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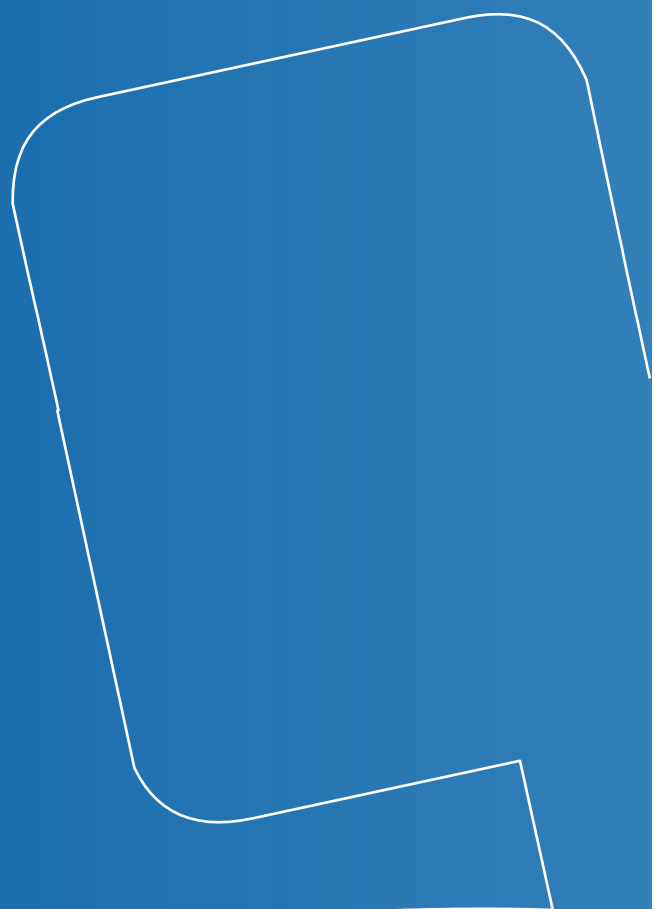
Firearms Lifecycle Management

Beyond Licencing and Registration

Version Control

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1.0	24/03/22	Callum Lloyd	First Edition
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SALW Pose a Complex Security Threat

The illicit proliferation of SALW presents a complex risk to security. Proliferation to non-state actors subverts the state's monopoly on the legitimate use of firearms whilst being particularly difficult to counter insofar as multiple criminals could misuse a firearm numerous times within a jurisdiction before the weapon is then trafficked elsewhere (SEESAC, 2017). Therefore, to prevent misuse, guarantee security and pursue justice, a concerted inter-disciplinary effort across the legislature, the judiciary, law enforcement agencies (LEAs) and forensics is needed to leverage people, processes and technology to counter the threat of SALW misuse.

Combating Illicit SALW Requires National Authorities to Implement Appropriate Strategies and Action Plans

Combatting the illicit use of SALW requires national authorities to implement an appropriate strategy and action plan. Although SALW proliferation and subsequent misuse is increasingly recognised as a transnational issue, the onus remains with national authorities to implement an appropriate SALW control strategy in order for collective transnational security efforts to be effective. Accordingly, national SALW control efforts ought to encompass *all* firearms within a jurisdiction by targeting both civilian-owned and state-owned firearms as part of any appropriate action plan. Licencing and registration of SALW are an essential facet of these efforts (see box 1 below).

| Box 1 | National SALW Control Strategy | (Arquebus, 2021) |

Any effective strategy to tackle the proliferation of SALW in an individual country needs to be underpinned by a National SALW control strategy and action plan.

The high-level objectives for this strategy and plan would normally include:
- Developing an understanding of the number and nature of firearms in circulation (both legal and illegal)
- Achieving effective control of legal weapons through *national legislation, registration and licencing.*
- Driving a reduction in the criminal use of firearms.
- Reducing and disrupting the transfer and illicit trade of weapons on the black market

SALW control strategies should be compliant with the UN Firearms Protocol and Programme of Action, which has the purpose of facilitating and strengthening cooperation in order to prevent, combat and eradicate the illicit manufacture of, and trafficking in, firearms. They should also link into regional strategies to ensure cross border cooperation and information sharing.

