

Protecting the Environment During Armed Conflicts: A Comparative Legal Study Between International and Islamic Law - The Case of Gaza

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Abstract

In this study, we explore how the destruction of natural resources has been a central element of the current armed conflict in the Gaza Strip, and how it has been systematic and intentional, focusing on the damage done to the natural resources, namely groundwater, agriculture land, and air quality. The research covers military operations from 2008 to 2023, when the use of banned weapons (including white phosphorus) has led to extreme ecological damage, which has been exacerbated by the blockade and political division. The study's descriptive, analytical, and

comparative methodology is complemented by using principles and concepts of Islamic law, such as stewardship (khilafah) and the prohibition on corruption (fasād), as well as by practical practices like the traditional Himā system. The results show that there are clear gaps in the implementation of international legal instruments, but Islamic law provides clear ethical and environmental principles which, however, are less institutionally applied. The study recommends a blended legal approach combining international law and Islamic law principles to improve protection of the environment in times of armed conflict. Some key recommendations are the formation of safe environmental zones, setting up an international compensation fund, and the active involvement of the community through local fatwas, awareness campaigns and civil society organizations. The study also urges the recognition of 'environmental genocide' as an international crime and suggests that interdisciplinary approaches to cross-border pollution, climate justice and restoration of environmental systems in post-conflict contexts are needed. This study intends to create a connection between the legal and religious aspects, ultimately re-introducing morality in the environment and securing the people of Gaza's rights to life, land and dignity..

Keywords: Gaza, environmental genocide, international humanitarian law, Islamic environmental jurisprudence, stewardship, safe environmental zones, environmental justice.

1. Introduction

One of the greatest contributors to the overall damage to the environment is armed conflicts, and this is because they are not only destructive to human beings and built infrastructure, but to ecosystems as well. They result in water, soil, and air pollution, contributing to health and economic crises and restricting sustainable development (Kotsis, 2024). The case of Gaza presents the most vivid picture of this worsening, reality exhibiting the sudden bleakness of water resources, agricultural land destruction, and the undermining of pathogenic contaminants because of the exploitation of the forbidden weapons such as white phosphorus, as well as destruction of critical infrastructure (Noui & Guesbaya, 2025; Khan & Bakhsh, 2024). The necessity of proper legal and moral guidelines is becoming increasingly clear in the face of this disastrous condition. Although international humanitarian law has provisions on how to protect the environment in conflicts, the law has regulatory and interpretative lapses, besides poor

enforcement in non-international conflicts, and this is what happened in the situation of Gaza (Sydorova et al., 2024). On the contrary, Islamic Sharia provides an all-embracing system that begins with more elevated purposes, i.e., saving life, property, and lineage, forbids corruption on earth, and avoids dissipating devastation even in a war (Ali, 2019). The interrelation of these principles with international law provides an avenue to developing a dual system that would strengthen the protection of the environment across conflicts.

The possibility of connecting Islamic values to international legal standards is demonstrated by pioneering works, including those by Marzouki (2016) and Ali (2019), which establish a strong basis for comparing Islamic Sharia and international law. The article written by Al-Dawoody & Thynne (2024) took a step further and analyzed the intersections between the two systems, demanding that this convergence be realized in practice. The Palestinian situation was also covered by Khan & Bakhsh (2024), who not only recounted the trends of environmental degradation in Gaza but also pointed out the practical application of Islamic concepts like stewardship and oneness, referring to the responsibilities of scholars in informing environmentally affected populations. The study on their part (Mrema et al., 2009) gave an initial survey of international norms by the provision of the legal mechanisms, which the study outlined to be considered in the region of conflict.

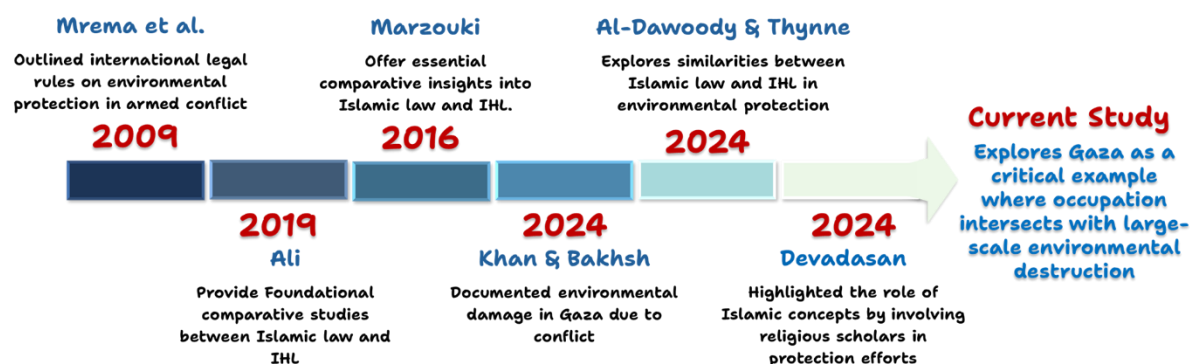


Figure 1: Review of Relevant Literature

Despite the contribution of the literature, as shown in Figure 1, to establishing the relationship between Islamic Sharia and international environmental law, most of it remains theoretical without delving into field studies. Therefore, this study seeks to bridge this gap by conducting an in-depth analysis of the situation in Gaza, as a model where the environmental violations of the occupation intersect with weak legal protection. The study focuses on the central question: How

can Islamic legal principles be integrated with the rules of international humanitarian law to provide effective environmental protection during armed conflicts, with a specific application to the Gaza Strip? In answering the question, the research uses a three-point approach, which is descriptive in documenting environmental degradation, analytical in studying legal systems, and comparative in exploring the interaction between Sharia and international law. The objective is to provide policymakers, humanitarian groups, and religious leaders with legal and ethical means of protecting both the environment and humans..

2. Historical Context and Environmental Impact of the Conflict in Gaza

This section provides an analytical framework for the environmental impact of the conflict in Gaza by tracing the history of the conflict, documenting direct and indirect environmental damage, and analyzing its social and economic consequences, paving the way for a subsequent study of the legal frameworks.

2.1. History of Conflict in Gaza

As shown in Figure (2), the Gaza Strip is a thin coastal zone located on the eastern coastline of the Mediterranean Sea, which is 41km in length and 6-12km in width, with an area of 378 km². The Gaza Strip is situated south of the occupied land of Palestine and borders Egypt's territory to the south. The region is home to 2.2 million inhabitants, making it one of the most densely populated places in the world, where there are 5800 people per square kilometer, and 20,000 per square kilometer in the urbanized areas (Hilles, 2021).

