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Author Background

Mr. Jeff Stocker graduated with an M.A. in Global & International Studies at the University of Kansas School in December 2010. He also received his B.A. at KU in 2008 (History). Since graduation, Jeff has gone on to pursue a career in international business.

The Center for Global and International Studies (CGIS), at the University of Kansas, exists as a catalyst for global and international studies in the College of Liberal Arts and Sciences. Building upon longstanding institutional strength in area studies and a commitment to international engagement, the Center: (1) provides a single point of contact and organization for College faculty with expertise in global and international studies; (2) promotes interdisciplinary research and teaching on topics and themes of transnational scope; (3) fosters research and expertise in world areas of growing economic and strategic importance not covered by the existing area studies centers; (4) stimulates grant activity and seeks external funding for curricular, research, and outreach projects in global and international studies; (5) provides a central home for interdisciplinary degree programs in international studies; (6) prepares students for careers in a global economy and an increasingly interconnected world; (7) promotes the global competitiveness of the state, the region, and the nation by providing outreach and support to businesses, schools, and government agencies.

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ARTISAN SMALL ARMS PRODUCTION IN SUB-SAHARIAN AFRICA

BY JEFF STOCKER

ABSTRACT

The heightened production, spread, and use of artisan firearms in large parts of Sub-Saharan Africa represent a major threat to the welfare of many millions of people. This phenomenon has generated a parallel economy and gun culture that has eroded social capital. At the same time, the export of craft weaponry and ammunition to conflict-prone and conflict countries has been used to arm insurgencies and militias, undermining American and multilateral peacekeeping efforts worldwide. This paper examines the gun culture in Sub-Saharan Africa by addressing three related topics: the prevalence of violent crime endemic to this gun culture; the specifics of artisan weapon assembly, including the required skill of a gunsmith, types of weaponry assembled, and the materials commonly used in the construction of craft firearms; and centers of artisan weapons manufacturing across the region, including quantitative data regarding the numeracy, cost, and economic impact of artisan weapons production. The report concludes with a prognosis of the situation and potential solutions for the growing problem of artisan weaponry and assembly in the region.
Introduction

Blacksmiths and farmers across Sub-Saharan Africa are increasingly moving away from the production or repair of farming implements, tools, or automobile parts and into the assembly, restoration, modification, and sale of firearms. In the past, craft weapon production and sales comprised a small fraction of informal economic activity. It also was largely confined to local operations. Without access to large production facilities or formally trained gunsmiths, blacksmiths and craftsmen throughout Sub-Saharan Africa were thought to have limited and tailored their trade to exclusively local buyers, notably youth gangs or other criminal elements. This report suggests, however, that the proliferation of artisan weaponry and assembly throughout Sub-Saharan Africa is not only economically significant, but is also frequently utilized by international elements such as insurgency groups, militias, or global criminal networks. The proliferation of small arms and light weapons (SALW) has undoubtedly proven highly destabilizing for many Sub-Saharan African countries, with artisan weapon sales exacerbating crime and political, social and economic unrest.

Gun Culture throughout Sub-Saharan Africa

The prevalence of automatic weapons in many developing countries has spawned a culture and economy based around the gun. Informal markets controlled by warlords and cattle barons in Kenya, Sudan, and Uganda are becoming more common and are reputed to have access to a near limitless supply of AK-47s and ammunition. These markets are beyond the reach of government authority, and guns are now

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**Dark and lighter green:**
Definition of “Sub-Saharan Africa” as used in the statistics of UN institutions.

**Lighter green:**
Sudan is classified as North Africa by the United Nations.

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traded for cattle or sold for local currency. This kind of economy, centered on firearms, has become disjointed and ineffective as families become victims of the gun culture.

In rural areas informal gun markets in Sub-Saharan Africa can safely rely on ranchers as steady customers because of the violent nature of cattle herding. Warlords, acutely aware of the gun epidemic, ensure that the price of an automatic weapon remains lucrative, as families must invest in weaponry to protect their livestock. Andria Killa, a 20 year-old Sudanese herdsman, commented on the cost of his Chinese-made Kalashnikov: “My family bought ours for six cows. It is our custom never to sell cows. That is how important such things have become - we forget the customs. Last year, my cousin was killed by a gun. The Kalashni is the ruling power here, if you like it or not.”
Although AK-47 ownership is technically shared by the family, the young men wielding them often take their personal income and spend it on alcohol, electronics, or clothing before bringing the money home. The culture of the AK-47 has effectively eroded familial structure and general well being, as elders, children, and wives are unable to utilize the provider’s income. Unfortunately, the purchasing of weapons is a prisoner’s dilemma for many families in rural or developing regions of Africa. If a family chooses to buy firearms, they exacerbate armed conflict, as competing groups will arm or rearm themselves, thereby proliferating the spread of SALWs. Conversely, if a family abstains from buying weapons, they risk becoming victims of armed individuals.

