United States Department of State

Diplomacy Laboratory

Project 32: Developing Maintenance Cultures in UN Police Peacekeeping Operations
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EXECUTIVE SUMMARY

This report provides an analysis and evaluation of maintenance cultures in United Nations Police Contributing Countries (PCC) receiving funding for Formed Police Units from the United States. The US Department of State, Bureau of International Narcotics and Law Enforcement Affairs (INL) recognized a marked lack of research on maintenance cultures in police agencies receiving foreign funding and sought to build a base of knowledge to aid in creating and sustaining maintenance cultures within these organizations. The INL also requested analysis and evaluation of maintenance cultures in five specific African PCCs (Cameroon, Ghana, Rwanda, Senegal, and Togo), as well as recommendations to create and sustain maintenance cultures specific to these countries. By establishing effective maintenance cultures, INL seeks to ensure that equipment purchased with funding from the United States will operate effectively throughout the manufacturer's estimated life-span.

Methods of research and analysis were based on information available from various open source online resources and those of the Indiana University-Purdue University Indianapolis Library database. The findings of this research include possible problems related to the UN Contingent Owned Equipment (COE) wet/dry lease system leading to poor maintenance practices and the recognition that establishing maintenance cultures where they are lacking, or non-existent, is a challenging endeavor. General recommendations discussed include:

- Standardization of COE
- Increase the quality of COE inspections and enforce compliance with wet lease maintenance agreements
- Provide pre-deployment training on proper maintenance practices
- Conduct FPU performance analysis with metrics specific to maintenance activities
- Incentivize maintenance culture integration
- Develop partnerships with organizations outside of the UN to provide maintenance training programs
- Encourage further research into maintenance cultures in PCCs through partnerships with educational institutions and think tanks located closer to the PCC. Consider the provision of grants to encourage this research.

The authors recognize the limitations faced when researching these topics. Research into the problem of maintenance culture in the specified African countries was hindered significantly by a lack of available material on the subject. The research was also limited to online research and available databases with no ability to directly observe and research maintenance cultures in those countries. Nor was there any ability to interview pertinent personnel to evaluate and establish the current maintenance culture.
PART I. SITUATION

Hypothesis

A common set of factors can be located which, if properly applied in a timely fashion, will result in the creation and sustainment of an effective maintenance culture. Without a maintenance culture, Formed Police Unit (FPU) operational readiness will rapidly diminish and lead to mission failure.

Introduction

The United States is a strong supporter of peacekeeping efforts in Africa, contributing nearly one billion dollars since 2009 to developing African peacekeeping capacity, strengthening African institutions, and providing training and equipment to African troops and police engaged in United Nations (UN) and African Union (AU) peacekeeping operations.¹ The US Department of State, Bureau of International Narcotics and Law Enforcement Affairs (INL) assisted countries through the International Police Peacekeeping Support Program (IPPOS) in strengthening UN police divisions, building capacity for police contributing countries (PCCs), enhancing rapid response capabilities, deploying expert advisors, and providing bilateral assistance to countries, including training, equipment, and infrastructure improvement projects.² IPPOS engages in capacity-building efforts to other PCCs, including FPUs and Individual Police Officers (IPOs) from Cameroon, Ghana, Rwanda, Senegal, and Togo. Much like IPPOS, the African Peacekeeping Rapid Response Partnership (APRRP), beginning in 2015, seeks to build key military and peacekeeping components in partner countries: Ethiopia, Ghana, Rwanda, Senegal, Tanzania, and Uganda.³ Focusing on developing high-demand enabling capabilities—including airlift, C3IS (command, control, communications, and information systems), engineering, logistics, medical capabilities, and FPUs—addressing historical pitfalls of rapid response and peacekeeping efforts in hostile regions. Both IPPOS and APRRP focus on sustainable support for FPUs, ensuring effective deployment to UN peacekeeping missions around the world, even beyond provision of U.S. government assistance.

In a multi-faceted effort to support FPUs—here defined as cohesive mobile units providing support to UN operations—deployed in peacekeeping operations, the International Narcotics and Law Enforcement Affairs, Office of Criminal Justice Assistance and Partnership (INL/CAP) seeks to augment the impact of foreign assistance funds received by FPU units and PCCs by keeping provided equipment functioning long after the provision of funding. While PCCs commit to maintaining forces and equipment in exchange for INL capacity-building funds, the complex and dangerous conditions are often not conducive to fulfilling this commitment.

Appointed by INL/CAP, Project 32 seeks to produce recommendations germane to establishing and maintaining a maintenance culture among UN peacekeeping missions, with respect IPPOS and APRRP who provide foundational support to FPUs. Per Project 32, a maintenance culture is defined in the following way:

A maintenance culture in an institution can be defined as the set of sustainable practices that enable the combination of technical, administrative, and managerial actions during the life cycle of a procured item—intended for retention or restoration to a state in which it can perform the required function (Project 32).

Even more, the pursuit of maintenance culture also involves the identification and cataloging of equipment, with varying life cycles and maintenance requirements that are utilized in deployed FPU support. Given the dearth of research surrounding maintenance culture development in security sector police agencies that receive foreign assistance, this project seeks to address gaps in the literature, while analyzing five PCCs—Rwanda, Senegal, Cameroon, Ghana, and Togo—and deriving concrete recommendations to address producing and sustaining a maintenance culture. The FPUs in each PCC serve as case studies from which to draw conclusions and formulate recommended actions, considering the challenging conditions FPUs experience within deployed countries.

