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ARMS MONITORING IN GUINEA

A Survey of National Forensic Services

André Desmarais



Credits and contributors

Series editor:

Matt Johnson

Fact-checker:

Natacha Cornaz

English copy-editor:

Alex Potter

Translation:

Viviane Lowe

Layout:

Rick Jones

Printing:

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Weapons in the evidence storage facility of the judicial police in Conakry. The labels refer to the corresponding criminal cases.

Source: André Desmarais, April 2019

About the author

André Desmarais worked for 30 years in various forensic departments of the French Interior Ministry, before ending his career as the head of the ballistics section of the Marseille police science laboratory. As part of a four-year international development project in Afghanistan, he helped set up the forensic laboratory of the Kabul police force. He has also taken part in various projects in Algeria, Bulgaria, and Niger. He currently consults for the Small Arms Survey and is an occasional contributor to research programmes led by the French National Centre for Scientific Research.

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Foreword by INTERPOL

For the INTERPOL Firearms Programme and its project iARMS (fully financed by the EU), the field research which served as the basis of this Briefing Paper was crucial in filling gaps in knowledge about the resources available to the scientific and technical services of the Guinean police and gendarmerie. The research also aimed to identify the needs of Guinean law enforcement in order to better equip them against current threats, including crime, firearms trafficking, and improvised explosive devices (IEDs) and their components.

This Briefing Paper is also intended to facilitate Guinean law enforcement in securing financing for both the purchase of equipment and local training of personnel, as well as preparation of a specific project proposal by Guinea aimed at establishing the necessary conditions to allow the national authorities to effectively investigate the source of seized illicit weapons, using the INTERPOL Firearms Recovery Protocol. The Firearms Recovery Protocol calls for a comprehensive and strategic approach to targeting firearms trafficking. It encompasses the diverse capacities of national law enforcement as well as documentation provided by the INTERPOL Firearms Programme.

Overview

Beyond supporting police investigations, forensic services also have a central role to play in combating arms trafficking across West Africa. Little information is currently available about what type of research and analysis these services are equipped to perform, however.

This is the second in a series of Briefing Papers that aims to close this information gap and provide support for Guinea's attempts to achieve Sustainable Development Goal Target 16.4, which calls for countries 'By 2030, [to] significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime' (UN DESA, n.d.).¹ Published jointly by the Small Arms Survey and INTERPOL, this second Briefing Paper focuses on the Republic of Guinea and its efforts to curb recent inflows of weapons from neighbouring countries. It aims to present a detailed description of the capacity of forensic services in Guinea and is based on meetings, visits, and interviews conducted in the country in April 2019.

Key findings

- The majority of illegal firearms in Guinea are AK-pattern assault rifles, firearms manufactured during the two world wars and the cold war, and craft-produced guns. The country seems relatively untouched by the proliferation of converted blank-firing pistols observed elsewhere on the continent.
- Both the Guinean police and gendarmerie operate forensic units. The 'forensic examinations' of these units, however, are limited to documenting crime scenes, recovering fingerprints, and maintaining photographic and fingerprint records of criminals. At present, neither unit has the capacity to perform ballistics analyses.
- While the concept of ballistics evidence collection is described in the Guinean Criminal Code, it is only done sporadically.
- The pathologists based in Conakry have plans to send representatives across the country, including remote regions.
- Forensic services could play a more significant role in monitoring arms trafficking if their staff had access to the necessary equipment and training, and if all illegal arms and ammunition seized by the Guinean authorities were systematically examined.

Introduction

Forensic laboratories may assist criminal investigations by examining the weapons used in a crime and analysing ballistic evidence recovered at the scene, such as cartridge casings, ammunition, and bullet fragments.² The ballistics scientists employed by these institutions worldwide are among the most knowledgeable local experts in the field of firearms and ammunition in their respective countries.

At present, little information is available about the capacity of forensic services in West African countries or their actual or potential contribution to the monitoring of illegal arms flows. In 2018 the Small Arms Survey undertook research to close this gap, publishing the results in a Briefing Paper on the forensic services in Mauritania, Niger, and Chad (Desmarais, 2018). This Briefing Paper proposes to answer the same four questions posed in this previous paper with regard to Guinea:

- What is the current capacity of Guinean forensic services in the various fields of forensic science in general³ and in that of ballistics more specifically?
- Do the forensic services systematically examine all weapons and ammunition seized during criminal investigations? If not, is this because they do not have the capacity to do so or because no appropriate procedure is in place?
- To what extent are forensic services able to maintain detailed ballistics records over time and analyse them for the purpose of monitoring illegal arms flows?
- What measures could be implemented to better support these forensic services?

This Briefing Paper is primarily based on interviews held in April 2019 with forensic scientists; medical examiners; and representatives of the Guinean police, gendarmerie, army, and judiciary. The INTERPOL Firearms Programme facilitated the majority of these interviews, with the assistance of the INTERPOL National Central Bureau in Guinea.

The paper begins with a brief description of the conditions in which the Guinean forensic services currently operate. It then examines their technical capacity in the areas of forensic science, pathology, and ballistics. This is followed by a discussion of how these capabilities are implemented to fight crime and monitor small arms trafficking. The paper concludes with a list of recommendations as to Guinea's current needs in this regard, and observations about future developments that may strengthen the country's capacities in this area.