Licencing and Registration

To understand the difference between licencing and registration, it is crucial to note that there are three essential principles of national SALW control (please see box 2 below).

Box 2	Three Essential Principles of National Firearms Control	(SaferWorld, 2021)

1. **Regulating the firearm itself** through registration, prohibited firearms, limiting magazine capacity, fire type, barrel length, permitted modifications, etc.
2. **Regulating the use of the firearm** utilising policy and legislation, to determine where the firearm can be used, how many cartridges may be loaded (for hunting) etc.
3. **Regulating the user of the firearm** via licencing i.e., who is eligible to possess a firearm, how many firearms an individual may possess etc.

As an extension of the principle of regulating the firearm, its essential components and controlled accessories ought to also be regulated as controlled objects in and of themselves. A firearms registry enables timely access to information such as transactions to reflect the physical location, the legal owner and the legal status of a firearm, so that this information is quickly searchable by LEAs when required.

By recording all details of the firearm including (but not limited to) make, model, manufacturer, and serial number; firearms that are diverted into criminal circulation can be proactively investigated and traced by LEAs, in addition to having their information shared internationally with tracing platforms such as Interpol's iARMS or the US' eTrace system to aid transnational firearms tracing efforts.

A comprehensive registry also allows state agencies to maintain adequate stocks to fulfil their functions and, contributes toward preventing diversion of firearms to the illicit sphere through setting rigorous security measures which disincentivise and prevent the abuse of stockpiled weapons.

When properly utilised, registries may aid states in their commitment to completing the UN PoA's International Instrument (ITI), which contributes toward a collective commitment to signatories of the UN Sustainable Development Goals (SDGs). Finally, proper utilisation of registration systems ensures that SALW reduction efforts such as arms amnesties and buy-back programmes don't culminate in collected SALW being turned over from civilian hands straight back into criminal possession through preventing the diversion of SALW from amnesty stocks.

While registration is centred upon firearms, controlled components and accessories, licencing fulfils the third principle of national firearms control by focusing upon regulating users, their suitability and their authority to possess firearms. Licencing is essential to ensure firearms are

only in the possession of those deemed suitable, or who have a valid reason to do so. Arquebus is familiar with two variants of licencing that occur globally. These are (i) a certificate for each firearm, or alternatively (ii) a single certificate for multiple firearms. Both approaches are equally valid, however neither are an effective replacement or alternative for a registration system, which should be able to provide a full transactional history of a firearm's movement and support a test-fire program.

It is good practice that the licencing system has integration into other systems that provide data sources to assist in the process of conducting the background checks on the applicant. These include criminal record databases, firearms registry, and other systems. Although the data can be provided automatically for review, a duty firearms officer should still always make the final decision with the data presented.

Gaps in Current Approaches

Research conducted by Arquebus which has surveyed licensing and registration across both the South American and the African continents has highlighted that many states confuse licencing with registration. Often, state authorities focus on the licencing of civilians rather than registration of firearms themselves yet define this activity as registration in their national legislation and policy documents. 'True' firearms registration, where the firearm itself is regulated, tends to be reserved for state military forces and other government agencies. In the case of state firearms, these weapons are often utilised by a variety of authorised users within an organisation in the fulfilment of their duties, negating the need for licencing for each user.

As a result, civilian-held firearms often exist as a shadow which is cast by the civilian licencing systems, as these licencing systems lack a codified transaction history for each firearm. Consequently, the ability of LEAs to trace firearms effectively is negatively impacted due to the inherent complexity of investigating firearms indirectly through licencing systems.

In the instances where registration has been implemented in some form to regulate state firearms, Arquebus' research has found that these firearms registries are often vulnerable to leakage. For example, the Nigerian Police could not account for over 170,000 guns lost from its armouries, with the total number of lost firearms reported at 178,459 pieces as of December 2018, of which 88,078 were AK-47 rifles (Reuters, 2022).

Cases such as Nigeria's display how licensing and registration systems are easily abused by a minority of malicious actors who understand how to exploit such systems. For example, a South African parliamentary committee heard in 2011 that more than 20,000 firearms had been lost from the South African Police Service (SAPS) armouries since 2004 (BBC, 2011). A notable case of firearms diversion was that of the corrupt Police Colonel Christiaan Prinsloo, who had diverted over 2,000 firearms scheduled for destruction by the SAPS by stealing them from destruction facilities and selling them on to Western Cape gangs.