**Identification of Police Contributing Countries**

As the UN focuses on conflicts potentially requiring a Peacekeeping Operation (PKO), a Strategic Assessment is convened that includes consultations with Member States to begin identifying possible PCCs and a host government. Potential PCCs and a host government are identified once the UN’s Tactical Assessment Mission (TAM) reports recommendations on the PKO’s size and resources. As the UN has no standing police force, consultations with potential PCCs and a host government must be further refined based on the personnel, equipment, and facilities these Member States are able and willing to pledge. This, in conjunction with increasingly complex mission mandates and coordination, often requires the assembly of a multinational force and leadership hierarchy to prepare, deploy, and conduct the PKO. A complex conglomeration of international actors and elements seeking to combine different decision-making processes, systems, procedures, command authorities, and budgetary pressures underscores the different and sometimes nonexistent nature of a unified maintenance culture among participants. The UN (2008) has expertly identified issues with not establishing basic institutional procedures – of which, equipment maintenance is arguably part of – in its **Peacekeeping Operations: Principles and Guidelines** publication:

> Effective leadership and strong managerial skills are at a premium during start-up. If basic systems and procedures are not established early on, this can cause compounding confusion as the mission rapidly expands during start-up. If effective and streamlined institutional processes to control the fragmentation of a large and diverse mission are not installed during the startup period—such as establishing mission decision-making forums, information sharing and
information management protocols, reporting lines, etc.—they will become increasingly difficult to introduce later.4 (italics ours)

The inherently serious and critical nature of global PKOs requires massive and unique effort to rapidly integrate distinct organizations with different cultures and languages. An effort to understand the maintenance cultures in PCCs is an intuitive step towards identifying methods to create and sustain positive maintenance cultures within these critical PKOs.

Contingent Owned Equipment

Contingent Owned Equipment (COE) is the equipment owned and brought by PCCs to peacekeeping missions, in which the UN reimburses PCCs for their contributions of COE and for self-sustainment services provided. The COE system was adopted by the UN in 1996 to simplify how countries are reimbursed for providing equipment, personnel, and self-sustainment support services to FPUs in peacekeeping missions. To specify the exact amount and type of equipment, personnel, and self-sustainment services the PCC is expected to provide, the Department of Peacekeeping Operations (DPKO) and the PCC utilize a signed contract, or Memorandum of Understanding (MOU), completed prior to deployment. By relying on a prior agreement between the UN and the PCC for the leasing of equipment and provision of services to personnel, the MOU eliminates the need for detailed surveys of equipment and places the responsibility of asset management on the PCC (UN General Assembly 2015). The UN is responsible for ensuring that PKOs have the personnel and equipment required to fulfill its mission that PCCs provide personnel, equipment, and services as specified in the MOU, and that PCCs perform to established standards. UN staff is responsible for COE inspections—including an arrival inspection, operational readiness inspection carried out every six months, and a final repatriation assessment—to verify that COE meets standards for reimbursement. COE inspectors also establish and maintain inventories of equipment and identify major equipment and self-sustainment shortfalls or inefficiencies. These verification and control procedures aim to ensure that MOU terms are met by both the UN and PCC during the agreement period. With respect to major equipment, two lease models are specified:

- A wet lease is a COE reimbursement system where the PCC assumes responsibility for maintaining and supporting major and minor items of equipment deployed. The PCC is then entitled to a reimbursement for providing this maintenance support.
- A dry lease is a COE reimbursement system where the PCC provides the equipment and the UN assumes the responsibility of maintaining the equipment, either directly or through contracting with a third party to be reimbursed the maintenance portion of the dry lease.

Rates of reimbursement are generic, based on “fair market value” as determined by working groups of the General Assembly. A separate MOU is written for each formed military or police unit to be deployed to a peacekeeping mission. Currently, there are over 300 MOUs covering units deployed to 11 peacekeeping missions, representing over 2 billion US dollars in personnel, equipment, and self-sustainment costs annually. Major equipment necessary, as noted by the UN

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(2016), for FPUs are noted in Table 1 (below). In addition to equipment and personnel contributions, FPU members are to be supplied with individual kits that include uniform components, personal equipment, police equipment, and personal safety and security items. 5 Finally, self-sustainment support services eligible for reimbursement include: medical and dental services; accommodations, including bedding, furniture, internet access, and general welfare; nuclear, biological, and chemical protection (NBC); basic firefighting equipment; communication systems; explosive ordinance disposal of unexploded ammunition; and observation. 5

Table 1. FPU Major Equipment (UN 2016)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>APCs/PAPVs (armored personnel carriers or police armored protection vehicles)</td>
<td>3-6</td>
</tr>
<tr>
<td>Ambulance</td>
<td>2</td>
</tr>
<tr>
<td>Jeep 4x4 with military radio</td>
<td>15</td>
</tr>
<tr>
<td>Buses (12 passenger capacity)</td>
<td>3</td>
</tr>
<tr>
<td>Truck Utility Cargo (2.5 to 5 tons)</td>
<td>4</td>
</tr>
<tr>
<td>Trunk Tanker (up to 10,000 liters)</td>
<td>2</td>
</tr>
<tr>
<td>Fuel/Water Trailers (up to 2,000 liters)</td>
<td>6</td>
</tr>
<tr>
<td>Engineering equipment (Fork lift, WTP, Recovery, Sewage Truck)</td>
<td>1 each</td>
</tr>
<tr>
<td>Electrical Generators (700 KVA capacity)</td>
<td>Parallel</td>
</tr>
</tbody>
</table>

PART II. DISCUSSION

As noted in the Project 32 description, a dearth of research exploring maintenance culture development among security sector agencies presents challenges in properly identifying and evaluating a PCC’s maintenance culture. Considering the limited technological connectivity in many developing countries, locating accurate and recent data also impacts the ability to craft analyses. As such, this report recommends further research into the maintenance culture of PCCs, as well as UN procedures regarding inspections, pre-deployment training, and reimbursement. The ideal environment to conduct this research would be a full cycle of a PCC’s pre-deployment, deployment, and reintegration process, and their interactions with UN oversight elements. Additionally, the formation of partnerships with educational institutions, think tanks, and research organizations with closer proximity may yield more robust findings. An investment in the form of grants to encourage research into this issue will likely pay dividends when solutions to poor maintenance cultures can be tailored to the agency in question.