The Guinean context

The illegal firearms trade in Guinea has many drivers. In part it is fuelled by the civil wars in neighbouring countries. Armed groups involved in those conflicts established rear bases and hid arms caches in the mountainous Guinée Forestière region in the south-east of the country.⁴ It is also fuelled by craft-produced weapons. Commonly referred to as ‘blacksmith’s guns’,⁵ these include shotguns and handguns designed to fire hunting cartridges. These firearms are produced locally or smuggled into the country from abroad (Small Arms Survey and AU, 2019, p. 55). Arms traffickers also take advantage of Guinea’s 300 km coastline to smuggle arms through Guinea to other countries in the region (Sow, 2017; UN, 2017). Several two-way cross-border arms flows have been identified between Guinea and the Sahel region.⁶ It appears that this illegal trade is still active, especially between Guinea and Mali.⁷

Guinea is committed to reducing the illegal firearms trade. According to the Guinean authorities, the most prevalent types of illegal weapons in civilian hands are craft-produced firearms, hunting firearms, and automatic weapons.⁸ Contraband weapons enter Guinea mainly by land from neighbouring countries, and infrequently by sea.⁹ In 2017 the Guinean government identified several priorities for combating illegal flows of small arms and ammunition. These included:

- enacting laws and regulations to comply with existing subregional, regional, and international legal instruments;
- marking firearms and recording related data;
- improving the security of stockpile management systems;
- better controlling the country’s borders; and
- strengthening international cooperation.¹⁰

In its 2018–2022 Action Plan the Guinean government defined additional priorities to combat the illegal proliferation and circulation of small arms and light weapons. These included:

- strengthening the capabilities of the National Commission to Combat the Proliferation and Illegal Circulation of Small Arms and Light Weapons (ComNat-ALPC);
- improving controls on small arms manufacturers;
- destroying all illegal, obsolete, or surplus weapons and ammunition; and

- supporting micro-development projects and rolling out educational campaigns (Sow, 2017, p. 21).

Legal framework

Weapons possession in Guinea is governed by Law No. L/96/008 of 22 July 1996. Article 2 of this law defines eight categories of weapons or firearms: categories 1, 2, and 3 include military-use weapons whose possession is strictly restricted; category 4 includes ‘defensive firearms and ammunition’; category 5 includes hunting firearms; category 6 includes all bladed weapons; category 7 includes ‘target shooting and fairground firearms and ammunition’; and category 8 includes ‘antique and collectible weapons and ammunition’ (Republic of Guinea, 1996).

The law specifies that ‘the unauthorized purchase or possession of weapons and ammunition of categories 1, 2, 3, 4 and 5 is prohibited’ (Republic of Guinea, 1996, art. 9). In Article 20, however, the law states that ‘weapons and ammunition of categories 5, 6, 7 and 8 may be carried or transported freely’.¹¹ There are no restrictions on the possession (by adults) of weapons in categories 6–8 (Republic of Guinea, 1996, art. 15).¹²

The Directorate General of Internal Intelligence (DGRI) is responsible for issuing licences for hunting rifles. These licences are valid for a year and can be renewed; only 35 such licences were issued in 2018.¹³ The DGRI also issues weapons licences to security employees, including embassy personnel or guards, mining companies, and (occasionally) protection personnel accompanying heads

of state on official visits. It is unclear how many firearms licences are currently in circulation in Guinea.¹⁴

The DGRI is not the only institution with authority over firearms: the Ministry of Defence shares this prerogative and is responsible for the issuing of handgun licences. In addition, a *préfet* (a local government official) sometimes issues licences in the more remote regions of the country.¹⁵

The number of weapons in circulation

How many firearms are in circulation in Guinea is unclear. The Small Arms Survey estimates that there are some 130,000 firearms in Guinea, although the government cannot provide an official count (Karp, 2018). As noted above, the bulk of firearms are likely related to hunting, which remains a traditional activity for many, especially in the more isolated areas of the country. Although wild game has become scarce in Guinea, it is thought that 10–30 per cent of families in rural areas own a firearm (Dia, 2005).¹⁶ The Guinean ComNat-ALPC is in the process of setting up a firearms register, which will likely clarify the situation.¹⁷

The market in firearms and ammunition

Guinea was subject to two arms embargoes between 2009 and 2014.¹⁸ Since then, imports of hunting weapons have reportedly ceased, although the market



Weapons in a courthouse evidence storage facility. The number on the SKS rifle refers to the corresponding case file. Source: André Desmarais, April 2019

for hunting weapons continues to exist.¹⁹ In May 2018, for example, 2,000 new shotguns—including several pump-action shotguns with a capacity of five to eight cartridges—were smuggled into the country and sold for GNF 12–14 million (USD 1,310–1,530) on the local market (Dalanda Bah, 2018).²⁰ A stall in Conakry’s ‘La Corniche’ area reportedly sold seven illegal hunting rifles for around GNF 12 million each (USD 1,310).²¹

The ammunition market continues to exist as well. A shipment of hunting ammunition with a value of more than USD 9,000 arrived in Guinea from China in 2014, immediately after the end of the EU embargo (Jongleux, 2019). Recently, the DGRI received three requests for import licences. The first container containing ammunition described in these requests was unloaded at Conakry port in March 2019.²² Alongside this legally imported ammunition, contraband cartridges from Senegal have been found in Conakry (Gaye, 2017), while there have also been reports of illegally imported Malian cartridges (Holtom and Pavesi, 2018, p. 50).

A classification of illegal firearms seized or surrendered in Guinea

It is difficult to make definitive statements about the numbers and types of weapons seized or collected by Guinean security forces, because such data is not routinely available. Research suggests that the classification found in Table 1 represents a reasonable guess as to the types of weapons in illicit circulation. The information in Table 1 is based on five different groups of firearms, which were either seized by the Guinean security forces or voluntarily surrendered by their owners between 2014 and March 2019.

