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Research paper

International legal mechanisms for the protection of women's and children's rights during armed and nuclear conflicts in the modern welfare state

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Abstract

Because of the lack of legal protection afforded to certain groups within the human rights complex, the rights of women and children occupy a particularly prominent and distinctive position. Although significant progress has been made, gaps in the implementation of these rights persist even in advanced welfare states, particularly during periods of armed and nuclear conflict. These norms are effective when they consider the positive experiences of other welfare states and the recommendations of international organizations that support women's and children's rights and freedoms during times of conflict. Human rights legislation at least offers a fair chance of responsibility if nuclear weapons are used again, even though it does not expressly forbid their use. Moreover, this body of international law explicitly forbids the use of nuclear weapons under all circumstances other than those of war.

Keywords: *Armed Conflict; Children's Rights; International Humanitarian Law; Nuclear Conflict; Welfare State*.

1. Introduction

The degree of protection afforded to women and children is a central indicator of a welfare state's commitment to human rights and social justice. Women and children are still subjected to cruel treatment in the modern world because of armed conflict. During times of violence, some groups of people, such as women and children, have unique requirements and should be treated with extra respect and safety. Children should have enough food, clothes, and tonic in addition to proper care and support. Moreover, it is of paramount importance to ensure that children under the age of eighteen are not permitted to participate directly in hostilities.

It can be reasonably deduced that more than two million children have been killed or maimed in armed conflicts over the past decade. The consequences of armed conflicts include the loss of parents and guardians, the disruption of essential social services, the lack of access to healthcare, and the absence of educational opportunities for children. Apart from the one million orphans and the roughly twenty million children who are internally displaced or refugees, kidnappings, trafficking, and the use of children as hostages are some other instances of violence and exploitation that impact children. The mechanisms in charge of keeping track of birth circumstances and handling juvenile offenders are not working as they should. An estimated 300,000 or more child soldiers are fighting in battles at any given moment [1].

Children require specific post-conflict requirements, both short- and long-term, such as family supervision, compensation, and social reintegration; psychological rehabilitation programs; involvement in disarmament, demobilization, and reintegration; and transitional justice. The EU is pleased that the Paris Commitments Implementation Forum has been established, as it will serve to coordinate and facilitate international assistance for these kinds of activities. There is frequently a perception of impunity for those who commit crimes against children that are forbidden under international humanitarian law (IHL) and the Rome Statute of the International Criminal Court. The European Union (EU) has made a strong focus on the critical role that international criminal jurisdictions play in resolving pertinent international law violations related to the recruitment and enlistment of underage troops and in the fight against impunity. Although the Convention on the Rights of the Child (CRC) has been widely ratified, there is still a discrepancy between its acceptance and its implementation in practice. Children are disproportionately impacted in many ways and with long-lasting effects, especially in armed conflict circumstances. Armed conflict may have consequences that are transmitted to subsequent generations, thereby creating a predisposition towards ongoing or recurring tensions. The Optional Protocol to the CRC on the Role of Minors in Armed Conflict represents an effort to address this issue.

The right to social protection is a fundamental human right that is enshrined in international law. This law has been established by both the UN and the Council of Europe (CoE). This right is delineated in international law, specifically the principal UN human rights (HR) conventions, such as the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the CRC, and the Convention on the Elimination of All Forms of Racial Discrimination (CERD). Nevertheless, the most comprehensive and authoritative

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explanation of this concept can be found in the International Covenant on Economic (ICE), Social and Cultural Rights (ICESCR). The right to social security is protected by several international HR instruments. These include Article 22 of the Universal Declaration of Human Rights, Article 22 of the Convention for the Protection of Human Rights and Fundamental Freedoms, and Article 9 of the ICE. The legal obligations of welfare states to establish social protection systems are thus founded on these provisions. The entity tasked with overseeing the implementation of the ICESCR by governments has developed this concept over time.

The rights enumerated include those of working women to maternity protection (guaranteed by Article 8), the right of the family to social, legal, and economic protection (enshrined in Article 16), the right of children and young people to social, legal, and economic protection, and the paragraph that protects from poverty. The rights are enshrined in Article 13, which guarantees social security and health care, and Article 14, which guarantees the right to utilize social security services. These rules mandate that the welfare state adopt an active stance in periods of armed conflict, war, and economic instability to ensure the well-being of its citizens.

High-ranking UN officials' statements and publications of the International Red Cross aggressively emphasize the harmful impacts of nuclear weapons use on human health [2]. Since the mid-1980s, several regional and international organizations that advance the cause of women's rights and promote world peace have endeavored to address HR violations, with a particular focus on those affecting vulnerable groups such as women and children. These violations, in addition to the detrimental effects of nuclear weapons and ionizing radiation, have placed women and children in a particularly precarious position [3].

The fundamental tenets of IHL guarantee the equal protection of women and men, irrespective of their status as combatants, civilians, or non-combatants. However, IHL mandates that they be given special protection and that the requirements of women harmed by armed conflict, including the need for medical and other aid, be considered. This is because of their unique demands and increased vulnerability. Mothers of little children and expecting mothers should receive extra attention. Pregnant women who have given birth have a legal entitlement to basic healthcare for medical reasons.

Examining the problematic aspects of a welfare state's legal defense of women's and children's rights during armed and nuclear conflict is the aim of this study. To achieve a comprehensive understanding of the historical evolution of the legal framework governing the protection of women's and children's rights during armed conflict, it was essential to undertake a meticulous examination of the legal guarantees enshrined in this corpus. This entailed a detailed analysis of the policy pursued by Ukraine about the realization of these freedoms and rights in situations of armed conflict, an evaluation of the international legal mechanisms designed to safeguard women's rights during times of armed conflict at the UN level, and a critical appraisal of the rights accorded to women in the context of the use of nuclear weapons as a direct consequence of armed conflict.

To illustrate the real-world challenges of protecting the rights of women and children during conflict, this paper examines Ukraine’s national legal framework and policy measures. Ukraine serves as a particularly relevant case study due to its active conflict environment, evolving legislative responses, and commitment to aligning with international human rights standards.

