

Protection Of Civilians

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Mapping Data-Driven Tools and Systems for Early Warning, Situational Awareness, and Early Action

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Cover photo: MONUSCO deploys Community Liaison Assistants (CLAs) to engage with local communities in Bunia, the Democratic Republic of the Congo (DRC). July 2013. Photo by MONUSCO/Myriam Asmani (July 2013).

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List of acronyms

AMISOM	African Union Mission in Somalia
AMM	Africa Media Monitor
APF	African Peace Facility
APSA	African Peace and Security Architecture
ASIFU	All Sources Information Fusion Unit
AU	African Union
BDA	battle damage assessment
CAAS	Conflict Analysis and Alerting System
CANs	Community Alert Networks
CAR	Central African Republic
CCMT	Civilian Casualty Mitigation Team
CCTARC	Civilian Casualty Tracking, Analysis and Response Cell
CCTC	Civilian Casualty Tracking Cell
CDEs	collateral damage estimates
CEWARN	Conflict and Early Warning and Response Mechanism
CEWS	Continental Early Warning System
CIVIC	(formerly) Campaign for Innocent Victims in Conflict; (currently) Center for Civilians in Conflict.
CLAs/CLOs	Community Liaison Assistants/Officers
COMESA	Common Market for Eastern and Southern Africa
CPAS	Comprehensive Planning and Performance Assessment System
CPEWD	Conflict Prevention and Early Warning Division
CPP	Community Protection Plan
DDR	Disarmament, Demobilization and Reintegration
DPC	District Peace Committee
DPET	Policy, Evaluation and Training Division
DPKO	Department of Peacekeeping Operations
DPO	Department of Peace Operations
DRC	Democratic Republic of the Congo
DSS	UN Department for Safety and Security
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOWARN	early warning system used by ECOWAS
ECOWAS	Economic Community of West African States
EU	European Union
EW/RR	early warning and rapid response
EWS	Early Warning System

FCOP	Force Common Operating Picture
GLOs	Governorate Liaison Officers
GTAU	geo-localized threat assessment unit
HIPPO	High-level Implementation Panel on Peace Operations
HoM	Head of Mission
HRDDP	Human Rights Due Diligence Policy
IDP	internally displaced people
IED	improvised explosive device
IGAD	Intergovernmental Authority on Development (Horn of Africa)
IOC	initial operating capability
ISAF	International Security Assistance Force
ISR	Intelligence, Surveillance and Reconnaissance
IST	Information Support Team
ITEM	Integrated Text and Event Management system
JAMs	Joint Assessment Missions
JCB	Joint Coordination Board
JCR	Joint Research Centre
JMAC	Joint Mission Analysis Centre
JOC	Joint Operations Centre
JPTs	Joint Projection Teams
MCOP	Mission Common Operational Procedure
MINUSCA	United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic
MINUSMA	United Nations Multidimensional Integrated Stabilization Mission in Mali
MINUSTAH	UN Mission for the Stabilization of Haiti
MONUC	United Nations Organization Mission in the Democratic Republic of the Congo
MONUSCO	United Nations Organization Stabilization Mission in the Democratic Republic of the Congo
MoU	Memorandum of Understanding
NATO	North Atlantic Treaty Organization
NUPI	Norwegian Institute of International Affairs
OCHA	Office for the Coordination of Humanitarian Affairs
OHCHR	Office of the UN High Commissioner for Human Rights
POC	protection of civilians
PSC	Peace and Security Council
PSO	Peace Support Operations
PSOC	Peace Support Operations Center
PSOD	Peace Support Operations Division
RECs	Regional Economic Communities
SADC	Southern African Development Community
SAGE	Situational Awareness Geospatial Enterprise event database
SEA	Sexual Exploitation and Abuse
SMT	Senior Management Team
SOP	Standard Operating Procedure
SPU	Strategic Planning Unit
SRSg	Special Representative of the Secretary General
STIM	Spatio-Temporal Incident Mapping Tool
TCCs	Troop Contributing Countries

TFG	Transitional Federal Government
U2	The military intelligence branch of the UN force (in some missions called the G2 or J2)
UAS	Unmanned Aircraft Systems
UN	United Nations
UNAMI	United Nations Assistance Mission for Iraq
UNAMID	United Nations - African Union Hybrid Operation in Darfur
UNDPKO	United Nations Department of Peacekeeping Operations
UNIFSA	United Nations Interim Security Force for Abyei
UNMIS	United Nations Mission in Sudan
UNMISS	United Nations Mission in South Sudan
UNOCC	UN Operations Crisis Centre
UNOCI	United Nations Operation in Côte D'Ivoire
UNPOL	United Nations Police
UNPROFOR	United Nations Protection Force

1. Introduction

While the protection of civilians has a long tradition in international law, the practice of the protection of civilians (POC) is much more recent.¹ It was only in 1999, after the massacres of civilians in Srebrenica and Rwanda during the mid-1990s, that the United Nations Security Council finally mandated the UN peace operation in Sierra Leone as the first ever United Nations (UN) mission to protect civilians under imminent threat of physical violence, within its capabilities and areas of deployment.² From then onwards, most UN peace operations have been equipped with a POC mandate. In addition, civilian protection also plays an increasingly prominent role in the work of other security actors around the world. The African Union (AU) began to work on the Draft Guidelines for the Protection of Civilians in AU Peace Support Operations in 2009, publishing it in 2012.³ NATO leaders endorsed the NATO Policy for the Protection of Civilians at the Warsaw Summit in July 2016.⁴

While the turn to protection of civilians by these security actors is undoubtedly a positive development, the capacity to anticipate attacks on civilians is lagging behind the institutional will to engage in POC. A mandate to protect civilians is not enough; those implementing POC-related activities will need adequate information and situational awareness to anticipate threats to civilians. This has been recognized in several prominent UN reports. For instance, the final report of the High-Level Implementation Panel on Peace Operations (HIPPO) recommended in 2015 that new technologies introduced in the field should aim to improve early warning in order to allow for POC.⁵ Similarly, the 2020 POC Handbook of the UN notes that “Efficient and proactive decision making on POC requires the systematic use of early warning, peacekeeping-intelligence, information acquisition and/or analysis and assessment tools, capabilities and/or processes. It also requires regular and structured information sharing, POC-sensitive situational awareness and threat assessments, and integration of analysis and recommendations.”⁶ Indeed, a quantitative analysis in an internal report on peacekeeping operations across the UN showed that early warning is a significant determinant in the speed of protection response, while effective capabilities and troop numbers seem to matter less.⁷

In spite of the many reports that highlight the importance of data-driven early warning, a comprehensive mapping of the various data-driven POC methodologies, tools, systems, and policy

1 As early as 1868, the Declaration of Saint Petersburg stipulated a distinction between civilians and combatants. See: “Declaration Renouncing the Use, in Time of War, of Explosive Projectiles under 400 Grammes Weight. Saint Petersburg, 29 November / 11 December 1868,” paragraph 83.

2 UN Security Council, “Resolution 1270” (22 October 1999).

3 African Union, “Draft Guidelines for the Protection of Civilians in African Union Peace Support Operations,” (March 2012).

4 North Atlantic Treaty Organization, *NATO Policy for the Protection of Civilians* (Brussels: NATO, 9 July 2016).

5 High-level Independent Panel on Peace Operations, “Report of the High-Level Independent Panel on Peace Operations on Uniting Our Strengths for Peace: Politics, Partnership and People,” (2015): 93.

6 United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook* (New York 2020), 23.

7 Office of Internal Oversight Services, “Inspection of the Performance of Missions’ Operational Responses to Protection of Civilians,” (30 July 2018).

instruments currently used is missing. This report therefore aims to take stock of the tools and systems used by security actors to increase situational awareness. As such, it tries to sketch the contours of the entire early warning ecosystem. In doing so, the report also identifies current gaps in early warning tools for POC, on the basis of which recommendations are put forward. Indeed, the institutional push towards both POC and data collection and analysis means that there is a lot of momentum to further pursue data-driven early warning. This requires identifying what type of early warning tools and systems can be improved and how, but also requires reflecting on whether new tools or systems are needed. The report focuses on how data-driven tools currently help the UN, the AU, and NATO to increase their understanding of the human environment in which they operate and thus more effectively protect civilians.⁸ Focus is on both on the sections and units within these security organizations and missions that collect POC-related information and on the tools used by these sections and units.

The report does not focus on the European Union (EU) because the EU does not have large military peace operations deployed. It instead specializes in missions that support security sector reform, supporting rule of law institutions, train police or military forces. It occasionally deploys short stabilization missions. This explains why the EU has not yet developed any data-driven tools specifically aimed at identifying POC-related threats within the context of its peace operations.⁹

The first section of this report provides a summary of the key findings of the report and summarizes several recommendations on how to enhance early warning for POC. The next section discusses the early warning tools for POC within the UN. This part also discusses sections and units of UN peace operations that are tasked with identifying threats to civilians. The section on the UN is by far the most extensive one of this report, which is simply a result of the UN's turn to POC in 1999. The UN seems to engage more in POC-related activities than any other security actor. Yet, in order to make the report as comprehensive as possible, the early warning tools used by the AU and NATO are discussed in the third and fourth sections respectively. The fifth and last section identifies summaries and lessons learnt. The last section also identifies gaps concerning POC-related early warning tools on the basis of which several recommendations are put forward.

8 For the purpose of this report, civilians are defined as persons who are not members of armed forces or organized armed groups and who are not participating in hostilities or other acts of violence. See: "Protocol Additional to the Geneva Conventions of 12 August 1949," 50.

9 The EU started to roll out the EU Early Warning System (EWS) in 2014, which aims to identify conflict prevention and peace building opportunities. The EWS draws on 24 indicators of conflict risk and uses statistical regression models to calculate probability and intensity of violent conflict. This statistical output is subsequently discussed by various EU stakeholders, who provide an analysis beyond structural risks and agree on a priority list of up to five countries. However, the EWS is mainly focuses on the "country level", indicating how likely a country is to experience armed conflict. This makes the EWS less suitable to analyze violence against civilians and use it as a basis for POC-related activities other than that preventing a war of course also indirectly prevents violence against civilians.

2. Summary and Recommendations

2.1 Summary

2.1.1 UNITED NATIONS

- ◆ Early warning is one of the conditions necessary for engaging in POC-related activities. Without high-quality data, peacekeeping staff struggle to conduct POC-related early warning.
- ◆ Several different sections within UN peace operations collect information on threats to civilians. The **Human Rights sections of UN peace operations** collect information on human rights abuses. If the information collected by Human Rights officers merits a quick response, Human Rights officers issue an **emergency report**. The **U2 section of the Force** collects information on incidents and situations that might require a military response, such as armed clashes or attacks on civilians.
- ◆ **Civil Affairs** officers are tasked with gathering and reporting information about perceptions and concerns of different groups with regard to POC and other aspects relevant for the mandate of the mission. While Civil Affairs officers often are highly familiar with local dynamics, sometimes even more local knowledge and understanding is needed in order to prevent attacks on civilians. This is why the UN began to employ **Community Liaison Assistants (CLAs)** from 2008 onwards and why it subsequently set up **Community Alert Networks (CANs)**. CLAs have taken on a comprehensive role through engaging with local communities and help with collecting relevant information.
- ◆ Two of the most important actors within the UN in terms of early warning for POC are **the Joint Operations Centre (JOC) and the Joint Mission Analysis Centre (JMAC)**. The UN Department of Peace Operations created these units in 2005-2006 in order to develop structures for information-gathering and analysis. JMACs conduct **POC trend analyses** in order to determine areas most at risk of physical violence against civilian communities and objects. JMAC staff also conduct **network analyses** that link the different actors that are relevant to the implementation of the mandate of the mission. Finally, JMAC staff also develop **worst-case and best-case scenarios**, which outline possible responses that can be taken to mitigate the worst-case scenario.

- ◆ While it is currently clear that the U2 (military intelligence of the UN mission), JOC, and JMAC are responsible for information collection and analysis, there has been one experiment in the UN with upgrading the intelligence capacity of the UN. In 2013, the **All Sources Information Fusion Unit (ASIFU)** was created within the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA). The United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO) has used the **Integrated Text and Event Management system (ITEM)** to track protection incidents, though this tool is no longer in use. The MINUSMA **Spatio-Temporal Incident Mapping Tool (STIM)**, developed in 2020, goes a step further and aims to not only track POC-related incidents, but also aims to assess the impact of force operations on the protection of civilians.
- ◆ Many other early warning tools used in UN peace operations make use of a qualitative assessment. For instance, the **MINUSCA** (United Nations Multidimensional Integrated Stabilization Mission in the Central Africa) **Flashpoint Matrix**, the **UNMISS** (United Nations Mission in South Sudan) **Weekly Predict Risk-Assessment Matrix**, and the **MONUSCO's Local Conflict Mapping and Risk Assessment Tool** all use qualitative data in order to determine levels of risk and prioritize responses. Many of these processes are still ad-hoc, based on local innovation.
- ◆ Yet, the UN has undertaken a massive effort to centralize the many different data streams. To this purpose the Department of Peace Operations has rolled out **the Situational Awareness Geospatial Enterprise (SAGE) event database** to track and visualize incidents and some activities. With SAGE, the UN has set up a more standard structure for information gathering within peace missions.
- ◆ In spite of the wealth of data collected in UN peace missions, there might sometimes be information gaps. **Joint Projection Teams (JPTs)** and **Joint Assessment Missions (JAMs)** are often tasked to collect information in order to fill such gaps.
- ◆ Moreover, early warning will not have a positive effect if there is no early action. Accordingly, various mechanisms have been set up in UN peace operations aimed at not only discussing POC-related threats, but also appropriate responses to these threats. Of particular importance is the **Strategic Planning Unit (SPU)**. Since the JOC typically is mainly aimed at coordinating responses to immediate threats, UN peace operations have a SPU to fulfil a more strategic planning and coordination role.

