and Illumination

- 2.1 Does the territory have sufficient lighting?
- Yes
 - No
- 2.2 Are all the installed lamps operating?
- Yes
 - No
- 2.3 Are there any areas with no lighting that provoke additional risks?
- Yes (please specify): _____
 - No
- 2.4 Lighting quality: _____
- High (the whole territory is clearly visible)
 - Average (the lighting is available but insufficient for full visibility)
 - Low (the territory is partially obscured)

3. Sidewalk and Path Condition

- 3.1 Are the sidewalks or paths accessible for people with limited mobility (wheelchairs, prams)?
- Yes
 - No
- 3.2 Are there any damaged sidewalks/paths (potholes, cracks, etc.)?
- Yes (please specify): _____
 - No
- 3.3 Are there any barriers on the routes (portable fences, parked cars, etc.)?
- Yes (please specify): _____
 - No
- 3.4 Are there any ramps in place at ascent/descent locations?
- Yes
 - No
- 3.5 Ramp quality: _____
- Compliant with the standards (correct inclination angle, handrails, etc.)
 - Non-compliant (please specify): _____

4. Recreational Areas

- 4.1 Are there any recreational areas available (benches, canopies)?
- Yes
 - No
- 4.2 Are the recreational areas located in safe areas (properly lit, not isolated)?
- Yes
 - No

4.3 Bench and recreational area quality:

- Satisfactory
- In need of improvements (please specify): _____

5. Shelters and Safe Areas

5.1 Are there any shelters on the territory?

- Yes
- No

5.2 Are the routes leading to shelters safe (lighting, accessibility, pointers)?

- Yes
- No

5.3 Are the shelters equipped with everything necessary (access for people with disabilities, canopies, information plaques)?

- Yes
- No

6. Infrastructure for People with Disabilities and Other People with Limited Mobility

6.1 Are there canopies available for key facilities on the territory?

- Yes
- No

6.2 Are there touch plates available for people with visual impairments?

- Yes
- No

6.3 Are there any sound signals available on streetlights (if there is a road crossing nearby)?

- Yes
- No

7. General Risks and Problematic Areas

7.1 Are there locations that can be considered isolated (no people around, poor lighting)?

- Yes (please specify): _____
- No

7.2 Have you ever witnessed any dangerous human behaviour during an observation (aggression, alcohol abuse, etc.)?

- Yes (please specify): _____
- No

7.3 Are there any other problems or risks you've noticed on the territory?

8. Challenges of the War

8.1 Are there any signs of potential territory mining?

- Yes (please specify): _____
- No

8.2 Is there any damaged infrastructure (bridges, roads, shelters)?

- Yes (please specify): _____
- No

8.3 Is there an operating danger notification and alert system (sound alarms, mobile apps)?

- Yes
- No

9. Recommendations on Territorial Safety and Accessibility Improvements

9.1 Please provide proposals on territorial safety and accessibility improvement, if any:

9.2 Which infrastructure elements need urgent repairs or upgrades?

9.3 Which additional measures would be of use to ensure safety (e.g., surveillance cameras, a greater number of lamps and streetlights)?

Annex 2.4: Standard Structure of a Final Report on a Territorial Safety Audit

A final report is the summary document containing summarized audit results, findings and recommendations on improvement of territorial safety. See below for a standard structure of a report recommended for use.

1. Introduction

- Audit purpose: Formalization of key goals and objectives such as territorial safety assessment and addressing the needs claimed by various population groups.
- Territory background: Territory type (public spaces, shelters, transport routes), basic specifications (total area, user number, important facilities).

2. Methodology

- Data collection methods:
 - Surveys (see Annex 2.1).
 - Focus groups (see Annex 2.2).
 - Observations with the use of checklists (see Annex 2.3).
 - Document analysis.
- Team members:
 - Safety experts: Experts on fire safety, demining, building technical maintenance, a community police officer, employees of Citizens' Safety Centres (if available), environmental experts, a representative of the unit responsible for ensuring equal rights and opportunities of women and men, councillor on ensuring equal rights and opportunities of women and men, prevention and combatting gender-based violence, gender experts: to assess risks in public spaces in accordance with the specifics of the needs of men and women, social workers, information technology experts: for analysis and improvement of danger notification and alert systems.
 - Community representatives: people with disabilities, youth, representatives of people with limited mobility – specifically, people in wheelchairs or those moving with prams.
- Audit description process: Audit phases and key objectives.

3. Detected issues

- Critical areas: Issue details containing locations, photo evidence and maps.
 - Sample: “The width of the sidewalk by the school is less than 1 m, which prevents movement of people in wheelchairs. We suggest to increase the sidewalk width up to 1.5 m.”
- Increased-risk areas: Territories in need of better safety.

4. Analysis of conformity to regulatory requirements

- Comparison of territorial conditions with the current norms (BN documents, environmental standards, etc.).
- Example: “Lack of touch stripes at sidewalks for people with visual impairments (BN.2.2-40:2018)”.

5. Agreed proposals

- Recommendations on improvement:
 - Infrastructure: Sidewalk repairs, ramp installation and lighting improvement.
 - Safety: Installation of surveillance cameras and arrangement of patrol routines.

- Accessibility: Adjustment of shelters for people with limited mobility.
- Environmental recommendations: installation of air and water pollution monitoring stations.
- Example: “It’s recommended to install additional sound alarms in isolated areas and adjust shelters for people with disabilities and other people with limited mobility.”

6. Accounting for the challenges provoked by the full-scale russian war against Ukraine

- Demining: Details on the areas in need of demining.
- Damaged infrastructure: Proposals on bridge, road and shelter recovery.
- Notification/alert system: Recommendations on installation of additional sound alarms and mobile apps for notifications.
- Environmental risks: Detection of areas with increased risks of pollution and recommendations on public awareness.

7. Summary

- Brief summary of findings and recommendations.
- Call for action: Proposals on implementation of a plan for changes and involvement of the general public in monitoring.

8. Annexes

- Survey forms, checklists and photo evidence of problematic areas.
- Maps of territories with marked problematic areas.
- Statistical data with survey results.
- Report on consulting with interested parties and stakeholders – specifically, proposals provided by activists, local residents and representatives of civic society organizations.



Annex 3.1. Safety Audit Form for a Shelter/Dual-Use Structure Classified as a Shelter by its Protective Properties

Shelters/Dual-Use Structures Classified as Shelters by Their Protective Properties				
I. Protection Structure Technical Audit				
#	Assessment Criteria*	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Unprotected openings in enclosures which can be exploited to connect the structure internal premises with the external atmosphere.			
2.	Damage inflicted upon the major building constructions of a protection structure which reduces its bearing capacity and/or protective properties.			
3.	Improper installation of sealed protective gates or doors based on their opening direction and protective properties, their loose coaming adhesion as well as malfunctioning closing machinery.			
4.	Missing or malfunctioning anti-explosive devices and expansion chambers at air intakes.			
5.	Missing or malfunctioning sealed vent valves defined by design documentation.			
6.	Missing shutoff valves at water supply, sewage, heating systems, sealing and other devices at places of cable and pipeline laying.			
7.	Non-conformity of ventilation system end wall constructions and emergency exits to requirements set by related building and construction norms.			
8.	Missing equipment for ventilation systems, deviations of air duct wall thickness values from standard requirements or their thorough corrosion.			
9.	Flooding of the premises of a protection structure.			
10.	Missing engineering networks defined by design documentation (power and water supply, heating, sewage, communications and alerts).			
11.	Missing, malfunctioning or incomplete equipment defined by design documentation:			
11.1	fans;			
11.2	electric hand fan gearboxes;			
11.3	diesel power stations and related start-up equipment;			
11.4	sewage pumps and sewage tank containers;			
11.5	power grids and electric equipment; and			
11.6	water containers and consumption systems.			
12.	Missing fuel and lubricants for diesel power stations (for protection structures in permanent preparedness for intended use).			
	Additionally:			
13.	Temporary power and other engineering networks as well as unfixed electric equipment and lamps.			

Shelters/Dual-Use Structures Classified as Shelters by Their Protective Properties				
14.	Lamps with unprotected incandescent bulbs (<i>not permitted for use</i>).			
15.	Use of fluorescent lamps (<i>not permitted for use</i>).			
16.	Non-conformity to the set internal relative humidity and temperature requirements at a protection structure (<i>shelter internal temperature to be maintained within the range from +10°C to +30°C, and humidity – 50%-70%</i>).			
17.	Lack of drinking water stocks (2 l per person daily) of standard quality in accordance with the Sanitation Norms and “Hygienic requirements for drinking water fit for human consumption” rules.			
	Other detected flaws (if any).			
II. Protection Structure Accessibility Audit				
#	Assessment Criteria*	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Signage installed, posted or clearly painted along the pathways leading to protection structures.			
2.	Properly maintained approaches to external doors, doors and stairways.			
3.	Approaches to protection structures cleaned from dirt and garbage, or from snow and ice during the cold season.			
4.	Unimpeded approaches of sufficient capacity leading to protection structures that can be used by people with disabilities and other people with limited mobility.			
5.	A space enabling manoeuvres and 90°C turns in a wheelchair ensured by the front doors.			
6.	Location of a protection structure properly marked with a plaque (inscription) and pointer signage.			
7.	A 60x50 cm plaque with the “Shelter” inscription by the front doors to a protection structure containing a structure number, its owner or balance holder legal entity.			
8.	The plaque mounted at the 1.2-1.5 m from the ground and at 0.3 m to the right from the doors.			
9.	A place used to store keys, a person responsible for shelter maintenance and use in time of peace, his/her place of stay and his/her phone number mentioned on the plaque.			
10.	At least two sets of keys for a protective structure doors and shutters. One set kept by a responsible person, and another one – by an official or structural unit of a balance holder working 24/7.			
11.	A place of stay and phone number of an official (structural unit of a balance holder working 24/7) keeping another sealed set of keys mentioned on the plaque.			
12.	The entrance doors are at least 0.9 m wide (<i>at least 0.8 m is permitted, if defined by related building and construction design documentation</i>) to ensure comfortable passage for people in wheelchairs.			
13.	Thresholds in the door openings are not higher than 20 mm. A ramp installed for higher thresholds with the tilt of no more than 1:12 (8%).			