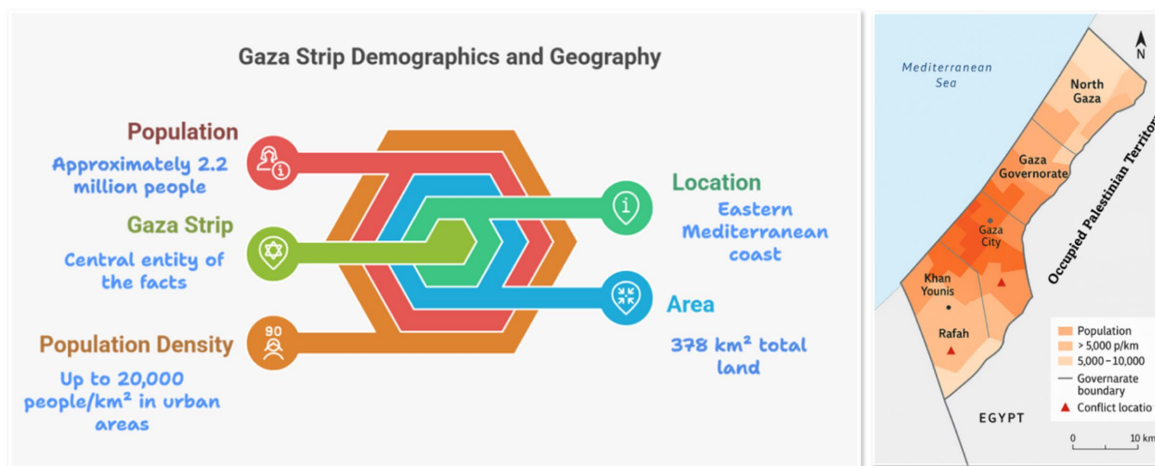


Figure 2: Gaza Strip Demographics and Geography

After the Israeli occupation forces pulled out of Gaza in 2005, there have been frequent Israeli military attacks, further intensified by the blockade that followed the Hamas takeover in 2007. Research (Ziadah et al., 2025) further illustrates the way in which Israel has made Gaza an isolated territory by controlling the infrastructure, such as borders and resources, which has worsened the process of environmental degradation and contributed to the lack of peace and recurring military escalation inequality (Bishara, 2024). These events led to significant environmental devastation, raised questions regarding the application of international humanitarian law during non-international conflicts, and went against the prohibition of corruption on earth according to Islamic jurisprudence (Jalamneh et al., 2024).

The confrontations in Gaza as shown in figure 3 were characterized by a number of Israeli military operations. First there was Operation "Cast Lead" that occurred in 2008 and lasted for 23 days; this operation involved the use of illegal weapons including white phosphorus causing human and environmental casualties (Tivadar, 2022). It was then followed by Operation Pillar of Defense that targeted urban areas through aerial bombing (Musa et al., 2023). In 2014, "Protective Edge" operation that lasted for 51 days caused damage to the environmental infrastructure affecting natural resources (Bishara, 2024). In 2019, "Dawn's Scream" operation targeted agricultural lands (Dardona et al., 2024). Lastly, "Sword of Jerusalem" operation that took place in 2021 following the breach at the Al-Aqsa Mosque and eviction from Sheikh Jarrah neighborhood led to the destruction of the electricity and water networks (Al-ʿAlī, 2022).

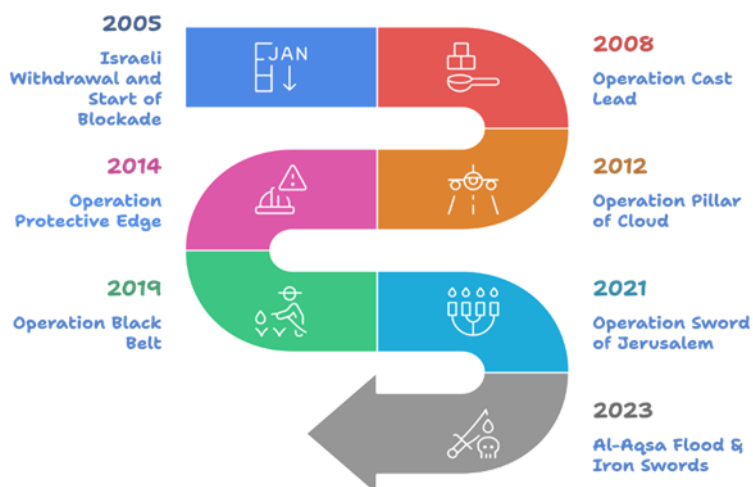


Figure 3: Key Conflicts in Gaza

The most deadly wars took place in 2023 after "Al-Aqsa Flood" and "Iron Swords," involving random bombings and the bombardment of hospitals and shelters causing an overall breakdown in environmental and health services and famine in the northern area of the region (Bishara, 2024). The blockade restricted the entry of essential materials necessary for environmental conservation, thus intensifying the problem (Musa et al., 2023). The international community has been unable to impose binding resolutions on environmental abuse because of the division amongst Palestinians and lack of accountability, leaving the environment always a victim of the conflict (Bourekba, 2024).

2.2. Environmental Damage in Gaza

Environmental destruction caused by the conflicts in Gaza since 2008 is an undesigned, multidimensional problem (including social and economic), which is the expression of the multidimensionality of the legal and status quo. Such damages are cumulative and continuously devastating the population, making environmental and social structures less stable and necessitating an analysis that links the factors together.

The main source of drinking water in Gaza is groundwater that was grossly contaminated through over-extraction and intrusion of salty water and is not potentially suitable for human consumption (Noui & Guesbaya, 2025). The condition was further aggravated by the fact that most of the treatment and drainage structures were malfunctioning as the untreated water percolated into the groundwater, carrying with them pollutants such as nitrates and heavy metals, which exceeded the health guidelines set across the world, as indicated in Figure 4 (Shomar & Rovira, 2023). This deterioration constitutes a sustainable water crisis that threatens the health of the population and violates the rules of international humanitarian law, which prohibit the intentional damage of vital resources (Bishara, 2024).

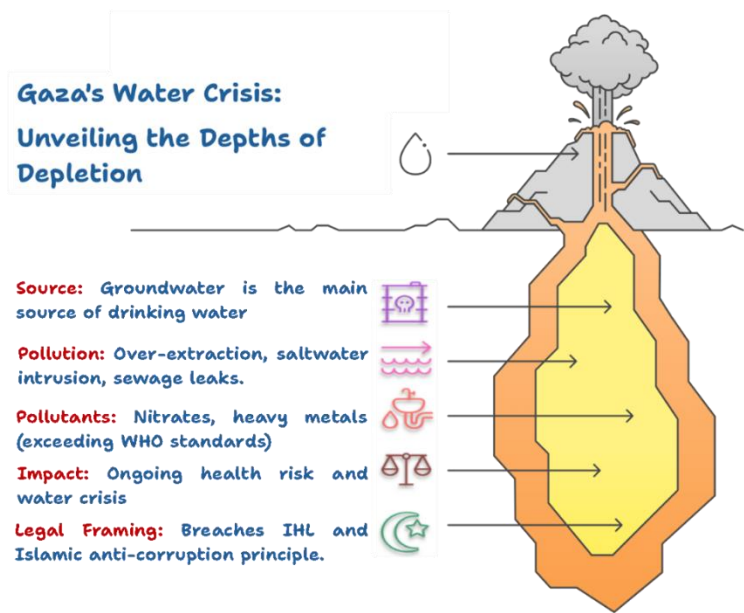


Figure 4: Water Crisis in Gaza

However, in the agriculture industry, there have been losses associated with a worrying trend, with over 2,000 agriculture facilities destroyed, half the trees having been uprooted, and large portions of field crops having been destroyed (Yin et al., 2025). Apart from just losses in production, soil erosion and loss in biodiversity have also been noted as shown in Figure 5.