In three of the five groups—two seizures and one voluntary surrender²³—generic AK-pattern rifles²⁴ made up the majority of the firearms collected (between 31 and 79 per cent). Various types of long guns²⁵ were also on the list of weapons collected, including MAT 49, PPSH 41, and PPS 43 sub-machine guns; Mannlicher 1895 and Springfield M1903 rifles; and a 1980s-era Ruger rifle.

In addition to the AK-pattern rifles, several SKS-pattern rifles were listed among the weapons seized by authorities or handed in during the two voluntary surrender campaigns. Interestingly, in March 2019 authorities seized 13 firearms from one individual. While none of the seized weapons was an AK- or SKS-pattern rifle, three PPSH 41 sub-machine guns were among them.²⁶

Table 1 Types of firearm seized by or surrendered to the Guinean authorities, 2014–19

Type of firearm	Percentage of total*
AK-pattern rifles (known locally as PMAK)	40.2
Long guns, various calibres and models**	14.1
Craft-produced shotguns	11.2
Craft-produced handguns	11.2
Handguns, various calibres and models	10.9
SKS-pattern rifles	7.6
M1 Carbines	4.8

* n = 249 firearms

** The category ‘long guns’ includes sub-machine guns.

Sources: The data in Table 1 is based on the inventory of one evidence storage facility and information culled from press articles and documents supplied by confidential sources²⁷

Only one of the groups of firearms that were voluntarily surrendered comprised a majority (77 per cent) of craft-produced firearms. By way of comparison, only two ‘blacksmith’s guns’ (artisanal weapons) were documented in the evidence storage of the Conakry No. 1 Banditry Brigade, representing 6 per cent of all firearms in that facility.

The prevalence of AK-pattern rifles confirms the observations of staff of the Directorate of Forensic Services (DPTS) in Conakry. DPTS sources noted that the weapons most often involved in criminal cases are AK-pattern rifles (60 per cent) and 12 gauge shotguns (20 per cent). The remaining 20 per cent of weapons used included various calibres of semi-automatic handguns (revolvers appear rarely or not at all) and a few ‘blacksmith’s guns’.²⁸ These numbers also confirm the notion that Guinea is still relatively untouched by the proliferation of blank-firing pistols—both modified and unmodified—observed elsewhere in Africa.²⁹

National forensic crime services’ capabilities

Forensic sciences

In Guinea, two departments provide technical support to criminal investigations: (1) the DPTS, which is part of the Central Criminal Police Directorate under the Ministry of Security and Civil Protection; and (2) the Regional Forensic Science Unit (URPTS), which is part of the General Command of the Gendarmerie under the Ministry of National Defence.

The DPTS employs about 15 civil servants.³⁰ Their responsibilities include

managing crime scenes, maintaining the police central records, and recording the identification data of people who are subject to criminal proceedings.³¹ Fingerprinting represents the bulk of the unit’s activities.³² Since 2009 the DPTS has collated and organized around 8,000 fingerprint records from the Conakry Special Zone (SZ).³³ The central records managed by the DPTS contain all criminal files from the Conakry SZ as of 2010. The former criminal records repository, established in 1959, is located at the National Police Academy, but is effectively unusable.³⁴ Located in the Coronthie district, Kaloum subprefecture, the DPTS facility was funded by French development assistance and has been operational since 16 June 2009. The facility has a car and a single computer, connected to a printer, but the data is not backed up. Documents are occasionally printed at a nearby cybercafé, with the director of the laboratory paying for the copies out of his own pocket.³⁵ In this context, the ballistics microscope depicted in a mural on the outer wall of the DPTS facility exemplifies both the desire and the need for more sophisticated forensic methods and equipment (see below).³⁶

The DPTS field team comprises five staff members. The team lacks the necessary resources to carry out anything more than the most basic forensic tasks: it has a single field kit containing the most rudimentary investigative equipment, and shares two digital cameras with the team responsible for photographing suspects taken into custody. Indeed, the field team does not own a floodlight, so staff use mobile phone lights or their personal flashlights when investigating crime scenes at night.³⁷



The only ballistics microscope in Guinea is the one depicted on the outer wall of the DPTS building in Conakry. Source: André Desmarais, April 2019

By all reasonable measures, DPTS staff lack the necessary resources to do their job as forensic scientists, despite their training.³⁸ As part of the EU-funded Programme to Reform the Security Sector

(PARSS), phase 2, 15 field kits were distributed to forensics units at police stations in the Conakry SZ. PARSS phase 2 will also emphasize capacity-building in forensics as part of its goals.³⁹

The URPTS is located on the campus of the Gendarmerie Academy in Sonfonia, on the outskirts of Conakry. Established in June 2018, this unit employs eight non-commissioned officers, all of whom were recently trained as forensic scientists.⁴⁰ The team is responsible for managing a national criminal identification database. Team members are also skilled in criminal investigation support, suspect identification, crime scene management, forensic photography, ballistics, and investigations of cybercrime.⁴¹

The team's facility was inaugurated in 2018, and includes forensic equipment purchased with funding from the French government.⁴² The URPTS owns several computers, but their data is not backed up. Although the unit is planning to network these computers with the addition of a server and Internet access, at present staff members must use their personal mobile phones to search the Internet. The URPTS team has two cars, which are used to travel to crime scenes. In areas outside the capital they rely on a network of 219 gendarmes trained in basic forensic skills, as well as 14 trained forensic photographers.

The URPTS is well organized, but suffers from a lack of modern equipment. For example, its criminal identification database, set up in 2013, contains only a few hundred fingerprint records. These records are scanned and then entered into an



The building site of the future forensic sciences department on the campus of the Gendarmerie Academy in Sonfonia. This building is intended to host a new forensic sciences department with advanced analytical capabilities. The Guinean government funded the project, but construction came to a halt three years ago and the building remains unfinished. Source: André Desmarais, April 2019

Access database hosted on an office computer. Although the database is small, the computer is too old to be able to run even basic searches on the records. Practically this renders the identification database all but unusable.