This illicit proliferation was extremely damaging. Prinsloo firearms were ballistically linked to the deaths of 89 children and a further 170 children who were injured in South Africa (De Wee, 2020). Evidently, although Prinsloo diverted firearms at the point of destruction rather than whilst in police possession, the grave consequences of comparatively small cases of diversion such as this draw instances of large-scale diversion such as Nigeria into stark perspective. Clearly, the damage which even small-scale illicit proliferation is capable of inflicting upon populations exemplifies the necessity of states possessing a robust firearms lifecycle management system which stymies the diversion of firearms to the illicit circuit and aids the tracing and recovery of lost/stolen firearms.

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Lifecycle Management

In contrast to basic registration, firearms lifecycle management seeks to allow LEAs to pinpoint a firearm's location and trace its movements over time whilst fully understanding its characteristics at each step in its lifecycle. To do so, the firearm is treated as a durable good through registration, whilst additionally creating a full transaction history of every firearm within a jurisdiction from 'birth to death'. This transaction history can then be supplemented with additional integration of licenced firearms users, thereby providing a holistic SALW control solution which manages both the firearm throughout its lifecycle and the identities of associated users.

The benefits of this holistic approach are numerous. By regulating both the user and the firearm itself through a single centralised system, lifecycle management provides LEAs with a detailed understanding of a firearm's physical characteristics, legal status, location, the legal owner, and the firearm's ballistic signature if the registration system has been paired with a test firing programme and ballistic identification systems (BIS). Moreover, LEAs also know this information before it's assigned to an individual or juristic person, in contrast to standalone licencing systems which cannot account for the many points in a firearm's lifecycle in which it is in the possession of a juristic person, such as when residing within a dealership's inventory.

Access to a complete transaction history also provides tactical intelligence which improves national LEAs' ability to identify points of diversion, trace firearms and recover lost and stolen firearms within their respective jurisdictions. Likewise, lifecycle management information can also be utilised to inform strategic intelligence through identifying trends and patterns in firearms criminality. The detailed understanding offered by a lifecycle management approach can also aid international anti-proliferation efforts through comparing lifecycle data against international databases such as Interpol's iARMS, in addition to aiding states in fulfilling their obligations to submit data to international SALW control instruments such as the UN-IAFQ or the UN ITI.

Implementing Firearms Lifecycle Management

As part of a lifecycle management system, a registration program can be further enhanced via the inclusion of 'test firing' all civilian and/or state firearms. Using a projectile recovery system (such as a water tank), projectiles and cartridge cases that reflect the ballistic signature of the test-fired firearm can be held in the event a firearm is diverted into criminal use.

A test fire program can be deployed in two forms, *passive* or **active**. A *passive* program involves the test-firing of every firearm, which is then subsequently stored (in alignment with the necessary protocols) by the relevant authority. Should it become known that a particular firearm has been involved in crime (e.g., reported lost / stolen or other intelligence), the test-fires can be compared by the ballistics laboratory to exhibits recovered from crime scenes. Conversely, an **active** test fire program involves all test-fired material being digitally captured into a ballistic identification system (BIS). Once recorded in the database, the BIS will provide

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potential matches from crime evidence to test-fired registered firearms. This is a highly effective way of detecting the diversion of firearms without prior knowledge of the firearm being lost or stolen. This approach is recommended when there is intelligence to suggest civilian or state firearms are being 'hired' temporarily for illegal use to third parties, then returned to their original owner. Such a system provides additional benefits as a deterrent, especially when combined with a public media campaign.

In conjunction to registration, licencing can complement registration within a lifecycle management system to provide a comprehensive picture on all firearms and their users within a country's borders. A firearm should initially be registered upon import or manufacture, then through to sale to the end-user. A test-firing procedure is recommended as part of this initial process. Once an individual has obtained the necessary licence to possess, the seller can then complete the transaction with the customer. The sale of the firearm is reflected in the firearms registration system as a transaction from the seller to the licenced individual. The licencing system is also updated to denote the individual possesses the specific firearm, which will be in alignment with the terms of their licence to possess.