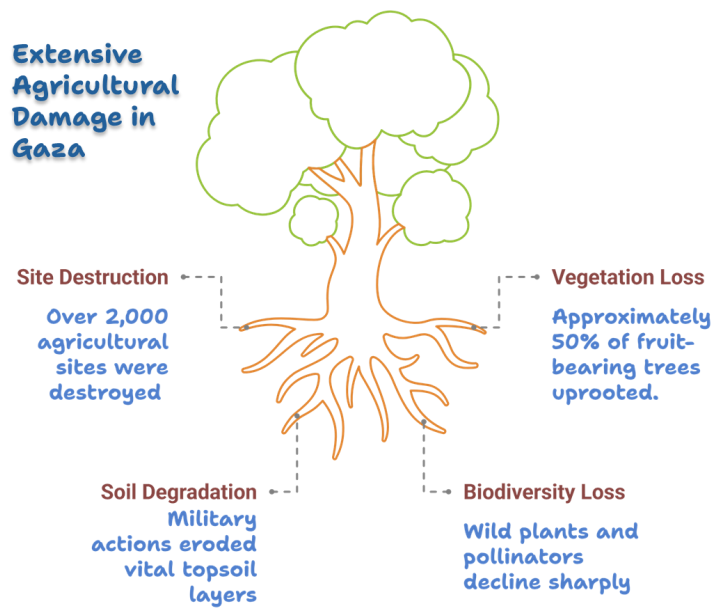


Figure 5: Agricultural Damage in Gaza

Regarding air pollution, this was caused by the detonation of some 25,000 tons of explosives between 2023 and 2024, causing the release of a large amount of toxic and carbon particles (Kotsis, 2024). This also brought about the damage of renewable energy sources such as the solar panels, causing the use of fossil fuels (Rabah, 2013). This contributed to the exacerbation of respiratory and digestive ailments, put more strain on the healthcare sector, and limited society's coping capacity with environmental issues, as outlined in Figure 6.

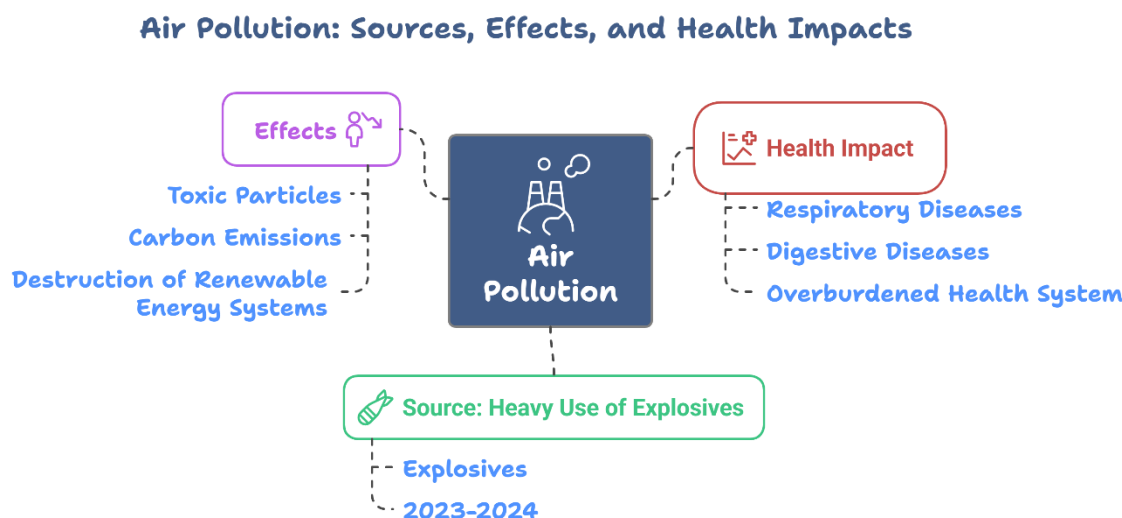


Figure 6: Air Pollution in Gaza

In addition to the aforementioned damages, the use of prohibited weapons, especially white phosphorus, led to substantial pollution of the soil, decreased fertility levels, and increased the probability of water contamination (Hamada et al., 2012). The above actions are not allowed by the international legislation, which forbids the use of any weapon, which leads to massive destruction of the environment. Moreover, such damage goes beyond the boundaries of Gaza and has been documented to occur within other nations, specifically via the Mediterranean Sea and air masses (Wiktor-Mach et al., 2023).

It can therefore be concluded that there is a complex interrelationship between environmental degradation and economic degradation; environmental issues worsen poverty and displacement, whereas economic crises lower the capacity of the populace to deal with environmental issues.

It is important to realize that we need to find a way of dealing with these issues effectively, especially when it is understood that international humanitarian law faces difficulties in implementing its values. This is the point at which the significance of Islamic Sharia becomes clear.

2.3. The Socio-Economic Dimensions of Environmental Damage in Gaza

The environmental degradation in Gaza poses significant challenges for the socio-economic aspects, further complicating the current humanitarian crisis. Not only does the damage to agricultural lands, where nearly 67.6% of agricultural territories have been destroyed and whose economic value amounts to \$629 million (FAO, 2024), create economic damage but also affects food security of 1.1 million individuals who derive their living from agriculture. Such damages pose a long-term threat for the stability of society as they are directly related to the cultural values of Palestinians through the degradation of olive groves, which symbolize social unity and geography of the territory (Abuawad et al., 2025). The environmental problems are aggravated by the contamination of the groundwater and the failure of the healthcare systems resulting in the spread of infectious diseases such as polio, scabies, as well as gastroenteric and respiratory infections especially in the regions with high population density and overcrowding. The environmental damage increases the risks for the population and poses extra pressure on the deteriorated healthcare system (Samet, 2025).

From an economic point of view, the Israeli blockade worsens the problem of environmental rehabilitation through limitation of the importation of needed equipment for water purification and construction material for infrastructural repair (Ziadah et al., 2025). This leads to higher costs of reconstruction and hampers the betterment of living and environmental conditions of people. In terms of the social dimension, the effects of damage are not only limited to the economic dimension but also influence the social fabric. The destruction of agricultural lands results in the disruption of the connections between the community and its culture in relation to the lands, leading to stress and weakening of the social bond. Environmental protection becomes an essential cornerstone for the conservation of the social and cultural fabric in Gaza, as shown in Figure 7 below.

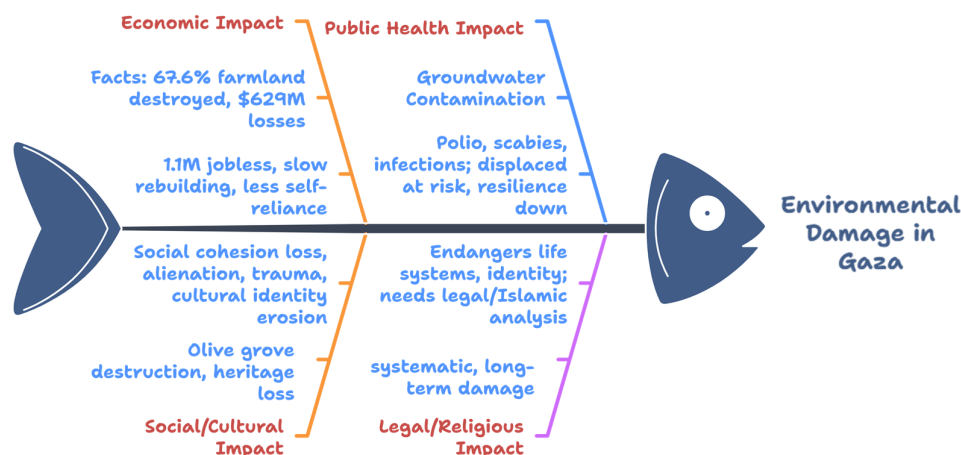


Figure 7: Socio-Economic Dimensions of Environmental Damage in Gaza

In light of the above discussion, it is evident that the environmental effect of the Gaza conflict is not just a by-product of the war, but rather a well-calculated process of destruction that does not only focus on direct effects but also on structural damages to the building blocks of life and community identity. Since the damages involved have legal and Sharia dimensions, a comprehensive analysis of the international law and Islamic law to gauge the efficiency of these laws in protecting the environment during armed conflict is required.