2. Ukraine's stance on women's and children's rights and freedoms during times of armed conflict

2.1. Implementation of gender equality in Ukrainian security policy: from legislation to practice

On December 5, 2017, the Verkhovna Rada of Ukraine approved the draft law "On Amendments to Certain Laws of Ukraine on Ensuring Equal Rights and Opportunities for Women and Men during Military Service in the AF of Ukraine and Other Military Formations" by a majority vote during its initial reading. The objective of this draft legislation is to establish gender equality within the AF of Ukraine. Therefore, it is suggested that certain changes be made to the Law "On Military Duty and Military Service" as well as to paragraph 269 of the AF of Ukraine's Statute of Internal Service. Besides being able to do so before reaching majority age, the new amendments give women the same opportunities as men to sign a contract for military service. Additionally, the document establishes the principle that women should be afforded the same rights as their male counterparts, including equal access to positions and military ranks, as well as equal responsibilities in the performance of their duties. In a final act of reform, the legislation removes all existing legal restrictions on the appointment of women to positions within the AF.

In times of crisis, including instances of armed conflict, the protection of fundamental rights - civil, political, economic, social, and cultural - is of paramount importance. Access to services essential for subsistence, such as healthcare, work, education, and other necessities, is frequently severely restricted due to displacement and the devastation of social infrastructure brought on by violence. The neglect of ICESCR during emergencies or periods of conflict has the potential to lead to further abuses of HR. Such violations can, in turn, give rise to additional conflicts [4] demonstrates the function of gender stereotypes in the legal system. Specifically, she points out that the rules governing relationships in the security and defense sectors further the idea of a woman as a mother and a guardian. Men develop a stereotype as a result, along with a related subconscious attitude. Specifically for women, legislation allows for a variety of exclusions and compassionate measures.

It is a core tenet of all HR treaties that protection against discrimination be afforded to those individuals who have been historically disadvantaged. This is evidenced by the inclusion of this principle within the CEDAW (1979), the International Covenant on Civil and Political Rights (ICCPR) (1966) and the ICESCR (1966). It is mentioned in the CoE’s legislative framework in both the European Convention on Human Rights (ECHR) and the European Social Charter [5]. The timeline of key international instruments on women’s and children’s rights in armed conflict is represented in Table 1.

Table 1: Chronology of Global Normative Instruments Addressing Gender and Child Rights in Conflict Settings

Year	Instrument	Focus
1949	Geneva Conventions	Protection of civilians in war
1966	ICCPR & ICESCR	Civil, political, economic, and social rights
1979	CEDAW	Elimination of discrimination against women
1989	CRC	Protection of children's rights
2000	UNSC Resolution 1325	Women, Peace, and Security Agenda
2017	Treaty on the Prohibition of Nuclear Weapons	Humanitarian disarmament with a gender focus

Source: made by the authors.

Unfortunately, today we have to admit that the perception of the image of women in war is distorted. Even the simplest analysis of media materials suggests that they are presented in line with traditional ideas about the role of women. For example, in some newspaper articles,

one can find expressions such as "women have no place here" and "purely male territory," where sexist statements by interviewees are intertwined with journalistic text. Patriotic posters are even more expressive.

It is not necessary to distort reality, sometimes, it is enough to follow established patriarchal trends that perpetuate inequality. However, the invisibility of women in war also arises from the distorted representation of their image due to sexism and the objectification of the female body [6]. Research indicates that having women in peacekeeping units can improve the efficacy of missions because: locals, both men and women, are typically more open to interacting with female soldiers because they perceive them as less dangerous than male peacekeepers; female soldiers are required at airports, checkpoints, and other locations; female soldiers are required to perform searches of women's bodies; and there is a chance for collaboration with women's organizations in the community. Another way that the mission can gather more important information about events in the host nation is through the following: female peacekeepers serve as role models for local women, encouraging them to enlist in the AF and security forces; women and men who have experienced sexual violence are more likely to report such crimes to female peacekeepers; female military personnel keep an eye out for instances of male military personnel acting inappropriately [7].

The percentage of women in all significant security and military industry institutions is trending upward. As delineated in the Concept for the Development of the Security and Defense Sector, the primary entities comprising the security and defense apparatus of Ukraine can be identified as the Ukrainian Ministry of Defense, the AF, the Ministry of Internal Affairs, the National Guard, the State Border Guard Service (SBGS), and the Security Service of Ukraine.

Some scholars see positive occurrences in addition to discrimination and its potential manifestations: a decline in gender discrimination, which translates to women's active engagement in all societal activities, such as participation in the Ukrainian Military and protection of the nation's borders. Approximately 50,000 women comprise one-fifth of the total personnel in the Ukrainian AF. The Ministry of Internal Affairs of Ukraine employs 296,248 individuals, of whom 69,519 (23.5%) are women. The Ukrainian State Border Guard Service has a workforce of 30,000 individuals, of whom 5,000 (16.6%) are women. In 2021, approximately 30,000 women were serving in the Ukrainian AF [8].

Giving men and women equal rights and opportunity is only one of Ukraine's numerous international responsibilities. Similarly, Ukraine included "gender equality" as one of its six objectives per the MDGs, which were announced at the UN Millennium Summit in September 2000 [9]. On the other hand, Ukraine "has taken real steps to create a mechanism for ensuring women's rights and freedoms by general international HR standards". On the contrary, "the country has not yet changed its ideology on the problem of gender status in society by global trends in this issue" [10].

The National Review of the Implementation of the Beijing Declaration (BD) and Platform for Action (PA) on the Status of Women has identified several significant challenges that require urgent attention. Chief among these is the absence of political will to implement gender transformations, the low level of women's representation in social and political life, and the persistence of stereotypes about the distribution of roles of men and women in society and the family. These deeply entrenched perceptions are perpetuated through education and the media (2014). Despite the country's endorsement of international agreements and the implementation of domestic legislation that ensures equal rights and opportunities for men and women, this persists as an ongoing issue.

