Risk Assessment Report: Hanwha Aerospace Co Ltd.

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Executive Summary

This report presents a comprehensive risk assessment of Hanwha Aerospace Co Ltd. ("the Company"), a South Korean aerospace and defense corporation, evaluated against the ethical guidelines of the Government Pension Fund Global (GPFG).[1] The assessment identifies significant and multifaceted risks across several criteria stipulated in the guidelines.

Product-based risks are present due to the Company's production and marketing of the K239 Chunmoo Multiple Launch Rocket System (MLRS), a platform designed to be capable of firing rockets with cluster munition warheads.[2] While the Company's former parent, Hanwha Corporation, divested its direct cluster bomb manufacturing business in 2020—leading to the revocation of its exclusion from the GPFG—Hanwha Aerospace's continued production of a dedicated delivery system for such weapons raises material questions under Guideline § 3a concerning the production of weapons that violate fundamental humanitarian principles.[1]

Conduct-based risks are severe and well-documented. The Company has supplied the Chunmoo MLRS to key members of the Saudi/UAE-led coalition, namely Saudi Arabia and the United Arab Emirates.[2] This coalition is an active belligerent in the armed conflict in Yemen, a conflict characterized by extensive and credibly documented violations of international humanitarian law by all parties, including indiscriminate attacks on civilians and civilian infrastructure.[6] The confirmed deployment of the Chunmoo system to the Yemen border creates an unacceptable risk of contribution to serious violations of individuals' rights in a conflict situation, directly contravening Guideline § 4c.[5]

Furthermore, through its majority-owned subsidiary Hanwha Ocean, the Company is linked to a persistent pattern of worker fatalities and serious safety violations at the Geoje shipyard.[11]

This record suggests systemic failures in occupational health and safety, raising concerns of grave and systematic human rights violations under Guideline § 4a.

Finally, a major rights offering initiated by the Company in 2025 was marred by significant controversy and required intervention from South Korea's financial regulator. The events raised serious concerns that the transaction was structured to prioritize the controlling family's interests at the expense of minority shareholders, constituting a potential grave breach of fundamental ethical norms related to corporate governance and fiduciary duty under Guideline § 4h.[14]

Based on the cumulative weight of these findings—particularly the arms sales to parties in the Yemen conflict and the severe human rights and governance issues—this report concludes with a final risk categorization of **2 - High Risk**.

Part I: Product-Based Risk Assessment (Guideline § 3)

1.1. Context: Historical Involvement and Corporate Restructuring

The GPFG has a significant history of engagement with the Hanwha corporate group concerning the production of prohibited weapons. In 2007, the Council on Ethics recommended the exclusion of Hanwha Corporation due to its production of cluster munitions, a decision that was implemented and maintained for over a decade.[3] This exclusion was rooted in the ethical guidelines' prohibition against investing in companies involved in the production of weapons that, by their normal use, violate fundamental humanitarian principles.

This situation changed following a significant corporate restructuring. In November 2020, Hanwha Corporation announced it would spin off its cluster munitions business into a newly established entity, Korea Defense Industry (KDI).[17] Subsequently, on December 30, 2020, Hanwha Corporation completed the sale of its entire stake in KDI. The buyer was identified as Defense K, a special purpose company established by former Hanwha staff who had been engaged in the cluster bomb business.[19] The company stated that this divestment was intended to align with global environmental, social, and governance (ESG) standards and to remove a potential obstacle to its overseas business expansion.[17]

Following this divestment, the Council on Ethics re-evaluated the case. In its recommendation dated May 27, 2021, the Council confirmed that Hanwha Corporation had ceased all activities related to cluster munition production and would not produce these weapons in the future.[3] Consequently, the Council concluded that the grounds for exclusion no longer existed. Norges Bank published its decision to revoke the exclusion of Hanwha Corp on September 29, 2021.[3]

1.2. Analysis of Hanwha Aerospace's Current Product Portfolio and Link to Cluster Munitions

Despite the formal divestment by its former parent company, an analysis of the product portfolio of Hanwha Aerospace—the currently held entity—reveals a continued and material link to cluster munitions. This link centers on the K239 Chunmoo Multiple Launch Rocket System (MLRS), a flagship land defense product actively developed, manufactured, and exported by Hanwha Aerospace.[20]

The GPFG's Guideline § 3a prohibits investment in companies that "develop or produce weapons or central components to weapons which...by normal use violate fundamental humanitarian principles, here-under...cluster munitions".[1] Technical specifications for the K239 Chunmoo confirm that the system is specifically designed as a multi-caliber platform capable of firing 239mm guided rockets. These rockets can be equipped with various warheads, including "a cluster bomb warhead, with hundreds of bomblets, for use against personnel in a wide area".[2]