FPUs face numerous challenges as it relates to rapid deployment, operational readiness, and operational performance. General challenges, as noted by the UN, include non-submission of monthly operational performance reports, limited oversight on FPU coordination, professionalism of the FPU coordination office, tendency to use FPUs to replace the host country’s military capabilities, improper support given to FPU personnel, and non-compliance

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with FPU policy (UN, 2016, 81). While participating in peacekeeping operations could be financially rewarding, delays in reimbursements for troop and equipment costs are an obstacle that affects the capacity or the motivation to participate. Specific to rapid deployment, PCC delay procuring COE or seeking donors until after their pledge is accepted and confirmed by DPKO, hinders the ability to deploy as needed. Some PCCs (e.g. Rwanda, Senegal, and Cameroon) have experienced reimbursement delays in past PKOs, perhaps motivating the delay in procuring COE. For example, during its role in AMIS (2004-07), Rwanda also experienced delays in receiving compensation from the AU for peacekeepers killed during deployment. Rwandan representatives at the UN have cited slow rates of reimbursement as a factor hindering sustained commitment. This argument has been regularly raised by members of the Non-Aligned Movement, also including Senegal that “urged respect for the timely payment of troop contributors,” during the General debate of the 2015 C-34 Substantive session.

With respect to operational performance of FPUs, deficiencies in COE—for which PCCs are responsible under wet leases—limit the performance of FPUs. It is possible that PCCs with limited or non-existent capacity to maintain equipment may opt for a wet lease to receive a higher reimbursement from the UN—irrespective of their ability to maintain COE. Even more, there is little standardization of FPU equipment, leading to inappropriate capacity to achieve PKO objectives. FPUs also find challenges in providing and maintaining self-sustaining services, damaging FPU capacity and longevity. Finally, there is limited consistency with pre-deployment training. While the UN provides training standards for FPUs, it is the responsibility of PCCs to provide this training. Developing a maintenance culture is essential to increase the awareness about maintenance activity; regarding this, maintenance culture should be studied through examining and identifying the determinant factors which influence the development of maintenance culture. The ten determinant factors of maintenance culture are leadership; communication; motivation, reward systems and recognition; empowerment; involvement; policy system, strategy and work planning; teamwork; training and education, organizational culture. Additionally, the recognition that establishing a maintenance culture may be challenging and first engaging in the most basic components of maintenance will assist in ease of implementation. As such, Oedewald & Reiman (2002) identify the core tasks of maintenance as anticipating, reacting, and reflecting, illustrated in Figure 1 (below).

While PCCs can engage in activities to establish and strengthen maintenance culture, additional recommendations can be aimed at the DPKO to incentivize its development:

- Standardize the types of COE being utilized by FPUs in PKOs, allowing for less variability in the quality of COE. This will also aid in standardizing metrics to monitor

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COE maintenance and appropriately adjust reimbursement, rotation of equipment, and PCC accountability of lease requirements.

- Engage in more thorough quarterly inspections to ensure that equipment is up to DPKO standards and to identify maintenance needs as early as possible.
- Rotate equipment more frequently.
- Require PCCs that wish to engage in a wet lease agreement to provide a maintenance schedule and detailed plans to ensure that PCCs provide the proper maintenance to COE.
- Standardize pre-deployment training for FPUs instead of suggested guidelines from the UN and facilitation by the PCC. This is a critical point in which the UN has direct oversight of deploying FPUs and has the ability to inspect their maintenance plan(s), and hold them accountable for non-compliance of basic maintenance procedures and equipment according to the stipulated type of lease (i.e. dry vs. wet).
- Conduct FPU performance analysis, including metrics related to equipment and self-sustainment activities, to reward positive maintenance culture and identify shortfalls in PCCs with weak or nonexistent maintenance cultures.
- The US should develop maintenance policies and procedures to incentivize recipients of US aid to integrate maintenance culture. This should include identifiable milestones and standardized and published procedures indicative of positive maintenance cultures. This can also include training programs aimed at educating and certifying PCCs maintenance managers as a precondition to support.
- Develop support organizations outside of the UN to provide maintenance-training programs (i.e., the partnership between USAID, the St. Boniface Haiti Foundation, the W.K. Kellogg Foundation, and the General Electric Foundation).

*Figure 1: Core Tasks of Maintenance*  
(Oedewald & Reiman 2002)
PART III. CASE STUDIES

Rwanda

Situation

In the last ten years, Rwanda has become an important contributor to UN peacekeeping and AU peace operations. Rwandan contributions to peacekeeping were initially precluded by the 1990-94 civil war, 1994 genocide, and challenges of post-war security, including fighting an insurgency in the northwest of the country until 1998 and recurring interventions in the neighboring Democratic Republic of Congo (DRC). Since 2004, Rwanda has risen to become one of the top providers of peacekeepers for both UN and AU missions, driven by moral authority and national pride. The Rwandan Defense Forces (RDF) are particularly valued due to their training, discipline, the development ethos they bring to deployments, in addition to the growing number of women among those trained and deployed. The RDF provided the first contingent of female police officers to UNOCI in 2012 and currently has the highest number of female police on UN missions.

Rwanda deployed its first 150 peacekeepers to protect ceasefire monitors under the AU Mission in Sudan (AMIS) in 2004, framed as an effort to prevent genocide and linking peacekeeping directly to the stated aims and basis of legitimacy of Rwanda’s ruling party, the Rwandan Patriotic Front (RPF). Since then, a desire to maintain positive relationships with key donors, support for the “responsibility to protect” principle, commitment to African solutions, and incentives related to prestige and finance have underpinned Rwanda’s provision of peacekeepers. In December 2013, Rwanda signed an MOU with the AU to send troops to the Central African Republic. It has since deployed 850 soldiers under the International Support Mission in Central African Republic (MISCA). Darfur accounts for the majority of Rwanda’s overall deployment of troops, with Darfur, Haiti and Mali making up most of Rwanda’s police contributions.