HR breaches against different vulnerable groups in society are made more likely by armed conflicts and unstable conditions that intensify preexisting patterns of discrimination against them. Among these categories are women. Women and girls suffer greatly and disproportionately from war, since they are more vulnerable to abuse, trafficking, and violence. A paucity of accessible fundamental healthcare services, including those related to sexual and reproductive health, elevates the possibility of unintended pregnancies among women and young girls, who suffer from severe sexual and reproductive trauma, get STDs, and become infected with sexually transmitted infections, including those caused by sexual violence related to conflict.

For women who are internally displaced, the loss of their livelihoods after displacement may have a disproportionately large impact on their overall well-being and socioeconomic status. For example, people may lose their land and animals and become unable to maintain their own homes. In 2000, the UN Security Council (UNSC) passed Resolution 1325 on Women, Peace, and Security, which called for an increase in the involvement of women in UN initiatives concerning peace and security, as well as the incorporation of a gender perspective in these efforts (including the participation of women in peace talks, decision-making processes, and the inclusion of gender considerations in peacekeeping operations and training, along with the incorporation of a gender perspective in UN reporting systems). Subsequently, the UNSC has enacted a multitude of resolutions about the role of women in the context of peace and security. In October 2020, the UN Human Rights Council (UNHRC) acknowledged the pivotal role that women play in peacebuilding, confidence-building, and conflict prevention and resolution (Resolution A/HRC/RES/45/2889) [11].

They encouraged the High Commissioner to submit a report to the UNHRC regarding the present circumstances of the Council's activities, particularly regarding the incorporation of women's and girls' HR within the context of post-conflict and war situations. A major development in this respect was the National Action Plan (NAP) for the Implementation of UNSC Resolution 1325 on Women, Peace, and Security for the period up to 2020, which was approved by the Ukrainian Cabinet of Ministers in February 2016. To comply with UNSC Resolution 1325, the Beijing Declaration, and the PA approved at the Fourth World Conference on Women, the Ministry of Social Policy has created a draft legislation. However, the Ministry also points out that the necessity to maximize and integrate women's potential in preventing violence and bringing about peace, as well as the existence of several gender-based risks associated with the armed conflict in eastern Ukraine, are factors that have an impact on the draft act's development [12].

The NAP seeks to guarantee lasting peace and conflict resolution from a gender perspective, prevent and eradicate gender-based violence, and enhance the system of protection for women impacted by conflicts (identification, creation of a system of assistance, rehabilitation, and information), and create conditions for increased women's participation in peacekeeping operations [13]. The NAP outlines ten primary goals and the specific actions that will be taken to accomplish them. These include the assessment of conflict effects on HR frameworks, with specific consideration of the safeguarding, assistance, and rehabilitation of victims of gender-based violence, women's participation in peacekeeping operations, and conflict prevention; the evaluation of the impact of the crisis on the structure, administration, and operation of the service delivery system; the coordination of efforts by participants in UNSC Resolution 1325 implementation; and the establishment of professional training programs.

2.2. Comparative perspectives: approaches of Sweden and Germany

To better understand Ukraine’s legal and policy mechanisms, it is instructive to consider how other modern welfare states, such as Sweden and Germany, approach the protection of women and children during armed conflict or humanitarian crises. Sweden has long adopted a feminist foreign policy, placing gender equality and the rights of women and children at the core of its international engagements. Its national action plans for implementing UNSC Resolution 1325 include specific monitoring mechanisms, allocated budgets, and cross-

agency cooperation frameworks. The Swedish model emphasizes intersectionality, ensuring that ethnic minority women, refugees, and LGBTQ+ populations are equally protected. Sweden also mandates regular evaluations and reporting to Parliament, ensuring policy transparency and accountability.

Germany, while not formally labeling its foreign policy as feminist, has embedded gender mainstreaming across its development and humanitarian programs. The German Federal Foreign Office integrates gender-sensitive training for peacekeeping personnel and funds NGOs specializing in post-conflict trauma support, especially for women survivors of violence. Furthermore, Germany actively supports the Women, Peace, and Security (WPS) agenda through its engagement in the EU and NATO, and by funding disarmament projects that incorporate gender analysis [14].

In comparison, Ukraine has made important legislative strides, particularly in military integration and UNSC 1325 implementation. However, it lacks comprehensive monitoring systems, dedicated budget allocations, and institutionalized gender audits. Learning from the Swedish and German examples could guide Ukraine in operationalizing its commitments more effectively, particularly through multisectoral coordination, survivor-centered policies, and institutionalized training programs for military and civilian sectors.

3. Historical and contemporary efforts to protect civilians and uphold human rights in armed conflicts

The problem of protecting civilians in armed conflict was first raised in the 14th and 16th centuries in the process of forming a system of "cartels and surrenders" between the commanders of the warring armies. Over 290 such agreements were concluded between 1581 and 1864. The first of them was signed almost 200 years earlier in 1393 between the cantons of Switzerland and contained provisions prohibiting the involvement of women and young people in conflict, as well as the inviolability of the wounded, respect for their person and property [15].

This approach can be found not only in practical manuals for military leaders but also in the works of philosophers, theologians, and lawyers of the time. For example, Hugo Grotius, who is considered the work On the Law of War and Peace by the "father" of contemporary international law, prohibited war against civilians. Bertrand Duguil and Joan of Arc demanded that their troops respect women, children, and peasants. French commanders adhered to the same principle, forbidding the looting and ill-treatment of non-combatants. The Spanish lawyer F. Vittorio, who was even consulted by Charles V, condemned the killing of innocents, prisoners, and those who laid down their arms in his work Relectiones Theologicae. Around the same time, monastic orders began to aid and treatment to the wounded and sick, regardless of their affiliation with one side or the other [16].

In the absence of a specific treaty addressing children's issues, the children participating in military situations should be protected. currently governed by four sources: international child rights law; general humanitarian law treaties that target adults and children; global and regional treaties that govern welfare state actions in both peaceful and armed conflict scenarios; and customary international law.