The URPTS team's equipment is better and more modern than that of the DPTS, but it is still limited. Equipment is largely limited to crime scene documentation and fingerprint recovery. Like their police colleagues, the gendarmes of the URPTS lack basics: they too are forced to use their mobile phones as flashlights when they are gathering evidence at night.⁴³ Paradoxically, their kits include swabs to collect biological evidence, although no laboratory in Guinea has the capacity to analyse biological samples.

Forensic medicine

The Conakry Forensic Medicine Service is located at the Ignace Deen Hospital. In addition to their forensic role, the team of three medical examiners supervise the training of approximately ten future examiners. These students are working towards a post-graduate diploma in forensic medicine, which is taught in partnership with the University of Montpellier, France. Upon graduation, the current plan is for these forensic examiners to be posted across the country, including

in 'landlocked areas [where] there is a lot of crime'.⁴⁴

The Conakry morgue is a large and well-ventilated space. It contains only rudimentary equipment, however, including an autopsy table, a box of medical instruments, a scale, and a refrigerated unit with capacity for around 15 sets of remains.⁴⁵ Given the hospital's limited capacity—it has only one digital radiography unit—remains are never X-rayed before autopsy.

As members of the only institution in Guinea with the capability to carry out forensic medical examinations, the Conakry medical examiners are remarkably efficient, despite their lack of equipment or expertise in some areas of forensic investigation.⁴⁶ For example, examinations are carried out despite their lack of access to expertise in wound ballistics, a lack that they regret.⁴⁷ Each year they perform on average 250 crime scene examinations and 100 autopsies.⁴⁸ In recent years, the number of crime scene examinations has increased rapidly, while the number of autopsies has grown more moderately.⁴⁹

The medical examiners do not have a vehicle at their disposal. As such, they use motorcycle taxis to reach crime scenes. At the crime scene a victim's remains are not systematically examined *in situ*, even in Conakry. This is particularly true when the victim is found in a public place; in such cases, the remains are often quickly

evacuated to 'lower public tension'.⁵⁰ The collection of remains is also problematic. In Conakry at least, it is the responsibility of the fire brigade to transport remains, but authorities regularly hire private minibus or taxis for this purpose.⁵¹

Guinean police procedure allows for the prosecutor's office to request an autopsy to be performed in the course of a criminal investigation. The lead judicial police officer (*officier de police judiciaire*) is expected to attend the autopsy and—in terms of ballistics-related evidence—take custody of any projectiles extracted from the body, placing them in a sealed container. There is no formal procedure for the retention of projectiles. Instead, the morgue keeps the projectiles if the officer is not present, retaining them until they are collected. In some cases this evidence is left indefinitely in the care of the medical examiners.

The extent of firearms- and explosives-related crime in Guinea

The most frequent cause of violent death in Guinea is knife crime. Firearms play a role in only 30 per cent of deaths.⁵² According to a 2016 study of penetrating wounds to the chest, 59 per cent of victims were aged 21–30 years (Taran Diallo et al., 2016). AK-pattern rifles were responsible for 90 per cent of all gunshot wounds, with hunting rifles accounting for the remaining 10 per cent.

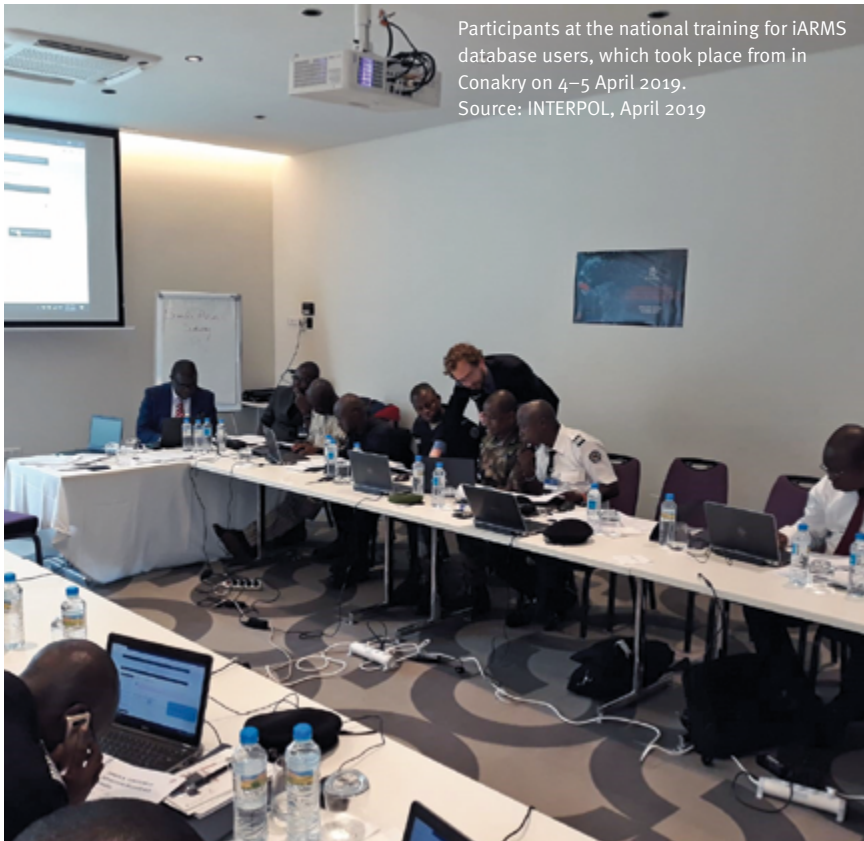
Although Guinea has been relatively untouched by the proliferation of improvised explosive devices, in early 2019 the DPTS was responsible for investigating the explosion of a vehicle containing cans of petrol and a gas cylinder in front of a public building.⁵³ The DPTS team documented the crime scene and collected a sample of the burned residue in a paper bag. Unfortunately, the DPTS lacks the means and expertise to examine the sample. In this instance, the DPTS forensic scientist informed the detective in charge of the case that he had collected the sample, thereby establishing a chain of evidence. The DPTS officer placed the collected sample in his samples closet, explaining that he planned to keep it as long as he had room for it.⁵⁴