3. Legal Protection of the Environment During Conflicts Under International and Islamic Law

Preservation of the environment during armed conflict is an ethical and legal challenge, which calls for an integrative strategy that incorporates international law and Islamic Sharia. In its humanitarian and environmental branches, international law seeks to mitigate environmental damage using binding laws that promote sustainability and human interests (Thomas, 2013). On the other hand, Islamic law offers a system of ethics and spirituality that connects environmental preservation to worship of God and human obligation to nature in line with the principle of Khilafah (Devadasan, 2024). Analysis of both systems is not intended to be against each other, but rather an effort to achieve integration whereby Islamic law can improve ethical observance of international law to ensure better environmental protection during armed conflicts, particularly in Gaza where there is systematic destruction of the environment owing to blockade and military operations (Al-Dawoody & Thynne, 2024).

3.1. International Legal Framework for Environmental Protection During Armed Conflicts:

In this regard, international law, which incorporates the humanitarian system and the environmental system, remains the main framework that serves to protect the environment during armed conflicts, although due to its shortcomings, its capacity to minimize environmental damage is rather limited, as seen from the Palestinian example, especially the Gaza Strip.

The purpose of international humanitarian law is the protection of civilians and their resources (the environment), where any form of damage caused is either disproportionate or not justifiable. The first Additional Protocol to the Geneva Convention (1977) is the most significant binding document, since it has provisions that do not allow the use of combat methods causing widespread, lasting, and grave environmental damage under Article 35(3) (Mrema et al., 2009). Article 55 states that parties should ensure that they take necessary measures to prevent damage to the environment and retaliatory attacks on it. However, the requirement to meet three overlapping criteria (scope, duration, and intensity) makes it difficult to prove responsibility for environmental damage, even when there is visible damage, such as the destruction of water and sewage networks (Bishara, 2024).

These arms control treaties reinforce this protection through the banning of the use of weapons that have a detrimental effect on the environment like white phosphorous, cluster munitions, and toxic substances. Despite all the theoretical strengthening of these treaties, frequent violations, including the use of white phosphorous in Gaza since 2008, highlight how weak this deterrence system is without an enforceable will in the international community or sanctions (Gunawan, 2024).

In contrast, the duty of the occupying state towards the environment is the obligation of managing the occupied territory in such a way that ensures the survival of the population and its resources. Despite the lack of provisions of environmental protection by the Geneva Conventions, the restrictions imposed by the concepts of necessity and proportionality restrict any unnecessary destruction. The international environmental agreements, such as the Convention on Biological Diversity, are still applicable in the course of the occupation, and Israel

is obligated under this agreement not to cause any environmental damage beyond the boundaries (Gunawan, 2024).

In this case, the International Criminal Court becomes a possible tool for punishing environmental crimes as crimes against humanity and as war crimes, although there is no independent legal recognition of the crime of "ecocide." Modern tendencies highlight the significance of the environmental element in choosing cases. Nevertheless, the influence of the court is restricted by political barriers, like the exercise of the veto right, insufficient involvement of non-signatories to the Rome Statute, and its inability to rule on non-state organizations or companies (Pereira, 2020).

Although IEL provides general regulations for conservation of biodiversity and for air and water pollution, the enforcement process is weak amid the conflict. The real world experience, like Gaza, proves that there are no enforcement measures for environmental treaties because there is no proper implementation strategy or guarantee for environmental organizations to be in conflict zones. This is made worse by the difficulties such as having no proper definition of "unlawful environmental damage." This makes it hard for the violation of the environmental treaties to be documented and make those who are responsible accountable. In addition to that, the strict definition of the damage makes it possible that the damage caused to be outside the legal obligation, as shown in Second Gulf War where oil well fires could not be recognized as a violation (Saputra, 2020). There are also non-state actors, who are not obliged to comply with these regulations.

Table 1: Comparative Analysis of IHL, IEL, and ICC: Roles and Limitations

Framework	Role	Examples	Limitations
IHL	Protects civilians and the environment during conflict via Additional Protocol I, which prohibits excessive environmental damage	Bans widespread, long-term, severe harm; mandates precaution	High proof thresholds (scope, duration, severity); weak enforcement (e.g., Gaza 2014 water damage)
IEL	Provides principles on biodiversity and pollution; remains in force during conflict	Environmental treaties guide de resource protection	Lacks enforcement in conflicts; limited access, monitoring (e.g., Gaza treaties unapplied)

ICC	Prosecutes environmental war crimes or crimes against humanity	Potential to address violations like phosphorus use in Gaza	No "ecocide" crime; faces political pressure, weak cooperation, and no jurisdiction over non-state actors
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The analysis presented in Table 1 illustrates that the international legal framework, even with the current set of sophisticated principles and provisions that are integrated into it, does not involve effective deterrence mechanisms that are comparable to the magnitude of the environmental catastrophes occasioned by armed conflicts, especially in occupied territories or non-international conflicts. The International Humanitarian Law (IHL) structure ensures the security of the civil population, and it does not target the environment in the event of war, but the framework has several disadvantages because of lower evidentiary requirements and enforcement strength, as evidenced in the 2014 events in Gaza, where the water networks were destroyed. The rules established in International Environmental Law (IEL) on safeguarding biodiversity and minimizing pollution do not have mechanisms of enforcement at the time of conflict, with minimal access of environmental organizations to conflict areas. International Criminal Court (ICC) is, however, in a position to prosecute environmental crimes as war crimes, but is slow due to political restraints and poor assistance, along with the unavailability of the crime of eco-sabotage, and jurisdiction over non-state organizations. Not only is this lack capable of internally reforming the international legal system, but also this lack introduces the possibility of surrounding the integration of other sets of laws, including the Islamic law which is the holistic understanding of the connection of environmental protection to the aims of the Sharia, and it establishes a truly broader ethical and legislative system which can be utilized to improve upon the effort to deal with environmental degradation in those areas where international law is not strong enough to address them.

3.2. Environmental Protection in Islamic Law

Islamic law provides a comprehensive framework for environmental protection, based on the Quran and Sunnah, with legal principles that highlight human responsibility towards nature in times of peace and war. This branch focuses on the practical application of these principles in conflicts, drawing guidance from the Quran, the Prophet's teachings, and Islamic jurisprudence to ensure the preservation of resources.

3.2.1. Quranic Frameworks for Environmental Protection

The Holy Quran provides a holistic approach towards the environment as being a balanced creation by God, and where the role of humans is that of stewardship for the purpose of preserving it. As far as the conflict is concerned, this vision brings into consideration ethical and legal values that reduce environmental harm.

Firstly, the idea of balance and moderation comes into being in the discourse of the Holy Qur'an in terms of a balanced universe, wherein the idea of the "Mizan" (balance) is considered the basis of man's connection with the environment. Allah Almighty says in this regard: "And the heavens He has raised aloft, and set up the balance so that you may not exceed the balance." [Ar-Rahman: 7-8]. This shows that man should take into consideration the order of the universe and not disturb its balance. This idea is also mentioned in the following verse: "And the earth, We have spread it forth, and set thereon mountains firm, and We have brought forth therein every kind of things in due balance." [Al-Hijr: 19] This implies that all that exists on Earth including plants, and other elements were created according to a certain measurement, guaranteeing the appropriateness and harmony of life (al-Sa'di, 2013). This is confirmed by His saying: "Surely, We have created all things in measure" [Al-Qamar: 49] implying that all beings are subject to precise measures and regulations (al-Baghawī, 2016). The above-mentioned verses confirm the concept of "environmental balance," making it a religious and moral responsibility to preserve natural balance. Concerning armed conflicts, the violation of resources or overreliance of force in war is seen as a deviation of the divine balance and calls for strict environmental rules to constrain military conduct (Ali & Agushi, 2024).