2.1.2 AFRICAN UNION

- ◆ While lagging behind the UN in terms of the use of POC early warning tools used, POC has gained increasing importance in the AU context. To this purpose the **Continental Early Warning System (CEWS)** Situation Room, located at the AU Conflict Management Directorate, collects data on potential, emerging, and actual conflict situations across Africa. Moreover, with the adoption of the AU Draft Guidelines for the Protection of Civilians 2009, the CEWS was mandated to assess and analyze POC-related issues. The CEWS produces several outputs, including **a daily news highlight, a daily field report, a weekly update on military and political developments, updates on ongoing conflict situations, flash reports, in-depth early warning reports, and horizon-scanning papers**. The CEWS was linked up with the early warning systems of Africa's RECs (Regional Economic Communities) in 2008.

- ◆ The AU's largest peace mission – AMISOM in Somalia – does not have an early warning tool for POC, which logically follows from the fact that AMISOM does not have a POC mandate. Nevertheless, while both the AU and the UN realized that a POC mandate for AMISOM was not feasible, both sides agreed in late 2011 that a more centralized civilian casualty tracking mechanism should be established. This led to the creation of **the Civilian Casualty Tracking, Analysis and Response Cell (CCTARC)** in 2012. The purpose of the CCTARC is essentially to track incidences of civilian harm caused by AMISOM operations, including death, injury, Sexual Exploitation and Abuse (SEA), and damage to property. The CCTARC is mandated to investigate such incidents and to decide on compensation when required. However, it was not until 2015 that the CCTARC became fully operational.

2.1.3 NATO

- ◆ In order to minimize civilian casualties in Afghanistan, the ISAF leadership set **up the Civilian Casualty Tracking Cell (CCTC)** in August 2008. The CCTC was tasked to gather data on harm caused during ISAF operations. The work of the CCTC initially focused mainly on strengthening ISAF's situational awareness of civilian harm, allowing the ISAF leadership to better respond to allegations. Yet, over time, the CCTC began to systematically collect information on civilian casualties and examine these data for trends. These trend analyses were subsequently used to provide recommendations to the ISAF leadership on civilian casualty mitigation. In 2011, the CCTC was expanded into the **Civilian Casualty Mitigation Team (CCMT)**. The CCMT was provided with more resources to reach out to civil society for cross-checking allegations and informing mitigation efforts.
- ◆ In addition to setting up the CCTC and the CCMT in Afghanistan, NATO has been developing a policy on POC. POC was for a long time not on the agenda of NATO, but NATO leaders endorsed the NATO Policy for the Protection of Civilians at the Warsaw Summit in July 2016. **Early warning and situational awareness play a crucial role in NATO's POC concept**, as it is seen as a necessary condition for effectively mitigating harm through the presentative use of military force or threat of force, the facilitation of basic needs, and the creation of a safe and secure environment through supporting and developing the host-state and its institutions. In spite of the crucial role that situational awareness plays in NATO's POC concept, **NATO has not yet developed any early warning tools specifically for identifying POC-related threats.**

2.2 Main Recommendations

1. *Local participation is critical; the UN should continue to develop the use of early warning systems in which locals can engage.*
2. *Security actors should not only be concerned with the early identification of a threat, but also with early action aimed at mitigating this threat. The UN should keep the momentum to strengthen the capacity to respond rapidly based on early warning.*
3. *UN Member States should invest in early warning and situational awareness; early action based on enhanced early warning makes for more effective peacekeeping.*
4. *All missions should conduct casualty reporting, even missions without a POC mandate.*

5. *Data used to inform both early warning and casualty reporting needs proper investment in analysis and collection; the UN should continue to invest in drones for data collection and devote resources to analyzing data collected in tools such as SAGE.*
6. *All substantive sections in mission should contribute to SAGE. In turn, JOCs should find ways in which SAGE can more easily be accessed by more UN staff members in a way that still guarantees the confidentiality of the data.*
7. *SAGE data could be used to predict areas subject to future violence against civilians in UN Missions to enhance early action responses.*
8. *NATO should consider developing a single unified tool to produce early warning for POC-related threats.*
9. *The AU could improve responses to civilian harm events by developing structures to decide when a situation merits early action. They should also invest in tools to disseminate its early warning more broadly within the organization to enhance civilian protection.*

More specific recommendations can be found in the concluding section of this report.

3. United Nations

Lack of adequate information played a major role in the most severe failures of the UN to protect civilians. When reflecting upon the UN experience in Rwanda during the 1994 genocide, Lieutenant-General Roméo Dallaire, the Force Commander for the United Nations Mission in Rwanda, notes that “I had no means of intelligence on Rwanda. Not one country was willing to provide the UN or even me personally with accurate and up-to-date information. [...] We always seemed to be reacting to, rather than anticipating, what was going to happen.”¹⁰ Similarly, in his final assessment of the United Nations Protection Force (UNPROFOR) – which among others discussed the Srebrenica massacre – the Deputy Force Commander, Major General Barry Ashton, stated that “Operations were frequently impaired by a lack of credible and dedicated intelligence means.”¹¹

However, in parallel with the UN's turn to POC from 1999 onwards, information collection and analysis within the UN has much improved. Numerous substantial units are now at least partly working to collect information in support of POC-related activities. These different information collection efforts within the UN have by and large emerged ad-hoc and in a decentralized manner. Holt and Taylor highlighted in 2009 that, due to this “various and inconsistent models exist in the field” when it comes to information collection and analysis to support POC efforts.¹² They also noted that while “necessary to develop effective strategies to protect civilians, most missions do not have sufficient capacity to collect and analyze the information needed to address day-to-day threats nor to predict potential crises that could lead to rapid escalations of violence.”¹³

The information and analysis capacity of the UN has significantly improved from when Holt and Taylor made this observation, though the UN is currently still far off from a fully integrated, data-driven early warning tool that effectively identifies most of the major threats to civilians. Based on internal UN data, the UN Office of Internal Oversight Services found in a report published in 2018 that the average time to respond to a POC incident after the incident had occurred was 2.8 days.¹⁴ The same analysis suggest that prior knowledge of location of potential attacks on civilians made a response by UN peacekeeping staff significantly more likely, though prior knowledge is often not available.¹⁵ In other words, the UN does not always respond to attacks on civilians, responses can

10 R. Dallaire, *Shake Hands with the Devil: The Failure of Humanity in Rwanda* (New York: Random House, 2008), 90 and 194.

11 Netherlands Institute for War Documentation, *Intelligence and the War in Bosnia 1992-1995: The Role of the Intelligence and Security Services*, 11.

12 Victoria K. Holt, Glyn Taylor, and Max Kelly, *Protecting Civilians in the Context of UN Peacekeeping Operations: Successes, Setbacks and Remaining Challenges* (United Nations, Office for the Coordination of Humanitarian Affairs, 2009), 9.

13 Ibid.

14 Office of Internal Oversight Services, “Inspection of the Performance of Missions’ Operational Responses to Protection of Civilians,” 19.

15 This report is based on responses and attacks on civilians in the context of MONUSCO UNAMID, UNMISS, MINUSCA, and MINUSMA. Ibid., 29.

be quite late, and early warning is not always available; but the good news is that early warning can make a quicker response more likely.

Furthermore, there are currently ongoing efforts within the UN to make its early warning more data-driven. Until recently, data-driven initiatives have mainly been the result of initiatives led by individual field missions, but from the publishing of the HIPPO report onwards a more centralized approach is being embarked on. In the Secretary-General's follow-up report to the report of the HIPPO – titled *The Future of Peace Operations* – the Secretary-General tasked the UN Secretariat with “developing parameters for an information and intelligence framework that can support field missions in operating effectively and safely.”¹⁶ With a trend towards the use of data to support the work of UN staff, the UN is now in a position to draw patterns from the information that is gathered in and across field missions.

The following section discusses the numerous systems and tools used for early warning within UN peace mission, starting with tools that have been around for a long time like Human Rights casualty reporting and ending with more recent innovations like the Situational Awareness Geospatial Enterprise (SAGE) event database tool.

3.1 Human Rights Casualty Recording

UN Human Rights has traditionally been the actor within the UN responsible for collecting information on casualties and human rights abuses. To this purpose, each UN peace operation has a Human Rights section that is responsible for monitoring, investigating, and the reporting on violations of international human rights and humanitarian law. Human rights officers conduct these tasks in contemporary peace operations in coordination with child protection and women's protection advisers.¹⁷ Human Rights officers are required to enter all violations into a database linked to the Office of the UN High Commissioner for Human Rights (OHCHR) in Geneva.

Casualty recording focuses gathering information on the deaths and injuries of civilians during active hostilities.¹⁸ The goal of casualty recording is to provide robust and precise information through systematically recording deaths and injuries. The guiding principles of casualty reporting are accuracy, precision, impartiality, objectivity, and transparency.¹⁹ This ensures that UN casualty recording is a reliable basis for situational awareness, measuring change, and informing the leadership of UN missions to make decisions on operations and planning.²⁰

¹⁶ United Nations Secretary-General, “The Future of United Nations Peace Operations: Implementation of the Recommendations of the High-Level Independent Panel on Peace Operations,” (2015).

¹⁷ Allard Duursma, “Information Processing Challenges in Peacekeeping Operations: A Case Study on Peacekeeping Information Collection Efforts in Mali,” *International Peacekeeping* 25, no. 3 (2018); United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook*, 36.

¹⁸ In some situations, the OHCHR has also recorded casualties in situations of violence outside armed conflict.

¹⁹ These guiding principles also explain why Human Rights Casualty reporting is superior to conflict data based on news media. Human Rights officers typically continue their investigations over time after violent events. This, in turn, sometimes leads to changes in the casualty data to reflect new information as and when it becomes known. See: Allard Duursma, “Counting Deaths While Keeping Peace: An Assessment of the JMAC's Field Information and Analysis Capacity in Darfur,” *International Peacekeeping* 24, no. 5 (2017).

²⁰ United Nations, “Guidance on Casualty Recording,” (2019): 1.

When possible, Human Rights officers try to investigate incidents through visiting the place where human rights abuses have been committed. This allows them to draft an investigation report based on all the relevant information gathered and corroborated.²¹ In addition to conducting their own investigations, Human Rights officers typically draw on an extensive network of contacts, including authorities, national human rights institutions, civil society, academics and other experts, and other international actors.²² In short, Human Rights officers collect broad-based information from a variety of sources in order to allow for an up-to-date analysis of the human rights situation.

Human Rights officers publish internal and public reports based on their casualty recording, as well as confidential reports to governments. Internal reports are used to inform all relevant stakeholders within the peace mission. Internal reports are also used to inform the head of a mission in case of peace operations or political mission and to inform the Office of the United Nations High Commissioner for Human Rights (OHCHR) in Geneva.²³ Public reports focus on the human rights situation, a thematic issue, or a specific investigation. Public reports are normally written for UN bodies, but they usually have a clear advocacy objective.²⁴ Finally, the leadership of the Human Rights section of a peace mission may also decide to share a confidential report with the government that is neither internally shared nor for public dissemination. The reason for issuing such a report is to work with the government as partner to mitigate human rights violations or to improve the host-state government's capacity to protect human rights.²⁵

Casualty recording largely serves two purposes. First, it serves as yardstick to measure change over time. Keeping track of injuries and deaths makes it possible to put the severity and scale of a certain episode of armed violence in context. It makes it possible to assess the intensity of an armed conflict, promoting a shared understanding of the situation and ongoing developments. The UN POC Handbook notes in this regard that "Outputs from human rights monitoring, including consolidated data, trend or pattern analysis on violations must be shared and should feed into POC threat assessments, reporting and decision making."²⁶

Second, ***casualty recording serves as evidence-based early warning of a potential worsening of the human rights situation.***²⁷ As noted in the UN guide on casualty reporting, casualty data "can serve as early warning and as a means to raise awareness of developments taking place or as direct evidence-based advocacy for specific issues of concern."²⁸ For example, Human Rights officers in Iraq used their casualty data to draw attention to the situation of members of the Yezidi community that were being besieged by the Islamic State in 2014.²⁹ This type of early warning engagement by the Human Rights section of the UN sometimes also leads to a response. For instance, Human Rights reporting on the impact of military presence in civilian areas in Ukraine persuaded some

21 "Manual on Human Rights Monitoring. Chapter 13: Human Rights Reporting," (2001): 13.

22 "Manual on Human Rights Monitoring. Chapter 7: Gathering Contextual Information," (2001).

23 Duursma, "Information Processing Challenges in Peacekeeping Operations: A Case Study on Peacekeeping Information Collection Efforts in Mali"

24 United Nations, "Manual on Human Rights Monitoring. Chapter 13: Human Rights Reporting," 13.

25 Ibid., 24.

26 United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook*, 36.

27 "Guidance on Casualty Recording," 11.

