

Ciencia Latina Revista Científica Multidisciplinar, Ciudad de México, México.
ISSN 2707-2207 / ISSN 2707-2215 (en línea), enero-febrero 2026,
Volumen 10, Número 1.

https://doi.org/10.37811/cl_rcm.v10i1

**LEGAL FRAGMENTATION AND COMPLIANCE
GAPS IN WEAPONS AND AMMUNITION
MANAGEMENT:
THE CASE FOR NORMATIVE REFORM IN
GUATEMALA**

FRAGMENTACIÓN LEGAL Y DEFICIENCIAS EN EL CUMPLIMIENTO
DE LA NORMATIVA SOBRE GESTIÓN DE ARMAS Y MUNICIONES: EL
CASO DE LA REFORMA NORMATIVA EN GUATEMALA

Osiris J. Hamilton
Universidad Americana de Europa

Legal Fragmentation and Compliance Gaps in Weapons and Ammunition Management: The Case for Normative Reform in Guatemala

Osiris J. Hamilton¹

internationalist@osirisjhamilton.com

<https://orcid.org/0000-0002-1868-8670>

Universidad Americana de Europa
Colombia

ABSTRACT

Effective weapons and ammunition management (WAM) is a central component of contemporary security governance, arms control, and violence prevention. International standards such as the International Ammunition Technical Guidelines (IATG) and the Modular Small-arms-control Implementation Compendium (MOSAIC) provide a comprehensive framework for the safe, secure, and accountable management of weapons and ammunition throughout their life cycle. However, effective implementation of these standards depends not only on technical capacity but also on the existence of coherent and adequate national legal frameworks. This article examines the case of Guatemala, arguing that persistent deficiencies in WAM are primarily rooted in normative fragmentation, regulatory gaps, and weak legal coordination among responsible institutions. Drawing on a national baseline assessment conducted through interinstitutional technical working groups, the article analyzes the extent to which Guatemala's current legal and institutional framework aligns with international WAM standards. It identifies key areas where legal reform is necessary to enable effective compliance, including marking and record-keeping, destruction procedures, judicial oversight, and regulation of private security companies. The article concludes that targeted legislative and regulatory reforms are essential to transform technical standards into enforceable and sustainable national practice.

Keywords: weapons and ammunition management, arms control, security governance, legal reform, international standards implementation

¹ Autor principal.

Correspondencia: internationalist@osirisjhamilton.com

Fragmentación legal y deficiencias en el cumplimiento de la normativa sobre gestión de armas y municiones: El caso de la reforma normativa en Guatemala

RESUMEN

La gestión eficaz de armas y municiones (GAM) es un componente central de la gobernanza contemporánea de la seguridad, el control de armas y la prevención de la violencia. Estándares internacionales como las Directrices Técnicas Internacionales sobre Municiones (GTIM) y el Compendio Modular de Implementación para el Control de Armas Pequeñas (MOSAIC) proporcionan un marco integral para la gestión segura y responsable de armas y municiones a lo largo de su ciclo de vida. Sin embargo, la implementación efectiva de estos estándares depende no solo de la capacidad técnica, sino también de la existencia de marcos jurídicos nacionales coherentes y adecuados. Este artículo examina el caso de Guatemala, argumentando que las deficiencias persistentes en la GAM se deben principalmente a la fragmentación normativa, las lagunas regulatorias y la deficiente coordinación legal entre las instituciones responsables. A partir de una evaluación de referencia nacional realizada a través de grupos de trabajo técnicos interinstitucionales, el artículo analiza en qué medida el marco jurídico e institucional actual de Guatemala se alinea con los estándares internacionales de GAM. Identifica áreas clave donde es necesaria una reforma legal para facilitar el cumplimiento efectivo, incluyendo el marcado y el mantenimiento de registros, los procedimientos de destrucción, la supervisión judicial y la regulación de las empresas de seguridad privada. El artículo concluye que las reformas legislativas y regulatorias específicas son esenciales para transformar las normas técnicas en prácticas nacionales aplicables y sostenibles.

Palabras clave: gestión de armas y municiones, control de armas, gobernanza de la seguridad, reforma legal, implementación de normas internacionales

Artículo recibido 10 diciembre 2025

Aceptado para publicación: 10 enero 2026



INTRODUCTION

The management of weapons and ammunition has become a critical issue for states seeking to strengthen public security, prevent diversion, and comply with international arms control and humanitarian commitments (Tamás, 2021). Poorly regulated weapons and ammunition stockpiles increase the risks of diversion, unplanned explosions, illicit trafficking, and misuse, thereby exacerbating armed violence and undermining institutional legitimacy (Carapic, 2018). In response, the international community has developed a range of technical and normative instruments, most notably the International Ammunition Technical Guidelines (IATG) and the Modular Small-arms-control Implementation Compendium (MOSAIC), which articulate best practices across the full life cycle of weapons and ammunition (DosSantos, 2021).

While these standards offer detailed technical guidance, their effective implementation at the national level depends fundamentally on domestic legal and regulatory frameworks. Without clear legal mandates, harmonized institutional responsibilities, and enforceable procedures, technical standards risk remaining aspirational rather than operational (United Nations, 2019). This challenge is particularly acute in contexts where weapons and ammunition governance are distributed across multiple civilian, military, police, and judicial institutions, each operating under partially overlapping or outdated legal regimes.

Guatemala presents a relevant and underexamined case in this regard. Despite sustained engagement with international cooperation mechanisms and the presence of specialized institutions responsible for arms control and public security, the country continues to face structural challenges in weapons and ammunition management (MinGob Guatemala, 2023). These challenges are frequently addressed through operational or capacity-building interventions, yet less attention has been paid to the underlying legal architecture that shapes institutional behavior and interagency coordination (CNS Guatemala, 2024).