In the second place, this balance supports the idea of reform and prevention of corruption, and it is viewed as one of the Qur'anic principles of managing the relation between man and the environment. Allah says: "Corruption has appeared in the land and the sea on account of what the hands of men have earned" [Al-Rūm: 41]. This means that the environmental corruption is not an imperfection in creation, but rather it is a result of irrational acts of men. Al-Bayḍāwī and Ibn Kathīr explained this corruption to be the manifestation of flaws in agricultural products and fruits, burning, and drowning, and disappearance of blessings and abundance of damages, which are indications of environmental problems and climate change. The poem makes it clear that any

transgression against the bounds of moderation and depletion of natural resources will have results that will act as a reminder to humans of the implications of their deeds and compel them to rectify their mistakes. Thus, the destruction of farmland or water contamination as was the case of Gaza, is not just a violation of humanitarian or legal principles, but also an act of corruption which is explicitly prohibited by Sharia law. This rule demands that the warring sides must be extremely careful in preserving the environment from any damage and should not cause any intentional or unnecessary damage as per the principle of balance which guides the universe in the Islamic perspective..

Furthermore, the idea of stewardship and accountability is a fundamental purposive pillar in the formulation of environmental law in the Quranic framework. People are called to develop the earth in such a manner that brings benefits without causing corruption, as mentioned in this verse: “And He it is Who hath created you out of the earth and made you viceroys therein.” [Hud: 61]. This sense of accountability was mentioned in the Quran under the concept of “khilafah” as: “And verily, I am about to make a successor on earth.” [Al-Baqarah: 30]. Ibn 'Āshūr explains that here the caliphate is used metaphorically, which means that people act as vicegerents, as people represent Allah on earth and they are responsible for their actions (Ibn 'Āshūr, 2021). Therefore, humans are stewards of the Earth, who control the Earth's resources and enjoy its blessings under the limitations set by God Almighty, and do not have full authority over the earth. Such a theory makes it clear that humans' relationship with the environment will shift from exploiting the environment to stewarding the environment. Within the sphere of conflicts, such a theory alters the meaning of “power” from an ethical one to a limited one. Everything concerning resource use and environmental damage should be handled within legal considerations to fulfill the covenant of stewardship..

With the application of the three principles, the Quranic framework offers a complete mechanism for protecting the environment, emanating from a holistic approach toward the cosmos, and therefore resulting in guidelines that prohibit damage, require conservation of the available resources, and impose a moral and legal duty on humankind concerning the environment. This significance will be realized in the implementation of such a framework in

environmental policies today, especially in conflict-ridden regions, where it can aid in boosting ethical responsibility and sustainability (Ibn Hajar, 2021; Abū Dāwūd, 2011).

During the reigns of Abu Bakr and Umar (May Allah be pleased with them), such areas extended based on the ownership of animals by the state for the jihad, including the Rabdhah reserve of zakat animals (Ibn Sa'd, 1990). Additionally, the concept of himā evolved from the pre-Islamic period's instrument of control to an Islamic institution that strikes a balance in the environment (Gari, 2006).

As a result of the concepts of trust and balance, the himā has emerged as a practical demonstration of stewardship because the community now has the obligation of maintaining the land as a common resource (Hutagalung, 2024). The concept has been successfully used in tackling desertification, forest conservation, grazing regulations, and biodiversity conservation in places like Saudi Arabia and Indonesia (Yun & Yi, 2023). For Gaza, where the environmental challenges are compounded by the occupation of the area, destruction of vegetation cover, and water pollution, such a concept can be modeled through the establishment of protected areas managed locally with coordination of the religious and environmental organizations.

The Shariah also brings forth the significance of the role of the community, as seen in the following verse: "And cooperate in righteousness and piety" [Al-Ma'idah: 2]. This opens the way to initiate popular actions to rehabilitate the environment in the form of planting the earth and cleaning the beaches by engaging the community actively."

Environmental conservation activities fit within the idea of charity that is continuous, as expressed in the hadith saying "No Muslim plants a tree or sows seeds, then a bird or a human eats from it, but this counts as charity for him." (Al-Bukhārī, 2019, Hadith 2320). It strengthens the spiritual element in the environmental activities, making it an environmentally sustainable worship activity that earns rewards, thus creating an environmental culture founded on spiritual motivations.

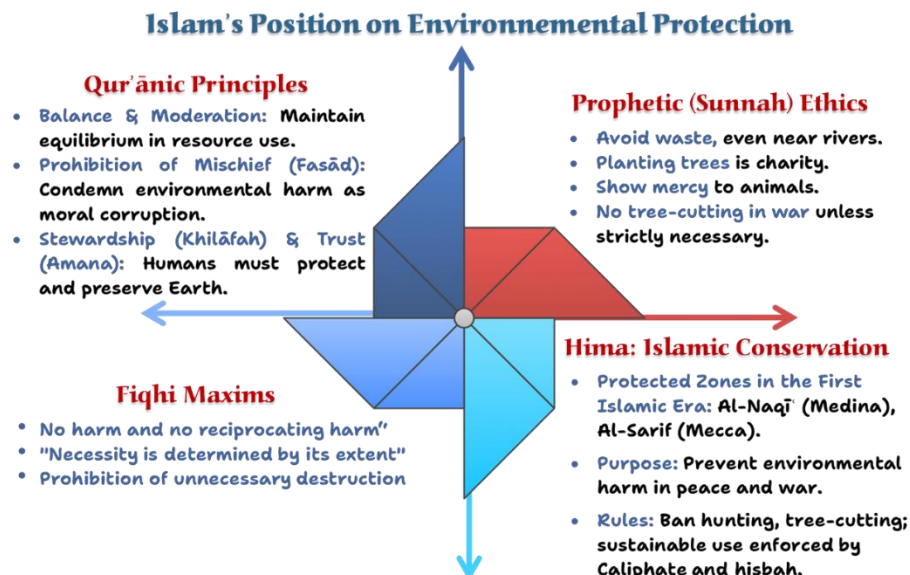


Figure 8: Islam's Position on Environmental Protection

Incorporating the principles of the Quran, prophetic teachings, and juristic principles, together with institutional measures as shown in Figure 8, Islamic law presents a dynamic and complete approach to the environmental conservation of conflict. This approach emanates from a thorough comprehension of objectives and has the ability to add value to the existing environmental legal system. What remains now is its application to create environmental benefits..

3.3. Comparison of the Two Approaches

International Law and Islamic Law Regarding Environmental Protection During Armed Conflicts: The objective of both international law and Islamic law is the same in relation to the protection of the environment during armed conflicts; that is, to reduce damage to the environment and the humanitarian situation. Nevertheless, it does not mean that they fully coincide; on the contrary, it is possible to notice some significant disparities in terms of philosophical basis, implementation process, and the application sphere. One can see it clearly on the example of Gaza.

3.3.1. Points of Convergence: Similarity in Principles, Difference in Backgrounds

Although there is a difference in the references of both systems, there is an evident overlap in certain principles in both systems. For instance, the two systems ban any unreasonable destruction of the environment, whereby the First Additional Protocol to the Geneva

Conventions (1977) bans any military action that causes wide and prolonged environmental destruction (Thomas, 2013); meanwhile, Islam bans it by naming it "corruption of the earth," as exemplified in the verse, "And do not corrupt the earth after its reformation" [Al-A'raf: 56] (Ali, 2019).