28 Ibid., 1.

29 UNAMI-OHCHR, "A Call for Accountability and Protection: Yezidi Survivors of Atrocities Committed by ISIL," (August 2016). Available at: https://www.ohchr.org/Documents/Countries/IO/UNAMIRreport12Aug2016_en.pdf.

military leaders to move their troops.³⁰

Human Rights officers face two limitations in their casualty recording work. First, while host-states are crucial implementing partners to the UN, host-state in many contemporary peace operations conduct serious human rights violations. Government forces in the Democratic Republic of the Congo (DRC), Sudan, South Sudan, and Mali have all attacked civilians. What is more, with the recent turn to stabilization, UN peacekeepers in the DRC, Mali, and the Central African Republic (CAR) have cooperated with government forces. This puts UN Human Rights officers in awkward position, as it might lead to situations where they report human rights abuses by government forces with whom UN peacekeepers cooperate militarily. In order to hold the Congolese armed forces accountable, the UN Secretariat developed the Human Rights Due Diligence Policy (HRDDP) in 2009. The policy was expanded to all UN cooperation with national security actors in 2011.³¹ The HRDDP is essentially a conditionality policy for UN peacekeepers' support to government forces, outlining human rights standards for the UN's cooperation with national security actors and providing a means for monitoring and sanctioning.³²

A second challenge Human Rights officers face is simply obstruction, impeding them from conducting an investigation.³³ The UN guide on casualty reporting notes in this regard that the “operating environment in which casualty recording is undertaken is often challenging, with limitations in terms of access to the site of incidents and/or the area where casualties are being reported.”³⁴ Non-state armed groups and armed forces have both blocked Human Rights officers to prevent investigations, but obstruction by government actors is more common because government forces usually control more territory and since peacekeepers operate based on host-state consent. A former United Nations – African Union Hybrid Operation in Darfur (UNAMID) Human Rights Officer recalls how he and his unit responded to information about a massive attack on civilians, including the raping of women, in a village in West Darfur in January 2013: “We flew to the village in a helicopter to report on these human rights abuses, but the Sudanese security services refused the helicopter to land, delaying it for 24 hours. When our patrol finally arrived, people were afraid to speak and it was clear that the crime scene had been cleaned up.”³⁵ Similarly, Congolese authorities have repeatedly restricted the access of Human Rights officers in the Kasai-Central province of the DRC. This obstruction was related to the ability of government forces to “freely” target civilians in response to an insurgency by the Kamuina Nsapu militia.³⁶

30 United Nations, “Guidance on Casualty Recording,” 1.

31 United Nations Secretary-General, “Human Rights Due Diligence Policy on United Nations Support to Non-United Nations Security Forces, a/67/775-S/2013/110,” (2013).

32 Gisela Hirschmann, “Cooperating with Evil? Accountability in Peace Operations and the Evolution of the United Nations Human Rights Due Diligence Policy,” *Cooperation and Conflict* 55, no. 1 (2019).

33 Allard Duursma, “Pinioning the Peacekeepers: Sovereignty, Host-State Resistance against Peacekeeping Missions, and Violence against Civilians,” *International Studies Review* (2020); “Obstruction and Intimidation of Peacekeepers: How Armed Actors Undermine Civilian Protection Efforts,” *Journal of Peace Research* 56, no. 2 (2019).

34 United Nations, “Guidance on Casualty Recording,” 1.

35 Interview with a former UNAMID a Human Rights Officer on 6 December 2016.

36 Reuters, “Congo Forces Targeting Civilians, Denying Peacekeepers Access - U.N.,” (18 March 2017).

3.2 Human Rights Emergency Reports

Human Rights emergency reports, sometimes also referred to as flash reports, are normally written by human rights officers in the field to quickly report to the mission leadership on grave human rights violations or an emerging situation which has not yet developed into a full-blown emergency. A Human Rights flash report thus requires urgent attention by the mission leadership. This type of reports therefore only contains the most essential information that enables the mission leadership to take the required action. Relevant information, among others, includes the identity of the alleged perpetrators and victims, the gravity of the reported violations, the potential political and security impact.³⁷

*The standards for evidence are much lower for emergency reports because there is a need to inform all relevant stakeholders within a peace mission as quickly as possible.*³⁸ The UN POC Handbook notes that “information on threats to civilians or relevant to early warning can and should be shared even before being corroborated/verified.”³⁹ In other words, the need for action overrules the need for a high degree of confidence about information being valid.

3.3 Civil Affairs Community Liaison Assistants

Another substantial section that is relevant for collecting POC-related information in UN peace operations is the Civil Affairs section. Civil Affairs Officers represent UN peace missions at the local level and tend to be the primary interface between the mission and local communities. Accordingly, *Civil Affairs Officers are tasked with gathering and reporting information about perceptions and concerns of different groups with regard to POC and other aspects relevant for the mandate of the mission.*⁴⁰ The Civil Affairs handbook states that Civil Officers “build relationships with key actors who can affect the peace process... Interlocutors range from local government officials, elders and traditional leaders to a wide spectrum of non-institutional actors, including civil society organizations, media, the business sector, [internally displaced people] IDPs and members of the general population.”⁴¹ Precisely because they interact with such a wide range of actors, Civil Affairs officers are crucial for collecting POC-related information.

While Civil Affairs officers often are highly familiar with local dynamics, sometimes even more local knowledge and understanding is needed in order to prevent attacks on civilians. Following an attack in Kiwanja in the DRC in 2008 that led to the death of 150 civilians less than a mile away from a UN base, the Civil Affairs Section of the UN mission in the DRC convinced the mission leadership to hire national staff working for Civil Affairs rather than just hiring more interpreters. These national staff, introduced in the mission in 2010, were referred to as Community Liaison Assistants (CLAs).⁴² *CLAs are commonly deployed alongside military force of the mission. CLAs have taken on a comprehensive role through engaging with local communities and help with collecting relevant information.*⁴³ The information collected by CLAs feeds into daily Civil Affairs situation-

³⁷ United Nations, “Manual on Human Rights Monitoring. Chapter 13: Human Rights Reporting,” 14.

³⁸ Ibid., 13.

³⁹ United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook*, 36.

⁴⁰ UNDPKO, “Civil Affairs Handbook,” *United Nations Department of Peacekeeping Operations and Department of Field Support*, (2012): 131.

⁴¹ Ibid.

⁴² Janosch Kullenberg, “Community Liaison Assistants: A Bridge between Peacekeepers and Local Populations,” *Forced Migration Review* 53 (2016): 44.

⁴³ UNDPKO, “Civil Affairs Handbook,” 144; Sarah Brockmeier and Philipp Rotmann, “Civil Affairs and Local Conflict Management in Peace Operations,” *GPPI* (2016): 34.

reports that are sent from the Field Office to the Mission Headquarters, and then from the Mission Headquarters to New York. In addition, relevant information collected by CLAs is also shared horizontally with the force component of the mission or other relevant substantial sections. In addition, CLAs commonly also hold monthly briefings together with substantive and military components at the Field Office level. In these meetings, CLAs provide background information and analysis from the field.⁴⁴ ***In urgent cases, CLAs provide alerts or flash reports.***⁴⁵ CLAs have played a crucial role with regard to collecting POC-related information in the DRC where they are “deployed alongside the UN military in remote strategic localities in eastern provinces to identify risks and develop locally tailored protection responses.”⁴⁶

The collection of information by CLAs can take various forms, including regular meetings with local interlocutors, monitoring local community radio stations, conducting public opinion surveys, and local consultations or town hall meetings. For example, CLAs in Liberia facilitated a series of consultative forums on conflict resolution issues with local officials, civil society, and community representatives in 15 different localities. This generated relevant information for the mission on themes such as ethnic identity and land disputes.⁴⁷

CLAs not only collect information on risks, they also gather information on opportunities for reconciliation and peace processes. This function is part of protection through a political process – which is labelled by the UN as Tier I measure – and entails the promotion of the use of dialogue to address triggers for violence against civilians and advocating for the peaceful resolution of conflict.⁴⁸ Zahar and Mechoulan note with regard to the Central African Republic (CAR) that the tasking of CLAs with identifying reconciliation initiatives that the UN could support has “furthered the link between the mission and communities and enabled the latter to have direct access to and a presence in an increasing number of remote communities.”⁴⁹ The same is observed by a Civil Affairs officer based in Bossangoa in CAR: “I’m from Cameroon, but people still see me very much as an outsider. They see me as part of the United Nations. It’s easy for national staff to make initial contact and set up meetings with locals. They speak the local language, so they can make an appointment or they can organize a meeting.”⁵⁰

When the potential of CLAs became clear when the instrument was introduced in the UN mission in the DRC, CLAs were soon introduced in Sudan, South Sudan, Mali, and the CAR. While budget constraints make it sometimes impossible, the UN aims to have at least two CLAs per peacekeeping base.⁵¹ It should, however, be noted that ***CLAs are not equally effective in collecting information across different contexts. The logistical and security conditions in Mali have made it difficult to make use of the CLA instrument.***⁵²

44 UNDPKO, “Civil Affairs Handbook,” 144.

45 Kullenberg, “Community Liaison Assistants: A Bridge between Peacekeepers and Local Populations,” 46.

46 UNDPKO, “Civil Affairs Handbook,” 144.

47 Ibid., 145.

48 Tier II relates to direct protection from physical violence. Tier III relates to establishing a protective environment. See; *ibid.*, 54.

49 Marie-Joelle Zahar and Delphine Mechoulan, *Peace by Pieces? Local Mediation and Sustainable Peace in the Central African Republic* (New York: International Peace Institute, 2017), 24.

50 Interview with UN Civil Affairs Officer in Bossangoa on 29 January 2020.

51 Kullenberg, “Community Liaison Assistants: A Bridge between Peacekeepers and Local Populations,” 46.

52 Ibid.

In addition, the UN mission in South Sudan had a different vision for CLAs and decided not to deploy CLAs alongside the military component of the mission, which, according to a UN report, has diluted the defining feature of CLAs.⁵³ In UNMISS, CLAs are assigned to the Heads of Field Office instead of the military component, as a pool resource for all mission components to perform clerical functions rather than in-depth community engagement.⁵⁴

There are also a number weakness inherent to the use CLAs for information collection in the context of POC. First of all, **CLAs often operate in in areas with only intermittent access to the telephone network and the internet. This makes regular reporting difficult. Another challenge is to balance maintaining close relationships with the local community, but at the same time avoid biases and not leak any internal UN information.** Relatedly, because of their closeness to the communities on which they report, CLAs might use emotional language that does not paint an accurate picture of events. For example, “four people killed” can be reported as three people “slaughtered” or might even be reported as a massacre.⁵⁵ Furthermore, CLAs often struggle to weed out relevant information because they are part of the communities which they need to observe, making everything seem important.⁵⁶ Finally, **CLAs often operate under dangerous conditions and they have to negotiate their own security with armed actors.** This is a particularly important factor for when UN peace missions withdraws.⁵⁷

In short, CLAs play a crucial role in the collection of information on the local situation and risks to civilians. Their work feeds into a wider understanding and analysis of the conflict and peacebuilding context within the mission. However, the use of CLAs also has some drawbacks in terms of introducing biases, increasing the risk of breaches of confidentiality, and personal security risks to CLAs themselves.

3.4 Civil Affairs Community Alert Networks

In addition to employing CLAs, the Civil Affairs section manages Community Alert Networks (CANs) in the major UN peace operations.⁵⁸ CANs were introduced for the first time in MONUSCO in January 2011.⁵⁹ The goal of these CANs is to inform the mission about protection threats in the communities. CLAs manage the CANs through providing telephones and credit to key contacts and widely distributing emergency telephone numbers. In some cases, CLAs have also established radio networks to support the CAN.⁶⁰ In this sense, CANs can be seen as a low-tech early warning tool.

53 United Nations, “Community Liaison Assistants in United Nations Peacekeeping Operations (Survey of Practice),” *United Nations Departments of Peacekeeping Operations and Field Support Policy, Evaluation and Training Division Policy and Best Practices Service* (2016).

54 Email correspondence with UN staff member #2 at the Policy, Evaluation and Training Division (DPET) of the Department of Peace Operations, 2 November 2020.

55 Christy Lazicky, *Improving Conflict Early Warning Systems for United Nations Peacekeeping* (Master in Public Administration in International Development, John F. Kennedy School of Government, Harvard University, 2017), 7.

56 Ibid.

57 Kullenberg, “Community Liaison Assistants: A Bridge between Peacekeepers and Local Populations,” 47.

58 Brockmeier and Rotmann, “Civil Affairs and Local Conflict Management in Peace Operations.”

59 Email correspondence with UN staff member #2 at the Policy, Evaluation and Training Division (DPET) of the Department of Peace Operations, 2 November 2020.

See also: UN Secretary-General, “Report of the Secretary-General on the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo, S/2011/20,” (17 January 2011).