The economic consequence of significant firearm use in developing countries is most readily visible in agrarian operations. For example, the prevalence of light weaponry, notably the AK-47 assault rifle, has destabilized the security and infrastructure of agro-pastoralists and ranchers in Northern Uganda. The net economic loss is significant, as AK-47 raiding has directly affected population resilience, mortality rates, and quality and quantity of annual harvests.

AK-47 raiding, a type of cattle theft with automatic weapons, is most common in the Karimojong region of north Uganda, one of the arms capitals of Africa. Studies reveal that of the 33 homesteads sampled, every young man was in possession of at least one automatic weapon. The political climate of Uganda had created a nearly bottomless supply of light weaponry which, by nature, is linked to Karimojong’s once highly profitable cattle trade.

As raids intensified and grazing boundaries were blurred, herders formed alliances to fend off marauders and competing farmers. As a result, herders migrated collectively, but were forced into limited grazing land. Territorial rivalry spurred attacks against homesteads and neighborhoods in Karimojong, usually against innocent civilians or neighboring provinces.
Violence became so intense in the late 1990s that travel in northern Uganda was nearly impossible for fear of hijacking and assault. Violence in the region became worse with the Lord’s Resistance Army (LRA) and its war of terror throughout Uganda, the Democratic Republic of Congo, and Sudan.

AK-47 raiding has also directly affected mortality rates and population resilience in the Karimojong, Teso, Pokot, and Tepeth regions of Uganda. When cattle raiding began in the 1950s, violence accounted for 22% of adult male deaths in the region. Once automatic weapons were acquired in the late 1970s, cattle raiding accounted for 35% of direct adult male deaths. This figure increases to 70% if one incorporates indirect deaths from cattle raiding, such as hunger, infection, and malnutrition.

Unfortunately, this type of gun culture is not confined to Sub-Saharan Africa’s rural communities. It also affects many urban centers. Rural to urban migration is accelerating as farmers and former cattle herders are faced with greater adverse externalities from the gun culture, making survival more difficult in remote or isolated sections of the countryside. Many farmers enter the cities with few transferable skills and become destitute, often taking any paying job, usually in the form of day labor. While this kind of temporary employment is beneficial, it has also proven to be a double-edged sword, as many of the urban poor forgo temporary employment and instead become part of the violent or unscrupulous elements of the informal economy. Continuous operation in the informal sector not only spreads gun culture, but also threatens the stability of urban areas.

In one of Ghana’s largest cities, Kumasi, greater economic development and wealth has been perceived by impoverished communities as unequal and unjust. Gang activity has risen substantially and greater numbers of youth are resorting to guns to ensure they receive a portion of the wealth; unsurprisingly, gang violence and guns have become popular topics in Ghana’s media. Moreover, police reports indicate that armed robberies are occurring with greater frequency throughout urban areas, and, according to the United Nations Office on Drugs and
Crime (UNODC), guns are used in one-third of Ghana’s violent crimes.\textsuperscript{12} The high cost of food, education, and healthcare is perceived as unfair, and violent youth identify themselves in their crimes and assaults as sikafa, bandits who rob and kill the rich, rather than ahiafo, murderers who attack the weak or poor.\textsuperscript{13} This bizarre justification for murder and thievery is rooted in Asante norms and pseudo-Biblical beliefs wherein violent death is seen as a just outcome for those who accumulate wealth and do not share it.\textsuperscript{14} While these kinds of beliefs are espoused by a small minority of the populace, they do compound the rise in firearm use in cities like Kumasi, where adolescent gang violence is increasingly common.