Shelters/Dual-Use Structures Classified as Shelters by Their Protective Properties				
14.	A wall-mounted visual navigation system containing information on the purpose of the premises and necessary pathways.			
15.	A touch navigation system, including the one using touch information plaques, contrasting marking on the stairs (contrasting and touch strip, 60 cm wide), thresholds, door openings as well as passages narrowed in accordance with the corridor width, etc.			
16.	An audio navigation system for people with visual impairments and audio indicators.			
17.	The handrails along the corridor sections serving as evacuation routes installed at the height of 0.9 m. The size and mounting of the handrails compliant with the requirements defined by BN.2.2-40.			
18.	The handrail colour in contrast with the colour of the wall it is mounted on.			
	Other important criteria (if any).			
III. Protection Structure Fire Safety Audit				
1.	Protection structure equipped with primary fire extinguishing means, which specifically include fire extinguishers in the quantity defined in accordance with the valid norms, such as the DSTU EN 3-7:2004 Standard: - For premises up to 50 m²: A single fire extinguisher with a charge of 4-5 kg (powder-based) or 5 l (CO₂). - For premises from 50 m² to 100 m²: Two fire extinguishers of the same capacity. For premises above 100 m ² : The quantity of fire extinguishers to be defined at the rate of 1 fire extinguisher per each additional 50 m ² .			
2.	Fire extinguishers mounted in accessible places, such as entrances and evacuation exits.			
3.	Fire extinguishers mounted in a way so that their upper part is positioned at no more than 1.5 m from the floor. They are attached to a vertical surface (a wall or column) or installed in special mounts (<i>it is not permitted to place fire extinguishers directly on the floor</i>).			
4.	Internal fire safety water supply, fire safety automation and alarm systems:			
4.1.	Properly functioning internal fire safety water supply, fire safety automation and alarm systems.			
5.	Properly equipped fire hydrants.			
6.	Ventilation systems at protection structures ensure the removal of combustion products and prevent the spread of smoke in case of fire.			
7.	Evacuation routes and exits ensure fast evacuation of people (free to move and unimpeded).			
8.	Locations for primary fire extinguishing tools and an evacuation plan for a protection structure are marked and illuminated.			

Shelters/Dual-Use Structures Classified as Shelters by Their Protective Properties				
9.	Materials used to build a protection structure have a related fire hazard class that ensures proper fire resistance level.			
10.	Flammable synthetic materials used for manufacturing of bunks or other equipment placed inside a protection structure.			
11.	Pipelines used by internal fire safety water supply systems and other fire extinguishing systems painted red.			
12.	Flammable and explosive substances and items available inside a protection structure.			
13.	Premises with mounted recovery units (if any) equipped with fire extinguishing means – sandbags, asbestos blankets, certified CO ₂ or powder-based fire extinguishers.			
14.	People responsible for the use of a protection structure briefed on fire safety means (<i>related inputs to be recorded in specific briefing logs</i>).			
15.	A fire safety manual placed on a documentation board inside a protection structure.			
	Other important criteria (if any).			
IV. Protection Structure Sheltered People Audit				
1.	A structure's capacity conforms to the norms defined by BN.2.2-5:2023 "Civil protection structures".			
1.1	The minimum area of a shelter is 0.5 m ² per person.			
1.2.	The minimum area of an anti-radiation shelter is 0.6 m ² per person.			
1.3.	The minimum area of a basic shelter is 0.4 m ² per person (with three-tiered bunks).			
2.	Sufficient quantity of seats at the rate of 1 bunk (two- or three-tiered) per 4-6 people.			
3.	A standalone compartment or a special seat for people with children (<i>MIA Order #579, Section 4, Clause 3</i>).			
4.	A medical room or space by an enclosing – closer to air vents – for the elderly and those who feel bad (<i>MIA Order #579, Section 4, Clause 3</i>).			
5.	A standalone compartment or a special seat for people with pets in accordance with BN.2.2-5:2023 (7.2.2.2).			
6.	Standalone (separate) sanitary premises for women and men in accordance with BN.2.2-5:2023.			
7.	Sanitary premises for people with disabilities and people with limited mobility (the minimum cabin size: width – 1.65 m, depth – 1.8 m, additional handrails and a space for a wheelchair or pram).			
8.	Special seats for feeding and diapering children in accordance with BN.2.2-5:2023 (7.2.2.2).			
9.	A playing area for children under the age of 11 (a designated area), which facilitates psychological relief in accordance with BN.2.2-5:2023 (7.2.2.2).			

Shelters/Dual-Use Structures Classified as Shelters by Their Protective Properties				
10.	Separation of sleeping or recreation areas for long stay inside a protection structure in accordance with gender-based aspects.			
11.	Easy-to-access recreation areas – specifically, seats located at the optimal height for the elderly (in case of three-tier bunks, people with disabilities and PLMs to be allocated to the 1 st tier).			
12.	Volunteers or social workers assigned to a specific protection structure to help with the navigation around the shelter and provide people in need with required information:			
12.1.	Tools to prevent gender-based violence and discrimination at protection structures.			
12.2.	Information materials: posters, leaflets and other materials explaining the signs of violence and the ways to prevent it.			
12.3.	Qualified persons such as volunteers or social workers assigned to a specific shelter to warn, prevent and respond to possible cases of violence or discrimination in a timely manner.			
13.	Communication channels (specifically, phones or walkie-talkies for emergency calls) used to contact the National Police of Ukraine with a related claim, 1547 – a 24/7 free hotline on prevention of human trafficking, gender-based domestic violence and violence against children.			
14.	The available level of lighting facilitates the establishment of a controlled visible environment, which, in its own turn, helps to reduce the level of violence and aggression.			
	Other important criteria (if any).			
V. Protection Structure Sanitary and Hygienic Audit				
1.	A properly operating water supply system.			
2.	A space for portable containers (tanks, reservoirs) for drinking water at the rate of 2 l per sheltered person daily if there is no available water supply system.			
3.	Tanks (containers) for drinking water ensure the quality of water required by the State sanitation rules on “Hygienic requirements for drinking water fit for human consumption”.			
4.	Water in containers decontaminated with ad hoc decontamination substances (solutions) authorized for use by the Ministry of Health of Ukraine.			
5.	The main shelter room split into separate premises/blocks.			
6.	A properly functioning sewage system that allows toilet flushing.			
7.	Waste tanks for the cases when a sewage or external water supply system is damaged or malfunctioning.			
8.	Separate restrooms arranged for men and women in accordance with the BN.2.2-5:2023 document and the number of sheltered people: a single toilet per each 50			

Shelters/Dual-Use Structures Classified as Shelters by Their Protective Properties				
	people for women; a single toilet and a single urinal per each 100 people – for men.			
9.	A wash basin and detergents.			
10.	Universal sanitary and hygienic room for people with disabilities and PLM (for a protection structure with the capacity to shelter more than 200 people, an additional room for each additional 200 people), as per BN.2.2-40:2018.			
11.	Disinfectants for lavatories and rooms with installed portable waste tanks (<i>e.g., a mixture containing the 0.5% solution of two thirds of calcium hypochlorite basic salt</i>).			
12.	Disinfectants for hands and footwear used after visits to lavatories (rooms with installed portable waste tanks). <i>The 0.3% chloramine solution is permitted as a hand disinfectant, and mats soaked with the 0.5% chloramine solution are permitted for footwear disinfection wiping.</i>			
13.	Waste bags.			
14.	Chemical preservatives permitted for use by MOH Ukraine by adding them to bags filled with garbage and waste.			
15.	Medicines and medical products for medical stock inventory at protection structures (in accordance with Annex 21 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018)			
	Other important criteria (if any).			
VI. Protection Structure Resource and Stock Audit				
1.	Containers for food storage.			
2.	Required stocks of food products with long shelf life.			
3.	Maintained sanitary supervision over food storage (if any).			
4.	A space for cooking.			
5.	Inventory and property for catering (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
6.	Trenching tools such as spades and shovels, crowbars, axes, wood and metal saws, etc. (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
7.	Repair materials (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
8.	Room cleaning inventory (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
	Other important criteria (if any).			

Shelters/Dual-Use Structures Classified as Shelters by Their Protective Properties				
VII. Protection Structure Communication Audit				
1.	A phone set (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
2.	A radio station (in case of a set command post) (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
3.	A loud speaker (reproducer) in the quantity of 1 set per compartment (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
4.	A radio receiver (with no radio station in place) (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
5.	Mobile coverage or signal amplifier for mobile networks.			
6.	Internet access, Wi-Fi devices (<i>BN.2.2-5:2023 11.7.</i>)			
	Other important criteria (if any).			