60 Kullenberg, “Community Liaison Assistants: A Bridge between Peacekeepers and Local Populations,” 46.

Most UN peacekeeping staff agree that the crowd-sourcing of information through CANs has dramatically increased the situational awareness peacekeeping staff. For instance, the use of CANs in the DRC is directly linked to local communities in remote areas being able to alert peacekeepers to respond to immediate threats.⁶¹ The CAN system set up by the UN mission in Darfur is made up of local authorities and civil society actors that report immediate threats and mounting tension. This has allowed Civil Affairs staff in Darfur to leverage these insights to inform the mission's preventive and reactive engagement with violent local conflicts. This preventive engagement has, among others, focused on threats that are most prone to triggering violence, including the seasonal migration of cattle and dry season when resources are constrained.⁶² UNAMID has also set up very specific CANs. For instance, the mission established around 48 Women Protection Networks in all the internally displaced people (IDP) camps across Darfur. The purpose of these networks is to receive timely information concerning women's protection needs, which should feed into appropriate protection measures.⁶³

Besides these examples, the use of locally sourced early warning is also highlighted as effective in numerous reports. The HIPPO report notes that “[t]he best information [for peacekeepers] often comes from communities themselves. To use that information, missions must build relationships of trust with local people, leading to more effective delivery of protection of civilians mandates and better protection for peacekeepers.”⁶⁴ Walter Dorn, one of the members of the UN's Panel of Experts on Technology and Innovation in UN Peacekeeping in 2014, succinctly summarizes this conclusion by pointing out that the UN's ability to protect depends on its ability to connect with locals.⁶⁵ The 2020 POC handbook concludes specifically with regard to CANs that contribute to community engagement and enable early warning and response.⁶⁶

However, it should be noted that the information provided by CANs is often reactive. For instance, the Civil Affairs section of the UN mission in the DRC assessed that it received 65 percent of the CAN alerts after the incidents had taken place and the perpetrators had fled.⁶⁷

Furthermore, just as CLAs sometimes struggle with connectivity, so too do participants in CANs. UN peacekeeping staff in the DRC have therefore issued sim cards across CANs in the country. Similarly, MINUSMA is currently working to roll out toll-free hotlines that allow civilians to inform MINUSMA of imminent threats throughout the Mission area.⁶⁸ However, in some areas the problem is even more basic with no network available to use phones.⁶⁹

In addition, **one serious limitation of CANs is that providing information to the UN risks retaliation by armed groups or even government forces.** This is particularly the case in contexts in which the UN

61 Ibid.

62 Tom O'Bryan, Sara Rendtorff-Smith, and Marco Donati, "The Role of United Nations Peacekeeping Operations in Addressing Local Conflicts: A Study of Practice," *United Nations Departments of Peacekeeping Operations and Field Support Policy, Evaluation and Training Division Policy and Best Practices Service* (2017): 28.

63 United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook*, 158.

64 High-level Independent Panel on Peace Operations, "Report of the High-Level Independent Panel on Peace Operations on Uniting Our Strengths for Peace: Politics, Partnership and People," paragraph 98.

65 A. Walter Dorn, "Smart Peacekeeping: Toward Tech-Enabled UN Operations," *International Peace Institute* (2016): 1.

66 United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook*, 39.

67 Lazicky, *Improving Conflict Early Warning Systems for United Nations Peacekeeping*, 5.

68 UN Secretary-General, "Situation in Mali: Report of the Secretary-General L. S/2020/952," (29 September 2020).

69 Email correspondence with MONUSCO staff member working in the Strategic Planning Cell, 2 September 2020.

engages in armed conflict with non-state armed groups, such as in the DRC, Mali, and to a lesser extent the CAR.⁷⁰ For instance, informants of the UN mission in Mali have been put on black lists by Jihadist armed groups.⁷¹ Similarly, if a host state government is actively predatory toward the population, potential informants may be too scared of retaliation to participate.

In short, there seems to be a consensus that the low-tech crowd-sourcing of information from locals increases the situational awareness of peacekeepers. From this perspective, CANs are an effective data-driven early warning tool that leads to “participatory peacekeeping” and support POC-related activities. Nevertheless, using CANs for information collection in contexts in which the UN engages in stabilization can be risky for the local informants of the early warning network.

3.5 UNAMI’s Governorate Liaison Officers

The UN has also employed national staff for information gathering purposes in political missions. The United Nations Assistance Mission for Iraq (UNAMI) has maintained a network of Governorate Liaison Officers (GLOs) across Iraq to identify early signs of emerging local conflicts that could potentially escalate or destabilize national-level political dynamics. GLOs have extensive experience in the Iraqi local context and draw on many local contacts. This allows them to report information to the mission’s Political Affairs leadership. Hence, unlike CLAs who report to the Civil Affairs section and are more concerned with the local level, GLOs in Iraq report to Political Affairs and collect local level information to support the national-level political process. In addition, all GLOs have received training on mediation, which enables them to take remedial actions to mitigate the outbreak of violence sparked by local conflicts.⁷²

3.6 U2

In addition to civilian staff, the force component of peace operations also collect information that can potentially serve as early warning for POC-related issues. Of particular importance in this regard is the U2 section of the force. ***The U2 section serves as a strictly military intelligence unit that is mandated to provide timely information for UN military operations at the tactical and operational level.***⁷³ Tactical intelligence is required to alert peacekeeping personnel to potential dangers, but also to support field commanders in the execution of peacekeeping activities such as protecting civilians. Operational intelligence is needed to plan the most effective deployment of resources of the peacekeeping mission. Information required at this level relates to the movements of armed actors, their strategies, and their capabilities.⁷⁴

The U2 has even engaged in what can be described as “intelligence-led operations” in some missions, which are operations mainly conducted to gain intelligence or at least driven in timing and objectives

70 John Karlsrud, “The UN at War: Examining the Consequences of Peace-Enforcement Mandates for the UN Peacekeeping Operations in the CAR, the DRC and Mali,” *Third World Quarterly* 36, no. 1 (2015).

71 Duursma, “Information Processing Challenges in Peacekeeping Operations: A Case Study on Peacekeeping Information Collection Efforts in Mali.”

72 O’Byrne, Rendtorff-Smith, and Donati, “The Role of United Nations Peacekeeping Operations in Addressing Local Conflicts: A Study of Practice,” 28.

73 Niels van Willigen, “A Dutch Return to UN Peacekeeping?,” *International Peacekeeping* 23, no. 5 (2016): 715.

74 Olga Abilova and Alexandra Novoseloff, “Demystifying Intelligence in UN Peace Operations: Toward an Organizational Doctrine,” *International Peace Institute* (2016): 9.

by intelligence.⁷⁵ For instance, the U2 at the Eastern Division headquarters of MONUC was given control over the movements of soldiers in the field in 2006 and 2007, occasionally tasking them to obtain information about non-state armed groups hiding in the jungle. The UN Mission for the Stabilization of Haiti (MINUSTAH) also pioneered the practice of intelligence-led peacekeeping. Similarly, the U2 of MINUSTAH played an active role in instructing military units to collect information on gangs that controlled large sections of some Haitian cities.⁷⁶

One weakness of U2 intelligence officers is that they often are only deployed for a period of six months. This means that these intelligence officers often miss the expertise to fully put the information they collect into the right context.

3.7 Military Observers

Military observers have traditionally mainly been concerned with monitoring ceasefires between warring parties. Early warning reporting by military observers was therefore mainly on violations of a ceasefire agreement.⁷⁷ However, **with POC becoming more prominent, military observers now also report on threats to civilians.**

A military observer in MINUSCA deployed in Berberati reflects on his information collection efforts as follows: “I was in communication with a variety of actors to gather information. I would regularly stop at villages while on patrol to speak to the population, but also met with religious leaders and armed groups. [...] Having networks in place also allowed us to better understand the environment, plan properly and provide early warning where needed.”⁷⁸ Nevertheless, **with relatively short rotation periods and relative few connections, military observers have comparative disadvantage when it comes to early warning reporting on POC.**

3.8 Cross-Mission Units

In line with the whole-of-mission approach towards POC, there is also close collaboration between different parts of a mission.

3.8.1 JOINT PROJECTION TEAMS

Joint Projection Teams (JPTs) were introduced in MONUC in early 2009. **JPTs are deployed on a temporary basis in order to analyze local POC-related dynamics on the basis of which local protection plans are formed.** The JPTs consist of several sections and units that are relevant for POC, including Civil Affairs, Political Affairs, Human Rights, Child Protection, Public Information, and UNPOL. JPTs are coordinated by civil affairs.⁷⁹ In several instances, as for example in the case of MONUC in the DRC, JPTs focused their activities on filling gaps in field-level data collection and analysis.⁸⁰

75 A. Walter Dorn, “United Nations Peacekeeping Intelligence,” in *The Oxford Handbook of National Security Intelligence*, ed. Loch K. Johnson (Oxford: Oxford University Press, 2010).

76 Ibid.

77 United Nations, *United Nations Military Observers Handbook* (New York 2001), xviii.

78 *Protection of Civilians in United Nations Peacekeeping Handbook*, 71.

79 UNDPKO, “Civil Affairs Handbook,” 144.

80 Holt, Taylor, and Kelly, *Protecting Civilians in the Context of UN Peacekeeping Operations: Successes, Setbacks and Remaining Challenges*, 196.

The collection and analysis of information servers to help formulate a context-specific protection plan, which stipulates civil and military response to protect civilians and liaise with local authorities. Once a protection plan has been formulated by a JPT, CLAs are tasked to monitor the implementation of the plan.⁸¹

Most other peace operations now also have JPTs, operating under a Standard Operating Procedure (SOP). The SOP on the role of JPTs in MINUSCA describes JPTs as “ad hoc, multidisciplinary and cross-sectional teams, tasked to assess possible, potential, existing or continued protection of civilian (POC) threats in zones where the Mission does not have a permanent presence and to develop recommendations for senior Mission leadership on how to respond to these threats.”⁸²

3.8.2 JOINT ASSESSMENT MISSIONS

Joint Assessment Missions (JAMs) are fairly similar to JPTs, with one important difference: that they are conducted with humanitarian.⁸³ JAMs consist of mission civilians and humanitarian or development actors. The goal of a JAM is to assess responses to protection and humanitarian or development situations.⁸⁴

3.8.3 JOINT INVESTIGATION TEAMS

Joint Investigation Teams consist of mission staff and personnel from national authorities and justice sector institutions. Joint Investigation Teams commonly visit areas where violence against civilians has taken place to collect information that can help support the rule of law and accountability for violence against civilians.⁸⁵

3.9 JMAC and JOC Tools

The Department of Peace Operations took a major step in 2005-2006 by developing structures for information-gathering and analysis: it created both the Joint Operations Centre (JOC) and the Joint Mission Analysis Centre (JMAC). A significant driving factor behind the decision to set up JOCs and JMACs was the bombing of a UN compound in Baghdad in August 2003.⁸⁶ JOCs and JMACs are now both required components of peace operations. They are tasked to collect and analyze information for the leadership of peacekeeping missions in order to guide action.⁸⁷

The JOC serves as an information hub at the peace mission’s headquarters in order to “ensure mission-wide situational awareness through integrated reporting on current operations as well as day-to-day situation reporting.”⁸⁸ JOC staff thus in practice receive and integrate reports from all the different

81 Ibid., 185.

82 United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook*, 210.

83 Ibid., 39.

84 Ibid., 100.

85 Ibid., 118.

86 A. Walter Dorn, “Intelligence-Led Peacekeeping: The United Nations Stabilization Mission in Haiti (Minustah), 2006-07,” *Intelligence and National Security* 24, no. 6 (2009); P. M. Norheim-Martinsen and J. A. Ravndal, “Towards Intelligence-Driven Peace Operations? The Evolution of UN and EU Intelligence Structures,” *International Peacekeeping* 18, no. 4 (2011).

87 P. Shetler-Jones, “Intelligence in Integrated UN Peacekeeping Missions: The Joint Mission Analysis Centre,” *ibid.* 15 (2008); UN DPKO, *Policy Directive: Joint Operations Centres and Joint Mission Analysis Centres* (New York, 1 July 2006).

88 *Policy Directive: Joint Operations Centres and Joint Mission Analysis Centres*.

sections of a mission. This integrated information is usually disseminated across the mission through holding weekly information-sharing meetings and leading contingency planning. Humanitarian actors sometimes also attend JOC-led information-sharing meetings. Finally, JOCs lead on crisis management within UN peace operations, as well as coordinate crisis response. The focus of JOCs is on immediate threats that could potentially materialize over a period of weeks.⁸⁹

JMACs are mandated to act as a strategic planning body, mainly to support senior management to analyze the security landscape and the political context. To this purpose, JMACs conduct all-source intelligence gathering using military, police and civilian personnel.⁹⁰ While JOCs are responsible for early warning on the short term, JMACs are in principle mandated to conduct forward-looking integrated threat analyses.⁹¹ The JOC is responsible for mapping incidents and producing a timeline of key events. The Civil Affairs section is tasked to analyze the conflict drivers. Civil Affairs, Political Affairs, DDR, and JMAC jointly discuss any dynamics that can positively or negatively influence a situation. The Human Rights section is responsible for determining the actual impact of an event or threat. The JMAC itself then finally determines the risk level – ranging from red, yellow, to green – through assessing the likelihood of a threat materializing and its potential impact. The JOC and Civil Affairs are subsequently responsible for operational planning. The integrated risk assessment led by JMAC thus leverages the diverse insights and expertise of different units across the peace operation. The final product is then intended to guide a cross-mission response.⁹²

In spite of the clear distinction between JOCs and JMACs on paper, some missions have experienced tensions about respective responsibilities of JOCs and JMACs in the past. One reason for this is that there is often a large demand for intelligence at the tactical and operational levels in peace missions, which sometimes puts pressure on the JMAC to shift focus to these levels instead of intelligence that supports the strategic level.⁹³ Nevertheless, the division of labor in general seems to work well. As a former Team Leader of the Protection of Civilians Team in the UN Department of Peace Operations notes on early warning for POC, “I generally found that a proactive Chief JOC or Chief JMAC was essential. JMAC does more strategic, looking ahead by 4 months to a year; JOC is much more short-term, maybe 48 hours. I always found that for peacekeeping you need attention to the immediate while planning for one or two weeks or so -- because that’s often the minimum to line up logistical and military support.”⁹⁴

Some of the early warning tools used by JOCs and JMACs are similar to tools used by other sections within UN peace missions. For instance, both Human Rights and JMACs conduct trend analyses on attacks on civilians. However, the UN POC Handbook is clear that integrated threat analysis falls under the responsibility of the JMACs: “The JMAC should be tasked to systematically integrate POC into its threat and risk assessments or analysis. POC Advisers and officers, POC technical groups and other mission components should be encouraged to contribute to integrated analysis through appropriate mission-specific channels, not compete with or duplicate it. Threat and risk assessments

89 Lauren Spink, *Strengthened Planning in UN Peacekeeping Operations: How MINUSMA Is Reinforcing Its Strategic Planning Unit* (Washington, DC: Center for Civilians in Conflict, August 2019), 4.