Investigating firearms-related crime: chain of custody procedures

Several essential concepts pertaining to the processing of firearms-related evidence



Buckshot removed from a body during an autopsy and kept by the forensic pathology team.
Source: André Desmarais, April 2019



Participants at the national training for iARMS database users, which took place from in Conakry on 4–5 April 2019. Source: INTERPOL, April 2019

were added to the Guinean Code of Criminal Procedure with the adoption of Law 2016/060/AN, including ‘seizure’, ‘sealed evidence’, and ‘crime scene’ (Republic of Guinea, 2016). Article 65 of the law stipulates that ‘in the event of a flagrant crime, the investigating officer . . . shall immediately go to the scene of the crime and record all relevant findings’. This article also provides that ‘The officer shall take custody of any weapons or objects used to commit a crime or with the intention of committing a crime’. Article 68 specifies that ‘if the nature of the crime is such that proof can be acquired by seizure . . . all objects and documents seized shall be immediately inventoried and placed in sealed custody’.

While the law states what should happen in theory, in practice something rather different happens. For example, according to one interviewee, ‘cases [are] generally placed under seal. So are firearms’.⁵⁵ What constitutes evidence under seal neither is clear nor does it appear to be in line with best practices: the labels and containers currently in use are neither secure nor tamper-proof.⁵⁶

Guinean criminal procedure provides for seized firearms to be placed in the custody of the prosecutor of the lower court where the crime is to be tried, together with all the other relevant evidence and documentation. In practice, however, magistrates often refuse to keep the

weapons at the courthouse if they cannot ensure a sufficient level of security.⁵⁷ Thus, in most cases only a photo of the weapon is entered in the case file, while the weapon itself remains in the custody of the police department that investigated the crime.

If firearms are not deposited at court the prosecutor cannot present them as evidence in a trial. Courthouses generally lack the capacity to store them securely, however.⁵⁸ Where firearms and munitions are left at the courthouse, staff are obliged to keep them in unsecured or insecure storage areas.⁵⁹ For example, one courthouse in Guinea contains two storage rooms. The larger room, which is approximately 5 m² in extent, has masonry walls and a metal door secured with a padlock. The smaller is only a closet with plywood walls and a wooden door. Both spaces were filled with evidence of all kinds, from weapons and ammunition to documents and objects. The evidence was stored on the floor and on shelves, all without apparent organization.⁶⁰ This lack of organization endangers the integrity of evidence, as well as its security.⁶¹

Guinean magistrates recognize the difficulties caused by the lack of trained local specialists in ballistics.⁶² Moreover, the most recent version of the Code of Criminal Procedure also lacks any references to weapons or ammunition. In contrast, it stipulates that, in the case of

counterfeit currency, ‘at least one copy of each type of banknote or coin suspected of being false [must be forwarded] to the responsible national inspection facility’ (Republic of Guinea, 2016, art. 68).

From the evidence presented thus far, the capabilities of Guinean forensic services (both police and gendarmerie) are rudimentary in the area of forensic investigations in general, and in ballistics analysis in particular. Despite a lack of technical resources or reference material at their disposal, forensic service staff (both police and gendarmerie) claim that they use ‘common sense’ investigation techniques and do everything they can to investigate evidence with the equipment available.⁶³

These shortcomings do not prevent Guinean authorities from regularly seizing weapons trafficked across the country’s borders, however. For example, in 2011, a ‘large arsenal of military weapons’ was intercepted close to the border with Mali (Aidara, 2011). In 2016, at the border with Côte d’Ivoire, police seized ‘rockets . . . an SKS and a PMAK’ (Shan and Cui, 2016). And in 2017 ‘a shipment of weapons’ from Liberia was confiscated in the city of Macenta.⁶⁴ What needs to be improved is the way in which such seized weapons are productively processed by the Guinean law enforcement and forensics agencies. Security of seized weapons also needs to be improved, to prevent their loss and re-use in criminal activity.⁶⁵

Conclusion

The current capabilities of forensic science services in the Republic of Guinea are limited to recording and maintaining the details of criminals, photographing crime scenes, and dusting for fingerprints. With respect to firearms, there is no central firearms database that forensic experts can refer to, and the Guinean authorities have no clear picture of exactly how many weapons are currently in circulation in the country. Moreover, there is limited knowledge of the various calibres, models, and ammunition types. Research for this Briefing Paper identified only one military firearms specialist with sufficient understanding of ballistics to help develop this forensic discipline in Guinea (see Box 1).