This article argues that Guatemala's principal obstacles to effective compliance with international WAM standards are not solely technical or resource-based but are deeply embedded in the country's legal and normative framework. Specifically, it contends that fragmented legislation, regulatory gaps, and insufficient legal integration between administrative, security, and judicial actors undermine the



consistent application of international standards (MinGob Guatemala, 2023). Drawing on a national baseline assessment conducted through ten interinstitutional technical working groups, the article examines how these normative deficiencies manifest across key functional areas of weapons and ammunition management.

The objectives of the article are threefold. First, it analyzes the core international standards governing weapons and ammunition management and their legal implications at the national level. Second, it assesses Guatemala's existing legal and institutional framework in light of these standards, identifying systemic gaps that hinder effective implementation. Third, it outlines the need for targeted legal reforms aimed at strengthening compliance, enhancing institutional coordination, and ensuring the sustainability of WAM governance. By doing so, the article contributes to broader debates on the relationship between international technical standards and domestic legal reform in the field of arms control and security governance.

METHODOLOGY

This article adopts a qualitative, legal and doctrinal normative research design, complemented by empirical descriptive analysis. The methodological approach is aimed at assessing the degree to which Guatemala's national legal and institutional framework for weapons and ammunition management aligns with internationally recognized standards, and at identifying normative gaps that hinder effective compliance.

The primary empirical source for the analysis is a national baseline assessment on weapons and ammunition management conducted in June 2022 through ten interinstitutional technical working groups. These working groups brought together representatives from civilian security institutions, the armed forces, judicial authorities, forensic bodies, and regulatory agencies responsible for different stages of the weapons and ammunition life cycle. The assessment examined legal mandates, institutional practices, coordination mechanisms, and regulatory procedures across key functional areas, including marking and record-keeping, storage, destruction, tracing, judicial disposition, and oversight of private security companies.

The baseline assessment produced a consolidated set of findings identifying normative, institutional, and operational deficiencies. For the purposes of this article, these findings are analyzed primarily



through a legal and normative lens. Rather than treating the baseline results as isolated operational shortcomings, the analysis focuses on identifying patterns of legal fragmentation, regulatory insufficiency, and institutional misalignment that affect the enforceability and sustainability of weapons and ammunition management standards.

International instruments, in particular the International Ammunition Technical Guidelines (IATG) and the Modular Small-arms-control Implementation Compendium (MOSAIC), are used as analytical benchmarks. These standards provide the normative reference points against which Guatemala's domestic legal framework is assessed. The analysis does not seek to measure compliance quantitatively, nor to test causal hypotheses. Instead, it evaluates the coherence, adequacy, and legal enforceability of national norms and institutional arrangements in relation to internationally accepted best practices.

This methodological approach allows the article to bridge technical standards and legal analysis, demonstrating how deficiencies in domestic legislation and regulation translate into systemic challenges in implementation. By grounding the analysis in a structured national baseline assessment, the article ensures empirical relevance while maintaining a clear focus on legal reform as a prerequisite for effective compliance.

Results

1. International Weapons and Ammunition Management Standards as Analytical Benchmarks

International standards on weapons and ammunition management provide a comprehensive framework for regulating the life cycle of weapons and ammunition, from manufacture and marking to storage, transfer, use, and final destruction (Small Arms Survey, 2018). Among these instruments, the International Ammunition Technical Guidelines (IATG) and the Modular Small-arms Control Implementation Compendium (MOSAIC) constitute the most detailed and operationally oriented reference standards currently available (United Nations, 2019).

The IATG establish technical and procedural requirements aimed at reducing risks related to ammunition storage, handling, transport, and disposal, with a strong emphasis on safety, accountability, and risk management (United Nations, 2019). Although formally non-binding, the IATG are widely recognized as reflecting international best practice and are increasingly referenced by states, international organizations, and donors as benchmarks for responsible ammunition management.

MOSAIC complements the IATG by focusing on small arms and light weapons governance, addressing issues such as legal and regulatory frameworks, institutional coordination, marking and record-keeping, tracing, stockpile management, and oversight of civilian possessions and private security actors (United Nations, 2024). Importantly, MOSAIC explicitly recognizes the central role of domestic legislation in enabling effective implementation, emphasizing that technical procedures must be grounded in clear legal mandates and enforceable regulatory authority.

Taken together, these standards underscore a critical principle for the purposes of this article: effective weapons and ammunition management is not solely a technical exercise, but a governance challenge that requires coherent legal frameworks, defined institutional responsibilities, and mechanisms for accountability and oversight. This principle serves as the analytical baseline against which Guatemala's national framework is assessed.

2. *Guatemala's Legal and Institutional Framework for Weapons and Ammunition Management*

The results of the national baseline assessment conducted in June 2022 reveal that Guatemala possesses a multiplicity of laws, regulations, and institutional actors related to weapons and ammunition management (CNS Guatemala, 2024). However, rather than forming a coherent regulatory system, this framework is characterized by fragmentation, overlapping mandates, and normative gaps that undermine effective compliance with international standards.

Legal responsibilities related to weapons and ammunition are distributed across civilian regulatory authorities, police forces, the armed forces, judicial institutions, and forensic bodies (Boerman, 2018). While this distribution reflects the complexity of the weapons life cycle, the absence of harmonized legal provisions and binding coordination mechanisms has resulted in inconsistent practices and unclear lines of authority. Several functional areas critical to WAM governance, including marking and record-keeping, destruction procedures, and information-sharing, lack comprehensive and unified legal regulation.

The baseline assessment further indicates that many institutional practices rely on internal regulations or ad hoc arrangements rather than explicit legislative authorization (MinGob, 2023). This reliance limits enforceability, weakens accountability, and creates vulnerability to legal challenges. In particular, the absence of clear statutory provisions governing the final disposition and destruction of seized

weapons and ammunition has generated procedural bottlenecks and delays, often requiring discretionary judicial intervention without standardized criteria.