Annex 3.2. Safety Audit Form for an Anti-Radiation Shelter/Dual-Use Structure Classified as an Anti-Radiation Shelter by its Protective Properties

Shelters/Dual-Use Structures Classified as Anti-Radiation Shelters by Their Protective Properties				
I. Protection Structure Technical Audit				
#	Assessment Criteria*	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Damage inflicted upon the major building constructions of a protection structure which reduces its bearing capacity and/or protective properties.			
2.	Missing doors at entrances and exits, and hatches – at emergency exits.			
3.	Missing equipment for ventilation systems that is defined by design documentation.			
4.	Deviations of air duct wall thickness values from standard requirements or their thorough corrosion.			
5.	Flooding of the premises of a protection structure.			
6.	Missing engineering networks defined by design documentation (power and water supply, heating, sewage, communications and alerts).			
7.	Missing, malfunctioning or incomplete equipment defined by design documentation:			
7.1	fans;			
7.2	electric hand or hand fan gearboxes; and			
7.3	power grids and electric equipment.			
	Additionally:			
8.	Temporary power and other engineering networks as well as unfixed electric equipment and lamps.			
9.	Lamps with unprotected incandescent bulbs (<i>not permitted for use</i>).			
10.	Use of fluorescent lamps (<i>not permitted for use</i>).			

Shelters/Dual-Use Structures Classified as Anti-Radiation Shelters by Their Protective Properties				
11.	Non-conformity to the set internal relative humidity and temperature requirements at a protection structure (<i>shelter internal temperature to be maintained within the range from +10°C to +30°C, and humidity – 50%-70%</i>).			
12.	Lack of drinking water stocks (2 l per person daily) of standard quality in accordance with the Sanitation Norms and “Hygienic requirements for drinking water fit for human consumption” rules.			
	Other detected flaws (if any).			
II. Protection Structure Accessibility Audit				
1.	Signage installed, posted or clearly painted along the pathways leading to protection structures.			
2.	Properly maintained approaches to external doors, doors and stairways.			
3.	Approaches to protection structures cleaned from dirt and garbage, or from snow and ice during the cold season.			
4.	Unimpeded approaches of sufficient capacity leading to protection structures that can be used by people with disabilities and other people with limited mobility.			
5.	A space enabling manoeuvres and 90°C turns in a wheelchair ensured by the front doors.			
6.	Location of a protection structure properly marked with a plaque (inscription) and pointer signage.			
7.	A 60x50 cm plaque with the “Shelter” inscription by the front doors to a protection structure containing a structure number, its owner or balance holder legal entity.			
8.	The plaque mounted at the 1.2-1.5 m from the ground and at 0.3 m to the right from the doors.			
9.	A place used to store keys, a person responsible for shelter maintenance and use in time of peace, his/her place of stay and his/her phone number mentioned on the plaque.			
10.	At least two sets of keys for a protective structure doors and shutters. One set kept by a responsible person, and another one – by an official or structural unit of a balance holder working 24/7.			
11.	A place of stay and phone number of an official (structural unit of a balance holder working 24/7) keeping another sealed set of keys mentioned on the plaque.			
12.	The entrance doors are at least 0.9 m wide (<i>at least 0.8 m is permitted, if defined by related building and construction design documentation</i>) to ensure comfortable passage for people in wheelchairs.			
13.	Thresholds in the door openings are not higher than 20 mm. A ramp installed for higher thresholds with the tilt of no more than 1:12 (8%).			
14.	A wall-mounted visual navigation system containing information on the purpose of the premises and necessary pathways.			
15.	A touch navigation system, including the one using touch information plaques, contrasting marking on the stairs			

Shelters/Dual-Use Structures Classified as Anti-Radiation Shelters by Their Protective Properties				
	(contrasting and touch strip, 60 cm wide), thresholds, door openings as well as passages narrowed in accordance with the corridor width, etc.			
16.	An audio navigation system for people with visual impairments and audio indicators.			
17.	The handrails along the corridor sections serving as evacuation routes installed at the height of 0.9 m. The size and mounting of the handrails compliant with the requirements defined by BN.2.2-40.			
18.	The handrail colour in contrast with the colour of the wall it is mounted on.			
	Other important criteria (if any).			
III. Protection Structure Fire Safety Audit				
1.	Protection structure equipped with primary fire extinguishing means, which specifically include fire extinguishers in the quantity defined in accordance with the valid norms, such as the DSTU EN 3-7:2004 Standard: - For premises up to 50 m ² : A single fire extinguisher with a charge of 4-5 kg (powder-based) or 5 l (CO ₂). - For premises from 50 m ² to 100 m ² : Two fire extinguishers of the same capacity. For premises above 100 m ² : The quantity of fire extinguishers to be defined at the rate of 1 fire extinguisher per each additional 50 m ² .			
2.	Fire extinguishers mounted in accessible places, such as entrances and evacuation exits.			
3.	Fire extinguishers mounted in a way so that their upper part is positioned at no more than 1.5 m from the floor. They are attached to a vertical surface (a wall or column) or installed in special mounts (<i>it is not permitted to place fire extinguishers directly on the floor</i>).			
4.	Internal fire safety water supply, fire safety automation and alarm systems:			
4.1.	Properly functioning internal fire safety water supply, fire safety automation and alarm systems.			
5.	Properly equipped fire hydrants.			
6.	Ventilation systems at protection structures ensure the removal of combustion products and prevent the spread of smoke in case of fire.			
7.	Evacuation routes and exits ensure fast evacuation of people (free to move and unimpeded).			
8.	Locations for primary fire extinguishing tools and an evacuation plan for a protection structure are marked and illuminated.			
9.	Materials used to build a protection structure have a related fire hazard class that ensures proper fire resistance level.			

Shelters/Dual-Use Structures Classified as Anti-Radiation Shelters by Their Protective Properties				
10.	Flammable synthetic materials used for manufacturing of bunks or other equipment placed inside a protection structure.			
11.	Pipelines used by internal fire safety water supply systems and other fire extinguishing systems painted red.			
12.	Flammable and explosive substances and items available inside a protection structure.			
13.	Premises with mounted recovery units (if any) equipped with fire extinguishing means – sandbags, asbestos blankets, certified CO2 or powder-based fire extinguishers.			
14.	People responsible for the use of a protection structure briefed on fire safety means (<i>related inputs to be recorded in specific briefing logs</i>).			
15.	A fire safety manual placed on a documentation board inside a protection structure.			
	Other important criteria (if any).			
IV. Protection Structure Sheltered People Audit				
1.	A structure's capacity conforms to the norms defined by BN.2.2-5:2023 "Civil protection structures".			
1.1	The minimum area of a shelter is 0.5 m ² per person.			
1.2.	The minimum area of an anti-radiation shelter is 0.6 m ² per person.			
1.3.	The minimum area of a basic shelter is 0.4 m ² per person (with three-tiered bunks).			
2.	Sufficient quantity of seats at the rate of 1 bunk (two- or three-tiered) per 4-6 people.			
3.	A standalone compartment or a special seat for people with children (<i>MIA Order #579, Section 4, Clause 3</i>).			
4.	A medical room or space by an enclosing – closer to air vents – for the elderly and those who feel bad (<i>MIA Order #579, Section 4, Clause 3</i>).			
5.	A standalone compartment or a special seat for people with pets in accordance with <i>BN.2.2-5:2023 (7.2.2.2)</i> .			
6.	Standalone (separate) sanitary premises for women and men in accordance with <i>BN.2.2-5:2023</i> .			
7.	Sanitary premises for people with disabilities and people with limited mobility (the minimum cabin size: width – 1.65 m, depth – 1.8 m, additional handrails and a space for a wheelchair or pram).			
8.	Special seats for feeding and diapering children in accordance with <i>BN.2.2-5:2023 (7.2.2.2)</i> .			
9.	A playing area for children under the age of 11 (a designated area), which facilitates psychological relief in accordance with <i>BN.2.2-5:2023 (7.2.2.2)</i> .			
10.	Separation of sleeping or recreation areas for long stay inside a protection structure in accordance with gender-based aspects.			

Shelters/Dual-Use Structures Classified as Anti-Radiation Shelters by Their Protective Properties				
11.	Easy-to-access recreation areas – specifically, seats located at the optimal height for the elderly (in case of three-tier bunks, people with disabilities and PLMs to be allocated to the 1 st tier).			
12.	Volunteers or social workers assigned to a specific protection structure to help with the navigation around the shelter and provide people in need with required information:			
12.1.	Tools to prevent gender-based violence and discrimination at protection structures.			
12.2.	Information materials: posters, leaflets and other materials explaining the signs of violence and the ways to prevent it.			
12.3.	Qualified persons such as volunteers or social workers assigned to a specific shelter to warn, prevent and respond to possible cases of violence or discrimination in a timely manner.			
13.	Communication channels (specifically, phones or walkie-talkies for emergency calls) used to contact the National Police of Ukraine with a related claim, 1547 – a 24/7 free hotline on prevention of human trafficking, gender-based domestic violence and violence against children.			
14.	The available level of lighting facilitates the establishment of a controlled visible environment, which, in its own turn, helps to reduce the level of violence and aggression.			
	Other important criteria (if any).			
V. Protection Structure Sanitary and Hygienic Audit				
1.	A properly operating water supply system.			
2.	A space for portable containers (tanks, reservoirs) for drinking water at the rate of 2 l per sheltered person daily if there is no available water supply system.			
3.	Tanks (containers) for drinking water ensure the quality of water required by the State sanitation rules on “Hygienic requirements for drinking water fit for human consumption”.			
4.	Water in containers decontaminated with ad hoc decontamination substances (solutions) authorized for use by the Ministry of Health of Ukraine.			
5.	The main shelter room split into separate premises/blocks.			
6.	A properly functioning sewage system that allows toilet flushing.			
7.	Waste tanks for the cases when a sewage or external water supply system is damaged or malfunctioning.			
8.	Separate restrooms arranged for men and women in accordance with the BN.2.2-5:2023 document and the number of sheltered people: a single toilet per each 50 people for women; a single toilet and a single urinal per each 100 people – for men.			