It is important to note that gun culture throughout Sub-Saharan Africa is underpinned by economic and political instability. The rise of artisan gunsmiths is especially troubling, as it increases the stock of weaponry and subsequently arms greater numbers of the populace. A substantial increase in the supply of weapons threatens the stability and security of the region, yet, paradoxically, these weapons remain a cultural symbol, perhaps explaining why many senior West African political leaders brandish locally-made guns at community festivals or events.\textsuperscript{15}

**Artisan Firearms: Variations, Construction, and Price**

The variation in artisan firearms production is a reflection of the blacksmith’s relative skill and experience. Pistols, shotguns, and automatic rifles are the most common types of craft weapons, which fall into two subcategories: replicated and rudimentary. Both varieties warrant further investigation, as each one occupies a different sector of the illicit arms trade and, consequently, is present in different zones of conflict.

Rudimentary firearms, known in some circles as zip-guns, are the easiest types of artisan guns to produce. Styles vary between districts and are contingent on available materials and the individuality of the gunmaker.\textsuperscript{16} These firearms are comprised of basic materials: a metal
pipe, screw, tape, and firing mechanism, and they usually take the form of a pistol or shotgun. Despite the otherwise rugged appearance, these weapons are easy to use and are effective in combat situations. Though they are capable of only a single shot, artisans have devised a system of expedient reloading whereby the user simply rotates the barrel 180 degrees, which simultaneously ejects the used cartridge while the user chambers a new one. 17 The basic construction, mechanics, and pragmatism afforded by these rudimentary firearms make them popular among youth and common criminals, as they are easy to disassemble, disposable, untraceable, and substantially cheaper than regular or replicated firearms. A basic craft pistol sells for about US$7, with primitive shotguns fetching the equivalent of about US$100 in the markets in West Africa. 18

Unlike rudimentary guns, constructing replica firearms requires a higher level of technical skill and is more expensive. The most commonly cloned weapons are the Makarov and Tokarev pistols, the HK G-3 assault rifle, and the AK-47 assault rifle. 19 Estimates vary on exact prices, but cheap Makarov replicas sell for as little as US$4, 20 as opposed to well built copies, which sell for US$30-50. The inherent durability, combined with the simple design of these guns, makes them highly desirable more than sixty years since their inception. Some talented blacksmiths in Ghana have started manufacturing and selling copies of Russian, Chinese, North Korean, Libyan, and Serbian variants of the AK-47. 21 Moreover, the firing and reloading actions on the AK-47 feature a simplistic design, and the weapon is fitted to hold a variety of magazine types which are equally uncomplicated in

An African combatant brandishing a homemade rifle. Source: http://www.stormfront.org
construction: some artisans can build interchangeable parts and components from common scrap metal.

The mass production of replicated arms, however, does not require that the artisan have access to a factory or complex production facility. One Ghanian blacksmith commented that his primary income is derived from making AK-47s rather than utensils or other metal goods in his shop. Although replicated weapons require a more talented artisan, it takes very little time to master the trade. According to one account, a single blacksmith was able to master the principles of AK-47 construction in a week, and after one month had already built his first assault rifle. Within eighteen months this lone artisan had already exported his AK-47s (through intermediaries) to buyers in Lebanon, the Ivory Coast, and Nigeria. Like all craft guns, the price of the AK-47 correlates to the skill of the maker, as well as the size of the operation, and some blacksmiths attest that the illegal manufacture of firearms brings up to US$1000 per week.

Simple, affordable, and highly profitable, informal gunsmithing has ballooned from a cottage industry into a substantial economic enterprise with global repercussions. The following section will explore the extent of artisan production throughout Sub-Saharan Africa in greater detail.
The most well known center of artisan weapons assembly in Africa is in Ghana’s Suame Magazine, an industrial district located in Northwest Kumasi. The Suame Magazine occupies roughly two square blocks and hosts 80,000 workers, nearly 9,000 metalworking businesses, and represents the single largest concentration of blacksmiths in West Africa. The sheer size and density of the Suame Magazine enable artisans to construct weapons in virtual anonymity, and frequent police raids illustrate the difficulty in halting the trade. It is estimated that at least 400 artisans in southern Ghana are devoted to building and selling rudimentary guns, with each craftsman capable of producing up to 80 per annum. This estimate seems incongruously low, given that the same report suggests some 75,000 rudimentary guns are in use within Ghana’s borders at present. Other research suggests that approximately 200,000 firearms are manufactured annually in Ghana. Quantitative disparities are to be expected, as the informal nature of illegal weapon smithing makes it impossible to catalog every worker engaging in the activity, especially in a place like the Suame Magazine. The production capacity of the Suame Magazine, however, may prove problematic for governments, given that even a marginal rise in SALW output could intensify social, economic, or political tensions.