They both recognize that there is a duty to conserve natural resources for posterity, since sustainability is one of the objectives of international laws (Hulme, 2022), and Islam gives this definition of sustainability more weight through the concept of "Khilafah," whereby protecting the earth is considered to be a sacred duty (Hutagalung, 2024). Sea pollution and saline water in Gaza put this into jeopardy.

As one can see from the comparison, the Sharia system is not only capable of being the alternative of an ethical nature but also provides mechanisms that will fill the gaps in international legislation. For instance, the Islamic system of *Himā*, which is used for resource management (Gari, 2006), could be applied to CBD protected areas to create "safe ecological zones" with double legal responsibility (Hsiao et al., 2023). *Himā* is based on the concepts of "balance" and "trustworthiness," according to which the resources are managed by considering environmental justice and providing the rights of future generations (Hutagalung, 2024). Also, *Himā* encourages the community participation in resource management processes since this is done by discussion and solidarity in the process of governance, and it becomes a popular alternative when the international will is lacking (Gari, 2006). Consequently, the fusion of the two systems is necessary rather than a luxury in case of environmental protection in complicated cases such as Gaza..

Both the systems are aware of the fact that destruction is allowable when there is a case of military necessity. According to international laws, destruction must be proportional to the environmental destruction. The Islamic system allows destruction as part of necessities that make prohibitions allowable on account of the prevention of excessiveness. This was seen in the destruction of military tunnels of Gaza through the assessment of proportionality and necessity.

3.3.2. Points of Divergence: Philosophical and Operational Differences

Although similarities exist between the two systems, their differences arise because of philosophical differences. International law is founded on a philosophy that views protection of

man from the environmental hazards as the main objective (Pavko, 2021). Preservation of the environment in Islam is viewed as a religious obligation related to the objectives of Sharia that include protection of human life, property, family, and even religion. In this regard, destruction of olive trees in Gaza is not only an economic activity but a religiously prohibited "corruption." Regarding enforcement, international law depends on mechanisms such as the International Criminal Court; however, it is characterized by poor enforcement due to political barriers like the exercise of veto power and international pressure (Pereira, 2020). On the other hand, Islamic law does not possess any binding enforcement institutions at the international level, and it is based mainly on morality and social obligations (Hutagalung, 2024). This difference necessitates the requirement of institutional collaboration that involves both.

With respect to the field of application, the inadequacies of international law include that the former addresses disputes between states and has deficiencies when addressing non-international disputes or occupation (Jaber & Bantekas, 2023). Meanwhile, Islamic law addresses a variety of disputes and has comprehensive rules concerning trusts and state resources; hence, it can be applied in domestic matters such as the Palestinian-Palestinian dispute or the occupation of Gaza (Jalamneh et al., 2024).

3.3.3. Potential for Integration Between the Approaches

The drawing in Figure 9 shows that the Islamic law should not only be considered as an alternative to international law, but as a law that can complement the effective rule of international law where it has its inadequacies. As an example, under the Convention on Biological Diversity, the Islamic system *Himā* can be assimilated with Protected Areas to make them safe environmental zones that have the legal force (Hsiao et al., 2023). The fact that the principle of harm must be removed, being one of the inalienable principles, also gives ethical grounds, which enhances the internationally legal accountability systems, like the criminal court to prosecute crimes caused by environmental despoliation.

Thus, the incorporation of the two laws is no luxury of theory, but a practical need of obtaining the full protection of the environment, where the variety of situations, such as in Gaza, as illustrated, where the legal, rigorous and political factors are present, are tackled. Although international law has a political constraint that limits its use, Islamic jurisprudence provides the

generation of the so-called environmental resistance that creates awareness among the people, as a way of keeping the community safe against environmentally disastrous activities.

Comparison of International and Islamic Law in Environmental Protection



Figure 9: International vs. Islamic Law on Environmental Protection in War

4. Challenges and Proposed Solutions for Environmental Protection in Gaza

As regards the environmental damage caused in the Gaza Strip by the ongoing conflict, the purpose of this research is to examine the main barriers to environmental protection from a legal and practical perspective, pointing out deficiencies in existing national and international law and the complexity of the context under which these operate. The research is also providing some recommendations on how to address the problem in a multi-dimensional framework through the harmonization of international and Islamic law.

4.1. Legal and Practical Challenges

There are many legal, political, economic, and social barriers to environmental protection in Gaza, which make it difficult to apply the legal and Islamic framework of environmental

protection. The complexity of the geopolitical issue of the Israeli-Palestinian conflict, along with the blockade and environmental damage caused by the military actions, makes it difficult to achieve environmental justice and sustainability.

- Legal Challenges: The above are some of the major barriers to environmental protection in Gaza, where both international, domestic, and religious factors come into play to bring about a legal vacuum. Internationally, the first additional protocol to the Geneva conventions of 1977 and the Environmental Modification Convention (ENMOD) provide the theory through which the environment can be protected during times of armed conflict. Weak accountability measures, especially those that relate to the veto powers of the International Criminal Court, makes it impossible to hold Israel accountable for such damage as the destruction of agricultural fields and pollution of the water source (Gunawan, 2024; Pereira, 2020). What makes the matter worse is the result of the "disengagement" of Israel in 2005. This makes the legal position of Gaza internationally ambiguous, with Israel refusing to acknowledge the occupation, but still retaining control over Gaza. They do not give the people of Gaza any rights as they classify them as "foreign residents" (Jaber & Bantekas, 2023). On the issue of Islamic alternatives, while it is true that the Sharia provides authentic principles of environmental protection, which involve discouraging corruption and the revitalization of environmental protection, the implementation of this initiative has been challenged by divisions among Palestinians in relation to formulating policies in accordance with the rules of environmental protection and endowment ecology (Alijla & Al Masri, 2019).).
- The political challenges represent one of the most significant factors affecting the ability of the efforts to protect the environment in Gaza due to the interaction of the external blockade and the internal division, as well as the lack of international support, creating a specific situation under which no environmental intervention may be efficient. For example, since 2007, there has been an Israel-imposed blockade preventing the transfer of goods and people, which led to the inability to import

materials necessary for the treatment of water and reconstruction of the environmental infrastructure. The blockade contributed to the pollution of sewage networks, water and destruction of environmental management systems (UNEP, 2024). Now, the Palestinian division between the Palestinian Authority and Hamas emerged. This is attributed to the failure of having uniform policies and laws, and the presence of fragmentation and duplication of institutions, which undermines the effort for comprehensive protection (Rettig & Spanier, 2024). In the international scene, geopolitical rivalries and the failure of political commitment limit the provision of technical and financial assistance to environmental rehabilitation initiatives. There is a reluctance on the part of countries and organizations to provide funding to projects within an occupied zone, and funding is sometimes used as leverage for political gain, thus hindering the sustainability process within one of the most conflict-afflicted regions (Gunawan, 2024).

- • Economic Challenges: Some of the major challenges are economic challenges, since the economic condition of recession has made the situation tough due to scarce resources and foreign dependency, making it difficult for any sustainable environmental effort to survive. There is an urgent need to rebuild environmental infrastructure especially sewage and water stations, but such a large investment is beyond the reach of the government and other local organizations, all this within an economic condition that has been badly affected by the embargo and restrictions on investment (Noui & Guesbaya, 2025). In addition, the problem of unemployment has increased to be among the highest in the world, making poverty widespread (IMF, 2023). Because of this, the Gaza Strip is now fully dependent on aid from outside the region, and such aid may be politically conditional, thereby endangering the stability of environmental projects with shifts in sentiment at the international and regional levels (Zaqout et al., 2024). The economic challenge is thus more than a challenge in terms of finances; it makes environmental policy even more fragile and dependent, and as such, susceptible to political influences..