Information from defense monitors indicates that South Korea continues to produce 239mm cluster munitions with self-destruct mechanisms, with significant government expenditure on such production in 2023.[23] While Hanwha Corporation divested the unit that assembled the final bombs, Hanwha Aerospace's activities have evolved. The company is now entering into international joint ventures to produce the munitions for its Chunmoo system. For instance, an agreement was signed with Poland's WB Group to establish a joint venture for the localized production of 239mm CGR-080 missiles, the primary armament for the Chunmoo systems ordered by Poland.[24]

This situation presents a critical ethical ambiguity for the GPFG. The 2021 revocation of Hanwha Corporation's exclusion was based on the cessation of direct bomb manufacturing. However, the Fund is now invested in Hanwha Aerospace, an entity that produces and markets the specialized delivery system for these same prohibited weapons. The production of the Chunmoo launcher, and more directly the co-production of the 239mm missiles it fires, can be interpreted as producing "central components to weapons" that violate humanitarian principles. The corporate restructuring appears to have created a distinction between the manufacturer of the submunitions and the manufacturer of the delivery system and its rocket. This separation may technically comply with a narrow reading of the exclusion criteria but arguably circumvents the spirit and intent of the guidelines, which is to avoid profiting from the ecosystem of cluster munitions. The continued involvement with a dedicated delivery platform and its associated missiles represents a direct and material contribution to the viability and potential use of these indiscriminate weapons, thereby posing a product-based risk.

Part II: Conduct-Based Risk Assessment (Guideline § 4)

2.1. Arms Sales to States in Armed Conflicts (Guideline § 4c)

Guideline § 4c provides for observation or exclusion of companies where there is an "unacceptable risk" that the company contributes to the "sale of arms to states in armed conflicts which use the weapons in ways that constitute serious and systematic violations of the international law of armed conflict".[1] The assessment of Hanwha Aerospace under this criterion reveals a high level of risk.

2.1.1. Identification of High-Risk End-Users: Saudi Arabia and the UAE

Hanwha Aerospace has actively and successfully marketed its advanced weapon systems to nations in the Middle East. Public records and company announcements confirm the export of the K239 Chunmoo MLRS to both the United Arab Emirates (contract in 2017, delivery in 2021) and the Kingdom of Saudi Arabia (contract in 2022).[2] The company's engagement with Saudi Arabia is deepening; in February 2024, Hanwha signed a Memorandum of Understanding (MOU) with the Saudi Ministry of National Guard to explore further defense cooperation, including the potential for local production of armored vehicles and other systems within the Kingdom.[25]

2.1.2. Case Study: The Conflict in Yemen

Both Saudi Arabia and the UAE are the principal actors in the military coalition that intervened in Yemen's civil war in March 2015.[6] The conflict has since created one of the world's worst humanitarian crises. There is a vast and credible body of evidence from multiple independent sources—including the former UN Group of Eminent Experts on Yemen, Human Rights Watch, Amnesty International, and Mwatana for Human Rights—documenting a pattern of serious violations of international humanitarian law (IHL) by the Saudi/UAE-led coalition.[6] These violations include thousands of indiscriminate and disproportionate attacks, primarily through airstrikes but also artillery shelling, on civilian areas and objects. Documented targets have included homes, markets, hospitals, schools, weddings, and funerals, with such attacks potentially amounting to war crimes.[30]

A direct link between Hanwha Aerospace's products and this high-risk conflict environment has been established. In March and April 2023, media outlets reported on the deployment of the K239 Chunmoo MLRS by the Royal Saudi Land Forces. This was substantiated by video footage released by the Saudi Ministry of Defense, which showed at least two Chunmoo launchers with Saudi military markings operating on the border with Yemen.[5]

The GPFG's guideline requires an assessment of "unacceptable risk," a forward-looking and precautionary standard that does not necessitate definitive proof that a specific weapon from a specific sale was used in a documented war crime. The establishment of this risk is based on a confluence of factors. First, Hanwha Aerospace has sold an offensive, area-effect weapon system (the Chunmoo MLRS) to a state (Saudi Arabia) that is an active belligerent in a high-intensity armed conflict. Second, that state and its coalition partners have a well-documented, multi-year pattern of conducting indiscriminate attacks using similar weapon types (artillery and aerial bombs). Third, the specific weapon system in question has been physically deployed to the theater of operations, indicating an intent for its use in that conflict. The combination of a high-risk product, a high-risk end-user with a documented pattern of IHL violations, and the product's deployment to the conflict zone creates a clear and direct contribution to the military capacity of a state that uses such capacity in ways that constitute serious and systematic violations of the laws of war. Therefore, the threshold for "unacceptable risk" under Guideline § 4c is met.