It is estimated that armed conflict has resulted in the deaths of over two million children and the bodily injuries of another six million within the past ten years. The consequences of armed conflicts for children include the loss of parental or guardian care, disruption to access to basic social services, health care, and education. In addition to the 12 million children who are internally displaced and refugees, many more are kidnapped, sold, or kept captive. The institutions of juvenile justice and birth registration have crumbled. It is believed that at least 300,000 youngsters are combatants in conflicts at any one moment. In addition to UNSCR 1325, several related resolutions aimed at strengthening its implementation were adopted after 2000, proposing different mechanisms for this purpose, and were called "sister" resolutions: UNSC Resolution 1820 (2008) emphasized strengthening the prevention of gender-based violence, preventing cases of violence committed by representatives of peacekeeping forces (military), and obliged the UN Secretary-General to submit annual reports on Resolution 1325's implementation.

Resolution 1888 (2009) of the UNSC acknowledges the need for yearly reports, names a Special Representative on Sexual Violence in Armed Conflict and calls for the creation of an expert group by 2011 with the goal of reducing gender-based violence. The UN Secretary-General was directed by UNSC Resolution 1889 (2009) to create a strategy and global indicators for the UNSC Resolution 1325 [17].

In its 2013 resolution, the UNSC addressed the creation of specific funding and programs for the rehabilitation of victims of violence, while underlining the need to respond quickly to incidents of sexual assault during armed conflict. She underscored the distinctive roles played by international and non-governmental organizations, as well as gender experts, in the domains of prevention and rehabilitation. Resolution 2122 (2013) of the UNSC highlights the significance of conducting frequent meetings with women's groups, providing specific financial assistance for projects led by women, and ensuring that women participate equally and actively in election processes. It also obliged the UN Secretary-General to present a Global Impact Study on Resolution 1325 in 2015. Marking the 15th anniversary of Resolution 1325, the UNSC adopted a new resolution 2242 on the responsibility and participation of men and boys in engaging women in peace and security issues, and partnership with women's organizations.

The action plan (authorized by the order of the Mayor of Kyiv on April 23, 2021, No. 43721/6-2020) for the implementation of UNSC Resolution 1325 on Women, Peace, and Security until 2025 deserves special attention. One of the principal objectives of the Action Plan is to ensure that men and women are equally engaged in the decision-making process concerning the prevention of conflict, the resolution of conflict, and the rehabilitation of post-conflict societies at all levels of government and across all societal sectors, including the security apparatus. Therefore, it can be said that the gender approach project put out by feminists at the turn of the 20th and 21st centuries is very different from the way the UN currently conducts peacekeeping regarding gender issues. Once more, the resolutions effectively restricted the role of women in armed conflicts to that of passive victims, despite the provisions outlined in UNSC Resolution 1325, adopted in 2000, which sought to integrate women into the process of global governance as active stakeholders.

Increased attention to the problem of sexual violence has led to excessive victimization of women among the civilian population and has often been used by members of the Security Council who are permanent as a basis for internationalizing local conflicts. In addition, the integration of women into UN peacekeeping personnel was based on essentialist ideas about the responsibilities that men and women play in society, fundamentally contradicting modern ideas of feminism, and did not achieve significant progress in quantitative terms. The involvement of women in the cessation of conflict did not invariably result in the deliberation of women's distinctive requirements and concerns during the peace negotiation process. Moreover, such involvement did not invariably reinforce the political status of women during peacetime [18].

Finally, the very idea of integrating feminism into an anarchic, highly competitive system of international relations, according to some of its most radical critics, undermines the revolutionary potential of this theory. Feminists, who have a long antimilitarist tradition in their movement, remind the international community that the main goal is not to reduce the destructiveness and brutality of war, but to eradicate armed conflict altogether. "A fundamental human right without which all other rights lose their meaning" is how the right to life is

frequently defined. The ECHR, as determined by the International Court of Justice (ICJ), unequivocally asserts that the right to life is an inalienable right. This implies that military operations are encompassed by the proscription against taking an innocent life without justification. In addition to being widely accepted as a customary practice, this privilege may be considered a legal obligation considering international law.

Furthermore, the right to life encompasses a substantial procedural aspect, including the obligation to safeguard, promote, and ensure its observance, analogous to the responsibilities associated with other fundamental human rights. According to a ruling by the European Court of Human Rights (ECtHR), welfare states are required to investigate claims of violations of the right to life. This obligation is meant to safeguard the freedoms and rights outlined in Article 1 of the ECHR, which requires welfare states "to recognize for all individuals within its jurisdiction [...] the rights and freedoms outlined in the Convention." The right to life necessitates an effective government investigation when the use of force causes someone to die, particularly when welfare state personnel are involved. Regardless matter whether the infractions took place during an armed conflict or a law enforcement operation, this regulation is nonetheless applicable.

Welfare states cannot investigate every claim of human rights breaches during armed war. Some of these activities do not amount to arbitrary deprivation of life as defined by IHL, which governs the conduct of hostilities. Additionally, using nuclear bombs would have presented significant "obstacles" and challenges for investigators, would certainly have resulted in less effective investigative means," and probably extended the probe, at least at the crash site. It would be reasonable to assert that any proposition to utilize nuclear weapons should be subject to rigorous scrutiny under established norms of international law. Particular attention should be paid to the implications of such action on human rights.

It is incumbent upon those engaged in law enforcement operations to exercise the greatest possible caution and restraint in the application of lethal force, in accordance with the right to life. This duty applies to both the preparation of the operation and the provision of sufficient medical treatment to anyone hurt during it. In light of these considerations, it becomes clear that the scope of the right to life extends beyond mere survival; it also encompasses significant injuries resulting from the use of deadly force, as well as situations in which the victim succumbs to their injuries. The Turkish Air Force bombed two Kurdish villages in the country's southeast in 1994. The ECtHR found that the attack "injured the three applicants, was extremely cruel, and led to the indiscriminate killing of a substantial proportion of the population " in the case that was heard in 2013. Although it was surprising that the three candidates lived, it did not imply that their lives were not in jeopardy. Accordingly, in alignment with the stipulations about the right to life enshrined in the ECHR, the Court concluded that "the risk posed by the attack required consideration of its use".