Current Actions

Although smaller than some of its neighbors, the RDF retains significant capabilities in terms of infantry, counter insurgency operations, intelligence, and Special Forces, but also military administration. Several officers have been Senior Mission Leaders in peacekeeping operations.

and many more have been trained for senior positions. Other areas of capability are logistics, procurement, and supply. Rwanda’s defense spending remained relatively constant in recent years, at around $73 million USD per year between 2010 and 2013. Due largely to economic growth in Rwanda, defense expenditure has declined as a proportion of GDP from 1.34% in 2010 to 1.06% in 2013. As a result, the RDF continues to require significant financial commitment in peacekeeping contributions help to offset declining defense expenditures. Reimbursements from the UN for peacekeeping contributions provide significant proportions of Rwanda’s defense budget, with approximately 70% of defense expenditures covered from reimbursements. Rwanda is clearly a preferred partner of the US in building African peacekeeping capacity. International partners, especially the US, UK, EU, and Japan have strengthened the development of the RDF into a valued peacekeeping contributor, through military assistance, constructing training facilities, paying for various training courses, and procuring non-lethal equipment and providing strategic lift.

Rwanda experiences shortcoming that include the lack of strategic lift and serious air capabilities, such as a lack of a fixed wing aircraft, as well as an opaque and closed decision-making structure among a few select individuals. Even more, delays in reimbursement have caused frustration and impacted Rwanda’s performance against wider fiscal targets. During its role in AMIS (2004-07), Rwanda also experienced delays in receiving compensation from the AU for peacekeepers killed during deployment. Rwandan representatives at the UN have cited slow rates of reimbursement as a factor hindering sustained commitment. If Rwanda is to maintain large armed forces it will be difficult to make up such a shortfall other than through peacekeeping.

**Recommended Results and Changes**

- Continued investment in infrastructure and technology development.
- Additional training to peacekeepers on proper use of equipment and maintenance.
- Leverage Rwanda’s pride and enthusiasm for peacekeeping deployments through opportunities for leadership.
- Additional construction of training facilities and courses for peacekeepers.
- Collaborate with the UN and the DPKO to ensure timely reimbursements of contributions.
- Create a “Superior Maintenance Award/Title” to leverage Rwanda’s national desire to maintain positive relationships with key donors.
- Due to Rwanda’s national pride in their current status as a significant contributor of personnel and capabilities, additional UN PKO leadership positions should be offered as an incentive to establish positive maintenance culture techniques, and in-turn train other PCCs on positive maintenance culture techniques.
- As a recipient of US aid and capacity development, continued support should be predicated on a “Maintenance Culture Development Plan” with periodic accountability reviews to ensure implementation.

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● Establish organizational maintenance schedules on a weekly basis with a focus on preventive maintenance and individual accountability.
● Develop a Mobile Training Team (MTT) to teach proper equipment maintenance techniques and tracking systems to Rwandan FPUs.
● Explore the possibility of USAID programs to incentivize maintenance culture development.

Senegal

Situation. Senegal has long-standing experience in participating in peacekeeping operations led by the UN, the AU, and the Economic Community of West African States (ECOWAS)—demonstrating a commitment to international peace and security. The Senegalese army first participated in a peacekeeping operation as part of the Federation of Mali, in 1960, the same year the country gained independence from France. Senegal also deployed 600 men in the UN Operation in the Congo (ONUC). Since then, Senegal deployed personnel in 25 UN-led peacekeeping operations in Africa (Congo, Angola, Rwanda, Uganda, Central African Republic, Democratic Republic of Congo, Liberia, Cote d’Ivoire, Chad, Sudan and South Sudan), Americas (Haiti), Asia and the Pacific (Cambodia and Timor-Leste), Europe (Ex-Yugoslavia) and in the Middle-East (Egypt, Lebanon, Iran/Iraq, Iraq/Kuwait). The numerous peacekeeping operations deployed in Africa in the 21st century, the lack of capacity of many African countries to conduct peacekeeping, and Senegal’s new political leadership have been key factors in increasing its participation in international peacekeeping.12 Its most recent deployments have focused on MINUSCA (CAR), MINUSMA (Mali), MONUSCO (DRC), and UNAMID (Darfur). Senegal is also a major provider of peacekeepers to non-UN missions, especially due to its membership of the AU and ECOWAS. It deployed contingents of 600 troops in the first Organization of African Unity (OAU)-led operations in Zaire (1978-79) as part of the Inter-African Force during Shaba II; 600 troops in Chad, in the first OAU peacekeeping operation (1981-82); and 15 observers in Rwanda (in the Group of Neutral Military Observers deployed between 1992-93). Under an AU flag, Senegal deployed a battalion of troops in AMIS (Darfur). As a member of ECOWAS, Senegal has played an important role in ECOMOG deployments in Cote d’Ivoire, Guinea-Bissau, Liberia, Mali, and Sierra Leone. In 2013, Senegal sent 500 troops in the African-led International Support Mission to Mali (AFISMA).

Senegal gained an elected seat on the UN Security Council three times (1968-69, 1988-89, 2016-17) and its participation in the maintenance of international peace and security through its peacekeepers has been a key argument put forward in its campaigns. Even more, Senegal participated in the 2015 Leaders’ Summit on Peacekeeping held at the UN Headquarters in New York, on September 28, 2015, pledging one attack helicopter unit and one transport aircraft and signing the Declaration issues after the Summit. Elected as non-permanent member of the UN Security Council for 2016-17, Senegal chaired the Council’s Working Group on Peacekeeping Operations for a period ending on December 31, 2016. Participating in peacekeeping operations, not only in Africa but worldwide, is considered a key mechanism to strengthen Senegal’s role in sub-regional, regional and international organizations as well as to gain respect and recognition from major bilateral partners.

Senegal has highly qualified women police officers who have been allowed to participate in peacekeeping operations since 1999. However, challenges still remain in integrating women into deployments. In April 2010, none of the 1,605 Senegalese troops deployed in UN peacekeeping operations were women. As of 31 July 2015, there were 53 females (1.46%) among the 3,613 uniformed personnel deployed in UN peacekeeping operations. At the UN General Assembly 4th Committee meeting held on 30 October 2014, Senegal recognized the important role of women in peacekeeping operations and emphasized that their participation should be increased at all levels.