2.2. Grave or Systematic Human Rights Violations (Guideline § 4a)

Guideline § 4a applies to companies where there is an unacceptable risk of contribution to, or responsibility for, "grave or systematic violations of human rights".[1] This assessment identifies significant risk for Hanwha Aerospace stemming from its majority ownership and effective control of Hanwha Ocean, a major global shipbuilder whose primary shipyard has a deeply troubling record of worker safety failures.

2.2.1. Documented Pattern of Worker Fatalities and Injuries

Hanwha Aerospace holds a majority, controlling stake in Hanwha Ocean (formerly Daewoo Shipbuilding & Marine Engineering), making it responsible for the subsidiary's conduct.[35] A series of fatal accidents at Hanwha Ocean's main shipyard in Geoje, South Gyeongsang, indicates a systemic problem. In 2024 alone, four workers died in separate incidents, including a gas explosion, a drowning during diving operations, and a fatal fall, prompting the Metal Workers' Union to file a lawsuit against the company and its CEO for alleged violations of the Serious Accidents Punishment Act.[11]

These fatalities are part of a broader pattern. Data from South Korea's Ministry of Employment and Labor, submitted to a member of parliament, revealed that between January 2024 and March 2025, Hanwha Ocean recorded 328 incidents of workplace accidents or illnesses—an average of nearly one per working day.[12] A significant proportion of the victims are subcontracted workers, who are often assigned the most hazardous tasks, raising concerns about discriminatory safety standards and a two-tiered system of protection.[11]

2.2.2. Regulatory Findings and Company Response

The systemic nature of these safety failures is corroborated by regulatory action. A special inspection of the Geoje shipyard by the Ministry of Labor in early 2024 uncovered 61 distinct safety violations. These included fundamental failures such as missing guardrails, inadequate fall protection measures in high-risk areas, and improper ladder access. The ministry imposed a fine of 2.65 billion won (approximately $1.9 million) for these breaches.[12]

Following another fatal fall in September 2024, the Ministry of Labor issued a work stoppage order for the specific work area. Hanwha Ocean's initial application to have this order lifted was rejected by the review committee, which cited a lack of specific and credible safety improvement measures in the company's plan.[42]

In response to the series of deaths and mounting public and regulatory pressure, Hanwha Ocean has publicly committed to significant remedial action. The company announced a plan to invest 2 trillion won ($1.5 billion) in safety measures by 2026, with the stated goal of creating the "world's safest shipyard".[11] This includes investments in a smart safety management system and replacing worn-out equipment. In June 2025, the company also renewed a partnership with the safety consultancy JMJ to help embed a culture of safety leadership.[45]

The repeated nature of these fatal incidents, the high frequency of accidents, and the findings of numerous basic safety violations by government inspectors indicate that the issues at Hanwha Ocean are not isolated events but rather evidence of a systemic failure in safety management. The term "systematic" in Guideline § 4a implies a pattern of conduct, which is clearly established here. Through its majority ownership and control, Hanwha Aerospace is directly linked to these systematic violations of the fundamental human right to life and a safe working environment. While the company's investment pledge is a significant mitigating factor, it is a reactive measure whose effectiveness in fundamentally changing the shipyard's safety culture has yet to be demonstrated.

2.3. Other Particularly Grave Breaches of Fundamental Ethical Norms (Guideline § 4h)

Guideline § 4h serves as a criterion for conduct that constitutes "other particularly grave breaches of fundamental ethical norms" not explicitly covered by other clauses.[1] The controversy surrounding Hanwha Aerospace's 2025 rights offering raises serious concerns under this guideline, pointing to significant failures in corporate governance that appear to prioritize the interests of the controlling family over those of minority shareholders.