90 Holt, Taylor, and Kelly, *Protecting Civilians in the Context of UN Peacekeeping Operations: Successes, Setbacks and Remaining Challenges*, 196.

91 Shetler-Jones, “Intelligence in Integrated UN Peacekeeping Missions: The Joint Mission Analysis Centre,” 36; Duursma, “Information Processing Challenges in Peacekeeping Operations: A Case Study on Peacekeeping Information Collection Efforts in Mali”; United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook*.

92 O’Byrne, Rendtorff-Smith, and Donati, “The Role of United Nations Peacekeeping Operations in Addressing Local Conflicts: A Study of Practice,” 48.

93 Duursma, “Information Processing Challenges in Peacekeeping Operations: A Case Study on Peacekeeping Information Collection Efforts in Mali.”

94 Email correspondence with former team leader of the Protection of Civilians Team in the Department of Peace Operations, 11 August 2020.

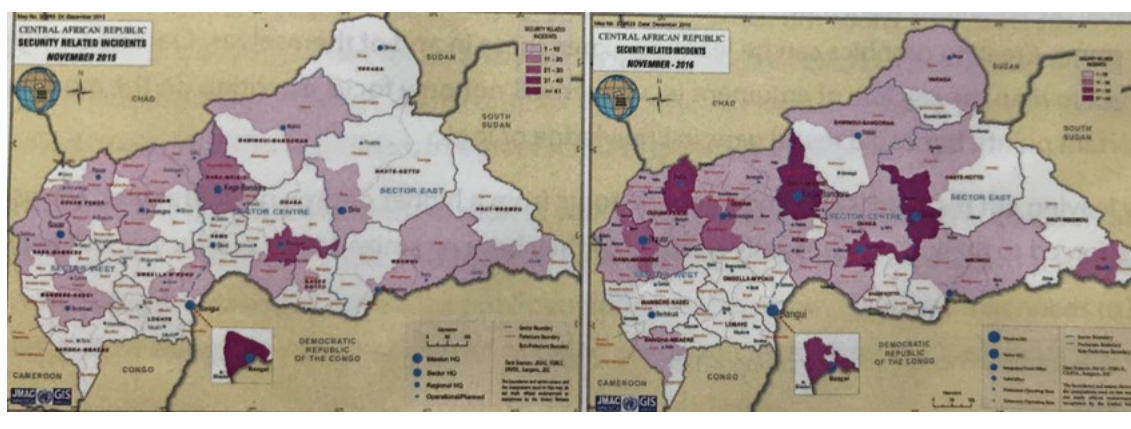
must be shared.”⁹⁵ Indeed, the leadership of UNMISS relies most on JMAC for early warning on POC issues, in spite of the use of other POC early warning mechanisms.⁹⁶

The following sub-sections discuss the various tools – or “products” – used by JMACs for POC-related early warning.

3.9.1 POC TREND ANALYSES

A first JMAC tool is simply to analyze trends on attacks on civilians. Information analysts try to identify areas most at risk through an assessment of past physical violence against civilian communities and objects. This type of analysis typically focuses on the level of harm caused by the perpetrators in a given area, but also on the coping strategies of the victims and the response of protection actors. *The ultimate goal of a JMAC trend analysis is to produce forward-looking information on the basis of conflict dynamics and patterns of violence against civilians.*⁹⁷ JMAC commonly uses graphs that show the increase or decrease of attacks on civilians in a given area. JMAC also uses choropleth maps⁹⁸ – or commonly referred to as hot-spot maps – to compare the level of violence against civilians across different time periods. Figure 1 below shows a trend analysis with choropleth maps, comparing attacks on civilians in CAR in November 2015 and November 2016.

FIGURE 1. Trend Analysis in the Central African Republic



Following a trend analysis, the mission leadership will need to decide on a priority list of threats to be addressed at the strategic, operational, and tactical levels. This priority list is not only drafted based on the trend analysis, but also on the basis of the risk of violence (likelihood and impact) and the capacity of the mission to respond to this risk.⁹⁹ Hotspot maps and threat forecasts are often the primary data-driven POC tools used by the mission leadership to make decisions. For instance, a UNMISS official notes that “When it comes to acting on protection risks, JMAC is the main source for

95 United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook*, 36.

96 Adam Day et al., *Assessing the Effectiveness of the United Nations Mission in South Sudan (UNMISS)* (Oslo: Norwegian Institute of International Affairs, 2019), 69.

97 United Nations, *Joint Mission Analysis Centre Field Handbook* (2018), 132-33.

98 This is a type of thematic map in which areas are shaded in proportion to a statistical variable that represents a summary of a geographic characteristic within each area. For a POC trend analysis, the choropleth map thus uses darker shades for the areas in which more attacks on civilians have taken place.

99 United Nations, *Joint Mission Analysis Centre Field Handbook*, 132.

decision-making.”¹⁰⁰ Another UNMISS official similarly highlights that the “The SRSB tends to rely directly on the JMAC.”¹⁰¹

An example of how a JMAC trend analysis led to a peacekeeping response is the MINUSMA response to several attacks on government targets and civilians conducted by the Macina Liberation Front from January 2015 onwards. The JMAC warned the MINUSMA leadership in March 2015 to be careful and take action. After a lot of convincing by the Chief JMAC, one additional force battalion was eventually deployed in Mopti in July 2015.¹⁰²

One weakness of the trend analysis is that JMAC and JOC mainly draw on conflict data previously collected to determine trends, which means levels of impending POC risk are primarily determined by current levels of violence against civilians.¹⁰³

3.9.2 NETWORK ANALYSES

The type of intelligence collected by JMAC also includes information and analysis on the intentions and actions of the conflict parties.¹⁰⁴ JMAC analysts are tasked to collect information about actors and compile profiles of these actors. These profiles can be on individuals (e.g. a local leader or a public figure), groups (e.g. armed actors), institutions (e.g. a political party), or a locality (e.g. a town or a province). Elements described in these profiles include geographical, political, economic, and where relevant also tribal characteristics. Information on capabilities, strengths, weakness, intentions, perceptions, and relevant relationships is also included.¹⁰⁵

On the basis of these profiles, JMAC staff conduct a network analysis that links the different actors that are relevant to the implementation of the mandate of the mission. In terms of the POC mandate, these ***network analyses serve to inform decision-makers within the mission how to best respond to threats or how to involve a certain actor in one of the mandated processes.*** The network analysis is essentially a compilation and interpretation of data to determine the presence of relationships among relevant actors, the meaning of these relationships, and the extent to which these relationships can be strengthened or weakened. This helps determine how to most effectively engage in POC-related activities through influencing the behavior of a set of actors.¹⁰⁶

JMAC analysts commonly make use of a software tool called I2 Analyst, which is essentially a visual analysis tool that facilitates the study of pattern in data using features like connected network visualization, social network analysis, and geospatial views. Figure 2 shows the dashboard of I2 Analysts. The use of I2 as an analytical tool to improve the “common operational picture” is deemed crucial by many information analysts across different UN missions.¹⁰⁷ It helps the analyst within peace operations to turn data collected into Intelligence.

100 Day et al., *Assessing the Effectiveness of the United Nations Mission in South Sudan (UNMISS)*, 69.

101 Ibid.

102 Interview with the Chief JMAC MINUSMA in Bamako on 25 January 2017.

103 Lazicky, *Improving Conflict Early Warning Systems for United Nations Peacekeeping*, 6.

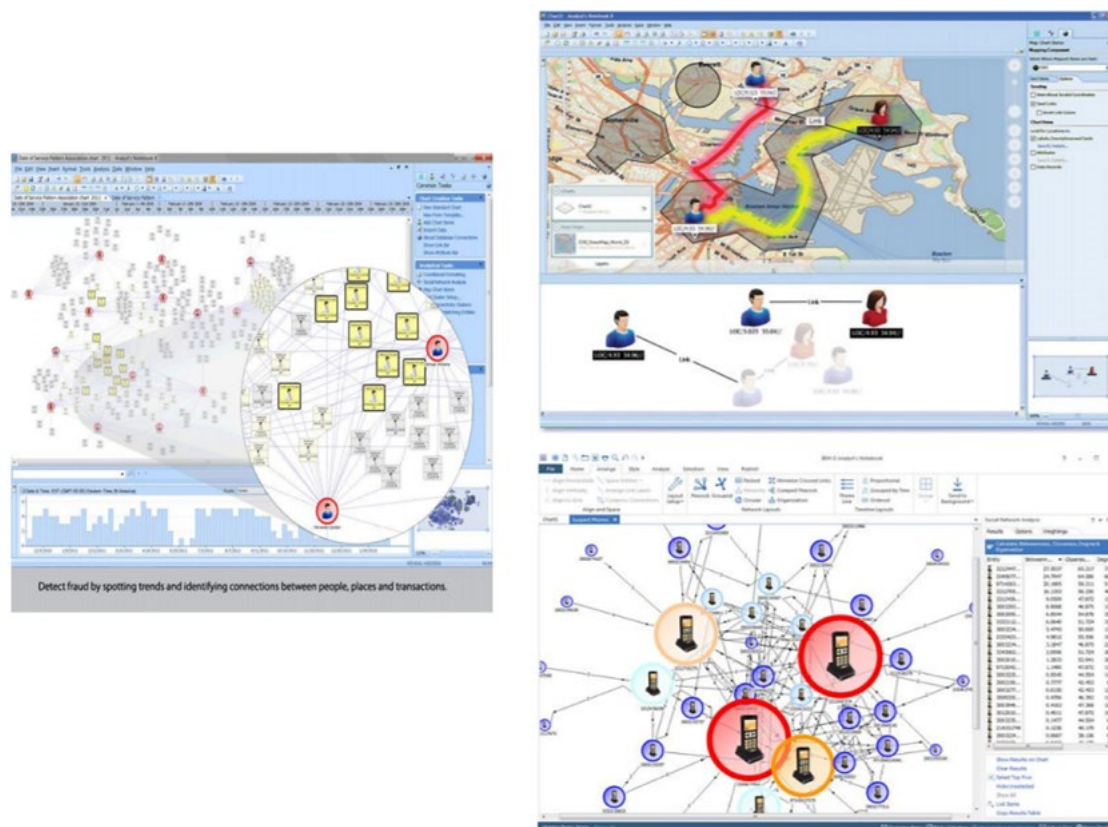
104 Duursma, “Counting Deaths While Keeping Peace: An Assessment of the Jmac’s Field Information and Analysis Capacity in Darfur.”

105 United Nations, *Joint Mission Analysis Centre Field Handbook*, 125.

106 Ibid., 125-26.

107 Interview with JMAC UNAMID staff member in Khartoum, 18 December 2014; interview with the Chief JMAC MINUSMA in Bamako on 25 January 2017; email correspondence with MONUSCO staff member working in the Strategic Planning Cell, 2 September 2020.

FIGURE 2. JMAC Network Analysis Using I2 Analyst



3.9.3 INCIDENT BRIEFS

It is crucial that information on critical events relevant to the protection of civilians is quickly collected and distributed to all relevant actors in the mission and at the Headquarters in New York. To this purpose, **JMAC analysts occasionally produce incident briefs to provide an account of an event, putting it in the context of its implications for the implementation of the POC mandate.** JMAC analysts commonly rely on multiple sources, integrate different perspectives, and discuss implications for the future. This type of analyses distinguishes JMAC incident reports from standard situation-reports written by substantive sections.¹⁰⁸

3.9.4 THREAT ASSESSMENTS

JMAC threat assessments are aimed at explaining threats to the implementation of the mission's mandate, including its POC mandate. Threats are generally broadly defined by the JMAC analysts and are thus not only limited to security threats, but also concern economic, humanitarian, human rights, and political factors that have the potential to impede the implementation of the mandate.¹⁰⁹

Threat assessments not only outline the threat, they also include the risk of the threat. The risk is defined as a combination of the likelihood that the threat materializes and the impact should the

108 United Nations, *Joint Mission Analysis Centre Field Handbook*, 124.

109 *Ibid.*, 123.

threat materialize. Risks are categorized from very low to very high, allowing the relevant actors in the mission to prioritize their response.

One strength of the threat assessments issued by JMAC staff is that these staff members draw on their intimate knowledge of the conflict environment. Yet, this is also a weakness, as JMAC staff do not really use a systematic method for deducing risk levels. A UN staff member reflects in this regard how “a series of reports are reviewed and statuses – usually green, yellow, red - are chosen rather haphazardly.”¹¹⁰ This means that personal biases and path dependency can influence their qualitative assessments.