Judicial and prosecutorial integration emerges as a significant area of weakness (MinGob, 2023). The assessment identifies limited legal articulation between criminal procedure and weapons management processes, particularly with respect to evidentiary handling, forensic analysis, and authorization for destruction. This disconnect undermines the timely removal of illicit weapons from circulation and weakens the preventive dimension of WAM governance. Another critical finding concerns the regulation of private security companies. While these actors manage substantial quantities of weapons and ammunition, the legal framework governing their oversight, inspection, and sanctioning remains insufficiently robust. The baseline highlights regulatory asymmetries that restrict effective state supervision, thereby creating a structural risk for diversion and misuse.

Across these areas, the results consistently indicate that deficiencies are not primarily attributable to a lack of technical knowledge or institutional presence, but to shortcomings in the legal and normative framework (MinGob, 2023). The prevalence of baseline recommendations requiring legislative reform underscores the conclusion that effective compliance with international WAM standards in Guatemala is contingent upon targeted legal and regulatory change.

3. *Systemic Legal and Institutional Inconsistencies Identified by the WAM Baseline*

The national baseline assessment on weapons and ammunition management (WAM) in Guatemala identified a wide-ranging set of deficiencies that extend beyond operational shortcomings and reveal structural inconsistencies embedded within the country's legal and institutional framework (MinGob, 2023). Drawing on the work of ten thematic technical tables and consolidating more than ninety targeted recommendations, the assessment provides a comprehensive diagnosis of the normative, institutional, and procedural obstacles that hinder effective compliance with international WAM standards, including the International Ammunition Technical Guidelines (IATG) and the MOSAIC framework (United Nations, 2019).

Rather than reflecting isolated failures, the findings demonstrate the existence of systemic patterns of inconsistency that recur across the entire life cycle of weapons and ammunition: from legal authorization, importation, and marking, to storage, record-keeping, tracing, judicial processing, and

final destruction. These inconsistencies manifest not only as gaps in regulation, but also as misalignments between legal mandates, institutional competencies, and operational realities.

The analysis of the baseline recommendations allows the identification of three overarching categories of inconsistency.

First, normative gaps are evident where the legal framework fails to regulate critical aspects of WAM governance (MinGob, 2023). These include, *inter alia*, the absence of binding procedures for the timely destruction of seized weapons and explosives, the lack of mandatory mechanisms for interinstitutional information exchange, insufficient legal regulation of marking standards for imported and state-owned weapons, and the absence of enforceable requirements governing the disposal of obsolete or surplus ammunition. In these areas, institutions often rely on discretionary practices or *ad hoc* arrangements that lack legal certainty and sustainability (IEPADES, 2006).

Second, the baseline reveals normative fragmentation, whereby responsibilities related to weapons and ammunition are distributed across multiple institutions without adequate legal coordination mechanisms (MinGob, 2023). This fragmentation is particularly visible in areas such as judicial authorization for destruction, forensic processing, record-keeping, and oversight of private security companies. Overlapping mandates between civilian authorities, the armed forces, forensic institutions, and regulatory bodies generate ambiguity regarding decision-making authority and accountability, resulting in inconsistent application of controls and delays in critical processes.

Third, the assessment identifies normative insufficiency, where existing laws formally address WAM-related issues like the Decree 15-2009, they do so in a manner that is overly general, outdated, or technically inadequate (IEPADES, 2022). Examples include vague definitions of weapon categories, insufficient differentiation between civilian and state-use weapons, outdated references to technologies that no longer reflect current manufacturing or conversion capabilities, and legal provisions that do not incorporate internationally recognized concepts such as lifecycle management, risk-based oversight, or traceability requirements.

A key contribution of the baseline lies in demonstrating that legal and institutional inconsistencies are not confined to a single functional domain (MinGob, 2023). Instead, they appear across all technical areas analyzed, as reflected in the recommendations generated by each technical table. In the area of



legal and regulatory frameworks, the baseline underscores the need for comprehensive reform of the Law on Arms and Ammunition and its associated regulations. Numerous recommendations point to the absence of precise legal definitions, insufficient regulation of less-lethal weapons, inadequate sanctions for violations related to possession and trafficking, and the lack of legal obligations regarding marking, final destination determinations, and destruction procedures. These deficiencies undermine both enforcement and judicial consistency (IEPADES, 2006).

Regarding national coordination mechanisms, the assessment identifies the absence of legally institutionalized platforms for interagency cooperation (MinGob, 2023). Although multiple entities hold partial responsibilities over weapons and ammunition, the lack of binding information-sharing obligations and standardized coordination protocols limits the effectiveness of national strategies to prevent diversion, trafficking, and misuse (CNS Guatemala, 2024). The baseline highlights that coordination currently depends largely on institutional goodwill rather than legal mandate.

In the domain of border controls and illicit trafficking, legal and procedural weaknesses constrain the capacity of authorities to detect and interdict weapons, ammunition, parts, and components (CNS Guatemala, 2024). These include insufficient regulation of non-intrusive inspection technologies, limited legal authority for coordinated intelligence sharing, and gaps in legal frameworks governing cross-border cooperation and joint operations. The absence of harmonized legal instruments limits the sustainability of operational improvements (CICIG, 2009).

The findings related to stockpile management and physical security reveal that, while technical standards such as the IATG and MOSAIC provide clear guidance, domestic legislation does not consistently translate these standards into binding national requirements (MinGob, 2023). As a result, compliance varies significantly across institutions, and improvements are often implemented through project-based initiatives rather than systemic legal obligation.