According to a ruling by the ECtHR, three victims of an explosion who had their right to life violated both their substantive and procedural rights under Article 2 of the ECHR. Regarding nuclear weapons, such a broad interpretation of the right to life is entirely appropriate. This is because individuals who are relatively close to the explosion sources will also be exposed to the debris known as radioactive fallout. Additionally, those who survive the explosion may pass away from burns and other wounds brought on by the explosion. As was previously said, "the most fundamental difference between nuclear and conventional weapons is that the former emits radioactive rays during the explosion."

In addition to causing immediate harm to individuals, nuclear explosions have a major, nearly permanent negative impact on the environment. "Nuclear weapons are potentially catastrophic weapons capable of destroying entire civilizations and the entire ecosystem of the planet," the ICJ stated in its 1996 Advisory Opinion. A nuclear explosion would release radioactive particles that would be harmful to a large portion of the population, agriculture, natural resources, and people's health. Future generations may be born with deformities and diseases because of ionizing radiation, which can also damage the environment, food chains, and marine ecosystems [19].

The entitlement to a wholesome setting is expressly guaranteed by two regional HR accords. In general, several HR treaties, including the ICE, ICESCR Social and Cultural Rights, guarantee the right to a level of mental and physical well-being that is as optimal as can be reasonably expected. Doswald-Baker cited a case brought by the African Commission on Human and Peoples' Rights, which determined that the Nigerian National Petroleum Corporation, working with the Shell Petroleum Development Company, had seriously damaged people's health and violated their rights to a healthy environment. Inaction on protection breaches the welfare state's obligation is “to take reasonable steps to prevent pollution and environmental degradation." It is unclear, however, to what extent such prohibitions extend to the deployment of nuclear armaments (as opposed to nuclear testing).

4. The unequal effects of nuclear weapons on women and the human rights abuses resulting from their utilization

The treaty's fourth preamble, which reads, "The catastrophic consequences of nuclear weapons cannot be satisfactorily eliminated," expresses the signatories' awareness of this truth [...] and that they disproportionately affect women and girls, especially through exposure to ionizing radiation." Although this link between women and nuclear weapons is not well documented in the academic literature, it has been frequently mentioned in journalistic sources since the 1980s and in official speeches, especially at the UN level.

Studies conducted near Hiroshima, Nagasaki, and Chernobyl have shown that women are more affected by ionizing radiation from nuclear explosions. Due to differences in metabolism, more women were affected by the blast, making them more susceptible to some particularly deadly cancers, such as thyroid and breast cancer [20]. Of course, to this physiological vulnerability should also be added the well-known negative effects on the fetus, the risk of miscarriage, and stillbirth.

Studies of the effects of nuclear damage on the population have also found that women are more sensitive to other negative factors for various reasons that may depend on the socio-cultural context. Studies show that they are disproportionately exposed to psychological risks, stigmatization or discrimination after radiation exposure. In addition, the next nuclear conflict will inevitably exacerbate the discrimination and instability they already face around the world, leading to population displacement and destruction of human resources.

The damage caused by a nuclear explosion cannot be limited or controlled. When a nuclear warhead explodes, the temperature rises extremely quickly to millions of degrees, a fireball is formed, and its intense radiation can cause a huge fire. The shock wave caused by this explosion can be so powerful that it far exceeds the intensity of the largest hurricanes. This leads to the release of neutrons and gamma rays, which are very harmful and extremely difficult to block. These emissions, represented by billions of particles suspended in the air after a nuclear explosion, can be carried by the wind, thus covering random areas of up to 1600 km2, spreading radioactive fallout over a large area [21].

The consequences of a nuclear explosion are divided into mild, moderate, severe, and especially severe (death of the victim), depending on the severity of the damage caused by the factors of the nuclear explosion (Table 2)

Table 2: Consequences and Severity of Damage from A Nuclear Explosion

Degrees of severity	R, kgs/cm	Signs of damage	Failure periods, l/s
Light	0.2-0.3	Tinnitus, dizziness, and short-term loss of consciousness	7-15 days
Average	0.3-0.6	Loss of consciousness, rupture of the eardrum, injuries, loss of hearing, and speech	1-2 months, requires hospitalization
Heavy	0.6-1.0	Brain injuries with long-term loss of consciousness, damage to the abdominal cavity, bone, and chest fractures	2 months. Requires immediate hospitalization

Source: made by the authors.

A person who lived beyond the region where the explosion happened would still be impacted by radioactive fallout, even if they were to survive the immediate effects of a nuclear explosion. In contrast, the Hiroshima and Nagasaki atomic bombs each contained 16 kilotons (16,000) of TNT and 22 kilotons (22,000) of TNT.

Put differently, in the nuclear age, people are either captured as hostages or purposefully targeted by belligerents. The devastating potential of nuclear weapons is not advantageous, even in the face of the laws governing armed conflict, war, and IHL. Thus, although there are various concepts in the field of strategic studies, such as minimum deterrence, limited nuclear war, and even structured response, the possibility of selective casualties is lost when it comes to nuclear weapons.

Considering these considerations, the four Geneva Conventions (GC) establish that a welfare state shall safeguard the well-being of those affected by international armed conflicts. In this context, the term "conflict" encompasses any individual or group of individuals who are not directly engaged in or who have terminated their involvement in hostilities: civilians; members of the army medical service; individuals from medical organizations providing rescue services and civil protection; and war wounded, sick, or shipwrecked. In 1963, the news of the death of a Japanese fisherman as a result of exposure near the US nuclear test site in the South Pacific caused a wave of fear about the existence of nuclear weapons and their consequences [22]. This demonstrated that the mere presence of nuclear weapons has strong psychological consequences.