Awka, the capital city of Anambra State, Nigeria, is another production hub for rudimentary and replicated weapons. Like the Suame Magazine, Awka has a rich history of metalworking and blacksmithing, and in recent years has illustrated its ability to manufacture SALW. One of Awka’s nearly 200 blacksmiths, an elderly resident known as “Shore Battery,” constructs and sells firearms for any paying customer; bolt-action rifles (with silencers) sell for US$170, Beretta-style revolver shotgun prototypes for US$200, and Colt pistols for US$60. The price of the weapon reflects its quality and killing capacity, but Shore Battery also sells his own brand of handgun, a heavy iron flintlock that can chamber several varieties of ammunition, for US$50. These weapons, despite their low price, are extremely well made, and Awka guns

“The manufacture of artisan firearms is on the rise and has effectively filled the void created by international arms embargoes or disarmament initiatives.”
have been known as the preferred choice of Nigerian police officers. As in Ghana, it is nearly impossible to determine the exact number of weapons circulating throughout Nigeria, but estimates suggest that 1.6 million SALWs are in the hands of the civilian population. While it is unclear how many of these are locally made, multiple reports suggest the percentage is high, since demand for firearms is on the rise and many Awka artisans have the capability to replicate submachine guns, automatic rifles, automatic pistols, and ammunition.

While Awka and the Suame Magazine are popular locations for arms production, there are an undetermined number of artisans engaging in craft gunmaking throughout Sub-Saharan Africa. The only materials needed to produce a rudimentary gun are fans, a hammer, and iron pipe, making the identification or apprehension of a gunmaker extremely difficult. Given the relative ease of construction, artisans are able to sell their firearms at competitive prices to any buyer or financier. This capability includes the sale of such weapons regionally and internationally.

**Fueling the Fire: Global Transactions**

The manufacture of artisan firearms is on the rise and has effectively filled the void created by international arms embargoes or disarmament initiatives. The price and quality of these weapons have made them lucrative alternatives for buyers, as evidenced by the growing presence of craft weapons on battlefields throughout the world.
The regional transfer and sale of craft guns has become more frequent. One Ghanaian artisan attested to trafficking guns on both sides of the Konkomba-Dagomba conflict.\textsuperscript{35} In the civil wars of Sierra Leone and Liberia rudimentary firearms were employed in large numbers by both sides in their respective conflicts.\textsuperscript{36} Another blacksmith in Ghana commented that the majority of his buyers came from countries like Nigeria and Sierra Leone.\textsuperscript{37} The testimonials of these artisans confirms the increasing demand for African-built weapons, as buyers are exploring markets outside of their home country.

The low cost and relative ease of replicating firearms have been exploited by global buyers as well. One blacksmith in the Suame Magazine was approached by a Lebanese man who purportedly wanted AK-47s for a militia in Beirut. The buyer provided two AK-47s to be used as reference for the artisans and paid US$275 for the first replicated assault rifle. Pleased with the results, the Lebanese man continued to order as many weapons as the blacksmith could construct over an eighteen-month window.\textsuperscript{38} Another man in the Suame Magazine specializes in the modification and trade of Russian night vision assault riflescope that originated in Chechnya. Unsurprisingly, large numbers of foreign currencies have started circulating throughout the Suame Magazine,\textsuperscript{40} a testament to its mushrooming importance in the international arms arena.

**Addressing the Problem of Artisan Weapons**

As with imported weapons, locally made weapons pose a serious threat to stability and development in many Sub-Saharan African countries when used in conflicts, power grabs, terrorism and large-scale criminal activity. Craft weapons have been widely employed in combat zones throughout the continent and are attracting the attention of buyers from around the world. On balance, traditional strategies for disarmament have proven ineffective, and economic reintegration for blacksmiths appears to be the most viable solution for halting weapons production across Africa. Gunmakers and blacksmiths, like other types of manufacturers, normally devote their resources to the most lucrative pursuit. Therefore, any government’s development of economic policies that foster rapid economic growth is essential to curbing or
reducing artisan weapons. To the extent that market liberalization can be carried out, such as in Botswana and increasingly in other African countries, gunmaking will become relatively less lucrative; rapid economic growth will alter the relative profitability of producing alternative goods (especially with intensive trade liberalization) and reduce the risk of conflict, curbing the demand for weapons, whether homemade or imported.