Similarly, in the areas of marking, record-keeping, tracing, and forensic integration, the baseline demonstrates that technical capacity alone is insufficient in the absence of legal mandates (CNS Guatemala, 2024). Weak or inconsistent marking standards, incomplete integration of ballistic information systems, and the absence of enforceable obligations for data entry and exchange limit the

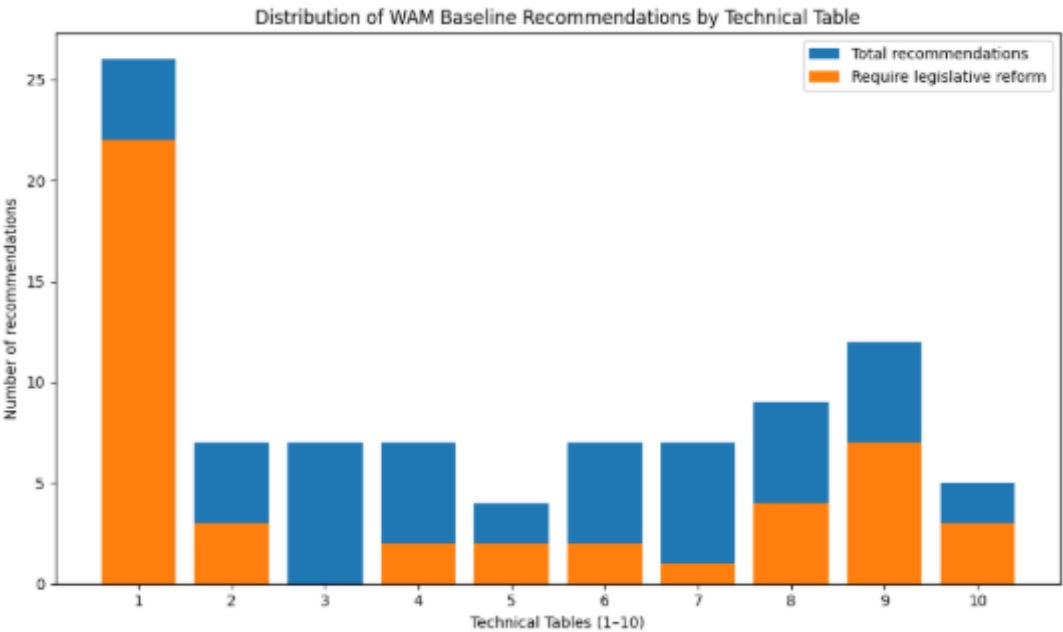
effectiveness of tracing and criminal investigations. These issues are compounded by legal uncertainty regarding data ownership, access rights, and institutional responsibilities.

Finally, the assessment highlights significant deficiencies in the elimination and destruction of weapons and ammunition, particularly those held in judicial custody. Legal ambiguities regarding the interpretation of existing provisions, combined with the absence of mandatory timelines and clear allocation of responsibility, have resulted in prolonged storage of seized weapons and explosives under unsafe conditions, increasing both security and safety risks.

A consolidated analysis of the recommendations demonstrates that approximately 70 per cent of the measures required to achieve effective compliance with international WAM standards depend on legal or regulatory reform (MinGob, 2023). This proportion is not incidental; it reflects the structural nature of the deficiencies identified. While training, equipment acquisition, and institutional strengthening are necessary components of WAM improvement, the baseline shows that their impact remains limited in the absence of a coherent and enforceable legal framework. The following figure illustrates the correlation of it:

Figure 1

Distribution of WAM baseline recommendations by technical table



Note: Own elaboration based on Guatemala’s WAM baseline (MinGob, 2023).

In many cases, institutions possess the technical expertise and operational experience required to implement good practices, yet lack the legal authority to standardize procedures, compel cooperation, or ensure continuity beyond individual administrations (MinGob, 2023). Sub-legal instruments, such as internal protocols or administrative directives, have been used to compensate for these limitations. However, such instruments are inherently fragile, lack uniform applicability, and are vulnerable to legal challenge.

The baseline therefore supports the conclusion that Guatemala's challenges in WAM governance cannot be addressed through incremental adjustments or isolated technical interventions alone from international organisms like OAS or international NGOs, like The HALO Trust or MAG (Mine Advisory Group) (OAS, 2025). Instead, the findings point to the need for deep legal reform, understood not merely as amendments to individual provisions, but as a process of normative harmonization that clarifies institutional mandates, embeds international standards into domestic law, and establishes binding mechanisms for coordination, oversight, and accountability.

a. Analytical Implications

From an analytical perspective, the baseline illustrates how weaknesses in legal architecture can undermine otherwise robust operational capacities (Brands, 2010). The accumulation of inconsistencies across multiple domains produces systemic vulnerability, increasing the risk of diversion, misuse, and unsafe storage, while simultaneously constraining the ability of the State to investigate, prosecute, and prevent armed violence effectively. By consolidating and systematizing more than ninety recommendations, the baseline moves beyond descriptive diagnosis and provides empirical evidence that legal reform is not a peripheral issue but a central enabling condition for effective weapons and ammunition management. This finding contributes to the broader literature on WAM governance by demonstrating that compliance with international standards is as much a question of legal coherence and institutional design as it is of technical capacity.

DISCUSSION

4. International Legal Commitments and the Structural Gap in National Compliance

The findings of the national WAM baseline must be interpreted within the broader context of Guatemala's international legal commitments. Guatemala is a State Party to multiple global and regional



instruments addressing the control of firearms, ammunition, explosives, and related materials, including the United Nations Convention against Transnational Organized Crime (UNTOC), the Inter-American Convention against the Illicit Manufacturing of and Trafficking in Firearms, Ammunition, Explosives and Other Related Materials (CIFTA), the UN Programme of Action on Small Arms and Light Weapons (PoA), the International Tracing Instrument (ITI), and the Arms Trade Treaty (ATT) (Flowerree, 1984). Collectively, these instruments establish binding and political obligations that require States to adopt effective legislative, administrative, and operational measures to prevent diversion, illicit trafficking, and misuse throughout the weapons and ammunition life cycle.

The baseline findings demonstrate that, while Guatemala has formally adhered to these instruments, domestic implementation remains uneven and structurally constrained, primarily due to deficiencies within the national legal framework (MinGob, 2023). This divergence between international commitment and domestic operationalization is not unique to Guatemala, but also goes beyond other Centrale American countries like El Salvador and Honduras; however, the scale and recurrence of legal inconsistencies identified by the baseline suggest a particularly pronounced implementation gap (Eller, 2024).