Shelters/Dual-Use Structures Classified as Anti-Radiation Shelters by Their Protective Properties				
9.	A wash basin and detergents.			
10.	Universal sanitary and hygienic room for people with disabilities and PLM (for a protection structure with the capacity to shelter more than 200 people, an additional room for each additional 200 people), as per BN.2.2-40:2018.			
11.	Disinfectants for lavatories and rooms with installed portable waste tanks (<i>e.g., a mixture containing the 0.5% solution of two thirds of calcium hypochlorite basic salt</i>).			
12.	Disinfectants for hands and footwear used after visits to lavatories (rooms with installed portable waste tanks). <i>The 0.3% chloramine solution is permitted as a hand disinfectant, and mats soaked with the 0.5% chloramine solution are permitted for footwear disinfection wiping.</i>			
13.	Waste bags.			
14.	Chemical preservatives permitted for use by MOH Ukraine by adding them to bags filled with garbage and waste.			
15.	Medicines and medical products for medical stock inventory at protection structures (in accordance with Annex 21 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018)			
	Other important criteria (if any).			
VI. Protection Structure Resource and Stock Audit				
1.	Containers for food storage.			
2.	Required stocks of food products with long shelf life.			
3.	Maintained sanitary supervision over food storage (if any).			
4.	A space for cooking.			
5.	Inventory and property for catering (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
6.	Trenching tools such as spades and shovels, crowbars, axes, wood and metal saws, etc. (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
7.	Repair materials (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
8.	Room cleaning inventory (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
	Other important criteria (if any).			
VII. Protection Structure Communication Audit				
1.	A phone set (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			

Shelters/Dual-Use Structures Classified as Anti-Radiation Shelters by Their Protective Properties				
2.	A radio station (in case of a set command post) (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
3.	A loud speaker (reproducer) in the quantity of 1 set per compartment (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
4.	A radio receiver (with no radio station in place) (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
5.	Mobile coverage or signal amplifier for mobile networks.			
6.	Internet access, Wi-Fi devices (<i>BN.2.2-5:2023 11.7.</i>)			
	Other important criteria (if any).			



Annex 3.3. Safety Audit Form for a Basic Shelter

Basic Shelters				
I. Protection Structure Technical Audit				
#	Assessment Criteria*	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Available unprotected openings in enclosures.			
2.	Openings (unless they are doors) with no opportunity to reinforce them (with bags of sand or soil, concrete blocks, brickwork, etc.).			
3.	At least two evacuation exits – one of them can be used as an emergency exit.**			
4.	Water supply or sewage lines, other building utilities passing through the premises designed for stay of sheltered people (unless those are internal building engineering networks).			
5.	Premises with rough floor coating unfit to install benches, bunks or other places for seating and lying.			
6.	Premises contain flammable, chemical and radiation hazardous substances, unsafe equipment that can't be dismantled at all or can't be dismantled in less than 24 hours.			
7.	Facility room height, and specifically – door height – is less than 2 m (<i>at least 1.8 m is permitted unless otherwise defined by the design documentation for building and construction</i>).			
8.	Less than 1.4 m distance to protruding parts of specific building constructions and building utilities (unless those are door openings).			
9.	Door opening width is less than 0.9 m (<i>at least 0.8 m is permitted unless otherwise provided in the design documentation for building and construction</i>).			
10.	Door openings overlap with building constructions or building utilities.			
11.	Entrance (exit) openings are closed with reinforced doors made of non-combustible materials (metal or wood reinforced with iron) or protective screens (stone, brick or reinforced concrete) for the height of at least 1.7 m.			
12.	Missing forced or natural ventilation inside the premises designed for stay of people.			
13.	Flooding of the premises of a protection structure.			
14.	Missing stocks of drinking water (at the rate of 2 litres per person daily) and process water (in case of unavailable centralized water supply).			
15.	Missing portable tightly closed containers for waste (for buildings and structures with no centralized sewage systems).			
16.	Missing main or backup artificial lighting (electrical lamps, candles, etc.).			
17.	Non-conformity to the recommended internal relative humidity and temperature requirements at a protection			

Basic Shelters				
	structure (the conditions close to the range from +10°C to +25°C, and humidity – no more than 75%), if possible.			
	Other detected flaws (if any).			
II. Protection Structure Accessibility Audit				
1.	Signage installed, posted or clearly painted along the pathways leading to protection structures.			
2.	Approaches to protection structures cleaned from dirt and garbage, or from snow and ice during the cold season.			
3.	Entrances protected from atmospheric precipitation by pavilions or canopies.			
4.	Emergency exits in place.***			
5.	Entrances equipped with tools for access used by people with disabilities and other people with limited mobility.			
6.	A space enabling manoeuvres and 90° turns in a wheelchair ensured by the front doors.			
7.	The entrance doors are at least 0.9 m wide to ensure comfortable passage for people in wheelchairs.			
8.	Thresholds in the door openings are not higher than 20 mm. A ramp installed for higher thresholds with the tilt of no more than 1:12 (8%).			
9.	The shelter can be technically retrofitted to provide proper access for people with disabilities and other people with limited mobility in no later than 24 hours.			
10.	Pointer signage to the basic shelter location in place, and “Entrance” light signage turned on.			
11.	A 60x50 cm plaque with the “Shelter” inscription by the front doors to a basic shelter containing a structure location, its balance holder, phone number of a person responsible for maintenance and use of the shelter in time of peace, address and place for key storage.			
12.	The plaque mounted at the 1.2-1.5 m from the ground and at 0.3 m to the right from the doors.			
13.	A wall-mounted visual navigation system containing information on the purpose of the premises and necessary pathways.			
14.	A touch navigation system, including the one using touch information plaques, contrasting marking on the stairs (contrasting and touch strip, 60 cm wide), thresholds, door openings as well as passages narrowed in accordance with the corridor width, etc.			
15.	An audio navigation system for people with visual impairments and audio indicators.			
16.	The handrails along the corridor sections serving as evacuation routes installed at the height of 0.9 m. The size and mounting of the handrails compliant with the requirements defined by BN.2.2-40.			

Basic Shelters				
17.	The handrail colour in contrast with the colour of the wall it is mounted on.			
	Other important criteria (if any).			
III. Protection Structure Fire Safety Audit				
1.	Automated fire extinguishing and alarm systems.			
1.1.	Properly functioning automated fire extinguishing and alarm systems.			
2.	Entrance (exit) openings are closed with reinforced doors made of non-combustible materials (metal or wood reinforced with iron).			
3.	At least a single evacuation exit ensuring free outside access available (<i>a basic shelter for less than 50 people is permitted to have a single evacuation exit available</i>).			
4.	Shelters provided with primary fire extinguishing means, which specifically refers to fire extinguishers in accordance with the norms set for premises of related functional intended use.			
5.	Fire extinguishers mounted in accessible places, such as entrances and evacuation exits.			
6.	Fire extinguishers mounted in a way so that their upper part is positioned at no more than 1.5 m from the floor. They are attached to a vertical surface (a wall or column) or installed in special mounts (<i>it is not permitted to place fire extinguishers directly on the floor</i>).			
7.	Properly equipped fire hydrants.			
8.	Evacuation routes and exits ensure fast evacuation of people (free to move and unimpeded).			
9.	A ventilation system of a shelter (forced or natural) ensures removal of combustion products and prevents the spread of smoke in case of fire.			
10.	Locations for primary fire extinguishing tools and an evacuation plan for a protection structure are marked and illuminated.			
11.	Materials used to build a protection structure have a related fire hazard class that ensures proper fire resistance level.			
12.	Flammable synthetic materials used for manufacturing of bunks or other equipment placed inside a protection structure.			
13.	Premises contain flammable, chemical and radiation hazardous substances.			
14.	A fire safety manual placed on a documentation board inside a protection structure.			
15.	People responsible for the use of a protection structure briefed on fire safety means (<i>related inputs to be recorded in specific briefing logs</i>).			
	Other important criteria (if any).			

Basic Shelters				
IV. Protection Structure Sheltered People Audit				
1.	A structure's capacity conforms to the norms defined by BN.2.2-5:2023 "Civil protection structures".			
1.1	The minimum area of a shelter is 0.5 m ² per person.			
1.2.	The minimum area of an anti-radiation shelter is 0.6 m ² per person.			
1.3.	The minimum area of a basic shelter is 0.4 m ² per person (with three-tiered bunks).			
2.	Sufficient quantity of seats at the rate of 1 bunk (two- or three-tiered) per 4-6 people.			
3.	A standalone compartment or a special seat for people with children (<i>MIA Order#579, Section 4, Clause 3</i>).			
4.	A medical room or space by an enclosing – closer to air vents – for the elderly and those who feel bad (<i>MIA Order #579, Section 4, Clause 3</i>).			
5.	A standalone compartment or a special seat for people with pets in accordance with BN.2.2-5:2023 (7.2.2.2).			
6.	Standalone (separate) sanitary premises for women and men in accordance with BN.2.2-5:2023.			
7.	Sanitary premises for people with disabilities and people with limited mobility (the minimum cabin size: width – 1.65 m, depth – 1.8 m, additional handrails and a space for a wheelchair or pram).			
8.	Special seats for feeding and diapering children in accordance with BN.2.2-5:2023 (7.2.2.2).			
9.	A playing area for children under the age of 11 (a designated area), which facilitates psychological relief in accordance with BN.2.2-5:2023 (7.2.2.2).			
10.	Separation of sleeping or recreation areas for long stay inside a protection structure in accordance with gender-based aspects.			
11.	Easy-to-access recreation areas – specifically, seats located at the optimal height for the elderly (in case of three-tier bunks, people with disabilities and PLMs to be allocated to the 1 st tier).			
12.	Volunteers or social workers assigned to a specific protection structure to help with the navigation around the shelter and provide people in need with required information.			
12.1.	Tools to prevent gender-based violence and discrimination at protection structures.			
12.2.	Information materials: posters, leaflets and other materials explaining the signs of violence and the ways to prevent it.			
12.3.	Qualified persons such as volunteers or social workers assigned to a specific shelter to warn, prevent and respond to possible cases of violence or discrimination in a timely manner.			