Seized firearms are not systematically catalogued, labelled, and delivered (together with the other evidence and documents) into the custody of the judge in charge of prosecuting the corresponding case. As a result, weapons often remain

Box 1 Recommendations for improving ballistics-related expertise in Guinea

Given the current limits on Guinean forensic investigations, helping the government more effectively combat illicit arms trafficking and firearms-related crime requires urgent support and development. The research underlying this Briefing Paper identified several areas where the technical capacity of relevant Guinean authorities could be significantly improved, particularly with regard to forensic ballistics analysis. Ideally, such improvements would be available to all officers of the forensic science services. Guinean authorities should focus on the following in any funding applications for the purchase of equipment or the provision of staff training:

1. First-level ballistics analysis should be integrated into the forensic process. This would require:
 - a. training in the identification of firearms and ammunition;⁶⁶
 - b. the systemic recording of all seized unregistered firearms in the INTERPOL Illicit Arms Records and tracing Management System (iARMS), administered by the INTERPOL Firearms Programme;⁶⁷
 - c. the establishment of a centralized database of all seized ammunition to facilitate information sharing;⁶⁸
 - d. training in trajectory analysis;⁶⁹ and
 - e. training in evidence collection and chain of custody procedures.⁷⁰
2. Second-level ballistic expertise should also be improved. This would include:
 - a. training in the restoration of altered serial numbers;⁷¹
 - b. the creation of dedicated shooting ranges;⁷²
 - c. the systematic recording of ballistics data from recovered samples in a national identification system, in accordance with the requirements of the INTERPOL Firearms Programme;
 - d. the acquisition of good-quality ballistics microscope and related training;⁷³
 - e. the creation of a national directory of firearms and ammunitions owned by civilians and by the Guinean security and defence forces (access to this database would be closely monitored and restricted to police investigators and the forensic services); and
 - f. the systematic recording of all lost, stolen, trafficked, or smuggled firearms in the iARMS database.⁷⁴

in the custody of the police department that seized them. Due to a lack of clear role definition between the two ministries they report to, one observer noted that ‘police and [the] gendarmerie often do the same thing in the same place’.⁷⁵ This duplication of effort limits the potential for synergies and hampers the effectiveness of criminal investigations.

Forensic services should play an essential role in supporting police departments across Guinea to investigate crimes. The stakeholders, ranging from law enforcement officers to magistrates and medical examiners, are unanimous in deploring the weak state of forensic services in Guinea. They are equally unanimous in calling for improved capacity in ballistics and other forensic disciplines.

Reinforcing the capacity of the existing teams to rapidly examine weapons, ammunition, and ammunition fragments; establish links between criminal cases; and improve the traceability of seized firearms should be prioritized. To this end, Guinean authorities will need proper equipment and training, including in weapons

and ammunition identification, microscopic examination and comparison, and the restoration of serial numbers.

The forensic medicine department—already active at the local level—could also benefit from additional support. Things such as training in radiography, toxicology, and histopathology techniques, together with the laboratory equipment necessary to perform these analyses, would improve both investigators’ capabilities and the quality of support available to them. ●

List of abbreviations

ComNat-ALPC National Commission to Combat the Proliferation and Illegal Circulation of Small Arms and Light Weapons (Commission nationale de lutte contre la prolifération et la circulation illicite des armes légères et de petit calibre)

DGRI Directorate General of Internal Intelligence (Direction générale du renseignement intérieur)

DPTS Directorate of Forensic Services (Direction de la police technique et scientifique)

EU European Union

EUR Euro(s)

GNF Guinean franc(s)

iARMS Illicit Arms Records and tracing Management System

PARSS Programme to Reform the Security Sector (Programme d’appui à la reforme du secteur de sécurité)

SZ Special Zone

URPTS Regional Forensic Science Unit (Unité régionale de police technique et scientifique)

USD United States dollar(s)

Notes

- 1 For the first in this series, which focuses on the forensic services in Mauritania, Niger, and Chad, see Desmarais (2018).
- 2 See CrimeSceneInvestigatorEDU.org (n.d.).
- 3 The activities of a forensic laboratory generally include documenting crime scenes and examining fingerprints, shoe marks, bite marks, tool marks, identity documents, textile fibres, paint fragments, fire debris, firearms, and ammunition (UNODC, 2009, pp. 18–25).
- 4 Author interview with confidential source 02, Conakry, April 2019.
- 5 Author interview with confidential source 01, Conakry, April 2019.
- 6 In addition to Guinea, two-way flows from other West African countries to the Sahel have also been identified, including from Côte d’Ivoire, Liberia, and Sierra Leone.
- 7 See UNODC (2013, pp. 37–38) and GIABA (2013, para. 27); author correspondence with confidential source 24, 6 May 2019. A Small Arms Survey Briefing Paper on illicit arms flows in West Africa is available; see Mangan and Nowak (2019).
- 8 This estimate, communicated by the Guinean authorities, contrasts with the numbers presented in Table 1, which divides firearms into more specific categories; however, the latter data is based solely on arms seizures that were brought to the author’s attention.
- 9 Author written communication with confidential source 03, second half of 2017.
- 10 Author written communication with confidential source 03, second half of 2017.
- 11 The law allows for the open carrying and transportation of weapons or firearms in categories 6 and 8 (including ammunition), as well as for category 5, provided the owner obtains a licence (art. 9). Moreover, gun owners must present this licence in order to obtain a hunting permit from the Department of Forestry and Water Management. The annual cost of such a permit is GNF 5,000 (USD 0.54) (author interview with confidential source 01, Conakry, April 2019).
- 12 No weapons of these categories were among the seized or confiscated firearms