International instruments such as UNTOC and CIFTA explicitly emphasize the role of domestic legislation as the primary vehicle through which States fulfil their obligations (OAS, 2025). CIFTA, in particular, requires States Parties to establish comprehensive legislative controls over the manufacture, marking, import, export, transfer, storage, and destruction of firearms, ammunition, explosives, and related materials. Similarly, the PoA and ITI stress the necessity of legally binding marking, record-keeping, and tracing systems as foundational elements of effective control.

The baseline findings indicate that Guatemala's current legal framework does not fully translate these obligations into enforceable domestic norms. In several critical areas, including marking standards, record retention periods, interinstitutional data exchange, judicial authorization for destruction, and oversight of private security companies, existing legislation either lacks specificity or fails to assign clear institutional responsibility. As a result, compliance with international standards is often pursued through administrative practices rather than statutory obligation, limiting both consistency and accountability.

A central concept underpinning contemporary international WAM instruments is lifecycle management (Small Arms Survey, 2018). The ATT, PoA, and CIFTA all implicitly or explicitly require States to exercise control over weapons and ammunition from manufacture or importation through to final destruction. This approach recognizes that vulnerabilities at any stage of the lifecycle may facilitate diversion into illicit markets (United Nations, 2024). The baseline findings reveal that Guatemala's legal framework does not consistently reflect this lifecycle logic. Legal provisions tend to address discrete stages in isolation, without integrating them into a coherent regulatory continuum. For example, marking and registration requirements are not systematically linked to tracing mechanisms, judicial processes, or destruction procedures (MinGob Guatemala, 2023). This fragmentation weakens the State's capacity to detect diversion patterns, conduct effective investigations, and prevent recirculation of seized weapons and ammunition.

From an international compliance perspective, this fragmentation undermines the effectiveness of Guatemala's adherence to the PoA and ITI, which rely on the integration of marking, record-keeping, and tracing as mutually reinforcing measures.

5. *Legal Authority, Institutional Mandates, and State Responsibility*

A recurring theme in the baseline is the presence of technical capacity without corresponding legal authority (CNS Guatemala, 2024). Institutions responsible for weapons and ammunition management like the Directorate of Weapons and Ammunitions Control (DIGECAM) often possess trained personnel, technical knowledge, and operational experience, yet lack the statutory mandate required to impose standardized procedures, compel cooperation from other entities, or ensure continuity over time.

This finding is particularly relevant when viewed through the lens of State responsibility under international law. International instruments do not merely require States to adopt policies or guidelines; they require the establishment of effective legal and institutional frameworks capable of delivering results (Alwishewa, 2024). The reliance on informal coordination mechanisms or discretionary practices, while pragmatically understandable, does not fully satisfy the obligation to ensure predictability, transparency, and accountability. In this sense, the baseline highlights a structural tension between Guatemala's international commitments and its domestic legal architecture. The absence of

binding coordination mechanisms and enforceable obligations limits the State's ability to demonstrate sustained compliance, even where political will and technical capacity exist.

International instruments, including CIFTA and the PoA, emphasize the importance of timely and secure destruction of seized and surplus weapons and ammunition as a measure to prevent diversion and reduce armed violence (NATO, 2025). The baseline documents prolonged retention of weapons and explosives in judicial custody, often under unsafe conditions, due to legal ambiguities regarding authorization, responsibility, and procedural timelines. From an international perspective, such accumulation poses both security and safety risks and reflects a gap in domestic implementation (US Department of State, 2024). The lack of clear legal procedures governing judicial decisions on final disposition weakens Guatemala's ability to meet its international commitments regarding safe storage, destruction, and transparency. The baseline's emphasis on legal clarification and reform in this area aligns directly with international expectations and reinforces the argument that legal reform is not merely desirable, but necessary for compliance.

The regulation of private security companies constitutes another area where international obligations intersect with domestic legal shortcomings. CIFTA and the PoA recognize the role of non-state actors in the circulation of firearms and emphasize the need for effective oversight mechanisms (OAS, 2025). The baseline findings indicate that Guatemala's regulatory framework does not adequately address inventory controls, loss reporting, sanctions, and interinstitutional oversight for private security companies. Approximately 270 security companies operate in the country employing more than 10,000 security guards nationally. The institution in charge of their regulation is the General Direction of Private Security Services (DIGESSP) and they lack the enough resources to supervise and control their personnel and depots on regular basis.

The absence of robust legal controls in this sector creates systemic vulnerabilities, particularly in relation to diversion risks and accountability. From an international compliance standpoint, this represents a significant gap, as private security companies often manage substantial quantities of firearms and ammunition under State authorization. Taken together, the baseline findings suggest that Guatemala's primary challenge in WAM governance lies not in the absence of international commitment, but in the translation of those commitments into coherent domestic law. The fact that approximately 70 per cent

of recommended measures require legal reform underscores the centrality of legislation as the enabling condition for effective compliance.

This analysis contributes to the broader literature by illustrating how international norms, even when widely ratified, may fail to produce intended outcomes in the absence of aligned national legal frameworks. The Guatemalan case demonstrates that technical assistance, capacity building, and equipment provision, while essential, cannot substitute for legal coherence and enforceability.

6. *Armed Violence, Crime Rates, and the Imperative of a Preventive WAM Culture in High-Violence Contexts*

The relevance of the legal and institutional deficiencies identified by the WAM baseline must be understood within the broader context of Guatemala's levels of armed violence and organized criminal activity (Brands, 2010). Guatemala has historically experienced elevated rates of homicide and firearm-related violence, with firearms consistently representing the predominant means used in lethal incidents (CICIG, 2009). Although fluctuations in violence rates have occurred over time, the persistence of firearms as the principal instrument of violent crime underscores the structural importance of effective weapons and ammunition management as a preventive governance function (US Department of State, 2024). In high-crime environments, weaknesses in WAM systems do not remain neutral administrative shortcomings. Instead, they act as risk multipliers, increasing the likelihood that legally held, seized, or poorly controlled weapons and ammunition are diverted into illicit markets or misused. The baseline findings indicate that many of the identified inconsistencies, particularly those related to marking, record-keeping, tracing, judicial processing, and destruction, directly affect the State's capacity to interrupt the circulation of weapons used in criminal violence.