2.3.1. Chronology of the Controversial Transactions

The controversy stems from a sequence of transactions in early 2025. In February and March, Hanwha Aerospace used 1.3 trillion won of its corporate funds to purchase a 7.3% stake in its affiliate, Hanwha Ocean, from two other Hanwha Group companies: Hanwha Energy and Hanwha Impact.[14] This transaction is notable because Hanwha Energy is a private entity 100% owned by the three sons of the Hanwha Group Chairman, Kim Seung-youn.[14]

Just one week after this significant cash outlay to a family-controlled entity, Hanwha Aerospace announced a plan to raise 3.6 trillion won through a massive rights offering, citing the need for funds for strategic investments.[14] The announcement triggered an immediate and severe negative market reaction. The company's stock price fell 13% in a single day, wiping 4.3 trillion won from its market capitalization—an amount greater than the intended capital raise.[47]

2.3.2. Regulatory Intervention and Public Backlash

The timing and structure of these transactions drew immediate and harsh criticism from minority shareholders, media, and governance watchdogs like the Korean Corporate Governance Forum (KCGF). The prevailing interpretation was that Hanwha Aerospace, a publicly listed company, was being used to provide liquidity to the chairman's sons' private company, only to then ask public shareholders to replenish its coffers through a dilutive share offering. This was widely seen as a maneuver connected to the group's long-term succession planning.[15]

The public outcry was significant enough to attract regulatory scrutiny. South Korea's Financial Supervisory Service (FSS) intervened, halting the rights offering process and demanding that Hanwha Aerospace submit multiple revised filings. The FSS cited a lack of sufficient justification for the capital raise, inadequate communication with shareholders, and a failure to transparently disclose the rationale behind the preceding inter-affiliate transactions.[14]

Under pressure, Hanwha Aerospace revised its plan in April and May 2025. The public rights offering was reduced to 2.3 trillion won. The remaining 1.3 trillion won was raised via a third-party placement to the same family-linked affiliates that had sold the Hanwha Ocean shares, effectively returning the cash to Hanwha Aerospace. Notably, the affiliates subscribed at a higher share price than that offered to existing shareholders, a move designed to mitigate criticism.[16]

The entire episode represents a significant failure of corporate governance. The initial sequence of actions suggests a disregard for the fiduciary duty owed to all shareholders, prioritizing the interests of the controlling family. This is not merely a case of poor communication but a transaction structure that created a clear conflict of interest. The necessity of intervention by a state regulator to force a revision underscores the severity of the governance lapse. Such conduct, which appears to deliberately disadvantage minority shareholders for the benefit of insiders, can be considered a "particularly grave breach of fundamental ethical norms" related to fairness, transparency, and corporate responsibility.

Part III: Forward-Looking Assessment and Mitigating Factors

3.1. Evaluation of Stated Corporate Policies

Hanwha Aerospace and the broader Hanwha Group maintain extensive and publicly available policies related to ESG principles. These include detailed charters and regulations on human rights management, ethical conduct, compliance, and anti-corruption.[53] The company has also achieved positive external ratings, including a high ranking in Transparency International's 2021 Defense Companies Index on Anti-Corruption and Corporate Transparency and an 'A' rating from MSCI ESG in 2024.[57]

However, a review of the company's most recent sustainability reports reveals a critical gap. There is no specific, articulated policy or due diligence process for assessing human rights risks associated with arms exports, particularly to countries involved in or at high risk of armed conflict.[59] The company's stated commitment is to adhere to relevant laws, such as the Foreign Trade Act, and to implement the strategic material compliance program of the Korean government.[59] While South Korea is a member of major international export control regimes like the Wassenaar Arrangement, these frameworks are primarily focused on non-proliferation and preventing transfers to proscribed destinations, rather than on a comprehensive human rights assessment of the end-user's conduct in conflict situations.[60] This legal compliance is not sufficient to meet the higher ethical standard required by the GPFG guidelines, which mandate a forward-looking risk assessment of how weapons will be used.

3.2. Assessment of Remedial Actions

The GPFG guidelines require an assessment of whether a company is taking adequate steps to reduce the risk of future norm violations.[1]

Regarding the safety failures at **Hanwha Ocean**, the company's pledge to invest 2 trillion won by 2026 is a substantial financial commitment.[12] The engagement of external safety experts and the planned implementation of digital, real-time monitoring systems are positive and necessary steps.[45] However, these actions are fundamentally reactive, initiated only after a series of fatalities and significant regulatory and public pressure. Their ability to induce a fundamental, sustainable change in the shipyard's deep-seated safety culture remains unproven.

Concerning the **corporate governance failures** related to the rights offering, the company's revision of the plan demonstrates a responsiveness to both regulatory and market pressure.[16]

The new structure is less detrimental to minority shareholders. Nevertheless, the fact that the original, highly problematic plan was conceived, approved by the board, and pursued until it was forcibly halted by the FSS points to a foundational weakness in the company's governance and its board's independence. Broader corporate governance reforms being introduced in South Korea, such as extending the fiduciary duty of directors to shareholders, may provide a better framework in the future, but their impact on corporate culture is a long-term process.[64]

A significant gap exists between Hanwha Aerospace's stated policies and its observable practices. While comprehensive ESG policies exist on paper, the severe incidents detailed in this report—arms sales to a high-risk conflict zone, recurring worker deaths, and a major governance scandal—demonstrate a failure to translate policy into effective, preventative action. The company's risk management appears to be driven by crisis response rather than proactive diligence. The most critical forward-looking risk, arms sales to conflict zones, lacks a specific due diligence policy, suggesting this risk is not being managed to the standard required by the GPFG. This indicates that the underlying weaknesses that allowed these severe issues to arise may still be present, implying a continued high probability of future norm violations.