**Current Actions**

Over the years, Senegal has developed an expertise in peacekeeping operations, which has become a part of its foreign policy and defense strategies. The rationales put forward by the President of the Republic and the Government—including the need to express solidarity with affected countries and the commitment to maintain international peace and security—have been constantly highlighted to justify the decision to deploy peacekeepers. The logistical aspects of army deployments are mainly supported or provided by external donors, especially the US and France. Senegal also has a high potential of linguistic skills among its army and police. Fluent in French, the official language, many officers are at least bilingual, most often in English and French. The outstanding military cooperation with the US helps to improve the Senegalese army’s abilities to serve in English-speaking environments. The operationalization of the African Standby Force (ASF) is a perceptible caveat that might impact Senegal’s capacity to contribute to UN peacekeeping operations. Indeed, Senegal is committed to provide a significant number of troops to the 6,500-strong ECOWAS Standby Force (ESF). Senegal has also volunteered to be part of the African Capacity for Immediate Response to Crises (ACIRC). Despite experience peacekeeping operations, Senegal has very limited specialized capabilities to be deployed.

Senegal, like other PCCs, receives some financial profit from its participation, where reimbursements received from the UN have a significant economic impact on the country and on the peacekeepers, themselves. For instance, according to IISS Military Balance 2015 data, defense spending per troop in Senegal is $537 USD per month while the current UN reimbursement is $1,332 USD per soldier, per month. Soldiers who return from peacekeeping missions experience a higher standard of living than their peers, being able to keep the UN’s reimbursement. Most of them subsequently make economic investments or display signs of
wealth, such as personal investments, acquisition of homes or vehicles, and providing trips to Mecca for family members.

**Recommended Results and Changes**

- Leverage Senegalese pride and enthusiasm for peacekeeping deployments through opportunities for leadership.
- Increase coordination of supplies and equipment utilized in PKOs.
- Establish local capacity to manufacture equipment and supplies and to provide training to FPUs.
- Solicit additional resources from foreign donors, including the US, UK, and France.
- The advanced nature of Senegal’s equipment (specifically - attack helicopters and transport aircraft) requires a successful maintenance program to operate. Senegal’s maintenance program should be further explored through direct discussion and observation to determine best-practices that can be adopted by other PCCs. Further, Senegal’s proximity to other African PCCs could facilitate “train-the-trainer” programs.
- As members of the Senegalese Armed Forces (SAF) “train extensively with the United States”, coordination with the US Department of Defense can identify and select SAF maintenance managers for specialized training during joint training events, and incentivize cross-training with Senegalese FPUs.  
- Senegalese officers also receive training in Ghana, which presents a favorable combination of circumstances to explore maintenance training and dissemination opportunities that can impact two countries that are within the scope of this paper (Senegal and Ghana).

**Cameroon**

**Situation**

Cameroon has been a member of the United Nations since 1960, in which the UN has continually held an active role in assisting Cameroon with peacekeeping and security missions. Even more, the UN often serves as a mediator between clashing groups and government factions that threaten the possibility of peace in Cameroon, pushing the nation to find peaceful solutions to domestic uprisings and protests. With respect to foreign policy, Cameroon is generally non-contentious, adhering to principles of non-interference, increased assistance to underdeveloped countries, and commitment to peacekeeping. Similar to its relationship with the UN, US-Cameroon diplomatic relations began in 1960 following independence of the French-

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administered part of country. This relationship has resulted in a partnership aimed at countering regional threats to stability such as the threat of Boko Haram and at addressing issues of democracy, regional security, environmental protection, public health, and economic development.\textsuperscript{16} While generally positive, the US’ relationship with Cameroon has been challenged during concerns of human rights abuses, as well as the slow pace of political and economic liberalization.

Even more, the US Center for Disease Control (CDC) is active in Cameroon, engaging in HIV/AIDS prevention, maternal and child health, youth empowerment, and sustainable livelihoods. The U.S. Embassy in Cameroon organizes and funds diverse cultural, educational, and informational exchanges, and the Embassy administers the Special Self-Help program, the Democracy and Human Rights Fund program, and the Fund for Cultural Preservation. Through several State Department and USAID regional funds, the Embassy also provides funds for biodiversity protection, refugees, and civic engagement in elections processes, democratization, human rights, countering violent extremism, and education.\textsuperscript{15}

Cameroon experiences internal conflict regarding policing institutions, stemming from the reorganization and creation of two separate police organizations: the Sûreté Nationale—tasked with protecting state institutions and assuring law and order—and the Gendarmerie Nationale—serving as a paramilitary force. The former is governed directly by the President of the Republic, while the other is controlled by the Ministry of Defense and the Secretary of State.\textsuperscript{17} Recent cultural shifts

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Figure_1.png}
\caption{Cameroonian Uniformed Personnel in UN Peacekeeping Operations, 1990-2015}
\end{figure}

in the country call for reform in which police organizations respect human rights and focus on providing policing functions. Currently, there are few women involved, mostly serving as police, representative of approximately 4% of the country’s UN peacekeepers, requiring attention to policies that implement gender inclusivity in PKOs.

In 2008, Cameroon created a training program, referred to as the International School for Security Forces (EIFORCES), for police and law enforcement contingents for peacekeeping missions. The school is modeled after the Bamako peacekeeping school in Mali and the Kofi

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{17} Sullivan, L. E. (2005). \textit{Encyclopedia of Law Enforcement}. 
\end{itemize}
\end{footnotesize}
Annan International Peacekeeping Training Centre in Accra, Ghana. In 2015, Cameroon had approximately 1,385 UN police peacekeepers with access to 15 helicopters—8 multi-role and 7 transport—and 25 aircraft, consisting of 5 attack and 20 transport. More recently, Cameroon’s regional police forces were given a large amount of equipment by the Governor of the Central Region, Joseph Otto Wilson, in 2016, including 32 vehicles, 40 motorcycles, and 153 bicycles. The new equipment has the propensity to improve efficiency and operations of the forces.