Empirical research consistently demonstrates a correlation between the availability of firearms and the lethality of violent crime (PNUD, 2024). In contexts characterized by organized criminal networks, territorial disputes, and gang-related violence, firearms increase both the scale and intensity of violence. Guatemala's experience aligns with this pattern, as the majority of homicides involve firearms, and criminal groups rely heavily on sustained access to weapons and ammunition. From this perspective, WAM systems should not be understood solely as regulatory mechanisms, but as violence prevention tools. Effective control over weapons and ammunition reduces opportunities for diversion, limits the

recirculation of seized arms, and increases the costs and risks associated with illicit acquisition. The baseline findings suggest that current legal and institutional weaknesses constrain Guatemala's ability to leverage WAM governance as a strategic component of violence reduction.

In high-rate crime environments, the margin for error in weapons and ammunition control is significantly reduced (Eller, 2024). Administrative inefficiencies or legal ambiguities that might be manageable in low-violence contexts can have disproportionate consequences where criminal demand for firearms is high. The prolonged storage of seized weapons, incomplete marking practices, fragmented record systems, and limited interinstitutional coordination identified by the baseline increase systemic exposure to diversion risks. International instruments such as the UN Programme of Action and CIFTA implicitly recognize this dynamic by emphasizing prevention, risk management, and lifecycle control. However, the baseline findings illustrate that preventive intent must be translated into institutionalized practice, supported by enforceable legal norms and a shared governance culture.

7. *WAM Culture as a Structural Variable*

The concept of a “*WAM culture*” refers to the extent to which weapons and ammunition management principles are internalized across institutions as a matter of routine governance, rather than treated as exceptional, ad hoc, or purely technical tasks. In high-violence contexts, such a culture is particularly critical, as it directly shapes institutional behavior in daily decision-making processes related to authorization, oversight, information-sharing, accountability, and judicial follow-up. The baseline findings indicate that, in Guatemala, WAM responsibilities tend to be compartmentalized across institutions, with limited cross-sectoral integration. This fragmentation constrains the development of a shared preventive logic and reinforces reactive approaches focused primarily on post-incident response rather than systemic risk reduction. The absence of legally mandated coordination mechanisms further weakens the institutionalization of WAM as a core function of preventive security governance.

At the same time, the analysis highlights that Guatemala has begun to take concrete steps to address these challenges. Notably, in April 2024, the State advanced *Legislative Initiative 6361*, which seeks to resolve long-standing structural obstacles related to the destruction of firearms (Congreso de la República de Guatemala, 2025). The initiative, currently under discussion in the Congress of the

Republic, reflects growing institutional awareness of the risks posed by the prolonged accumulation of seized and obsolete weapons, as well as recognition of the need to align national procedures with international standards on safe, transparent, and timely destruction. While the legislative process remains ongoing, this initiative represents an important signal of political engagement with one of the most critical deficiencies identified in the baseline assessment.

Developing a robust WAM culture does not imply the militarization or securitization of civilian governance. Rather, it entails embedding WAM principles within legal frameworks, judicial processes, administrative routines, and oversight mechanisms in a manner fully consistent with democratic governance and the rule of law (Carapic, 2018). In this sense, WAM culture functions as a compliance multiplier: it enhances the effectiveness of existing technical capacities, reinforces inter-institutional cooperation, and increases the sustainability of international commitments by anchoring them in domestic legal and institutional practice. The baseline's finding that approximately 70 per cent of recommended measures depend on legal or regulatory reform acquires particular relevance when situated within Guatemala's violence profile. In high-violence environments, reliance on informal practices or discretionary coordination increases vulnerability to institutional disruption, political change, and legal contestation. Conversely, legally anchored WAM systems provide continuity, predictability, and institutional resilience across political and administrative cycles.

Legal reform therefore serves not only compliance objectives, but also broader public security and violence prevention goals (MinGob Guatemala, 2023). By clarifying institutional mandates, standardizing procedures, and institutionalizing coordination, legal reform strengthens the State's capacity to manage firearms and ammunition as a preventive instrument rather than merely a reactive response. The ongoing discussion surrounding Legislative Initiative 6361 illustrates how targeted legal reform can function as a catalyst for consolidating a national WAM culture and aligning legal architecture with the imperatives of violence reduction in contexts where armed violence remains a persistent challenge.

The Guatemalan case illustrates how WAM governance intersects with broader patterns of armed violence and criminality (US Department of State, 2024). It suggests that, in high-rate crime countries, WAM should be treated as a central pillar of security governance, rather than a peripheral regulatory

issue. This insight has relevance beyond Guatemala, particularly for States facing similar challenges and operating under comparable international obligations. From a research perspective, the findings support further comparative analysis of how legal frameworks, institutional culture, and violence levels interact to shape WAM outcomes (NATO, 2025). Such analysis may contribute to refining international assistance strategies, ensuring that technical support is complemented by legal and institutional reform tailored to violence contexts.

Conclusions and recommendations

This article analyzed the results of a national baseline assessment on weapons and ammunition management (WAM) in Guatemala with the aim of identifying the structural factors that condition effective compliance with international standards and obligations. Based on more than ninety consolidated recommendations across ten technical areas, the findings demonstrate that Guatemala's principal challenges in WAM governance are predominantly normative and institutional rather than technical or operational.

The baseline assessment reveals systemic inconsistencies within the national legal and regulatory framework affecting the full lifecycle of weapons and ammunition, including authorization, marking, record-keeping, tracing, stockpile management, judicial processing, and destruction. These challenges are expressed through normative gaps, fragmented institutional mandates, and insufficient legal clarity, all of which constrain the State's capacity to standardize practices, ensure accountability, and sustain compliance over time. The empirical finding that approximately 70 per cent of the measures required for effective compliance depend on legislative or regulatory reform underscores the central role of law as an enabling condition for effective WAM governance.