Basic Shelters				
13.	Communication channels (specifically, phones or walkie-talkies for emergency calls) used to contact the National Police of Ukraine with a related claim, 1547 – a 24/7 free hotline on prevention of human trafficking, gender-based domestic violence and violence against children.			
14.	The available level of lighting facilitates the establishment of a controlled visible environment, which, in its own turn, helps to reduce the level of violence and aggression.			
	Other important criteria (if any).			
V. Protection Structure Sanitary and Hygienic Audit				
1.	A properly operating water supply system.			
2.	A space for portable containers (tanks, reservoirs) for drinking water at the rate of 2 l per sheltered person daily if there is no available water supply system.			
3.	Tanks (containers) for drinking water ensure the quality of water required by the State sanitation rules on “Hygienic requirements for drinking water fit for human consumption”.			
4.	Water in containers decontaminated with ad hoc decontamination substances (solutions) authorized for use by the Ministry of Health of Ukraine.			
5.	The main shelter room split into separate premises/blocks.			
6.	A properly functioning sewage system that allows toilet flushing.			
7.	Waste tanks for the cases when a sewage or external water supply system is damaged or malfunctioning.			
8.	Separate restrooms arranged for men and women in accordance with the BN.2.2-5:2023 document and the number of sheltered people: a single toilet per each 50 people for women; a single toilet and a single urinal per each 100 people – for men.			
9.	A wash basin and detergents.			
10.	Universal sanitary and hygienic room for people with disabilities and PLM (for a protection structure with the capacity to shelter more than 200 people, an additional room for each additional 200 people), as per BN.2.2-40:2018.			
11.	Disinfectants for lavatories and rooms with installed portable waste tanks (<i>e.g., a mixture containing the 0.5% solution of two thirds of calcium hypochlorite basic salt</i>).			
12.	Disinfectants for hands and footwear used after visits to lavatories (rooms with installed portable waste tanks). <i>The 0.3% chloramine solution is permitted as a hand disinfectant, and mats soaked with the 0.5% chloramine solution are permitted for footwear disinfection wiping.</i>			
13.	Waste bags.			
14.	Chemical preservatives permitted for use by MOH Ukraine by adding them to bags filled with garbage and waste.			

Basic Shelters				
15.	Medicines and medical products for medical stock inventory at protection structures (in accordance with Annex 21 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018)			
	Other important criteria (if any).			
VI. Protection Structure Resource and Stock Audit				
1.	Containers for food storage.			
2.	Required stocks of food products with long shelf life.			
3.	Maintained sanitary supervision over food storage (if any).			
4.	A space for cooking.			
5.	Inventory and property for catering (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
6.	Trenching tools such as spades and shovels, crowbars, axes, wood and metal saws, etc. (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
7.	Repair materials (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
8.	Room cleaning inventory (in accordance with Annex 20 to the requirements for use and records on the Civil Protection Structure Pool, MIA Order #579 of 09.07.2018).			
	Other important criteria (if any).			
VII. Protection Structure Communication Audit				
1.	A phone set (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
2.	A radio station (in case of a set command post) (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
3.	A loud speaker (reproducer) in the quantity of 1 set per compartment (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
4.	A radio receiver (with no radio station in place) (<i>MIA Order #579 of 09.07.2018, Annex 20</i>).			
5.	Mobile coverage or signal amplifier for mobile networks.			
6.	Internet access, Wi-Fi devices (<i>BN.2.2-5:2023 11.7.</i>)			
	Other important criteria (if any).			

Annex 3.4 Final Report Form (General Information on a Conducted Shelter Safety Audit)

Facility name and address: _____

Facility type, purpose and capacity: _____

(shelter, anti-radiation shelter, dual-use structure, basic shelter)

Facility preparedness: _____

(prepared, partially prepared, unprepared for intended use)

Audit date: _____

Audit purpose: _____

Working Group members: _____



Annex 3.5 Form on Findings and Recommendations Based on a Conducted Shelter Safety Audit (Selected in Accordance with a Type of a Safety-Audited Shelter)

Protection Structure Type			Shelter / Dual-Use Structure Classified as a Shelter				
I.			Protection Structure Technical Audit				
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws	Recommendation Priorities (1 month, up to 6 months, up to 1 year)	Responsible Executives	Cost Estimate for Flaw Removal
1.	Unprotected openings in enclosures which can be exploited to connect the structure internal premises with the external atmosphere.						
2.	Damage inflicted upon the major building constructions of a protection structure which reduces its bearing capacity and/or protective properties.						
3.	Improper installation of sealed protective gates or doors based on their opening direction and protective properties, their loose coaming adhesion as well as malfunctioning closing machinery.						
4.	Missing or malfunctioning anti-explosive devices and expansion chambers at air intakes.						
5.	Missing or malfunctioning sealed vent valves defined by design documentation.						
6.	Missing shutoff valves at water supply, sewage, heating systems, sealing and other devices at places of cable and pipeline laying.						
7.	Non-conformity of ventilation system end wall constructions and emergency exits to requirements set by related building and construction norms.						
8.	Missing equipment for ventilation systems, deviations of air duct wall thickness values from standard requirements or their thorough corrosion.						
9.	Flooding of the premises of a protection structure.						
10.	Missing engineering networks defined by design documentation (power and water supply, heating, sewage, communications and alerts).						
11.	Missing, malfunctioning or incomplete equipment defined by design documentation:						
11.1.	fans;						
11.2.	electric hand fan gearboxes;						
11.3.	diesel power stations and related start-up equipment;						

Protection Structure Type		Anti-Radiation Shelter / Dual-Use Structure Classified as an Anti-Radiation Shelter					
		I. Protection Structure Technical Audit					
#	Possible Flaws in Protection Structures Proving Their Unpreparedness*	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws	Recommendation Priorities (1 month, up to 6 months, up to 1 year)	Responsible Executives	Cost Estimate for Flaw Removal (if any)
1.	Damage inflicted upon the major building constructions of a protection structure which reduces its bearing capacity and/or protective properties.						
2.	Missing doors at entrances and exits, and hatches – at emergency exits.						
3.	Missing equipment for ventilation systems that is defined by design documentation.						
4.	Deviations of air duct wall thickness values from standard requirements or their thorough corrosion.						
5.	Flooding of the premises of a protection structure.						
6.	Missing engineering networks defined by design documentation (power and water supply, heating, sewage, communications and alerts).						
7.	Missing, malfunctioning or incomplete equipment defined by design documentation:						
7.1	fans;						
7.2	electric hand or hand fan gearboxes; and						
7.3	power grids and electric equipment.						
	Additionally:						
8.	Temporary power and other engineering networks as well as unfixed electric equipment and lamps.						
9.	Lamps with unprotected incandescent bulbs (<i>not permitted for use</i>).						
10.	Use of fluorescent lamps (<i>not permitted for use</i>).						
11.	Non-conformity to the set internal relative humidity and temperature requirements at a protection structure (<i>shelter internal temperature to be maintained within the range from +10°C to +30°C, and humidity – 50%-70%</i>).						
12.	Lack of drinking water stocks (2 l per person daily) of standard quality in accordance with the Sanitation Norms and “Hygienic requirements for drinking water fit for human consumption” rules.						
	Other detected flaws (if any).						