This leads us to the conclusion that human health is equally affected by the psychological impacts of nuclear war apprehension as it is by the physical repercussions of nuclear bombing. Fears of nuclear weapons associated with the inability to distinguish between soldiers and civilians also had a detrimental effect on civilians during the Cold War. They manifested themselves in the form of selective recurrent psychological problems, which in many cases led to an increased risk of further development of malignant diseases such as cancer, to which women and children were more susceptible.

The fear of living in a disrupted environment in a post-nuclear world was evident throughout the Cold War. It was particularly prevalent during the nuclear tests of the 1950s, the Cuban Missile Crisis (1962), and the European Missile Crisis (1982-1983). However, it is also crucial to recognize that the civilian population's persistent sense of distance and isolation in the face of their state's nuclear policy contributed to this dread. States did not initially consider the opinions of civilians when deciding whether to build nuclear weapons. Nonetheless, because people are the intended target of the psychological effects of nuclear deterrence, nuclear bombs are often employed against them. They are the ones who will be physically harmed in a nuclear conflict.

When one considers IHL, which is made up of the regulations of international conventions of widely recognized and customary origin, and the International Charter of Human Rights, a body of standards gathered in the 1949 GC and their additional protocols, it is evident that the existence of nuclear arsenals is in direct opposition to the very principles that states have vowed to uphold. As the ICJ recalled in its 1996 opinion, nuclear weapons and the threat of their use violate the laws of war and basic humanitarian rules in all respects. Their possible use in war would be not only "illegal but criminal," causing no less than actual genocide.

A nuclear explosion's tremendously destructive effects and radioactivity's long-term effects can cause many individuals to perish completely or in part. The rights to life, decent treatment, a healthy environment, and the best possible level of physical and mental health are all pertinent in this context. The essence of the damaging effect of radiation on humans is the ionization of atoms and molecules that are part of the body's tissues, which can result in radiation sickness. The severity of burns can be classified into four degrees: first, second, third, and fourth. Burns classified as first degree are considered mild, while those classified as second degree are moderate. Burns classified as third degree are severe, and those classified as fourth degree are extremely severe.

The degree of severity is determined mainly by the dose of radiation received by a person and the nature of the exposure (general or to specific areas of the body). In addition, the severity of the damage depends on the state of the body before exposure, its characteristics, etc. Fatigue, starvation, illness, injuries, burns increase the body's sensitivity to radiation: radiation sickness in this case is more severe with the same dose (Table 3).

Table 3: Degrees of Radiation Sickness and Factors Affecting Severity

Degrees of radiation sickness	Radiation dose P (rad)	Signs of damage	Consequences of the disease
1 (light)	100-250 (100-200)	Mild weakness, fatigue, dizziness, nausea	Personnel are combat-ready.
2 (medium)	100-250 (100-200)	Headache, moderate weakness, after 2-3 hours vomiting (two or more times)	Recovery lasts up to 2-2.5 months
3 (heavy)	100-250 (100-200)	Severe headache, severe weakness, repeated vomiting after 30 minutes, fever, runny nose, hemorrhages in internal organs, the number of leukocytes, red blood cells, and hemoglobin content in the blood drops	Recovery is possible with timely treatment. It lasts 3-6 months
4 (especially severe)	above 600	Severe headache, repeated vomiting after 30 minutes, T = 38-39°C, decrease in urine output to complete cessation. Sudden respiratory failure, cardiovascular	Death within 5-12 days. Intensive treatment can save part of the person

Source: made by the authors.

Light degree is characterized by light symptoms such as weakness and dizziness at a dose of 100-250 rad, while personnel remain combat-ready. Medium degree is characterized by increased symptoms, including headache and vomiting, and recovery takes up to 2.5 months. Heavy degree, which is classified as severe, also in the range of 100-250 rad, is manifested by more severe symptoms, such as repeated vomiting, fever, and internal hemorrhages. Recovery requires timely treatment and takes 3-6 months. Especially severe degree occurs at doses of more than 600 rads and includes severe headache, repeated vomiting, high fever, and severe organ failure, often leading to death

within 5-12 days, although intensive treatment can save some people. The severity of radiation sickness depends on the dose of radiation, and timely medical intervention is crucial for recovery in severe cases [23].

Millions of civilians have died in violent wars in the past several decades. It is a common occurrence in numerous instances of military conflict for there to be serious infringements of both IHL and HR. In certain cases, some of these offenses may be regarded as criminal acts of a serious nature, including crimes against humanity, war crimes, and genocide. The overarching objective of IHL and international HR law is the protection and preservation of human dignity and humanity. It is well established in the jurisprudence of the UN that parties to an armed conflict have legally enforceable duties to protect the rights of individuals affected by the war. This has been consistently reiterated by various organs of the Organization, including the UNHRC, the Commission on Human Rights, and the General Assembly (GA). This has been the case for several years. People in armed conflict, including civilians, those who have ceased to be actively involved in hostilities, and active participants in the fight, are afforded some safeguards under worldwide HR legislation as well as IHL, notwithstanding their differing areas of application [24].

ICCPR, the Convention against Torture, and the three principal regional HR treaties recognize the fundamental right of all individuals to freedom from torture and other forms of cruel, inhuman, or degrading treatment. This right is also adversely impacted by the use of nuclear weapons in armed conflict. Nuclear weapons would be a violation of this right because radiation affects the immune system and hinders the recovery of injured people, even though the content and scope of this right differ completely from the prohibitions under customary and conventional IHL opposing military tactics and strategies that are likely to result in needless suffering or disproportionate damage. In addition to causing more deaths than other weapons, these weapons also have the effect of perpetuating suffering.

Furthermore, the brightness created by a nuclear bomb has the potential to blind individuals, and those who survive may get serious burns. But as we now know, vision is our most vital sense, making up maybe 90% or more of our total sensory capacity. Although other senses, like touch or hearing, might help a blind person adjust to a new life, they cannot take the place of vision [25].

Nuclear bombs can result in third-degree burns, which include the destruction of skin layers, or fourth-degree burns, which involve damage to muscles and bones. Burns of the third and fourth degrees can be lethal. Since these burns frequently require specialist care, they pose a major medical risk. Since all of this is unavoidable, the effects of using nuclear weapons are well known. As a result, this kind of usage will often be regarded as a breach of the right to humane treatment.