Importantly, the analysis confirms that these deficiencies do not stem from institutional indifference or societal disengagement. On the contrary, the baseline documents sustained concern among Guatemalan institutions and society regarding the impact of armed violence, as well as proactive engagement by technical authorities, justice operators, and security institutions to improve WAM practices. Guatemala has demonstrated consistent participation in international and regional arms control regimes and has

invested in technical cooperation, inter-institutional coordination, and capacity-building initiatives. These efforts reflect a genuine national commitment to addressing weapons-related risks.

Within this context, Legislative Initiative 6361, introduced in April 2024 and currently under discussion in the Congress of the Republic, constitutes a significant normative development. The initiative, which seeks to establish a clear legal framework for the forfeiture and destruction of firearms and ammunition, directly addresses one of the most persistent gaps identified by the baseline assessment: the absence of standardized, legally mandated procedures for the final stages of the weapons lifecycle. As such, Initiative 6361 can be understood as an institutional response aligned with the baseline's diagnostic findings and as evidence of Guatemala's willingness to advance from technical concern to legal consolidation in the field of WAM.

However, the persistence of outdated or incomplete legislation continues to limit the effectiveness of existing initiatives. While Guatemala is a State Party to key international instruments, including the United Nations Convention against Transnational Organized Crime (UNTOC), CIFTA, the UN Programme of Action on Small Arms and Light Weapons, the International Tracing Instrument, and the Arms Trade Treaty, the baseline highlights a structural gap between international norm adoption and domestic legal operationalization. In practice, compliance frequently relies on administrative arrangements, discretionary coordination, and project-based solutions that lack permanence, legal certainty, and uniform application. Legislative Initiative 6361 illustrates both the opportunities and the challenges inherent in bridging this gap, as its effectiveness will ultimately depend on its approval, implementation, and integration within the broader WAM legal architecture.

These shortcomings acquire particular significance in a high-violence context. In Guatemala, where firearms remain the predominant means of lethal violence, weaknesses in WAM systems function as risk multipliers that increase the likelihood of diversion, recirculation, and criminal misuse of weapons and ammunition. In such environments, WAM cannot be treated as a peripheral regulatory issue but must be understood as a central pillar of preventive security governance. The development of a WAM culture, defined as the institutional internalization of lifecycle management, accountability, coordination, and traceability principles, thus emerges as a critical condition for sustainable violence reduction.

From a broader analytical perspective, the Guatemalan case illustrates how partial alignment between international obligations and domestic legal frameworks can result in uneven or fragile compliance. The findings reinforce the argument that sustainable WAM governance depends on the coherent alignment of international standards, national legislation, institutional mandates, and operational practice. Legislative processes such as Initiative 6361 should therefore be understood not as isolated reforms, but as components of a wider effort to structurally embed WAM principles within the State's legal and institutional system.

Finally, the study underscores the value of national baseline assessments as diagnostic instruments capable of identifying structural governance challenges and informing evidence-based reform processes. While the findings are specific to Guatemala, the patterns observed are likely to resonate with other States facing high levels of armed violence and similar international commitments. Based on the findings of the baseline assessment and the analysis presented in this article, several policy-relevant recommendations emerge.

First, Guatemala should prioritize comprehensive and coherent legislative reform in the field of weapons and ammunition management. This includes updating and harmonizing existing laws and regulations to reflect contemporary international standards, particularly in areas related to marking, record-keeping, tracing, destruction procedures, judicial oversight, and the regulation of private security companies. Legislative initiatives such as 6361 represent an important step in this direction and should be assessed and strengthened in light of the broader WAM governance framework.

Second, legislative reform processes should be accompanied by targeted capacity-building for legislators and legal advisors. The baseline indicates that while technical institutions possess significant expertise in WAM, the legislative sector requires further preparation and specialized knowledge to effectively translate technical standards into coherent legal provisions. Strengthening legislative understanding of WAM principles, international obligations, and violence prevention linkages is essential to ensuring the quality and sustainability of reforms.

Third, existing inter-institutional coordination mechanisms should be legally institutionalized to ensure permanence and accountability. Many coordination practices currently function on the basis of administrative agreements or informal cooperation. Embedding these mechanisms within a clear legal

framework would enhance predictability, continuity, and oversight across electoral and administrative cycles.

Fourth, WAM should be explicitly integrated into national violence prevention and security strategies as a core preventive instrument. In a high-violence context, effective control over weapons and ammunition flows is not merely a regulatory requirement but a strategic necessity. Policies should therefore promote the consolidation of a national WAM culture across security, justice, and regulatory institutions.

Finally, future reform efforts should continue to rely on evidence-based diagnostics, including periodic baseline assessments and impact evaluations. Such tools enable States to identify evolving risks, measure progress, and adapt legal and institutional responses to changing patterns of violence and criminal activity.

In sum, Guatemala has demonstrated awareness, concern, and proactive engagement in addressing weapons and ammunition management challenges. The advancement of Legislative Initiative 6361 reflects this commitment and illustrates the potential for translating diagnostic findings into concrete legal reform. To consolidate these efforts, however, sustained and coherent legislative action, supported by institutional coordination and informed by technical expertise, remains indispensable. Only through such alignment can WAM standards be effectively operationalized as a durable pillar of preventive security governance.