Current Actions

Cameroon is currently experiencing conflicts with Boko Haram, leading to border attacks, an influx of refugees from neighboring states, and human rights abuses by Cameroon security forces. This challenge has stretched thin already-limited forces, diminished eagerness to join peacekeeping efforts, and decreased civilian trust, given the support for Boko Haram among Cameroonian peacekeepers. While Boko Haram is condemned by the Cameroonian government, the group continues to be extremely active in the country, developing and launching attacks locally in the nation. In 2015, the United States moved to assist the country in defense against Boko Haram in conjunction to increased training focused on combating the group; however, multilateral efforts, especially from Nigeria, should be engaged to address this instability.

Recommended Results and Changes

- Utilize Douala, the largest city in Cameroon, and its port as the main departure point for convoys and resupplying operations in the region.
- Invest in new military equipment, given the age of Cameroon’s existing equipment Cameroon’s aging military.
- At the time of writing, in Fiscal Year 2017, Cameroon has received over $44 million in funding by the USAID through 70 separate activities. We recommend that activities funded through the USDOS stipulate requirements relating to the establishment of positive maintenance culture principles.
- Due to the increased volatility in Cameroon relating to Boko Haram, a strict adherence to command emphasized maintenance procedures, including supervision and oversight, should be implemented that focuses on preventive maintenance.

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Ghana

Situation

Personnel of the Ghana Armed Forces (GAF) and Ghana Police Service (GPS) have served as UN peacekeepers since the early 1960s. Since their first participation in the UN Operation in the Congo (ONUC), over 80,000 Ghanaian military, police and civilian personnel have served in various capacities in more than 30 UN missions. Ghana has been a top-ten contributor for more than two decades, ranking eighth as of September 2015, with a total number of 3,247 peacekeepers, comprising 353 police officers, 2,820 troops and 74 military experts (see figure 1).

Apart from the UN, personnel of GAF and GPS also serve under AU missions at the regional level and at sub-regional level, missions of the Economic Community of West African States (ECOWAS). Currently at the regional level, Ghana’s military and police officers continue to serve under the AU Mission in Somalia (AMISOM).

In early 2014, Ghana also deployed over 800 armed troops to the UN Mission in South Sudan (UNMISS) in addition to the Staff Officers, Military Observers and police personnel that were already deployed in the mission. Though Ghana does not have personnel serving in the Ecowas Mission in Guinea Bissau (ECOMIB), it deployed an Engineer Corps comprising 120 troops to support the erstwhile African-led International Support Mission in Mali (AFISMA) by the ECOWAS and AU, which transitioned to MINUSMA in July 2013. At the September 2015 Peacekeeping Summit in New York, Ghana pledged to provide a helicopter unit, an infantry battalion, a signals and communication company, two naval patrol boats, a riverine unit, a level-II hospital, and two FPUs for PKOs. Ghana’s most recent contribution included an Engineer Company, Military Aviation Unit, staff officers, military observers, police and civilian personnel to support the UN Multidimensional Integrated Stabilization Mission in Mali (MINUSMA). As the only African Aviation Unit in MINUSMA, Ghana’s Aviation Unit has successfully carried out tasks such as, provision of fixed wing tactical air transport services for various purposes, logistics support flights, MEDEVAC/CASEVAC, and general passenger flights. The engineer company is also the only unit responsible for the construction of all prefab units in the MINUSMA Super Camp in Timbuktu.

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Ghana’s participation has yielded operational benefits that accrue from such activities, serving as an avenue for the military and police to acquire overseas experience and training. The GAF has benefited immensely from capacity-building initiatives and training assistance programs such as the US African Crisis Response Initiative (ACRI) and African Contingency Operation Training and Assistance (ACOTA), France’s Reinforcement of African Peacekeeping Capabilities Program (RECAMP), and Canada’s Military Training Assistance Program (MTAP). Such collaborative training and assistance programs have also offered opportunities for the GAF to accumulate military equipment and technology by retaining the supplies provided by the UN and other donors. Additionally, the exposure of GAF personnel, especially those in the Air Force, to new and difficult desert terrains like Mali enhances their professional and technical capabilities. While some military pilots are doubling the number of hours they have flown in aircraft since joining the GAF due to the vastness of Mali, the technicians are being exposed to new technical issues in their field of work. Through extensive pre-deployment, induction and in-mission training, the police have also gained broader perspectives on policing methods and issues such as human rights, rule of law, crowd control measures, crime scene management, investigations, and administration. Given the resource constraints faced by the GAF and GPS, these training programs have enabled them to improve skills and knowledge to reach advanced international military and policing standards. This has impacted positively on their professional expertise and capabilities and enhanced their operational performance both at home and abroad.

Current Actions

PKO reimbursements have provided substantial funding to the GAF and GPS, as well as individual personnel through the compensation packages offered by the UN—motivating Ghana’s continual participation. In MINUSMA, for example, the UN pays the Ghana Aviation Unit an amount of $9,400 USD per an hour flight. In a month, the unit is expected to do 80 hours flight, but it usually does about 100 hours. The UN pays $8,000 USD per hour for the extra 20 hours. In a month, Ghana is earning about $900,000 USD from its involvement in MINUSMA. Even more, peacekeepers deployed receive $30 USD per day as a mission subsistence allowance. The UN also provides compensation for equipment costs and maintenance. For Ghana and the GAF especially, these financial gains represent a major supplement to the national defense budget, some of which has been used to purchase aircrafts and other military equipment. For peacekeeping personnel, the UN reimbursement package offers an important income supplement, allowing for a better quality of life.