5. International legal mechanisms regulating nuclear weapons use

A critical gap in addressing the impact of nuclear weapons on human rights, especially those of women and children, lies in the limited effectiveness of current international legal mechanisms. Among the most significant steps in recent decades is the Treaty on the Prohibition of Nuclear Weapons (TPNW), adopted by the United Nations in 2017 and entering into force in 2021. The TPNW is the first legally binding international agreement to comprehensively prohibit nuclear weapons, aiming at their total elimination [26]; [27].

The TPNW bans the development, testing, production, acquisition, possession, stockpiling, use, or threat of use of nuclear weapons. Article 6 of the Treaty recognizes the disproportionate harm experienced by women and children due to radiation exposure and obliges state parties to assist victims, including medical care, rehabilitation, and psychological support. Article 7 introduces a legal obligation for international cooperation and assistance, enabling affected states and communities to receive technical, financial, and material help from others. However, the enforcement and universality of the TPNW face significant limitations. Major nuclear powers - such as the United States, Russia, China, France, and the United Kingdom - have not signed the treaty, citing deterrence doctrines and strategic security concerns. Their opposition severely limits the global effectiveness of the TPNW, particularly in conflict zones where nuclear risks remain high. Furthermore, while the Treaty imposes moral and legal pressure on non-signatories, it lacks concrete enforcement mechanisms beyond political advocacy and normative influence [28].

The humanitarian perspective of the TPNW reflects a shift in international law, emphasizing human-centered security over state-centered doctrines. Its recognition of gender-specific impacts represents a unique evolution in nuclear law, demanding further integration into broader human rights and disarmament frameworks. This approach has opened pathways for NGOs, survivor networks (such as Hibakusha from Japan), and feminist peace movements to influence the international disarmament agenda. These stakeholders often emphasize the lived experiences of nuclear victims and advocate for inclusive policy solutions grounded in justice and reparations. To enhance enforcement, scholars and practitioners have proposed linking TPNW provisions with existing human rights oversight bodies, such as the Human Rights Council or treaty bodies monitoring ICESCR and CEDAW. Additionally, integrating nuclear disarmament discussions into broader frameworks - such as the Sustainable Development Goals (SDG 16: Peace, Justice and Strong Institutions) - may elevate the urgency of nuclear prohibition within the global governance agenda [29].

6. Conclusion

Despite ratifying key international instruments such as the Convention on the Rights of the Child and CEDAW, many welfare states, including Ukraine, face ongoing challenges in effectively implementing protections for women and children in conflict settings. This discrepancy between ratification and practice is particularly visible in the lack of comprehensive monitoring systems, survivor-centered services, and sustained funding. While Ukraine's legal frameworks, such as the National Action Plan for UNSC Resolution 1325, represent important progress, the absence of institutionalized enforcement mechanisms and public accountability limits their real-world impact.

Comparative analysis shows that other welfare states like Sweden and Germany have adopted more holistic and structured approaches, including dedicated budget lines, mandatory reporting, and integration of gender-sensitive training across institutions. Ukraine can benefit from these models by establishing national-level coordination mechanisms, enhancing cooperation with NGOs, and integrating gender equality metrics into all stages of post-conflict recovery planning.

During the height of the Cold War, women were crucial to the anti-nuclear mobilization movement. They were involved in the founding of movements like Women's Action for New Directions (WAND), which Helen Caldicott founded in 1982, as well as in demonstrations and acts of civil disobedience like the US government's opposition to civil defense. The UN is now playing a significant role in raising awareness of this issue: in 2010, the UN GA passed a resolution on women's representation and active involvement in international efforts of disarmament and weapons control. Resolutions on this matter have been enacted regularly ever since.

Based on the analysis presented, several concrete steps can be recommended. The Ukrainian government should establish an independent oversight body to monitor compliance with international obligations related to the rights of women and children. It is also advisable to introduce gender-responsive budgeting in the context of armed conflict recovery, ensuring dedicated financial resources for survivor care,

trauma services, and family reunification. Strengthening interministerial coordination between the defense, social policy, and education sectors is essential to effectively implement UN Security Council Resolution 1325.

International organizations such as the UN, EU, and OSCE should create mechanisms for regular monitoring and reporting on the enforcement of humanitarian obligations related to nuclear issues. They should also expand financial and technical assistance to states implementing the Treaty on the Prohibition of Nuclear Weapons, with a specific focus on its gendered impacts. Supporting capacity-building programs for military, police, and humanitarian personnel, with a focus on preventing gender-based violence, is equally important.

Researchers and civil society actors should conduct longitudinal studies on the impacts of nuclear weapons exposure on women and children. They should analyze the long-term effectiveness of national action plans under UNSC Resolution 1325 and develop benchmarks for best practices. Advocacy for survivor-centered policymaking and the creation of participatory frameworks that include women and children from affected regions in shaping recovery efforts is also strongly encouraged.

References

[1] Castle BRAVO at 70: The worst nuclear test in U.S. history. National Security Archive. https://nsarchive.gwu.edu/briefing-book/nuclear-vault/2024-02-29/castle-bravo-70-worst-nuclear-test-us-history. Published 2024.

[2] Combat properties and effects of weapons of mass destruction and incendiary weapons. Consequences of destruction of radiation and chemically hazardous objects. https://sprotyvg7.com.ua/lesson/bojovi-vlastivosti-ta-vrazhayucha-diya-zbroi-masovogourazhennya-i-zapalyuvalnoi-zbroi. Published 2024.

[3] M.N. Eriksen, EU guidelines on children and armed conflict. European External Action Service. https://www.eeas.europa.eu/sites/default/files/01_hr_guidelines_children_en_1.pdf. Published 2017.

[4] European Court of Human Rights. Judgment section 2. https://hudoc.echr.coe.int/FRE#{%22itemid%22:[%22002-9117%22]}. Published 2013.