BIBLIOGRAPHIC REFERENCES

- Alwishewa, H. (2024, November 26). Supranational small arms control and the challenges of dichotomization. *Journal of Conflict and Security Law*, 331-347. doi: <https://doi.org/10.1093/jcsl/krae016>
- Boerman, T. (2018). The socio-political context of violence in El Salvador, Honduras and Guatemala. *Immigration Briefings*. Retrieved from [https://d1wqtxts1xzle7.cloudfront.net/79039055/TheSociopoliticalContextofViolenceinElSalvadorHondurasandGuatemala-libre.pdf?1642526560=&response-content-disposition=inline%3B+filename%3DThe_Sociopolitical_Context_of_Violence_i.pdf&Expires=1766950552&Signature=1766950552&Signature=](https://d1wqtxts1xzle7.cloudfront.net/79039055/TheSociopoliticalContextofViolenceinElSalvadorHondurasandGuatemala-libre.pdf?1642526560=&response-content-disposition=inline%3B+filename%3DThe_Sociopolitical_Context_of_Violence_i.pdf&Expires=1766950552&Signature=1766950552&Signature=1766950552&Signature=)



- Brands, H. (2010). *Crime, violence and the crisis in Guatemala*. (U. A. College, Ed.) Carlisle, US: Strategic Studies Institute. Retrieved from https://books.google.com.co/books?hl=es&lr=&id=-9A49r76kAQC&oi=fnd&pg=PA1973&dq=gun+violence+in+guatemala&ots=3VakiDt91h&sig=b7kd97d25Ff3N4L5go0STL8OBXM&redir_esc=y#v=onepage&q=gun%20violence%20in%20guatemala&f=false
- Carapic, J. (2018). Life-Cycle Management of Ammunition Safety, Security and Sustainability. *The Journal of Conventional Weapons Destruction*. Retrieved from <https://commons.lib.jmu.edu/cisr-journal/vol22/iss2/2/>
- CICIG. (2009). *Armas de Fuego y Municiones en Guatemala*. Guatemala. Retrieved from https://www.cicig.org/uploads/documents/0/armas_y_municiones_en_guatemala.pdf
- CNS Guatemala. (2024). Agenda Estratégica de Seguridad 2024. (S. Técnica, Ed.) Guatemala, Guatemala, Guatemala: Gobierno de la República de Guatemala . Retrieved from https://stcns.gob.gt/wp-content/uploads/2025/10/AES_2024.pdf
- Congreso de la República de Guatemala. (2025, December 28). *Control de Iniciativas*. Retrieved from Ley 6361: https://www.congreso.gob.gt/assets/uploads/info_legislativo/iniciativas/600ab-6361.pdf
- DosSantos, C. (2021). Weapons and ammunition management and force protection: some reflections on covering agendas. Brazil. Retrieved from <https://www.smallarmssurvey.org/sites/default/files/resources/MPOME-3WS-Paper5.pdf>
- Eller, J. (2024). *Gun violence and prevention connections, cultures and consequences*. Denver, US: Books on demand. doi: <http://dx.doi.org/10.5772/inthechopen.106116>
- Flowerree, C. (1984). The politics of arms control treaties: a case study. *Journal of International Affairs*, 269-282. Retrieved from <https://www.jstor.org/stable/24356930>
- IEPADES. (2006). *Control de Armas de Fuego*. Guatemala. Retrieved from https://iepades.org/wp-content/uploads/2025/02/control_de_armas_de_fuego-2006.pdf
- IEPADES. (2022). Ley de Armas y Municiones anotada y su reglamento. *Ley de Armas y Municiones anotada y su reglamento*. (M. A. Cid, Ed.) Guatemala, Guatemala, Guatemala.
- MinGob. (2023). *Línea Base de Armas y Municiones*. Guatemala: Ministerio de Gobernación.



- MinGob Guatemala. (2023). Estrategia Nacional para la prevención y el combate de la violencia armada. *Estrategia Nacional para la prevención y el combate de la violencia armada*. Guatemala, Guatemala, Guatemala. Retrieved from https://mingob.gob.gt/wp-content/uploads/2024/01/15.12.23-FINAL-Estrategia_Violencia-_Armada-Vista-Previa.pdf
- NATO. (2025, September 17). Life-Cycle Assessment Applied to Weapon Systems. STO. doi:10.14339/STO-MP-AVT-409-10-PDF
- OAS. (2025). Convención Interamericana contra la Fabricación y el Tráfico Ilícitos de Armas de Fuego, Municiones, Explosivos, y Otros Materiales Relacionados (CIFTA). Washington, US. Retrieved from <https://www.oas.org/ext/es/seguridad/cifta>
- PNUD. (2024). *Guatemala: los números y las vidas truncadas por la violencia armada*. Guatemala : PNUD Guatemala. Retrieved from <https://www.undp.org/es/guatemala/blog/guatemala-los-numeros-y-las-vidas-truncadas-por-la-violencia-armada-0>
- Small Arms Survey. (2018). A practical guide to life-cycle management of ammunition. (J. Caparic, Ed.) Geneva: Federal Foreign Office. Retrieved from <https://www.smallarmssurvey.org/sites/default/files/resources/LCMA%20Handbook%20Text%20REV5%20WEB.pdf>
- Tamás, T. (2021). Developing and Improving Guidelines for the Management of Ammunition in NATO Technical Working Groups. *Évfolyam*, 95-105. doi:10.32562/mkk.2022.2.7
- United Nations. (2019). Weapons and Ammunition Management. *Policy on Weapons and Ammunition Management*. Retrieved from [https://resourcehub01.blob.core.windows.net/\\$web/Policy%20and%20Guidance/corepeacekeepingguidance/Thematic%20Operational%20Activities/Military/Weapons%20and%20Ammunition%20Management%20\(Policy\)%20\(2021\).pdf](https://resourcehub01.blob.core.windows.net/$web/Policy%20and%20Guidance/corepeacekeepingguidance/Thematic%20Operational%20Activities/Military/Weapons%20and%20Ammunition%20Management%20(Policy)%20(2021).pdf)
- United Nations. (2024, 12 28). *UN SafeGuard*. Retrieved from International Ammunition Technical Guidelines: <https://unsafeguard.org/>
- US Department of State. (2024). *2024 Guatemala's report on Human Rights practices*. Washington. Retrieved from <https://www.state.gov/reports/2024-country-reports-on-human-rights-practices/guatemala>