3.9.5 EARLY WARNING NOTES

While threat assessments are commonly reviewed on a regular basis and occasionally when a significant event changes the nature of a threat, early warning notes are solely issued on an-hoc basis and focus on a single current or emerging threat. ***An early warning note – sometimes also referred to as note to file or a topic assessment – is aimed at informing the Head of Mission (HoM) and the Senior Management Team (SMT) that ongoing analysis has revealed an emerging or potential threat that requires a timely and specific response.*** Early warning notes always include a discussion of scenarios and the timeframe in which these scenarios could develop. This should give the HoM and the SMT the best information possible to decide on a response, commonly in close consultation with POC advisors when the early warning relates to threats to civilians.¹¹¹

3.9.6 OUTLOOKS

Outlooks, also referred to as scenario planning, typically take the form of a paper that develops a range of likely/unlikely and best/worst case scenarios in relation to the implementation of the mandate, including POC activities. In addition, outlooks often elaborate important elements of the scenario such as the underlying assumptions, benchmarks, and speed of change. Crucially, the outlooks discuss the implications of the sketched scenario and outline possible responses that can be taken to mitigate the worst-case scenario.¹¹²

3.10 MINUSMA'S ASIFU

While it is currently clear that the U2, JOC, and JMAC are responsible for information collection and analysis, there has been one experiment in the UN with upgrading the intelligence capacity of the UN. ***In 2013, the All Sources Information Fusion Unit (ASIFU) was created within MINUSMA.*** The creation of the ASIFU was unique to MINUSMA. When the Government of the Netherlands in 2013 decided to contribute troops to the MINUSMA, the Dutch Ministry of Defence decided to put together a coalition of the willing to set up an intelligence unit within MINUSMA that could help to identify threats to the mission and the mandate. After the ASIFU had been conceptually created, six additional countries – Norway, Sweden, Denmark, Germany, Estonia, and Finland – proved willing to contribute to the ASIFU.¹¹³ The creation of the ASIFU was an innovative step within the context of information collection efforts in peace operations. However, ***in late 2017, the ASIFU was merged with the U2 section of the military component of MINUSMA.***

¹¹⁰ Lazicky, *Improving Conflict Early Warning Systems for United Nations Peacekeeping*, 6.

¹¹¹ United Nations, *Joint Mission Analysis Centre Field Handbook*, 138-39.

¹¹² *Ibid.*, 136-37.

¹¹³ Johannes A. Van Dalen, „ASIFU. Baanbrekend Inlichtingenexperiment in Mali,” *Militaire Spectator* 7 August (2015): 308.

The feature that distinguished the ASIFU most clearly from the JMAC and the U2 is that one of its guiding principles was the use of focused intelligence operations.¹¹⁴ To this purpose, the ASIFU also included two military units in the field specifically tasked to gather intelligence: the Intelligence, Surveillance and Reconnaissance (ISR) Company in Sector West (Timbuktu) and Sector East (Gao).¹¹⁵ In other peacekeeping missions, patrols talk to civilians and armed groups and often pass on information, but these patrols are not specifically tasked with gathering information. One of the underlying ideas of the ASIFU was thus that a robust intelligence system sometimes requires intelligence-led activities, as these activities can produce predictive and actionable intelligence. In an ideal situation, intelligence leads to effective operations, while operations, turn, lead to better intelligence. In addition, the ASIFU also used local informants, Apache helicopters, drones, and scanned media and social media.

One reason for the merging of the ASIFU with the U2 is that while the U2, JMAC, and the ASIFU, in theory, conduct different types of intelligence work, in practice the intelligence efforts of these different units overlapped. From mid-2014 onwards, relations between the different intelligence units became increasingly strained because of this overlap and a general unwillingness to share information. To enhance the information sharing between the different intelligence units, a Joint Coordination Board (JCB) was set up in late 2014. All intelligence units within MINUSMA had a seat in this coordination body. The Chief JMAC chaired the JCB. The creation of the JCB significantly improved coordination between the different intelligence units and streamlined the intelligence gathering process in Mali.¹¹⁶ Nevertheless, it was decided in late 2017 that the ASIFU should be integrated within the U2. In short, the ASIFU provided actionable and integrated intelligence products based on a comprehensive approach, which, among others, relied on the efforts of military units that are specifically tasked to gather intelligence.

The intelligence analyses conducted by ASIFU have been widely noted to have helped the Force Commander of MINUSMA to accomplish the missions' goals and mitigate threats to the mission.¹¹⁷ However, ***the ASIFU experiment has also been criticized as a non-viable blueprint for information collection and analysis in UN peace operations.*** It is especially deemed as too expensive, the idea being that western (TCCs) were only willing to finance ASIFU because they wanted to identify threats to their troops. In addition, the high degree of confidentiality among ASIFU staff does not work well in a UN setting. For instance, several western ASIFU as this could reveal both the names of the intelligence officers of western countries and their methods. These factors make ASIFU hard to replicate in other missions.¹¹⁸

114 van Willigen, "A Dutch Return to UN Peacekeeping?," 716.

115 It should be noted that the ASIFU leadership decided to not deploy an ISR company in Sector North (Kidal), because the security situation was too risky in this area. Yet, from an information collection perspective, an ISR in Kidal was arguably the most needed.

116 Van Dalen, "ASIFU. Baanbrekend Inlichtingenexperiment in Mali"; Abilova and Novosseloff, "Demystifying Intelligence in UN Peace Operations: Toward an Organizational Doctrine."

117 John Karlsrud and Adam C. Smith, "Europe's Return to UN Peacekeeping in Africa? Lessons from Mali," *ibid.* (2015); Duursma, "Information Processing Challenges in Peacekeeping Operations: A Case Study on Peacekeeping Information Collection Efforts in Mali."

118 Interview with UNOCC staff member in New York, 8 May 2018.

3.11 Incident Mapping

In addition to the more general early warning tools used by Civil Affairs and JMACs and JOCs, several UN peace missions have established their own tools.

3.11.1 MONUSCO'S INTEGRATED TEXT AND EVENT MANAGEMENT SYSTEM AND THE FORCE COMMON OPERATING PICTURE

MONUSCO has used a database called the Integrated Text and Event Management system (ITEM) to track protection incidents.¹¹⁹ It should be noted upfront that ITEM has been replaced by another tool called SAGE, which will be discussed further below. ITEM was credited for having contributed to more effective monitoring and reporting – as for example on grave violations against children.¹²⁰ Uniformed personnel within MONUSCO have used data in ITEM as input for a geospatial mapping tool called the Force Common Operating Picture (FCOP). However, **ITEM suffered from some major weakness, chief among them that the different mission components contributed to it unevenly.** A MONUSCO official reflected how the vision for ITEM was “to bring operational data from different departments to the same [updated] platform.”¹²¹ Yet, ITEM was in reality mainly used by Civil Affairs personnel and protection advisors. This prevented ITEM from being a stronger analytical tool for the whole mission.¹²²

3.11.2 THE MINUSMA SPATIO-TEMPORAL INCIDENT MAPPING TOOL

The MINUSMA Spatio-Temporal Incident Mapping Tool (STIM) has been developed in 2020 to better assess the impact of force operations on the protection of civilians. **The STIM simply records force activities, such as Temporary Operating Bases and patrols, plots these activities on a map, and then superimposes incidents in which civilians were targeted.**¹²³ STIM was first tested in the Mopti region, but the UN Secretary General noted in his report on MINUSMA in September 2020 that the tool was further refined extended to force operations in regions other than Mopti.¹²⁴

Figure 3 shows the final product of the STIM tool in the form of a weekly snapshot of POC-related incidents and current and past force temporary operating bases and patrols projected on a map.

119 Lauren Spink, “Data-Driven Protection: Linking Threat Analysis to Planning in UN Peacekeeping Operations,” *Center for Civilians in Conflict* (2018): 30.

120 Officer of Internal Oversight Services, “Report 2019/138. Audit of the Child Protection,” (23 December 2019): paragraphs 17-18.

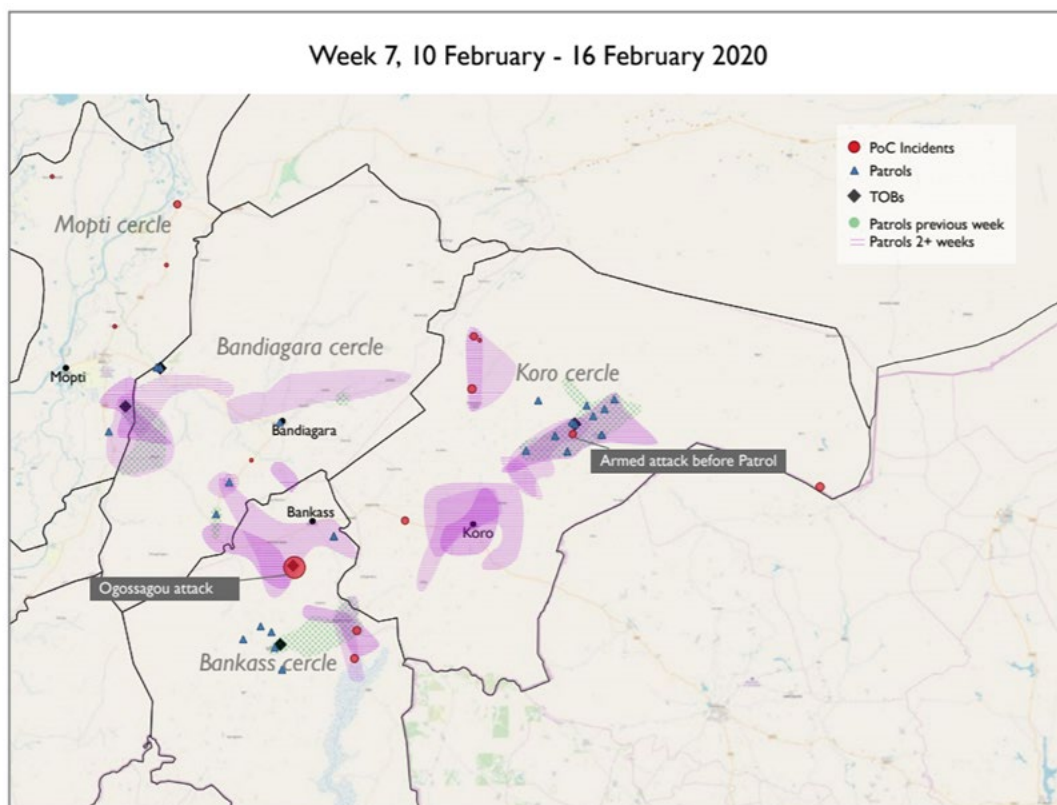
121 Spink, “Data-Driven Protection: Linking Threat Analysis to Planning in UN Peacekeeping Operations,” 30.

122 Ibid.

123 Melanie Sauter, Sebastian Frowein, and Marcello Cassanelli, “A Data-Driven Tool to Advance the Protection of Civilians During Force Operations,” *MINUSMA* (June 2020): 4.

124 UN Secretary-General, “Situation in Mali: Report of the Secretary-General. S/2020/952.”

FIGURE 3. The MINUSMA Spatio-Temporal Incident Mapping Tool



As a mapping tool, STIM is useful. Indeed, the usefulness of incident mapping is also noted by UN staff in other missions. For instance, a MONUSCO staff member of the planning cell notes how “The use of heat mapping to localize POC incidents helps to drive forward-looking POC threat assessments.”¹²⁵

Nevertheless, *in terms of early warning, the MINUSMA Spatio-Temporal Incident Mapping Tool suffers from the same weakness as most trend analyses: the forecasting is based on current levels of violence, while violence against civilians can rise or drop again, reversing a trend.* In order to improve predictions, predictive models that draw on other indicators than just POC threat need to be built (e.g. troop movements and tensions between armed groups).¹²⁶

Furthermore, as a tool to evaluate the effectiveness of POC-related activities, the STIM also has its shortcomings. The authors of the report that introduces the STIM make the point that this tool is an advancement over regular POC reporting because:

¹²⁵ Email correspondence with MONUSCO staff member working in the Strategic Planning Cell, 2 September 2020.

¹²⁶ A. Duursma and J. Karlsrud, “Predictive Peacekeeping: Strengthening Predictive Analysis in UN Peace Operations,” *Stability: International Journal of Security and Development* 8, no. 1 (2019).

“The existing assessments based on regional monthly aggregates of the overall trends made it difficult to establish a causal, methodologically valid link between changing POC trends and force presence. For example, a decreasing trend in violent incidents against civilians in a region where the force is patrolling may mean that the force has a positive effect on reducing POC incidents. However, without knowing if POC incidents are decreasing in other areas of the region where the force is not present, the reduction of POC incidents cannot be attributable to the force. Likewise, an increase of POC incidents in regions with the force presence may warrant a conclusion that the force does not protect civilians. It could also mean that retaliatory attacks against civilians increase after the force leaves a location.”¹²⁷

However, **a robust assessment of the impact of patrols on levels of violence against civilians needs to deal with the non-random assignment of peacekeeping patrols. Peacekeepers are sent where they are most needed. This means that continued violence against civilians in a given area is not a result of the ineffectiveness of peacekeepers patrolling this area, but rather that this area is exceptionally prone to violence against civilians, which can be a consequence of a variety of reasons.** Dealing with this non-random assignment of patrols is not possible through a simple mapping exercise. It would require a statistical analysis in which all factors that make an area prone to violence against civilians (e.g. strategic towns, different rival ethnic groups cohabitating in the area, mineral mines, etc.) are modelled.¹²⁸ Nevertheless, the STIM is a big step forward in terms of incident reporting.

3.12 Risk Matrices

The working horse of early warning in most peace operations has become the risk matrix. There are several different versions of risk matrices, but the common feature is that they structure a potentially complex set of factors that influence POC-related risks in a structured and meaningful way. A POC risk matrix consists of a simple grid with as many cells needed to analyze the risk of attacks on civilians. One way to analyze the risk is to determine the likelihood of a particular event (ranging from very likely to very unlikely) and the impact of this event (ranging from negligible to severe). This then gives risk scores ranging from low to extremely high. Other factors that can be taken into account are the mission’s level of preparedness.¹²⁹

One major challenge for constructing POC risk matrices is to determine which factors need to be taken into account. An exhaustive list of factors might be too cumbersome to produce and too difficult to analyze. POC-related risk matrices are constructed on the basis of different indicators in different UN peace operations, reflecting the unique context of each mission and the corresponding POC-related risks.