- **Social Challenges:** Social difficulties have emerged as a major barrier to environmental conservation because harsh social conditions impact individual behavior and institutional efforts towards implementing policies. The forced movement of more than a million individuals to southern coastal areas, owing to bombing and escalation, has placed tremendous strain on weak natural resources and infrastructure, causing water usage to increase, pollution to be high, and environmental organizations to be less effective (Dardona et al., 2024). While facing security and economic threats, people are paying less attention to environmental concerns as their focus is on basic necessities of life (Abuawad et al., 2025). Such aspects as bombing, pollution and the lack of the sanitation contributed to worsening the condition in terms of health because there were increasing number of diseases related to water and air such as polio or gastrointestinal infections. This affected the health state of the people, and made such environmental measures as reforestation, waste recycling and water systems restoration poorer (UNEP, 2024). Thus, it is not only the social aspect that affects the adoption of the environmental policies, but the legal and economic aspect as well; for this reason, it is crucial to discuss the social environment..

4.2. Proposed Solutions for Environmental Protection in Gaza

Thinking in Multi-Dimensions: Given the deteriorating environmental conditions in the Gaza Strip, further exacerbated by the occupation, blockade, and deforestation, as well as inefficiencies within the current systems of international accountability, the need to find a solution to the problem that will consider its legal, religious, and environmental nature (Al-Sartawi et al., 2025) becomes imperative. The re-introduction of the Him2 Islamic model to create an effective institutional structure for both legal and administrative protection of natural resources is one such solution.

The need for integrated environmental protection devices which go beyond the usual legal tools is evident. Due to the fact that the basis of the Islamic fever system is the community-based and sustainable environment, this system is suitable to be applied to the Gaza environment, especially taking into account that international law provides inadequate protection (Hutagalung, 2024). In this system, it has been proposed to establish safe environmental zones in agricultural

farms or water reservoirs where it is impossible to perform any military or environmental damage. In order to confer these areas more credibility both internationally and locally, these will be governed through local participation councils consisting of scholars of Sharia, members of the local community and environmentalists. Such councils can operate within the framework of legal reference of the Sharia, as stated in the prophetic statement: "There is no sanctuary except for Allah and His Messenger" (Al-Bukhārī, 2019; Hadith 2370), which does not allow personal appropriation of the natural resources and allows collective appropriation for the general good (Gari, 2006). To improve this model, this study suggests the development of religious and environmental awareness initiatives at Islamic educational institutions (Syukri et al., 2024). As the study concludes, it is suggested that awareness programs on religion and environment should be activated in schools and Islamic institutions to introduce ideas about environment stewardship and resource management. It is noted in current researches that the introduction of sustainability and environmental entrepreneurship in educational systems, especially in university level, can be considered an effective strategy for creating development awareness in Islamic context (Al-Zu'bi et al., 2024; Kreishan et al., 2023). The experience of Indonesia revealed the effectiveness of the above-mentioned strategy through the inclusion of dengue fever into education policy and environment planning. This model can be effectively transferred to Gaza under favorable conditions (Purnomo et al., 2024).

As with the unprecedented destruction of the environment in Gaza, with more than 30 million tons of carbon dioxide emissions (UNEP, 2024), the need to create an international environmental compensation fund is emphasized. This would fund rehabilitation programmes like water treatment, reclamation of land and provision of green jobs. The proposal relies on the experience of the United Nations Compensation Commission following the Gulf War, which created a significant precedence in terms of how to deal with the concept of environmental damaged and in terms of incorporating environmental law as part of international justice (Pavko, 2021). The given model can be used in Gaza under the condition that the problem of financing and technical assessment is addressed (Hulme, 2023). It is suggested that the assessment and oversight gathering work should be carried out by the United Nations Environment Programme together with the civil society organizations in a legal framework that protects the privacy of Gaza

and unites the provisions of the laws of international humanitarian and environmental law (Khan & Bakhsh, 2024). The fund is one of the key instruments of environmental justice as legal accountability is embedded in it, and an effective and sustainable outcome towards the effects of environmental warfare actions being carried out in the occupied territory is ensured.

At the societal level, the role of civil society is becoming increasingly important due to the state's declining capacity during conflicts. It can be activated in Gaza through environmental awareness programs derived from the principle of "ongoing charity," to transform environmental protection into a social act of worship and daily behavior. This seeks to establish anti-infrastructure, like survival networks and strikes, as methods of resistance that promote community solidarity and counter colonial exploitation of resources. (Ziadah et al., 2025).

The suggestion does not confine to the symbolic view of the religion; it is backed by the fact of events in the area. Palestinian and Iraq civil society organizations have become prominent actors in conserving the environment, as well as transitional justice, as evidenced by tree planting, land restoration, and sustaining farming practices (Wiktor-Mach & Dylan, 2023). These have proved to have some serious prospects toward reducing the impacts of environmental warfare and creating social cohesion. Environmental stewardship is a highly ethical mobilization concept due to the creation of the understanding of shared responsibility related to resources (Gada, 2024). The religious institutions and Islamic organizations, as in Indonesia, have effectively used this awareness to encourage the communities to embrace sustainable conduct (Karman et al., 2023). Apart from protecting the environment, civil society can advocate civil policies, document the harm to the environment, and require responds to overlooked groups, including children, women, and camp residents who are marginalized in global political processes labeled as environmentally disadvantaged (Ben-Shmuel & Halle, 2023). In Gaza, this role can be engaged through the collaboration of international and local organizations that monitor the environmental violations and require the environmental issues to be a concerning part of the post-conflict arrangements. Thus, the necessity of civil society is a strategic way of creating popular movement, instilling awareness and efforts toward development policies with regard to environmental justice in the face of weak governance infrastructures.

Involvement of the role of religious scholars and religious figures is one of the key components of long-term solutions in Gaza due to the relationship between religion and community. Creating a system of cooperation between Sharia scholars and international organizations engaged in the environmental sector such as UNEP and ICRC is a significant step towards development of policies that will include Sharia rules, such as the principle "harm must be removed" and *himā*, into the global environmental legal framework (Al-Dawoody & Thynne, 2024). The experiences in other Islamic countries, such as Indonesia, demonstrate that the inclusion of religious discourse in science activities helps mobilize people to pursue sustainable lifestyles (Purnomo et al., 2024). Religious scholars in Gaza may rely on Islamic sources of knowledge which focus on environmental protection principles to build a convincing religious discourse motivating people to save their resources. This will not involve only preaching and advising, but also creating practical tools, such as "environmental fatwas", as the example of Indonesian Council of Ulema proves in providing fatwas on environmental protection and disaster prevention in case of conflicts..

Training the resistance fighters and the community members on the legal and Sharia laws concerning the management of resources during long gun conflicts, as is the case with Gaza, is of strategic importance. The knowledge of Islamic principles that do not lead to corruption and maintenance of blessings, as well as the identification of the provisions of international humanitarian and environmental law, helps to increase the ethical justification of resistance to the fact that the complexity of post-war conflicts costs the environment and the economy (Al-Dawoody & Thynne, 2024). The training is designed to safeguard critical human resources, especially water and the farmland, and prevent their utilization or loss in a manner that destabilizes the harmony within the environment or makes the people suffer more. It also helps to cut down on the exploitation, funding the conflicts, which is witnessed in other conflicts (Jong, 2018).

Comparative research indicates that sustainably managed legal resources support the work of peacebuilding and help reconcile relations between communities and institutions when such measures as participatory mapping and community governance are implemented (Howard, 2015). This practice will guarantee greater involvement of stakeholders and thereby enforce

adherence to the law even in spite of fragility. Training, which integrates Islamic environmental jurisprudence and the international legal system, for armed actors and civil society, appears as a promising step to effective and humanitarian environmental protection in Gaza.