Finding (Description): I. Protection structure technical audit – primary results:							
Protection Structure Type		Shelter / Dual-Use Structure Classified as a Shelter Anti-Radiation Shelter / Dual-Use Structure Classified as an Anti-Radiation Shelter					
		II. Protection Structure Accessibility Audit					
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws	Recommendation Priorities (1 month, up to 6 months, up to 1 year)	Responsible Executives	Cost Estimate for Flaw Removal
1.	Signage installed, posted or clearly painted along the pathways leading to protection structures.						
2.	Properly maintained approaches to external doors, doors and stairways.						
3.	Approaches to protection structures cleaned from dirt and garbage, or from snow and ice during the cold season.						
4.	Unimpeded approaches of sufficient capacity leading to protection structures that can be used by people with disabilities and other people with limited mobility.						
5.	A space enabling manoeuvres and 90°C turns in a wheelchair ensured by the front doors.						
6.	Location of a protection structure properly marked with a plaque (inscription) and pointer signage.						
7.	A 60x50 cm plaque with the “Shelter” inscription by the front doors to a protection structure containing a structure number, its owner or balance holder legal entity.						
8.	The plaque mounted at the 1.2-1.5 m from the ground and at 0.3 m to the right from the doors.						
9.	A place used to store keys, a person responsible for shelter maintenance and use in time of peace, his/her place of stay and his/her phone number mentioned on the plaque.						
10.	At least two sets of keys for a protective structure doors and shutters. One set kept by a responsible person, and another one – by an official or structural unit of a balance holder working 24/7.						
11.	A place of stay and phone number of an official (structural unit of a balance holder working 24/7) keeping another sealed set of keys mentioned on the plaque.						
12.	The entrance doors are at least 0.9 m wide (at least 0.8 m is permitted, if defined by related building and						

13	Premises with mounted recovery units (if any) equipped with fire extinguishing means – sandbags, asbestos blankets, certified CO2 or powder-based fire extinguishers.											
14	People responsible for the use of a protection structure briefed on fire safety means (<i>related inputs to be recorded in specific briefing logs</i>).											
15	A fire safety manual placed on a documentation board inside a protection structure.											
	Other important criteria (if any).											
Protection Structure Type		Basic Shelter										
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws	Recommendation Priorities (1 month, up to 6 months, up to 1 year)	Responsible Executives	Cost Estimate for Flaw Removal					
1.	Automated fire extinguishing and alarm systems.											
1.	Properly functioning automated fire extinguishing and alarm systems.											
2.	Entrance (exit) openings are closed with reinforced doors made of non-combustible materials (metal or wood reinforced with iron).											
3.	At least a single evacuation exit ensuring free outside access available (<i>a basic shelter for less than 50 people is permitted to have a single evacuation exit available</i>).											
4.	Shelters provided with primary fire extinguishing means, which specifically refers to fire extinguishers in accordance with the norms set for premises of related functional intended use.											
5.	Fire extinguishers mounted in accessible places, such as entrances and evacuation exits.											
6.	Fire extinguishers mounted in a way so that their upper part is positioned at no more than 1.5 m from the floor.											
7.	Properly equipped fire hydrants.											
8.	Evacuation routes and exits ensure fast evacuation of people (free to move and unimpeded).											
9.	A ventilation system of a shelter (forced or natural) ensures removal of combustion products and prevents the spread of smoke in case of fire.											
10	Locations for primary fire extinguishing tools and an evacuation plan for a protection structure are marked and illuminated.											

6.	Standalone (separate) sanitary premises for women and men in accordance with <i>BN.2.2-5:2023</i> .									
7.	Sanitary premises for people with disabilities and people with limited mobility (the minimum cabin size: width – 1.65 m, depth – 1.8 m, additional handrails and a space for a wheelchair or pram).									
8.	Special seats for feeding and diapering children in accordance with <i>BN.2.2-5:2023 (7.2.2.2)</i> .									
9.	A playing area for children under the age of 11 (a designated area), which facilitates psychological relief in accordance with <i>BN.2.2-5:2023 (7.2.2.2)</i> .									
10.	Separation of sleeping or recreation areas for long stay inside a protection structure in accordance with gender-based aspects.									
11.	Easy-to-access recreation areas – specifically, seats located at the optimal height for the elderly (in case of three-tier bunks, people with disabilities and PLMs to be allocated to the 1 st tier).									
12.	Volunteers or social workers assigned to a specific protection structure to help with the navigation around the shelter and provide people in need with required information:									
12.1.	Tools to prevent gender-based violence and discrimination at protection structures.									
12.2.	Information materials: posters, leaflets and other materials explaining the signs of violence and the ways to prevent it.									
12.3.	Qualified persons such as volunteers or social workers assigned to a specific shelter to warn, prevent and respond to possible cases of violence or discrimination in a timely manner.									
13.	Communication channels (specifically, phones or walkie-talkies for emergency calls) used to contact the National Police of Ukraine with a related claim, 1547 – a 24/7 free hotline on prevention of human trafficking, gender-based domestic violence and violence against children.									
14.	The available level of lighting facilitates the establishment of a controlled visible environment, which, in its own turn, helps to reduce the level of violence and aggression.									
	Other important criteria (if any).									
Finding (Description): IV. Protection structure sheltered people audit – primary results:										

Protection Structure Type		Shelter / Dual-Use Structure Classified as a Shelter Anti-Radiation Shelter / Dual-Use Structure Classified as an Anti-Radiation Shelter Basic Shelter					
		V. Protection Structure Sanitary and Hygienic Audit					
#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws	Recommendation Priorities (1 month, up to 6 months, up to 1 year)	Responsible Executives	Cost Estimate for Flaw Removal
1.	A properly operating water supply system.						
2.	A space for portable containers (tanks, reservoirs) for drinking water at the rate of 2 l per sheltered person daily if there is no available water supply system.						
3.	Tanks (containers) for drinking water ensure the quality of water required by the State sanitation rules on “Hygienic requirements for drinking water fit for human consumption”.						
4.	Water in containers decontaminated with ad hoc decontamination substances (solutions) authorized for use by the Ministry of Health of Ukraine.						
5.	The main shelter room split into separate premises/blocks.						
6.	A properly functioning sewage system that allows toilet flushing.						
7.	Waste tanks for the cases when a sewage or external water supply system is damaged or malfunctioning.						
8.	Separate restrooms arranged for men and women in accordance with the BN.2.2-5:2023 document and the number of sheltered people: a single toilet per each 50 people for women; a single toilet and a single urinal per each 100 people – for men.						
9.	A wash basin and detergents.						
10.	Universal sanitary and hygienic room for people with disabilities and PLM (for a protection structure with the capacity to shelter more than 200 people, an additional room for each additional 200 people), as per BN.2.2-40:2018.						
11.	Disinfectants for lavatories and rooms with installed portable waste tanks (e.g., a mixture containing the 0.5% solution of two thirds of calcium hypochlorite basic salt).						
12.	Disinfectants for hands and footwear used after visits to lavatories (rooms with installed portable waste tanks). The 0.3% chloramine solution is permitted as a hand disinfectant, and mats soaked						

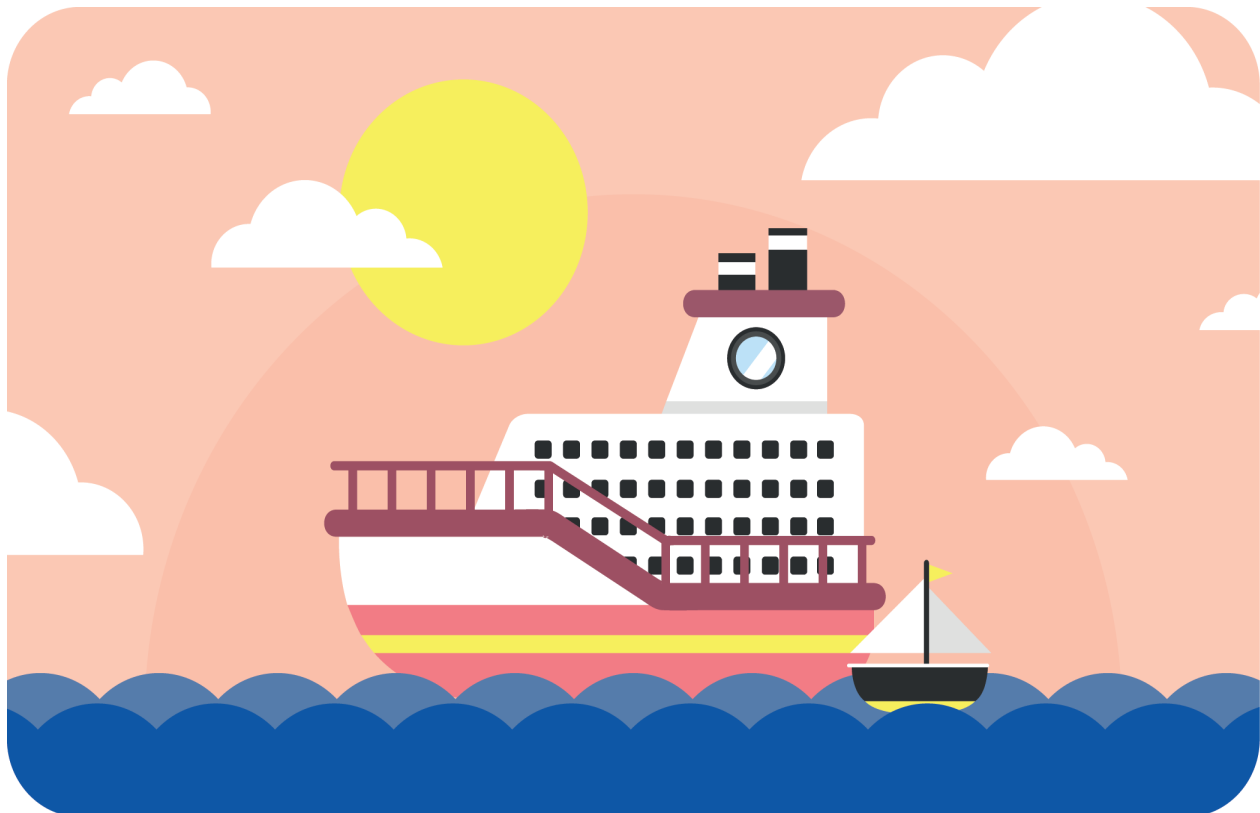
Annex 4.1. Checklist on a Road Transport Safety Audit, Including Buses