Part IV: Conclusion and Final Risk Categorization

4.1. Synthesis of Findings

The assessment of Hanwha Aerospace Co Ltd. reveals multiple, concurrent, and severe risks when measured against the GPFG's ethical guidelines.

- **Product Risk (§ 3a):** A material, unresolved risk exists due to the production of the K239 Chunmoo MLRS. While the company does not produce the cluster submunitions themselves, it manufactures and markets a key delivery system and its associated missiles, which are central components for the use of these prohibited weapons.
- **Conduct Risk (§ 4c):** A clear and unacceptable risk is identified from the sale of offensive weapon systems to Saudi Arabia and the UAE. These states are primary parties to the Yemen conflict and have a documented, systematic pattern of IHL violations. The deployment of the Chunmoo system to the conflict's border establishes a direct link and a high risk of contribution to such violations.
- **Conduct Risk (§ 4a):** A high risk is present through the company's majority ownership of Hanwha Ocean, where a documented pattern of worker fatalities and systemic safety

failures constitutes a grave and systematic violation of the human rights to life and safe working conditions.
- **Conduct Risk (§ 4h):** A significant risk is associated with the 2025 rights offering controversy, which demonstrated severe corporate governance failures and a disregard for minority shareholder rights that necessitated formal regulatory intervention.

4.2. Summary Tables

Table 1: Hanwha Aerospace Key Defense Products and Export Destinations of Concern

Product Name	Product Type	Key Capabilities	Confirmed Export Destination(s) in Armed Conflict	Associated Conflict
K239 Chunmoo	Multiple Launch Rocket System (MLRS)	Fires 130mm-600mm rockets, including guided missiles and potential cluster munition warheads. Range up to 290km.[2]	Saudi Arabia, UAE [2]	Yemen Conflict
K9 Thunder	155mm Self-Propelled Howitzer (SPH)	Long-range artillery (40km+), high rate of fire, "shoot-and-scoot" capability.[21]	Poland, Norway, Finland, Estonia, Australia, Egypt, Romania, Turkey, India.[67]	Poland (Support to Ukraine) [72]; Other regional tensions.

Table 2: Summary of Findings against GPFG Exclusion Criteria

Guideline Article	Criterion Description	Summary of Findings for Hanwha Aerospace	Risk Level
§ 3a	Production of Cluster Munitions	Produces Chunmoo MLRS, a delivery system for cluster munitions, and is involved in producing its missiles. Ambiguity exists post-Hanwha Corp. divestment.[2]	Moderate to High
§ 4a	Grave or Systematic Human Rights Violations	Linked via majority ownership to a pattern of worker fatalities and systemic safety failures at Hanwha Ocean.[11]	High
§ 4c	Arms Sales to States in Armed Conflict Violating IHL	Confirmed sales of Chunmoo MLRS to Saudi Arabia and UAE, key parties in the Yemen conflict with a documented history of IHL violations. System deployed to conflict border.[5]	High
§ 4h	Other Grave Breaches of Ethical Norms	2025 rights offering controversy demonstrated significant governance failures and disregard for	Moderate to High

		minority shareholder rights, requiring regulatory intervention.[14]	

4.3. Final Risk Category

The cumulative risk profile of Hanwha Aerospace is severe. The company presents an unacceptable risk under multiple, distinct articles of the conduct-based criteria. The sale of offensive weapons to parties engaged in the Yemen conflict is a particularly grave issue, creating a direct link between the company's products and a conflict zone characterized by systematic violations of international humanitarian law. This is compounded by the systematic human rights violations at its majority-owned subsidiary and significant corporate governance failures that harm stakeholder trust.

While the company has initiated some remedial actions in response to the safety and governance issues, these have been reactive rather than proactive. The wide gap between stated policy and actual practice, especially the lack of a specific due diligence framework for arms exports to conflict zones, indicates a high likelihood of future norm violations. The combination of these factors suggests that the risk level may be difficult to mitigate effectively through active ownership alone.

Final Risk Category: 2 - High Risk

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