3.12.1 MINUSCA’S FLASHPOINT MATRIX

MINUSCA has implemented the Flashpoint Matrix to assess POC-related threats in the context of the many non-state conflicts throughout CAR. The matrix consists of four elements. A first element

¹²⁷ Sauter, Frowein, and Cassanelli, “A Data-Driven Tool to Advance the Protection of Civilians During Force Operations,” 4.

¹²⁸ For a study that has done this with peacekeeping bases, see: Hanne Fjelde, Lisa Hultman, and Desirée Nilsson, “Protection through Presence: UN Peacekeeping and the Costs of Targeting Civilians,” *International Organization* (2018).

¹²⁹ United Nations, *Joint Mission Analysis Centre Field Handbook*, 140, 45, and 47.

of this matrix is the nature of the threats. Indicators of this are the presence and number of non-state armed groups, the number violent incidents involving these groups, and the number of casualties. A second element of the matrix relates to vulnerabilities, which include the presence of communities at risk (e.g., IDPs, minorities, and enclaves), the number of inhabitants in the affected area, and the presence of inter-communal conflict. The third element captures the presence of protection actors, including international security forces, humanitarian actors, but also operational security forces of the host-state. Finally, the fourth element of the matrix pertains to resilience factors. Indicators of this are the presence of local conflict management mechanisms and justice institutions, as well as whether the civilian population enjoys freedom of movement in the area.

MINUSCA staff use the flashpoint matrix to decide how and where the mission should prioritize POC engagement. The matrix is used to inform a multidimensional response from different units within the mission. It is noted in a report on local conflicts that “resources are inevitably limited and prioritization is critical” and the flashpoint matrix “enables MINUSCA to assess the degree of threat, the level of a community’s vulnerability, the presence of protection actors, and the resilience of the local community to threat or use of violence.”¹³⁰ Indeed, MINUSCA’s POC coordination forum regularly reviews the matrix in order to determine priority actions to mitigate POC-related threats of violence.

3.12.2 UNMISS WEEKLY PREDICTIVE RISK-ASSESSMENT MATRIX

In UNMISS, JMAC runs a weekly predictive risk-assessment matrix. This is a geographically organized table that identifies and prioritizes the risks of violence against civilians. The information used to produce the matrix is sourced from all relevant parts of the mission.¹³¹ This is in line with whole-of-a-mission approach towards early warning in UNMISS. UNMISS is specifically mandated to implement an early warning strategy, which includes information-gathering and monitoring, but also response mechanisms to POC-related threats and human rights violations.¹³² This has put pressure on UNMISS staff to develop effective early warning tools because the mandate on early warning has meant that UNMISS is also evaluated on its early warning.

3.13 Local Conflict Mapping

In addition to risk matrices, several peace operations also specifically collect information about local conflicts. UN peacekeepers are generally deployed in response to intrastate armed conflicts, but local conflicts are often one of the primary sources of insecurity in locations where UN peacekeepers are deployed.¹³³ Gorur and Velturo note that UN peacekeeping missions “are deployed to support the resolution of major national or international-level conflicts”, but “once they deploy, they often find that they are confronted with a variety of locally-driven conflicts in addition to the overarching conflicts they were mandated to address.”¹³⁴ This explains why the force component of a peacekeeping mission more frequently intervene in local conflicts and why UN civilian staff

130 O’Byrne, Rendtorff-Smith, and Donati, “The Role of United Nations Peacekeeping Operations in Addressing Local Conflicts: A Study of Practice,” 51.

131 Brockmeier and Rotmann, “Civil Affairs and Local Conflict Management in Peace Operations,” 32.

132 Day et al., *Assessing the Effectiveness of the United Nations Mission in South Sudan (UNMISS)*, 68.

133 See: Jana Krause, “Stabilization and Local Conflicts: Communal and Civil War in South Sudan,” *Ethnopolitics* 18, no. 5 (2019); A. Duursma, “Making Disorder More Manageable: The Short-Term Effectiveness of Local Mediation in Darfur,” *Journal of Peace Research* (2020); Hannah M. Smidt, “United Nations Peacekeeping Locally: Enabling Conflict Resolution, Reducing Communal Violence,” *Journal of Conflict Resolution* (2019).

134 Aditi Gorur and Madeline Velturo, *Local Conflict, Local Peacekeeping* (Washington, DC: Stimson Center, 2017), 7.

become frequently involved in supporting peace processes in local conflict. Peacekeeping staff have used data-driven mapping tools to anticipate threats emerging from local conflicts and prioritize response to local conflicts most prone to escalation.¹³⁵ Both the JOCs and the JMACs have turned more attention to local conflict issues.¹³⁶

3.13.1 THE UNMIS LOCAL CONFLICT MANAGEMENT DATABASE

In the aftermath of intense armed conflict in Abyei in May 2008, UNMIS carried out a preliminary assessment of the situation and of its response. One recommendation that followed from this assessment was to develop a database to identify “traditional, local, and regional response mechanisms for conflict management.”¹³⁷ **UNMIS subsequently began to keep track of local conflicts and conflict management efforts related to them.** Local civil affairs teams and civil affairs at mission headquarters in Juba drew on these data to synthesize their extensive knowledge about local conflicts into one or two concise paragraphs per state. JMAC then ensured that these products were accessible to other sections and the mission’s leadership. These products were reported to make an important contribution to mission-wide situational awareness and help POC activities.¹³⁸ However, the initiative did not last and neither UNMISS nor UNISFA have a database specifically on local conflicts.¹³⁹

3.13.2 MONUSCO’S LOCAL CONFLICT MAPPING AND RISK ASSESSMENT TOOL

MONUSCO has developed a Risk Assessment Framework to assess the magnitude and nature of local conflicts and threat of violence against civilians in the DRC.¹⁴⁰ A first factor the framework takes into account is the scope of the conflict, determining whether it takes place in an isolated area or whether the conflict expands to other areas. The intensity of the conflict is also considered in the framework, including the number civilian casualties. Other elements in the framework are escalation, the threat level, the duration of the armed violence, and the complexity of the conflict. The risk factors are used to produce a score that indicates the magnitude of threat posed by the local conflict identified, ranging from low (green), medium (yellow), to high (red). The aim of this scoring within the framework is to guide prioritization, determining “which local conflict drivers are most likely to produce the most significant threat to the well-being and security of civilians.”¹⁴¹

The MONUSCO’s Local Conflict Mapping and Risk Assessment Tool has helped with data-driven engagement on local conflicts, but some within the mission also say that it has made deciding on a response more complicated. **Since the tool has yielded hundreds of different local conflicts, information analysts struggle to secure actionable information on the most concerning local conflicts in the country.** Prioritization is sometimes challenging with limited information on some conflicts.¹⁴²

3.13.3 MINUSMA’S LOCAL CONFLICT DASHBOARD VISUALIZATION

MINUSMA has developed the Local Conflict Dashboard Visualization, which is a tool to visualize local conflict in Mali. Figure 4 shows what the MINUSMA Local conflict dashboard visualization looks like.

135 O’Byrne, Rendtorff-Smith, and Donati, “The Role of United Nations Peacekeeping Operations in Addressing Local Conflicts: A Study of Practice.”

136 Duursma, “Counting Deaths While Keeping Peace: An Assessment of the JMAC’s Field Information and Analysis Capacity in Darfur.”

137 UN Secretary-General, “Report of the Secretary-General on the Sudan, S/2008/485,” (23 July 2008): 42.

138 Brockmeier and Rotmann, “Civil Affairs and Local Conflict Management in Peace Operations,” 32.

139 Email correspondence with UN staff member #2 at the Policy, Evaluation and Training Division (DPET) of the Department of Peace Operations, 2 November 2020.

140 O’Byrne, Rendtorff-Smith, and Donati, “The Role of United Nations Peacekeeping Operations in Addressing Local Conflicts: A Study of Practice,” 52.

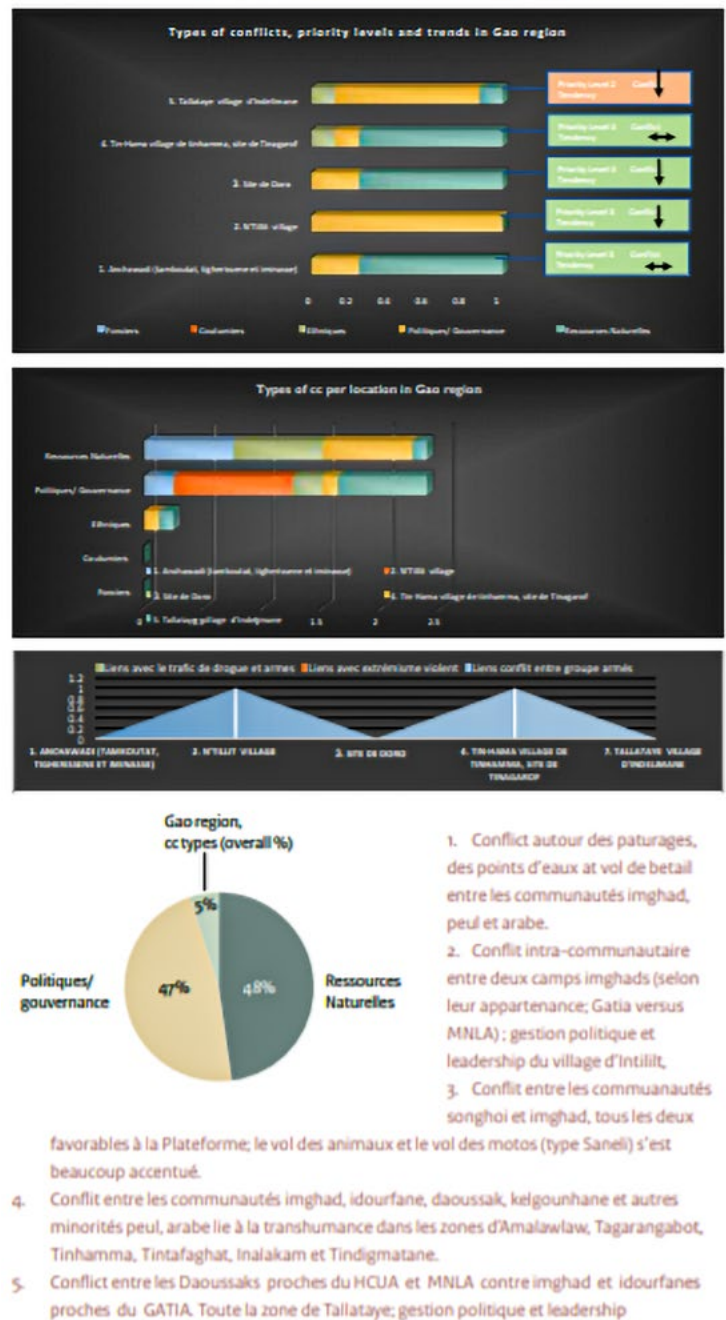
141 Ibid.

142 Ibid., 42.

The data for this tool is based on information collected by JMAC on the number of local conflict incidents and trends. The tool also provides monthly indicators of the different types of conflict (e.g., conflict over land).¹⁴³

FIGURE 4. MINUSMA Local Conflict Dashboard Visualization

Snapshot of inter- and intra community conflicts in Gao region/15 June 2016/ CAD



143 Ibid., 49.

3.14 SAGE

The tools discussed above – as for example MINUSCA's flashpoint matrix, MONUSCO's risk assessment framework, UNMISS' weekly predictive risk-assessment matrix, and MINUSMA's ASIFU – show a clear trend towards innovation in individual field missions when it comes to early warning for POC. Nevertheless, many of these processes are still ad-hoc, based on local innovation, and have significant potential for improvement. The different sections and units within UN peace operations collectively produce a wealth of data on a daily basis, but these data are often lost and different sections hold on to their own data.¹⁴⁴

The UN has undertaken a massive effort to centralize the many different data streams. To this purpose, ***the Department of Peace Operations has rolled out the Situational Awareness Geospatial Enterprise (SAGE) event database tool to track and visualize incidents and some activities.*** SAGE has been developed through in-house developers based at the UN Support Base in Valencia in Spain.¹⁴⁵ The tool is a web-based database system that allows UN military, police and civilians in UN peace operations (both UN peacekeeping operations and special political missions) to log incidents, events and activities. SAGE is an integral and core part of the Mission Common Operational Picture (MCOP), being developed during 2018. As a staff member of the UN Operations Crisis Centre (UNOCC) notes: "By allowing multiple components to shared their data in a single central database, under the custodianship of the JOC, SAGE aims to provide a 'Common Operational Picture' to the entire Mission."¹⁴⁶

SAGE not only includes incidents pertaining to armed violence, but also includes information on incidents like troop movements, increased tensions, hijackings, abductions, protests, and many more potentially relevant incidents. Instead of just reporting free text, the information in SAGE is stored as structured data. This means that the event is categorized (type of event, # of victims, ethnicity, # and affiliation of perpetrators, geographical coordinates and so on). The reported incidents are validated and approved before being made visible to others. Moreover, duplicates are de-conflicted either at the regional or central level, enabling corroboration. As a staff member of the UNOCC reflects in this regard that SAGE "eliminates the traditional wasteful duplication of each component creating its own separate database of essentially the same set of incident data."¹⁴⁷ Over time, the gathering of structured data will enable the mission leadership to identify trends and indicators for early warning. Different sections (human rights, civil affairs, justice, gender etc.) can also insert comments that are only available to their specific section, to enable limited circulation of sensitive data.