[5] Gender factor in military conflicts and the strategy of integrating women into the armed forces: Threats and challenges. https://www.kspu.edu/FileDownload.ashx/%D0%93%D0%B5%D0%BD%D0%B4%D0%B5%D1%80%D0%BD%D0%B5%20%D0%BB%D0%BE%D0%B1%D1%96.pdf?id=8a16b899-23ed-41ba-ad0e-1bbf33046e63. Published 2018.

[6] Gender policy and institutional mechanisms for its implementation in Ukraine. https://library.fes.de/pdf-files/bueros/ukraine/11138.pdf. Published 2014.

[7] International legal protection of human rights in armed conflict. https://www.refworld.org/policy/legalguidance/un/2011/en/84230. Published 2011.

[8] N.V. Kaminska, S.S. Cherniavskyi, O.S. Perunova, Legislative regulation and international standards of gender equality. https://dsns.gov.ua/upload/9/5/8/1/2020-5-20-112-lekciya-2.pdf. Published 2020.

[9] Millennium Development Goals. Ukraine – 2014. United Nations Development Programme. https://www.undp.org/uk/ukraine/publications/tsili-rozvytku-tysyacholittya-ukrayina-2014-byuleten. Published 2018.

[10] Ministry of Justice of Ukraine. Convention on the Rights of the Child and the involvement of minors in armed conflict. https://zakon.rada.gov.ua/laws/show/n0009323-11#Text. Published 2011.

[11] National action plan of Ukraine for the implementation of the UN Security Council Resolution "Women, Peace and Security" for the period up to 2020. http://www.kdu.edu.ua/Documents/nac_plan_diy_2020.pdf. Published 2020.

[12] E. David, Principles of the Law of Armed Conflict, Committee of the Red Cross, Switzerland, 2002, 718 p.

[13] M.V. Gerasimchuk, Evolution of the norms of international humanitarian law on the protection of civilians on the eve of the First World War, Bulletin of the Ministry of Justice of Ukraine 3 (2011) 97–101. Retrieved from http://nbuv.gov.ua/UJRN/bmju_2011_3_16

[14] T. Harada, Nuclear flash burns: A review and consideration, Burns Open 2(1) (2018) 1–7. Retrieved from https://www.researchgate.net/publication/320402136_nuclear_flash_burns_a_review_and_consideration. https://doi.org/10.1016/j.burnso.2017.10.002.

[15] Integration of the principle of gender equality in the Armed Forces of Ukraine as a strategy for the development of the defense sector, Law and Society 4 (2018) 27–31. Retrieved from http://pravoisuspilstvo.org.ua/archive/2018/4_2018/part_1/7.pdf

[16] I.O. Les, Legality of the use of nuclear weapons in international law, Uzhhorod National University Herald Series Law 2(79) (2023). Retrieved from https://visnyk-juris-uzhnu.com/wp-content/uploads/2023/10/54-1.pdf. https://doi.org/10.24144/2307-3322.2023.79.2.52.

[17] I.O. Les, Legality of the use of nuclear weapons in international law, Scientific Bulletin of Uzhhorod National University 2(79) (2023) 340. https://doi.org/10.24144/2307-3322.2023.79.2.52.

[18] Women's human rights and gender issues in situations of conflict and fragility. Office of the High Commissioner for Human Rights. https://www.ohchr.org/en/women/womens-human-rights-and-gender-related-concerns-situations-conflict-and-instability. Published 2023.

[19] Protecting the rights of children in armed conflict: EU policy and practice. https://ukrainepravo.com/international_law/european_union_law/iashyfkh-tuav-ekkhyem-ts-ibusmrysh-nsrchoknkhash-tsokkhyna-k-tuankhyna-zhf/. Published 2024.

[20] Psychological impact of nuclear explosion damaging factors and radiation accident factors on different human contingents. https://nkrzu.gov.ua/dial/pov/dov/1856-psykholohichnyi-vplyv-urazhuiuchykh-faktoriv-iadernoho-vybukhu-ta-chynnykiv-radiatsiinykh-avarii-na-rizni-liudski-kontynhenty. Published 2024.

[21] Social rights in Ukraine in times of war. Council of Europe. https://rm.coe.int/needs-assessment-ua-2/1680a9b408. Published 2022.

[22] The Cuban Missile Crisis, October 1962. U.S. Department of State, Office of the Historian. https://history.state.gov/milestones/1961-1968/cuban-missile-crisis. Published 2024.

[23] The Verkhovna Rada adopted amendments to the laws of Ukraine to ensure equal rights and opportunities for women and men in the military. https://golos.kyivcity.gov.ua/news/verkhovna-rada-ukhvalila-zmini-do-zakoniv-ukraini-shchodo-zabezpechennya-rivnikh-prav-i-mozhlivostey-zhinok-i-cholovikiv-v-armii. Published 2018.

[24] V. Vasylenko, Women have no place in the army. http://life.pravda.com.ua/columns/2018/01/10/228366/. Published 2018.

[25] Women in the Armed Forces: 5,000 women soldiers on the front lines. https://suspilne.media/295172-zinki-v-zsu-na-peredovij-5-tisac-vijskovosluzbovic/. Published 2022.

[26] Women. Peace. Security. https://www.genderculturecentre.org/wp-content/uploads/2018/04/ZHINKI.-MIR.-BEZPEKA.-Informaciyno-navchalniy-posibnik-dlya-fakhivciv-sektoru-bezpeki.pdf. Published 2017.

[27] Women's advocacy for peace and disarmament. Organisation for Economic Co-operation and Development. https://www.oecd.org/social/gender-development/1896464.pdf. Published 2001.

[28] V.A. Vizir, O.V. Demidenko, V.V. Shkolovyi, Radiation damage, Zaporizhzhia State Medical University, Zaporizhzhia, Ukraine, 2015, 63 p.

[29] United Nations High Commissioner for Human Rights, Protecting economic, social and cultural rights in conflict, Office of the High Commissioner for Human Rights, Switzerland, 2015, 2 p. Retrieved from https://www.ohchr.org/sites/default/files/Documents/Issues/ESCR/E-2015-59.pdf.