International arms embargoes are not effective tools for disarmament. The main problem in Africa is not the international flow of weapons through or to the continent, but rather the vast stocks of light weaponry that already exist or are being manufactured across the region. Throughout the 1990s the U.N. was unable to access or locate numerous weapons caches in post-civil war Mozambique because of government corruption and political barriers. Additionally, to ensure certain political outcomes, the U.N. did not actively pursue strategies for disarmament until those elections were over. The U.N.’s operation was so cumbersome and visible in Mozambique that arms traffickers received tips from military contacts and civilian informants as to where inspectors would be searching. This enabled arms dealers to move weapons to neighboring regions while simultaneously discarding broken or unwanted merchandise. One Zambian soldier working on the U.N.’s disarmament team noted: “We get reports of where these [caches] are. Some are in no-go zones. They know, and we know that these are out of bounds. So the ones we get are the old weapons. The ones that they no longer want. In that sense we offer a free clearance service.” In actuality, the U.N.’s failure to confiscate weapons in Mozambique had dire consequences for South Africa, as large quantities of automatic rifles, pistols, and ammunition were moved into the country during the disarmament program. The increased stock of weaponry in South Africa spawned a large distribution network within the country, which stimulated political conflict, growing crime rate, and the public perception that guns were needed for self-protection.
The unconventional nature of artisan firearm development requires alternative solutions to the problem. Restrictive, cumbersome and costly legal procedures for doing business, as well as trade restrictions and selective price controls, impede economic development and force people to work in informal activities, creating poverty and making a country more prone to conflict. Statist, repressive economic policies deployed by corruption-ridden governments generate widespread misery and discontent, exacerbate cultural tensions, and foster political instability. Misgovernance and its consequences have all contributed to the rise in arms production, and many craftsmen are unlikely to halt their trade, given the large incomes received via gunsmithing. Thus, governments and local police forces should look into incentive programs for blacksmiths, e.g., subcontracting equipment repair for weapons, armor, or automotive parts. More importantly, governments should liberalize policies to encourage economic growth and foreign direct investment. Foreign investment could flow to those activities which are most profitable; eliminating policy induced-price distortions (e.g., high import taxes) would result in foreign investment going to those activities that have the highest social return.

Ultimately, economic reform is the choice of the ruling government. However, given the unconventional nature of artisan weapons production, traditional methods for disarmament and repressive economic policies will continue to push the activity further underground and stimulate greater numbers of firearm transactions. Both trade liberalization and economic incentivization are effective and pragmatic ways to curtail SALW production, and ultimately armed conflict.

**Conclusion**

The complete elimination of artisan weapons production is unlikely, given the present profitability of this trade. However, governments should look to policies that foster rapid economic growth, such as minimizing public spending, reducing trade barriers, and expanding property rights and private consumption. Gunmakers and artisans across Sub-Saharan Africa show tremendous skill and entrepreneurship, and channeling that transition into formal sector activities would be simple and profitable. If this approach is successful, informal economic
pursuits, especially gunmaking, will become less profitable. Indeed, rapid economic growth will lower the relative profitability of producing alternative goods, including locally made SALW, and reduce the risk of conflict.
End Notes

1. Note: the author uses the terms ‘blacksmith’, ‘gunsmith’, ‘weapon smith’, and ‘artisan’ interchangeably.


8. Ibid, S7.


17. Ibid, 321. Note: this article features a rifle which, alternately, utilizes bolt-action technology and can house both .303 and 7.62 NATO rounds. Not many rudimentary firearms utilize this technology though, given the limits of weapon construction that face many gunsmiths.


27. Note: These figures seem to be based on personal interviews. A report conducted by Interna-
tional Alert places the number of capable blacksmiths in southern Ghana alone at 2,500. Output is estimated at 1.5 firearms per week per artisan, not counting apprentices or assistants who possess the skill to manufacture a firearm. For the full report: http://www.international-alert.org/pdfs/MISAC_GhanaStudy.pdf


30. Ibid.


33. Ibid.


39. Ibid, 443.

40. Ibid, 445.

42. Ibid, 195.


Images

1. A submerged idol of Shiva stands in the flooded river Ganga in Rishikesh, Uttarakhand. Image: AP Photo
   Source: http://static.ibnlive.in.com/pix/slideshow/06-2013/photos-uttarakhand-battered/flood_monsoon_ukhand_pti5.jpg