As part of a lifecycle management system, licencing workflows should constitute three significant operational steps. Firstly, identity management and confirmation ensures that the individual applying for the licence is verified as who they claim to be. This often includes a physical visit to a police station and biometric enrolment. Secondly, the processing of the application including automatic, semi-automatic and manual checking processes. These steps include criminal record checks, health, competency/proficiency & safety, financial, firearms storage and more. An assigned officer reviewing the application must make the final decision for the application based on the results of these checks. Finally, issuance of the licence, providing the individual with a physical certificate and unique licence number within the licencing system. This process may incur some costs to LEAs. However, funds are capable of being recuperated through monetising the licencing process by issuing processing fees to firearms licence applicants.

Barriers to Firearms Lifecycle Management

Although lifecycle management presents a comprehensive system which can aid national LEAs with tackling the threat posed to societies by the criminal misuse of SALW, there remain barriers which prohibit its implementation. For example, an approach to security which focuses upon box-ticking initiatives which appease an electorate, or regional and international legal SALW regulation instruments, can result in the establishment of registration and licencing systems look good on paper yet yield modest results.

Additionally, a lack of necessary expertise on how to best design, develop and implement licencing and registration presents a barrier to lifecycle management. This is exemplified by the frequent focus of states upon licencing civilian firearms rather than registering them, as the nuances which differentiate firearms registration and licencing, and their associated benefits, are often misunderstood among stakeholders. Finally, technological limitations present a key challenge to the establishment of lifecycle management systems, as, depending

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on levels of development in a given environment, some national authorities might lack the necessary resources or infrastructure to implement a centralised digital system. Despite these factors, growing international recognition of SALW security threats, technological advances and the advent of expert-designed commercial off-the-shelf lifecycle management solutions have significantly reduced these barriers to improved SALW control.

Conclusion

To evaluate, SALW present a complex threat to domestic and international security, however the onus remains on national authorities to implement effective SALW control solutions. Many states already employ either licencing, registration or both systems to regulate firearms within their jurisdictions. Yet, these systems can often be improved or are vulnerable to exploitation by malicious actors.

In contrast to existing siloed licencing and registration systems approaches, lifecycle management presents a holistic solution which forms one of the core building blocks to making societies safer, providing a variety of benefits over previous approaches. Nonetheless, lifecycle management is not a panacea, requiring proper design, development and implementation to be successful.

Since its establishment in 2012, Arquebus has worked in global policing and intelligence environments in over 50 countries. Arquebus has extensive experience in working with governments and international agencies to develop and implement comprehensive programmes of work to manage the legal and illegal use, supply, licencing and registration of SALW. Arquebus' FireCycle is the only solution available worldwide able to provide the holistic firearms lifecycle management approach detailed above by bringing together distinctive registration and licensing modules that can be tailored to any country's legislative framework.

The Arquebus team is available to provide further information on licencing and registration, process design, software systems and lifecycle management based upon its extensive first-hand experience of implementing action plans to tackle SALW security threats across the globe.

Bibliography

Arquebus Solutions, (2021). *Minimising The Criminal Use Of Firearms: The Building Blocks For Making Society Safer*

BBC (2011). *South African Police Lost 20,000 Guns*, accessed online 03/03/22 at: www.bbc.co.uk/news/world-africa-12689342

De Wee, M. (2020). 'Former Cop Who Sold Guns to Gangs Seemingly Released Before Serving Third of Sentence', *News24*, accessed online 03/03/22 at: www.news24.com/news24/southafrica/news/former-cop-who-sold-guns-to-gangs-seemingly-released-before-serving-third-of-sentence-20201020

Reuters (2022). *Nigeria's Auditor General Flag Missing Police Firearms*, accessed online 03/03/22 at: www.reuters.com/world/africa/nigerias-auditor-general-flags-missing-police-firearms-2022-01-04/

SaferWorld (2012). 'Small Arms And Light Weapons Control', *Training Manuals and Toolkits,* accessed 03/03/22 at: www.saferworld.org.uk/resources/publications/713-small-arms-and-light-weapons-control

SBMIntel (2021). *Small Arms, Mass Atrocities and Migration In Nigeria*, accessed online 03/03/22 at: www.sbmintel.com/2021/02/small-arms-mass-atrocities-and-migration-in-nigeria/

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