- observed by the author. In a telephone interview on 25 June 2019 confidential source 26 confirmed that he had never seen a .22 calibre long rifle-type firearm (representative of category 7) at any of the crime scene investigations or searches in which he had been involved.
- 13 Author interview with confidential source 04, Conakry, April 2019. None of the sources interviewed for this report would even venture an estimate of the number of firearms in circulation in Guinea.
 - 14 The author was unable to ascertain the number of licences that had been issued, despite the many sources consulted in the course of research for this Briefing Paper.
 - 15 Author interview with confidential source 04, Conakry, April 2019. One source felt it was important to clarify this point: he stressed that *préfets* do not have the authority to issue licences, and that such cases occurred infrequently (author interview with confidential source 01, Conakry, April 2019).
 - 16 Author interview with confidential source 04, Conakry, April 2019.
 - 17 Author interview with confidential source 01, Conakry; author telephone conversation with confidential source 27, April 2019.
 - 18 Guinea was subjected to two overlapping arms embargoes as a result of internal unrest after the death of its former leader, Lansana Conté. The first, imposed by the EU, was in effect from 2009 to 2014 (SIPRI, 2014). The second, imposed by the Economic Community of West African States, was in place between October 2009 and March 2011 (GRIP, 2015).
 - 19 Author interview with confidential source 01, Conakry, April 2019.
 - 20 See Dalanda Bah (2018). The article indicates that some buyers were still in possession of these illegal weapons.
 - 21 Author interview with confidential source 04, Conakry, April 2019.
 - 22 Author interview with confidential source 04, Conakry, April 2019.
 - 23 These weapons were surrendered in the context of the implementation of the Regional Small Arms and Light Weapons Programme. In Gaoual prefecture approximately 15 micro-projects were funded and more than 450 firearms were handed in by local residents. The firearms were subsequently destroyed (Sow, 2017, p. 9).
 - 24 This Briefing Paper uses the term ‘AK-pattern rifle’ or ‘AK’ to refer to all 7.62 × 39 mm calibre AK47 or AKM variants. Time constraints prevented the definitive identification of all firearm models viewed during the course of the research underlying this paper. As noted above, this type of firearm is commonly referred to as a ‘PMAK’ in Guinea.
 - 25 This Briefing Paper uses the term ‘long gun’ to refer to rifles and shotguns generally, and includes sub-machine guns in this category.
 - 26 Some of the ammunition clearly corresponded to the weapons confiscated by police, such as the 30 calibre carbine cartridges manufactured in 1971 in Salt Lake City, United States (LC 71), which are suitable for M1-pattern rifles. Conversely, the 5.45 × 39 mm calibre cartridges manufactured in Romania in 1990 (325 90) did not correspond to any of the weapons seized.
 - 27 Author interview with confidential sources 01, 10, and 11, Conakry, April 2019.
 - 28 Sources include: (1) a 2014 article describing the seizure of 93 firearms (the number of firearms described in the article add up to 93, although the title refers to a total of 99 weapons seized; see Bangoura, 2014); (2) a list of weapons seized by the National Directorate of Criminal Police between 2016 and 2017 (author interview with confidential source 05, Conakry, April 2019); (3) a partial list of weapons collected in voluntary surrender events from 2015 to 2017 (author interview with confidential source 06, Conakry, April 2019); (4) a visit by the author to the arms storage facility of the No. 1 Anti-Banditry Brigade in Conakry (in the presence of confidential source 07, Conakry, April 2019); and (5) a news article about a firearms seizure at a private home in Conakry, March 2019 (author interview with confidential source 08, Conakry, April 2019).
 - 29 Author interview with confidential source 09, Conakry, April 2019.
 - 30 Depending on their rank and responsibilities, DPTS staff have either completed training at the Gendarmerie Academy in Sonfonia or attended courses in France or the Russian Federation (author interview with confidential sources 11 and 17, Conakry, April 2019).
 - 31 The fingerprints and mug shots (front view and profile) of suspects taken into custody.
 - 32 Fingerprinting comprises a range of fingerprint-based identification methods, from taking the fingerprints of suspects in custody to recovering traces of prints at crime scenes.
 - 33 The Conakry SZ comprises the municipalities of Dixinn, Kaloum, Matam, Matoto, and Ratoma.
 - 34 The files are not categorized according to any particular classification system and can therefore not be searched (author interview with confidential sources 09 and 11, Conakry, April 2019).
 - 35 Author interview with confidential source 11, Conakry, April 2019.
 - 36 A ballistics macroscope is a specialized scientific instrument used in the ballistics investigation. The macroscope is designed for the study or observation, documentation, and precise measurement of small objects such as bullet fragments. Unlike a microscope, which *transmits* the light (where the light goes through the item, such as a virus or a thin section), a macroscope uses *reflected* light (for example, from the bottom of a round of ammunition).
 - 37 Author interview with confidential sources 09 and 13, Conakry, April 2019.
 - 38 The basic curriculum of the Police Academy in Kagbelen includes approximately 40 hours of instruction in forensics (author interview with confidential source 12, Conakry, April 2019).
 - 39 Author interview with confidential source 02, Conakry, April 2019.
 - 40 In 2018, depending on their responsibilities, these officers either underwent retraining (under the umbrella of French–Guinean cooperation projects) or attended specialized training courses (on cybercrime, for example) organized by the Ministry of Postal Services, Telecommunications, and the Digital Economy. These officers also visited various partner organizations in Benin, Botswana, Côte d’Ivoire, Ghana, and Senegal (author email exchange with confidential source 26, 11 May 2019).
 - 41 There are two central records, managed by the DPTS and URPTS, respectively.
 - 42 Author interview with confidential source 13, Conakry, April 2019. Interestingly, despite foreign support (from France and the EU, for example), neither the DPTS nor URPTS appears to have access to analytical services outside of Guinea. Only two expert reports from abroad were brought to the author’s attention: a French laboratory’s analysis of viscera (Bah, 2018) and a report on DNA tests carried out in Dakar, Senegal (author interview with confidential source 16, Conakry, April 2019).
 - 43 Author interview with confidential source 14, Conakry, April 2019.
 - 44 Author interview with confidential source 10, Conakry, April 2019.
 - 45 At the time of the author’s visit to the facility, two bodies wrapped in sheets had been laid on the floor due to a lack of storage space.
 - 46 Conakry medical examiners are also well-travelled within the country. For example, in 2009 they helped identify victims and perform several autopsies in the wake of a clash between protesters and security forces at Conakry’s Stade du 28 septembre that left scores dead. (The stadium is named for an important date in Guinea’s quest for independence from France. The 2009 protests were against the then leader of Guinea, Moussa Dadis Camara. Ironically, they took place on 28 September 2009. See HRW, 2009.) The medical examiners sometimes travel considerable distances to perform autopsies. Following an ‘inter-ethnic conflict in Zogota’ in 2019, they travelled to Nzérékoré, in the country’s south-eastern province of Guinée Forestière—nearly 800 km from the capital. Author interview with confidential source 10, Conakry, April 2019.
 - 47 Author interview with confidential source 10, Conakry, April 2019.
 - 48 Medical examiners carry out crime scene examinations of bodies. This examination consists in recording the body’s temperature, observing its position, and noting any marks or bodily fluids and their relation to the body.
 - 49 Autopsies carried out in the context of a criminal investigation are free of charge. In a civil context the family of the deceased may request an autopsy, but is charged a fee of approximately EUR 600 (USD 672) for the service.
 - 50 Author interview with confidential source 20, Conakry, April 2019.
 - 51 Author interview with confidential source 10, Conakry, April 2019.