Nonetheless, internal security concerns limit Ghana’s capacity and willingness to contribute troops or police to certain UN missions. Currently, Ghana contributes about 20% of its total army to UN missions, affecting operational capacity to address internal strife during election periods, for example. While Ghana claims that it will limit deployments of personnel to peacekeeping duties during such periods, this consideration has not dramatically affected Ghana’s contributions. Ghana has limited modern capabilities such as strategic airlift/sealift, vehicles, weapons and communication equipment needed to contribute to UN peacekeeping. To overcome this limitation the Ministry of Defense (MOD) and the GAF Council have undertaken initiatives to replace aging equipment with modern equipment. Even more, operationalization of the African Standby Force (ASF) has the propensity to affect UN contributions, where Ghana has already pledged an engineering company of 150 individuals, a level-II field hospital of 75 personnel, and a helicopter squadron. To meet demands in the case of ASF or ECOWAS
deployment, Ghana may reduce personnel commitments to the UN. Developing the necessary human capacity and resourcing the GAF (with armored vehicles, troop carrying vehicles (TCVs), surveillance and transport aircrafts, helicopters, communications equipment, weapons and ammunition) will be important challenges moving forward.

**Recommended Results and Changes**

- Ongoing training, education, and certification of personnel in proper equipment maintenance, such as the Operations and Maintenance Training Project conducted by USAID and Jordan between October 2008 and November 2012.
- Leverage foreign aid and philanthropic organizations to provide equipment management systems.
- Expand Ghana’s operational capacity to deploy peacekeepers.
- Fund the establishment of maintenance courses at Ghanaian training centers. Training should include techniques for tracking manufacturer recommended maintenance specific to equipment type, scheduling organizational maintenance activities on a weekly basis, and include instruction on best practices relating to monitoring stock of repair and replacement parts. Activities and instruction should focus on “train-the-trainer” concepts so that participants have the knowledge and ability to educate FPU members and organizations upon return to their originating country.  

**Togo**

**Situation**


**Current Actions**

Research has yielded little information regarding Togo’s known maintenance culture, suggesting that Togo relies on informal maintenance cultures within its established institutions. Given that Togo is home to 37 separate tribes, and almost 60% of the population resides in rural areas, the vast dispersal of diverse groups presents challenges in centralization of information and data. Although Togo’s organizations and institutions successfully contribute personnel and equipment

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for UN peacekeeping operations, the wide range of tribal differences that must be integrated into informal maintenance cultures would prove to be a difficult task for even the most seasoned maintenance-support manager. Togo also lacks behind other PCCs in gender inclusivity in peacekeeper deployments. Given that Togo is a predominantly Muslim country, women police officers and peacekeepers are not permitted to carry firearms or operate vehicles—an essential task in PKOs. Even more, public trust for police in Togo is relatively low as compared to other African countries, discouraging participation in PKOs and challenging the legitimacy of FPUs.24

**Recommended Results and Changes**

- Establish greater transparency of police and government actions to promote public trust and support in these institutions.
- Create anti-corruption task forces to mitigate fraud, waste, and abuse within policing institutions.
- Promote gender equality in PKOs while also respecting religious and cultural traditions.
- Due to the lack of information regarding Togo’s maintenance culture, and the deduced hypothesis that Togolese police rely on an informal maintenance culture, recommendations center around establishing basic maintenance schedules in accordance with manufacturer recommendations, a reward system that reinforces positive maintenance practices at the user level, and a focus on preventive maintenance.
- Assign equipment to specific officers to create a culture of pride in individual maintenance practices that is reinforced with “Maintenance Awards”, such as additional time off, commonly sought-after duties, and recognition by the chain of command.

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## Appendix A: PCC Equipment

Source: Defense Web 2014

<table>
<thead>
<tr>
<th>PCC Equipment</th>
<th>Rwanda</th>
<th>Senegal</th>
<th>Ghana</th>
<th>Cameroon</th>
<th>Togo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armor</td>
<td>24: T-55/54</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>4: T-55/55</td>
</tr>
<tr>
<td>AIFV</td>
<td>35: Ratel 60/90</td>
<td>N/A</td>
<td>39: Ratel 20/90</td>
<td>22: LAV-150 Commando (8 with 20 mm cannon, 14 with 90 mm gun)</td>
<td>20: BMP-2</td>
</tr>
<tr>
<td>Artillery</td>
<td>N/A</td>
<td>6: HM-2 105 mm, 6: M116 75 mm pack, 6: M101A1 105 mm, 6: Mod 50 155 mm, 8: TR-F-1 155 mm</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Self-propelled artillery</td>
<td>N/A</td>
<td>N/A</td>
<td>3: Type 81 122 mm</td>
<td>18: ATMOS 2000</td>
<td>6: 122 mm</td>
</tr>
<tr>
<td>Towed artillery</td>
<td>29: Type-54 105 mm, 6: D-30 152 mm</td>
<td>N/A</td>
<td>6: D-30 122 mm</td>
<td>5: M-116 75 mm, 16: M-101 105 mm, 12: Model 1982 130 mm, 12: Type 59 (M-46) 130 mm, 8: 115 mm, 4: Soltam 155 mm</td>
<td>4: M101A2 105 mm</td>
</tr>
<tr>
<td>Multiple Rocket Launcher</td>
<td>5: RM-70 Dana 122 mm, 5: Lynx</td>
<td>N/A</td>
<td>Type 63 107 mm</td>
<td>20: BM-21 122 mm</td>
<td>N/A</td>
</tr>
<tr>
<td>Mortar</td>
<td>115: 81/82/120 mm</td>
<td>8: 81 mm, 8: 120 mm</td>
<td>55: 81 mm, 28: 120 mm Tampella</td>
<td>16: 81 mm, 16: 120 mm Brandt</td>
<td>20: M-43 82 mm</td>
</tr>
<tr>
<td>Anti-armor</td>
<td>N/A</td>
<td>4: Milan, 31: LRAC 89 mm, STRIM-89</td>
<td>N/A</td>
<td>24: TOW (Deployed on jeeps), 25: Milan, HOT</td>
<td>N/A</td>
</tr>
<tr>
<td>Anti-Tank</td>
<td>Blindicide 83 mm</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Recoilless rifle</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Rocket Launcher</td>
<td>N/A</td>
<td>?: RPG-7 Knout 73 mm</td>
<td>50: Carl Gustav 84 mm</td>
<td>?: LRAC 89 mm</td>
<td>N/A</td>
</tr>
<tr>
<td>Air defense gun</td>
<td>150: 14.5/23/37 mm</td>
<td>12: L-60 40 mm, 21: M-693 20 mm</td>
<td>4: ZPU-2/4 14.5 mm, 4: ZU-23-2 23 mm</td>
<td>16: Type-58 (ZPU-2) 14.5 mm, 18: Type 63 37 mm, 18: GDF-602 35 mm, 18: Type-58 37 mm</td>
<td>38: ZPU-4 14.5 mm, 5: M-1939 37 mm</td>
</tr>
<tr>
<td>Air defense missile</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
# Appendix A: PCC Equipment
Source: Defense Web 2014