#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Information on a vehicle's technical condition			
2.	Information on a vehicle's sanitary condition			
3.	Drivers' medical examination			
4.	Compliance with the timetable			
5.	Compliance with the designated route			
6.	Stops available along the route			
7.	Route number, travel start and destination places posted at the frontal box			
8.	Major and intermediary stops posted at the lateral box			
9.	Route number posted at the back box			
10.	Markings for entrances and exits			
11.	An excerpt from the Rules for use of urban passenger transport in the interior			
12.	Inputs on the amount of fines for ticketless travel and unpaid baggage			
13.	Inputs on a carrier and insurer			
14.	Markings for emergency exits (while mentioning their opening methods)			
15.	A fire extinguisher in place			
16.	A first aid kit in place			
17.	An emergency stop button in place			
18.	"No Smoking" and "Seats for Passengers with Children and People with Disabilities" signs in place			



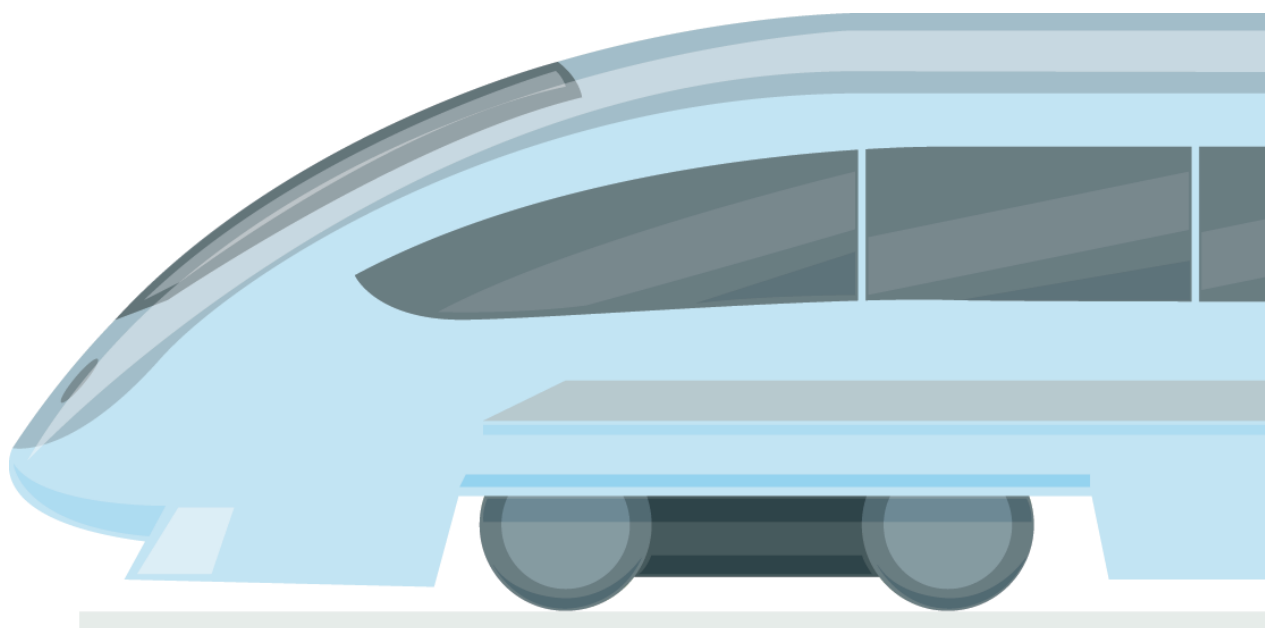
Annex 4.2. Checklist on a Sea and River Transport Safety Audit

#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	A safety and environmental protection SC policy in place			
2.	Instructions and procedures in place to ensure safe operations of vessels and environmental protection			
3.	Communication tools between the shore-based and vessel-based personnel in place			
4.	Internal communications in place			
5.	A procedure used to transfer notifications on accidents and violations of a safety procedure			
6.	A procedure used to prepare for emergencies and their removal available			
7.	An internal management inspection and review procedure in place			
8.	Control over vehicles' technical condition			
9.	Control over vehicles' sanitary condition			
10.	A fire extinguisher in place			
11.	A first aid kit in place			
12.	Personal protection equipment for passengers in place: life vests			



Annex 4.3. Checklist on a Railway Transport Safety Audit

#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Information on a specific train (through coach) timetable			
2.	Information on the services provided in a train			
3.	Information of the location for a book of complaints			
4.	Information on the number of a coach hosting a train manager			
5.	Information on a restaurant coach (diner), if any, its working hours and its placement in accordance with a train layout			
6.	An evacuation plan and a memo for passengers containing hints in case of fire			
7.	Information on the Rules related to rights and duties of passengers and train attendants (stewards)			
8.	Information on a coach's technical condition			
9.	Information on a coach's sanitary condition			
10.	Interior heating during the cold season			
11.	An air conditioning system			
12.	Station and stop announcements			
13.	A fire extinguisher in place			
14.	A first aid kit in place			
15.	An emergency aid button in place			
16.	Operational lavatories			
17.	Markings for emergency exits (while mentioning their opening methods)			
18.	Conditions for carriage of people with disabilities			



Annex 4.4. Checklist on an Air Transport Safety Audit

#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Equipment of the cabin with technical means and passenger safety systems			
2.	Cabin temperature mode			
3.	Personalized lighting			
4.	Personalized fan			
5.	Personalized catering table			
6.	Passenger restraint system			
7.	Individual oxygen masks			
8.	Proper aircraft sanitary condition			
9.	Proper operational condition and completeness of equipment, inventory and means for passenger servicing			
10.	Seats for passengers with children in place			
11.	Placement of passengers with disabilities			
12.	Placement of hand luggage			
13.	Information and inquiry services			
14.	Emergency and rescue equipment			
15.	Spaces for inflatable slides in place			
16.	Markings for the main and emergency exits in place			
17.	First aid available			
18.	Functional lavatories			
19.	Drinking water available on passengers' demand			



Annex 4.5. Checklist on an Urban Electric Transport Safety Audit

#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Information on a vehicle's technical condition			
2.	Information on a vehicle's sanitary condition			
3.	Drivers' medical examination			
4.	Compliance with the timetable			
5.	Compliance with the designated route			
6.	Stops available along the route			
7.	Route number, travel start and destination places posted at the frontal box			
8.	Major and intermediary stops posted at the lateral box			
9.	Route number posted at the back box			
10.	Markings for entrances and exits			
11.	An excerpt from the Rules for carriage of passengers in the interior			
12.	Inputs on the amount of fines for ticketless travel and unpaid baggage			
13.	Inputs on a carrier and insurer			
14.	Markings for emergency exits (while mentioning their opening methods)			
15.	A fire extinguisher in place			
16.	A first aid kit in place			
17.	An emergency stop button in place			
18.	"No Smoking" and "Seats for Passengers with Children and People with Disabilities" signs in place			
19.	Lighting available at the boarding platforms and approaches to them during the dark hours			
20.	Sanitary condition of the station ground cover and trash bins			
21.	Sand stocks in place at tram terminal stations			



Annex 4.6. Checklist on a Subway Safety Audit

#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws
1.	Satisfactory condition of subway structures			
2.	Satisfactory condition of station facility devices			
3.	Satisfactory condition of alarm structures and devices			
4.	Satisfactory condition of automatics structures and devices			
5.	Satisfactory condition of telemechanics structures and devices for train movements and communications			
6.	Satisfactory condition of tunnel access control devices			
7.	Satisfactory condition of escalator facility devices			
8.	Satisfactory condition of engineering and technical equipment			
9.	Satisfactory condition of electromechanical equipment devices			
10.	Satisfactory technical condition of coaches			
11.	Satisfactory sanitary condition of coaches			
12.	Subway layout available			
13.	Markings for emergency exits (while mentioning their opening methods)			
14.	A fire extinguisher in place			
15.	A first aid kit in place			
16.	Train driver communication button in place			
17.	“No Smoking” and “Seats for Passengers with Children and People with Disabilities” signs in place			
18.	Coach interior lighting in place			
19.	Subway underground passage lighting in place			
20.	Capacity to provide first aid at subway coaches/stations			
21.	Capacity to move people with disabilities and people with limited mobility through subway entrances and passages			

Annex 4.7. Recommendations Based on Results of a Transport Safety Audit

#	Assessment Criteria	Yes/No	Detected Flaws	Recommendations on Removal of Detected Flaws	Recommendation Priorities (1 month, up to 6 months, up to 1 year)	Responsible Executives	Cost Estimate for Flaw Removal
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Team leader _____

Auditors _____

Date _____

Annex 4.8. Survey Form on Satisfaction Rate of Provided Transport Services for Passengers

1. Your sex:

1. Female
2. Male
3. I'd rather refrain from answering

2. Your age:

1. Under 18
2. 18-35
3. 36-55
4. 56-70
5. 70+

3. Do You belong to any of the below categories?

All appropriate answers

1. Pregnant women
2. Mothers/fathers of neonates or children under the age of 3 years
3. Mothers/fathers of children of 4-10 years
4. People with limited mobility (e.g., using crutches, canes, visual impairments, etc.)
5. *I don't belong to any of the above categories*

4. Which transport do You use

1. Road *Pass to Block II*
2. River *Pass to Block III*
3. Rail *Pass to Block III*
4. Air *Pass to Block IV*
5. Urban electric *Pass to Block V*
6. Urban electric (subway) *Pass to Block VI*

II. Road Transport/Bus

5. Vehicle condition:

1. Vehicle technical condition:
satisfactory / unsatisfactory
2. Interior heating during the cold season
available / unavailable
3. Air conditioning system
available / unavailable
4. Vehicle external appearance / interior appearance (scraped paint / seat upholstery / floor covering)
satisfactory / unsatisfactory
5. Vehicle sanitary condition
satisfactory / unsatisfactory