Together, these solutions represent a hybrid legal framework that combines Islamic and international references in addressing environmental issues in Gaza. It is not based on a logic of separation, but on the integration of references; the Islamic concept of "himā" (protected areas), based on the Prophetic legacy, can be harmonized with the protection mechanisms in the Convention on Biological Diversity (CBD) to establish internationally legally protected areas without conflicting with Sharia values. Furthermore, applying jurisprudential rules such as "harm must be removed" and "actions concerning the subjects are linked to their benefit" within international frameworks like the UNEP program or the International Criminal Court, seeks to integrate the spiritual and referential dimension with the global legal system. This hybrid framework not only produces practical solutions but also bridges the gap between the Islamic world and international law on a pressing environmental and humanitarian issue.

However, although the existence of Islamic principles related to environmental protection is quite evident – including the prohibition of corruption and the need to protect resources – there are many obstacles to implementing these principles in the context of armed conflict such as the one in Gaza. These obstacles include legal differences, the lack of a common reference point, and political obstacles. To solve these problems and increase the efficiency of the hybrid legal system, three important mechanisms should be put into place: the first of which involves updating the environmental jurisprudence in order to make the Sharia texts applicable to environmental wars (Hutagalung, 2024).

Additionally, training military personnel and the community about the particular Sharia laws concerning the protection of natural resources during combat, to make sure that theories turn into practice (Al-Dawoody & Thynne, 2024). Activation of such mechanisms increases the usefulness of the framework making it more effective in the quest for environmental justice through shared human, spiritual, and ethical values.

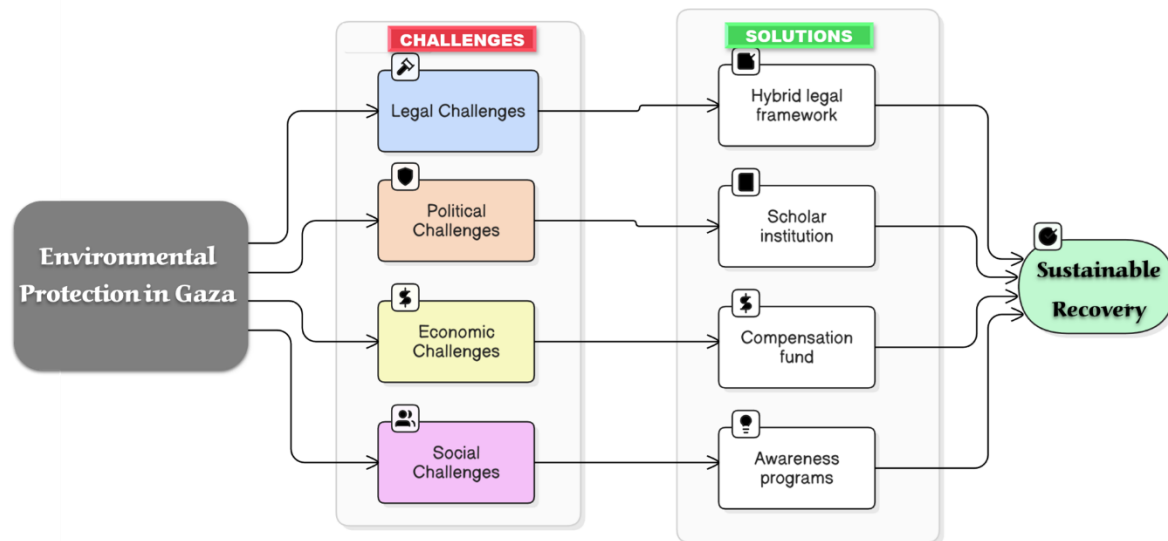


Figure 10: Environmental Protection in Gaza - Problem-Solution Pathway

The multiple solutions – jurisprudential, legal, institutional, and societal – reveal the need for an integrated model for environmental protection in Gaza, one that combines Islamic jurisprudence with international legal standards. Figure (10) highlights the structural overlap between diverse environmental challenges and accompanying solutions, starting with the establishment of a hybrid legal framework, followed by the activation of religious and scholarly institutions, an environmental compensation fund, and concluding with community awareness programs. Such solutions seek to not only deal with the impacts of environmental degradation but also restore harmony between humanity and the environment through the principles of justice and sustainable development. Environmental recovery of Gaza will only be achievable through an approach that breaks away from the conventional way of doing things, which will include partnerships in knowledge and institutions, with Islamic jurisprudence being a modern legislative resource alongside international laws in a civilization project that reinstates the role of the environment in constructive peace after the war..

5. Conclusion

5.1. Summary of Results

According to the findings of this research, the environmental problem in Gaza is one of the key components of the "compound genocide" that the Palestinians face since it involves environmental, legal, political, and symbolic aspects of the problem. The research revealed that Palestinians have been exposed to the systematic destruction of water, agricultural lands, and air resources through the use of prohibited weapons like white phosphorus between 2008 and 2023 and that it poses an existential danger in combination with the blockade and political division. Analysis of law exposed the limitations of international humanitarian law in the protection of the environment because of lack of accountability and politics. Islamic Sharia, on the other hand, presented an ideal combination of ethics and law based on balance, trusteeship, and prevention of corruption, all complemented with the practical implementation of Himā and Waqf. The comparative analysis revealed the potential of integrating the two frameworks in a hybrid system of international law and religion in the context of Gaza.

5.2. Recommendation

In light of the continuing military clashes, the extensive damage to infrastructure facilities, and the breakdown of the administration system in Gaza, the following recommendations are put forward which take into consideration the political-security situation in the region:

- Creation of a blended legal system that integrates the rules of international law and environmental jurisprudence to set up "safe environmental zones," based on the Islamic concept of himā, which will be under the control of local councils, aided by the United Nations and activated in stages depending on stability/peace..
- Develop an international fund for environmental compensation, overseen by the United Nations Environment Program, to fund water and soil remediation programs. Documentation of damage should be undertaken immediately in collaboration with international bodies specializing in this field, taking lessons from the example of the Gulf War Compensation Commission.
- Mobilizing religious scholars and organizations to declare environmental fatwas that make damage to the environment an offense and making mosques and schools centers

for environmental awareness by raising community awareness levels. The “Eco-Pesantren” concept from Indonesia can be used here.

- Launching training programs for community actors and resistance groups on Sharia and international regulations in natural resource management, in partnership with the International Committee of the Red Cross, according to a gradual mechanism that keeps pace with the security reality.
- Support environmental civil society initiatives such as afforestation, waste recycling, and water purification, by involving youth and women as part of promoting social and environmental cohesion in the most stable areas.
- Redefine environmental destruction by advocating for its classification as an independent international crime, and encourage legal and jurisprudential studies addressing cross-border pollution issues, within the framework of an international conference to be held when appropriate political conditions are available.
- Encourage future studies that complete research on environmental and conflict issues from an integrated perspective, particularly those related to climate change, climate justice, and environmental development in cases of occupation and siege.

Gaza’s environment is not merely a passive sufferer of war; rather, it is a dynamic system that represents the link between human beings, the land, and their identities. Protecting it is not a moral luxury, but a religious and human duty, and a front of dignity that equals any political or military resistance. By integrating Islamic jurisprudence and international law, as this study has shown, a just environmental discourse can be built that restores humanity's role as a trusted steward of the Earth and enshrines environmental justice as part of a project of cultural and human resilience at the heart of the conflict.

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