## Structure

| 1st Division (HQ in Kigali, Central/Eastern regional command), 2nd Division (HQ in Byumba (Northern/Eastern regional command), 3rd Division (HQ Gisenyi, Northern/Western regional command), 4th Division (HQ in Butare, Southern/Western regional command) | Army Staff with 2 Divisions (Operations and Logistics) | 1 headquarters command, 2 territorial commands (Northern and Southern Commands), 4 infantry brigades, 1 reconnaissance regiment (3 reconnaissance squadrons), 2 airborne/special forces companies, 1 artillery regiment (1 artillery battery, 2 mortar batteries), 1 field engineer regiment, 1 training battalion, 1 signal regiment, 1 transport battalion, 1 support services brigade | 4 infantry battalions, 1 Rapid Intervention battalion with five detachments and a Delta region detachment (total 6 900 personnel), 1 armoured car battalion, 1 artillery battalion, 1 anti-aircraft battalion, 1 commando battalion, Engineer and supporting units, Presidential Guard | Rapid Intervention Force (battalion strength), 4 combined arms regiments, 1 Presidential Guard regiment (Commando), 1 para-commando regiment, 1 support regiment, 1 armored group |

## Air Force

<p>| Maritime/EW/RECE | Aircraft | N/A | 1: C212 (SAR), 2: King Air 200 (Used for weather reconnaissance), 4: Rallye 235 Guerrier 1: C212 (SAR), 1: Embara EMB-111, 1: PA-23 (liaison), 1: BN-2 Islander (for maritime patrol) | 5: Diamond DA 42 | N/A | N/A |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Combat aircraft | Aircraft | N/A | 3: MB-326K (unserviceable) | 5: Impala Mk 1/2 (MB-326K) (Said to be non operational) | N/A | N/A |
| VIP aircraft | Aircraft | 1: B707 (reported), 1: Gulfstream G550, 1: Bombardier Global Express | N/A | 1: F28 Fellowship, 1: Falcon 900 | N/A | N/A |
| Combat helicopter | Aircraft | 5: Mi-24 Hind | 2: Mi-35P Hind | N/A | 3: Mi-24 Hind | N/A |</p>
<table>
<thead>
<tr>
<th>Structure</th>
<th>N/A</th>
<th>Air Staff with 2 Divisions (Operations and Logistics), Support Group, Air Operations Group, Air School</th>
<th>N/A</th>
<th>N/A</th>
<th>N/A</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patrol/Strike boat</strong> (Gun/Missile/OPV/1 PV)</td>
<td>N/A</td>
<td>1: Fouta class large patrol boat (Osprey-55 type), 2: Saint Louis class, 1: Njambour class large patrol boat (PR72MS type), 2: Alioune Samb class (ex-US Swift class), 2: Alphonse Baye (RBP 20SE, Fishery Protection Directorate), 1: Senegal 2, 2: Popenguine large inshore patrol boats (P48 type), 3: Senegal class patrol craft, 2: Peterson-type patrol boats, 4: police launches, 2: Challenge class (Tracker-type coastal patrol craft), 1: Conejera patrol craft (ex-Spanish), 1: Raidco RPB 33</td>
<td>2: Albatros class fast attack craft (Lurssen 45 m FPB45 type), 2: Gepard class, 4: Snake class (Chinese), 2: Balsam class (Ex US Coast Guard), 1: Chamsuri class, 2: Achimota (GER Lurssen 57m FPB 57 type), 2: Warrior class/Gepard class fast attack craft (ex-German), 1: Stephen Otu (ex-South Korean Chamsuri [Dolphin] class), 2: Anzone class transports (ex-USCG Balsam class seagoing buoy tenders)</td>
<td>2: FRA P-48 (Gun), 6: Rodman 101/46 (Gun), 1: Quartier class (Gun), 3: Boston Whalter patrol boats, 1: Bakassi class patrol boat (P48S type), 1: L’Audacieux class missile FAC (P48 type), 1: Alfred Motto class patrol craft, 20: Swiftship type river boats, 2: Yunnan class landing craft, 8: Simoneau, 2: Aresa 2400 CPV Defender patrol boats, 1: Aresa 2300 landing craft, 6: Aresa 750 Commandos RIBs, 5: 1200 Stealth RIBs, 1: 1200 Defcon RIB</td>
<td>2: Kara class (IPV), 2: RPB 33 (for delivery in March/July 2014)</td>
<td></td>
</tr>
<tr>
<td><strong>Amphibious/Transport/Supply</strong></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Structure</td>
<td>N/A</td>
<td>Navy Staff and 3 Crops (Naval Operations Group, Naval Support Group, Riverine Surveillance Group)</td>
<td>N/A</td>
<td>There are major naval bases in Douala, Kribi and Limbe.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Harbor/River patrol</strong></td>
<td>N/A</td>
<td>N/A</td>
<td>6: Defender class (US donated)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>