- Display / boxes with route numbers, "No Smoking" signs
available / unavailable
- 6. Station / stop announcements
available / unavailable
- 7. Conditions for carriage of people with disabilities
available / unavailable
- 8. Fire extinguisher
available / unavailable
- 9. First aid kit
available / unavailable
- 10. Emergency stop button
available / unavailable
- 11. Information for people with visual impairments
available / unavailable
- 12. Restrooms for suburban buses
available / unavailable

6. Traffic management

- 1. Traffic intervals
satisfactory / unsatisfactory
- 2. Disruptions caused by alerts, blackouts, etc.
available / unavailable
- 3. Communication culture with the drivers
satisfactory / unsatisfactory

III. River and Sea Transport

7. Vehicle condition:

- 13. Vehicle technical condition:
satisfactory / unsatisfactory /
- 14. Interior heating during the cold season
available / unavailable
- 15. Air conditioning system
available / unavailable
- 16. Vehicle external appearance / interior appearance (scraped paint / seat upholstery / floor covering)
satisfactory / unsatisfactory
- 17. Vehicle sanitary condition
satisfactory / unsatisfactory
- 18. Display / boxes with route numbers, "No Smoking" signs
available / unavailable
- 19. Station / stop announcements
available / unavailable
- 20. Conditions for carriage of people with disabilities
available / unavailable
- 21. Fire extinguisher
available / unavailable
- 22. First aid kit
available / unavailable
- 23. Emergency stop button

- available / unavailable
24. Information for people with visual impairments
available / unavailable
25. Restrooms
available / unavailable
26. Passenger safety means
available / unavailable

III. Railway Transport

27. Vehicle technical condition:
Satisfactory / unsatisfactory
28. Interior heating during the cold season
available / unavailable
29. Air conditioning system
available / unavailable
30. Vehicle external appearance / interior appearance (scraped paint / seat upholstery / floor covering)
satisfactory / unsatisfactory
31. Vehicle sanitary condition
satisfactory / unsatisfactory
32. Display / boxes with route numbers, "No Smoking" signs
available / unavailable
33. Station / stop announcements
available / unavailable
34. Conditions for carriage of people with disabilities
available / unavailable
35. Fire extinguisher
available / unavailable
36. First aid kit
available / unavailable
37. Emergency aid button
available / unavailable
38. Information for people with visual impairments
available / unavailable
39. Lavatories
available / unavailable
40. Drinking water, tea, coffee
available / unavailable
41. Women-only compartments
available / unavailable

IV. Air Transport

42. Aircraft technical condition:
satisfactory / unsatisfactory
43. Cabin heating
available / unavailable
44. Air conditioning system
available / unavailable

45. Passenger safety system: safety belts, oxygen masks
available / unavailable
46. Cabin sanitary condition
satisfactory / unsatisfactory
47. Display / boxes with route numbers, “No Smoking”, “Fasten Your Seatbelts” indicators
available / unavailable
48. Conditions for carriage of neonates
available / unavailable
49. Conditions for carriage of people with disabilities
available / unavailable
50. Emergency exits
available / unavailable
51. First aid kit
available / unavailable
52. Emergency aid button
available / unavailable
53. Information for people with visual impairments
available / unavailable
54. Lavatories
available / unavailable
55. Drinking water, tea, coffee
available / unavailable
56. Personalized lighting for each passenger
available / unavailable
57. Catering table
available / unavailable

V. Urban Electric Transport

58. Vehicle technical condition:
satisfactory / unsatisfactory
59. Interior heating during the cold season
available / unavailable
60. Air conditioning system
available / unavailable
61. Vehicle external appearance / interior appearance (scraped paint / seat upholstery / floor covering)
satisfactory / unsatisfactory
62. Vehicle sanitary condition
satisfactory / unsatisfactory
63. Display / boxes with route numbers, “No Smoking” signs
available / unavailable
64. Station / stop announcements
available / unavailable
65. Conditions for carriage of people with disabilities
available / unavailable
66. Fire extinguisher
available / unavailable
67. First aid kit
available / unavailable

- 68. Emergency stop button
available / unavailable
- 69. Information for people with visual impairments
available / unavailable

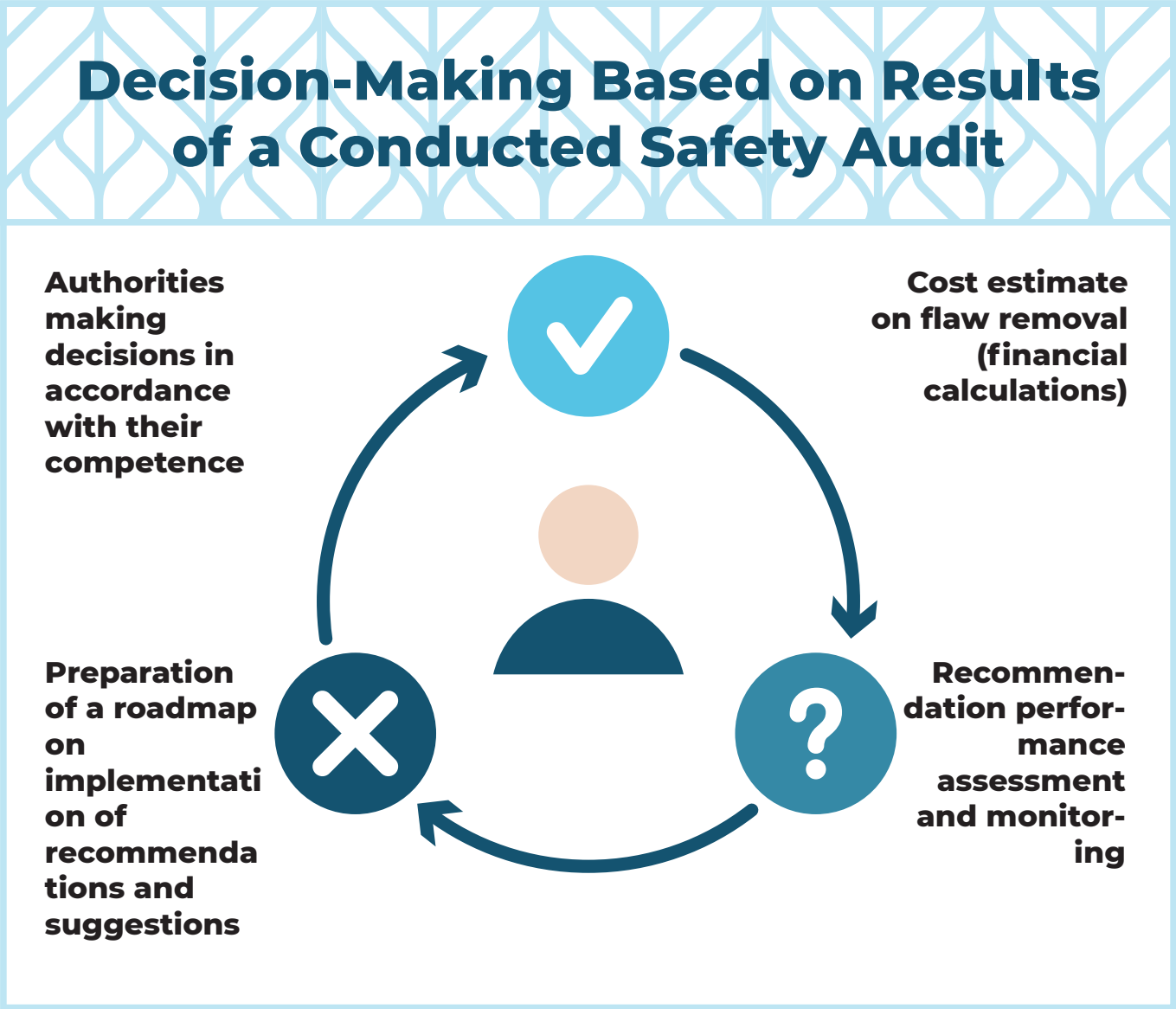
8. Traffic Management

- 70. Traffic intervals
satisfactory / unsatisfactory
- 71. Disruptions caused by alerts, blackouts, etc.
available / unavailable
- 72. Communication culture with the drivers
satisfactory / unsatisfactory

VI. Urban Electric Transport (Subway)

- 73. Coach technical condition:
satisfactory / unsatisfactory
- 74. Coach interior heating during the cold season
available / unavailable
- 75. Air conditioning system
available / unavailable
- 76. Vehicle external appearance / interior appearance (scraped paint / seat upholstery / floor covering)
satisfactory / unsatisfactory
- 77. Vehicle sanitary condition
satisfactory / unsatisfactory
- 78. Display / boxes with route numbers, "No Smoking" signs
available / unavailable
- 79. Station announcements
available / unavailable
- 80. Conditions for carriage of people with disabilities
available / unavailable
- 81. Fire extinguisher
available / unavailable
- 82. First aid kit
available / unavailable
- 83. Train driver communication button
available / unavailable
- 84. Information for people with visual impairments
available / unavailable
- 85. Train traffic intervals
satisfactory / unsatisfactory
- 86. Disruptions caused by alerts, blackouts, etc.
available / unavailable
- 87. Subway lavatories
available / unavailable

Annex 5. Schematic Decision-Making Algorithm Based on Results of a Conducted Safety Audit



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RESULTS OF SAFETY AUDITS OF THE TERRITORIES OF 37 TERRITORIAL COMMUNITIES



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