52 Author interview with confidential source 10, Conakry, April 2019.

53 Author interview with confidential source 17, Conakry, April 2019.

54 Ideally, this police officer would have used a ‘gas-proof’ container such as a hermetically closed glass jar, metal pail, or bag (for example, a ‘KAPAK’ bag). In the absence of such equipment, the officer followed procedure as best he could by placing the sample in a paper bag (author interview with confidential source 19, France, April 2019; author interview with confidential source 17, Conakry, April 2019).

55 Author interview with confidential source 21, Conakry, April 2019.

56 Author observations. The absence of a secure seal in this instance goes against recommended procedure: ‘Each piece of evidence is labelled and sealed following requirements as per local regulations’ (UNODC, 2009, p. 13).

57 This is a common problem in sub-Saharan Africa (author email exchange with confidential source, 25 June 2019).

58 Author interview with confidential source 20, Conakry, April 2019.

59 Author interview with confidential source 20, Conakry, April 2019.

60 Author observations, April 2019.

61 In addition to the chaotic situation in the evidence storage areas, boxes filled with packages of medicine were stacked against the wall in the hallway of the courthouse (author observations, April 2019).

62 Author interview with confidential source 21, Conakry, April 2019.

63 Author interview with confidential sources 17 and 18, Conakry, April 2019.

64 Author interview with confidential source 05, Conakry, April 2019.

65 Author interview with confidential sources 20 and 22. This is, unfortunately, consistent with other countries in the sub-region. See, for example, UNODC, 2013, p. 38.

66 To do so, the forensic services will need the following equipment: technical documentation (to help them precisely identify weapons and ammunition), a precision scale, digital callipers, a macroscope for ballistics comparisons, a computer with data backup facilities and Internet access, and a digital camera.

67 The INTERPOL Firearms Programme organized a training course for law enforcement officers in Conakry on 4–5 April 2019. The course focused on the use of the INTERPOL Firearms Programme iARMS database (including iARMS, the INTERPOL Firearms Reference Table, and the INTERPOL Ballistic Information Network) to combat the proliferation of small arms. Thirty-two people attended, including participants from the police and gendarmerie, both forces’ academies, customs, various border posts (including Conakry port), the Office of the Prosecutor, the DGRI, and ComNat-ALPC. Participants underwent strict screening, because they were given direct access to the iARMS database in the context of the implementation of the EU-funded Morea project.

68 This requires the creation of a centralized database of all seized ammunition.

69 The forensic services will need trajectory analysis kits. Each kit should contain a set of probes, coloured strings, a measuring tape, an angle finder, and a laser pointer.

70 In addition to training, the forensic services need the material resources necessary to implement these procedures.

71 To do so, investigators need to be able to locally purchase chemicals, laboratory glassware, and protective equipment. Ready-to-use gels or Magnaflux kits are also an option, provided they can be sourced in Guinea.

72 Essential materials and equipment include a stock of ammunition of the most common calibres, a firing box, and protective equipment such as bullet-proof vests, safety headphones, and goggles.

73 The ballistics laboratory should be located in a clean, air-conditioned, and quiet room with a reliable electricity supply.

74 In order for iARMS to play its intended role—facilitating the investigation of firearms trafficking by enabling investigators to check all illegal weapons seized against entries in the database—its data needs to be regularly updated by a majority of participating countries, especially in the same region. The updates must include all national-level information on lost, stolen, trafficked, and smuggled firearms; see INTERPOL (n.d.).

75 Author interview with confidential source 02, Conakry, April 2019.

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About the SANA project

The **Security Assessment in North Africa** is a project of the Small Arms Survey to support those engaged in building a more secure environment in North Africa and the Sahel-Sahara region. The project produces timely, evidence-based research and analysis on the availability and circulation of small arms, the dynamics of emerging armed groups, and related insecurity. The research stresses the effects of armed conflicts in the region on community safety.

The Security Assessment in North Africa receives ongoing funding from the Ministry of Foreign Affairs of the Netherlands. It has previously received grants from Global Affairs Canada, the Swiss Federal Department of Foreign Affairs, the Danish Ministry of Foreign Affairs, the German Federal Foreign Office, the Royal Norwegian Ministry of Foreign Affairs, and the US State Department.

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Small Arms Survey
Maison de la Paix
Chemin Eugène-Rigot 2E
1202 Geneva
Switzerland

t +41 22 908 5777

f +41 22 732 2738

e info@smallarmssurvey.org

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