Indeed, just prior to SAGE was used in MONUSCO, a MONUSCO official noted: "You have no platform where all of this information is centralized, compiled, archived, and easily available, and the impact, the consequence, of that is that you don't have access to long-term information."¹⁴⁸ Commenting on trials with SAGE, a UNMISS civilian official noted *these trials had produced hotspot mapping very similar to JMAC's analysis, but in a much shorter time frame, noting that SAGE "can give*

144 Duursma, "Information Processing Challenges in Peacekeeping Operations: A Case Study on Peacekeeping Information Collection Efforts in Mali"; Duursma and Karlsrud, "Predictive Peacekeeping: Strengthening Predictive Analysis in UN Peace Operations."

145 SAGE is based on the Ushahidi platform that was developed to monitor electoral-related violence in Kenya and later other countries. See: P. Meier, "Crisis Mapping in Action: How Open Source Software and Global Volunteer Networks Are Changing the World, One Map at a Time," *Journal of Map & Geography Libraries* 8, no. 2 (2012).

146 Email correspondence with UNOCC staff member responsible for SAGE, 31 August 2020.

147 Email correspondence with UNOCC staff member responsible for SAGE, 31 August 2020.

148 Spink, "Data-Driven Protection: Linking Threat Analysis to Planning in UN Peacekeeping Operations," 30.

you, very quickly, trends and analysis—a picture on the ground based on incidents.”¹⁴⁹ In short, while peacekeeping information gathering efforts have been set up in an ad hoc manner to date, **with SAGE the UN has set up a more standard structure for information gathering within peace missions. The ability of peacekeeping staff to use one incident-reporting platform across the mission is a significant improvement.**

However, **a pertinent question for peacekeeping staff working in missions is who has access to SAGE.** There are many complaints that SAGE is only accessible to JOC.¹⁵⁰ Yet, this is technically not true, as explained by a staff member of the UNOCC: “SAGE data is accessible to all sections/components in a Mission, for whom access to incident/event data is required. For example, in MONUSCO and UNMISS, both uniformed and non-uniformed components contribute to and access shared data from SAGE. The JOC acts as the facilitator and information-broker within the SAGE information management workflow.”¹⁵¹

Nevertheless, **it seems that JOCs are generally highly restrictive in terms of who gets access to the data.** In practice, SAGE seems to be mainly used by JMAC, JOC, and UNPOL and the Force component of the mission.¹⁵² Moreover, **not all information from substantive sections is integrated into SAGE.** One of the goals of SAGE was to replace the paper-based daily situation-reports from various mission components, though to report information and create useful data at the same time.¹⁵³ However, this is unlikely to happen, because staff members from the substantive section value contextual information provided in reports. For instance, a Political Affairs officer within MINUSCA states: “I do not see the added value of SAGE for Political Affairs. We need a qualitative assessment of the political situation for our work.”¹⁵⁴ A UN staff member at the Policy, Evaluation and Training Division (DPET) of the Department of Peace Operations notes that “SAGE is generally used almost exclusively by JMAC, JOC and UNPOL/Military. It captures what happened or is happening, but not why or considerate of the variables or factors that lead to incidents or violence. And SAGE tends to not include all Civil Affairs data or all data from other substantive sections for that matter, which surely would be critical to early warning (e.g. increase in divisive rhetoric).”¹⁵⁵ According to reporting officers in the missions, only the Civil Affairs sections of MINUSCA, MONUSCO, and UNMISS are regularly inputting their activity data into SAGE.¹⁵⁶

Another problem with SAGE identified by some UN personnel is that certain types of incidents are not always coded consistently. The JOC officers in charge of entering events into SAGE might not have the specialized knowledge as those staff from sections and units that focus on these types of events. Consequently, some sections prefer to continue their own data. For instance, the POC unit of MINUSMA in Mali has used its own data while developing a new tool to map POC-related incidents: the Spatio-Temporal Incident Mapping Tool. The report that discusses this new tool states:

149 Ibid.

150 See also: Sauter, Frowein, and Cassanelli, “A Data-Driven Tool to Advance the Protection of Civilians During Force Operations.”

151 Email correspondence with UNOCC staff member responsible for SAGE, 31 August 2020.

152 Email correspondence with UN staff member #1 at the Policy, Evaluation and Training Division (DPET) of the Department of Peace Operations, 21 September 2020; interview with a Political Affairs officer in Bangui, MINUSCA 1 February 2020; email correspondence with MONUSCO staff member working in the Strategic Planning Cell, 2 September 2020.

153 Email correspondence with UNOCC staff member responsible for SAGE, 31 August 2020.

154 Interview with a MINUSCA Political Affairs officer in Bangui, 1 February 2020.

155 Email correspondence with UN staff member #1 at the Policy, Evaluation and Training Division (DPET) of the Department of Peace Operations, 21 September 2020.

156 Email correspondence with UN staff member #2 at the Policy, Evaluation and Training Division (DPET) of the Department of Peace Operations, 2 November 2020.

“The SAGE database, usually fed by regional JOC officers, is a great advancement for the Missions’ effort to collect data on all sorts of incidents and make them accessible for different units. However, precaution should be taken for using the data. For example, the POC unit in Mali realized that not all POC relevant incidents are coded as such, for example the threat of violence through presence of armed groups. At the same time irrelevant incidents are denoted as POC incidents, such as peaceful demonstrations or roadside accidents. Further, regional JOC officers added the numbers differently. In some regions only victims are counted to the overall impact number whereas other regions added perpetrators too. Because the SAGE data needs detailed screening, cleaning, and possibly additions by a trained POC officer, the POC team in Mali decided to return to its own database.”¹⁵⁷

The POC unit of MINUSMA also highlighted the lack of flexibility to alter categories in SAGE as a disadvantage. The consistent reporting of SAGE on certain categories is a real advantage, but different units and sections want to maintain their ability to change categories. The report that discusses the Spatio-Temporal Incident Mapping Tool states:

“Besides the aforementioned problems with coherency across the [SAGE] database, it also gives the PoC unit more flexibility [to use its own data] for their internal data needs. For example, in SAGE the creation of new categories needs to go through a centralized SAGE team in Valencia. A PoC-specific database creates more reliable statistics and is more user friendly for regional officers as compared to SAGE.”¹⁵⁸

In spite of some negative perceptions on SAGE and it being clear that SAGE needs to be a complementary early warning tool, the potential of SAGE should not be underestimated. Conflict monitoring has never been systematized within UN peace missions prior to SAGE. It is worth reflecting on the conclusion about early warning in a comprehensive report of POC in peace operations published in 2009: “While MONUC in particular developed a number of innovative tools, none of the missions demonstrated a systematic approach to information collection and analysis with respect to threats to civilian populations. Currently, such information gathering capacity is limited, with field-level data perhaps representing the biggest gap. In all of the case study missions, civilian sections—in particular human rights, child protection, Civil Affairs, and Political Affairs—held pieces of this protection information puzzle.”¹⁵⁹

Indeed, most early warning tools used in peace operations have been based on a mapping of incidents supplemented with qualitative assessments of a situation. As a former team leader of the Protection of Civilians Team in the Department of Peace Operations notes: “I’ve never seen any early warning in a peacekeeping mission that isn’t much more than qualitative analysis; some of it very good, of course, but still really just people around a table. What we always tried to do was just develop the rhythm and practice of constant, iterative forward thinking. [...] A major challenge, of course, is how DPO collects usable data. If the mission only has qualitative info, it’s hard to do

¹⁵⁷ Sauter, Frowein, and Cassanelli, “A Data-Driven Tool to Advance the Protection of Civilians During Force Operations,” 17.

¹⁵⁸ Ibid.

¹⁵⁹ Holt, Taylor, and Kelly, *Protecting Civilians in the Context of UN Peacekeeping Operations: Successes, Setbacks and Remaining Challenges*, 194.

more than qualitative analysis.¹⁶⁰ However, ***with SAGE, the UN has for the first time in history the opportunity to draw on a large amount of quantitative data. SAGE could potentially even make predictive peacekeeping possible. Machine learning algorithms could be used to detect patterns of armed violence in the SAGE data and predict where future armed violence might take place.***¹⁶¹

In addition, data in SAGE could potentially be used to evaluate the effectiveness of POC activities. In 2013, the UN implemented the Comprehensive Planning and Performance Assessment System (CPAS) in MINUSCA, after it was rolled out in other missions as well. The CPAS is a data tool developed to track the progress of a mission and show the impact of peacekeeping activities.¹⁶² The data in SAGE could benefit the robustness of any analyses conducted using CPAS. As noted by a staff member in MONUSCO: “We see the need to link the technological aspects of SAGE reporting with CPAS and the continuing performance assessments.”¹⁶³

In short, ***SAGE can significantly help peacekeeping staff that have access to it improve their POC-related early warning analyses.*** SAGE allows peacekeeping staff to identify emerging trends, which should help to respond. Nevertheless, ***it seems that SAGE is likely to end up as a complementary data tool rather than replacing existing structures,*** since many peacekeeping staff working in peace missions do not have access to SAGE, perceive it as including unreliable data, or want to maintain control over the data they store and how they categorize these data. Crucially, however, ***with SAGE being implemented, the UN has for the first time the opportunity to go beyond the simple mapping of incidents of violence in order to determine where violence is going to take place. The UN could start experimenting with conflict prediction use machine learning algorithms. SAGE data can also be used to evaluate POC responses.***

3.15 MONUSCO's UAS Cell

In 2008, the Office of Military Affairs of the UN Department of Peace Operations published a report in which it was concluded that “increased capacity is required for military intelligence, specifically the collation of military information and its analysis in order to make accurate assessments, produce sound contingency plans and protect United Nations Forces and civilians under imminent threat, and for crisis response.”¹⁶⁴ Following this report, the UN has embraced new technologies in its peace operations. MONUSCO started to use drones in 2013, after the UN Security Council granted the Department of Peacekeeping Operations (DPKO) permission to use of Unmanned Aircraft Systems (UAS) in peace operations.¹⁶⁵ This permission was granted in the context of the UN peacekeeping mission in the DRC acquiring surveillance drones. To this purpose, MONUSCO formed a UAS Cell, sometimes referred to as the Intelligence, Surveillance,

¹⁶⁰ Email correspondence with former team leader of the Protection of Civilians Team in the Department of Peace Operations, 11 August 2020.

¹⁶¹ Predictive peacekeeping refers to “a range of analytic tools and peacekeeping practices that serve to forecast where and when armed violence will take place, combined with changes in peacekeeping leadership decision-making, particularly deployment of peacekeeping staff, based on those forecasts.” Duursma and Karlsrud, “Predictive Peacekeeping: Strengthening Predictive Analysis in UN Peace Operations.”

¹⁶² United Nations Peacekeeping. “CPAS”, <https://peacekeeping.un.org/en/cpas>.

¹⁶³ Email correspondence with MONUSCO staff member working in the Strategic Planning Cell, 2 September 2020.

¹⁶⁴ UN Secretary-General, “Report of the Secretary-General on the Comprehensive Analysis of the Office of Military Affairs in the Department of Peacekeeping Operations, a/62/752,” (17 March 2008): paragraph 7.

¹⁶⁵ J. Karlsrud and F. Rosén, “In the Eye of the Beholder? UN and the Use of Drones to Protect Civilians,” *Stability: International Journal of Security and Development* 2, no. 2 (2013): 2; Dorn, “Smart Peacekeeping: Toward Tech-Enabled U? Operations.”

and Reconnaissance (ISR) unit.¹⁶⁶ According to a MONUSCO staff member, ***the availability of UAS images has contributed to the common operational picture and helps to improve an overall understanding of actors, population movements, and hot spots.***¹⁶⁷ While a conventional investigation patrol to village several kilometers away from a UN peacekeeping base in difficult to travel areas like the DRC could take several hours, a drone could arrive in a matter of minutes to send high-quality images of the situation in real-time.¹⁶⁸

While 2013 was the first time the UN Security Council endorsed the use of drones, the UN had already some experience with the use of drones up to this point. In 2006, the UN peacekeeping mission in the DRC was supported by a European force, of which a Belgian contingent brought with them drones. This European force was under a UN mandate. Another case involved the UN inheriting a drone capacity when a European force eastern Chad was re-hatted into a UN peacekeeping mission in 2009. Karlsrud and Rosén note how the use of drones in Chad “proved very useful to the mission, as UN forces could closely monitor the movement of the opposition forces and enhance the protection of refugees, IDPs, and humanitarian aid workers accordingly, thereby living up to the mandate of the mission.”¹⁶⁹

In short, drones represent a new way of seeing and knowing in peacekeeping. As such, drones can improve “access to vulnerable populations, providing better information on potential threats to civilians, and increasing access to information in cases where the UN must use force to protect civilians.”¹⁷⁰ The use of drones thus seems to improve the situational awareness of peacekeepers in those missions where these technologies have been implemented.

3.16 MONUSCO's Geo-Localized Threat Assessment Unit (GTAU)

MONUSCO is in the process of rolling out a unit specifically tasked to identify threats through improving the understanding of armed groups and militias in a specific area of operations within Eastern DRC. This unit, called ***the geo-localized threat assessment unit (GTAU), fully integrates a range of new technologies and is expected to reach initial operating capability (IOC) in early 2021.*** The GTAU is led by the Force and is expected to consist of around 90 staff officers.¹⁷¹ The GTAU staff are supposed to engage in threat warning, analysis of intercepted voice communications, interception of threat related signals, and dissemination of early warning and situational awareness products to support mission level priorities. The GTAU further aims to gather detailed knowledge of armed groups and associated networks, to enable decision-making at the tactical, operational and strategic level of the mission.¹⁷²

¹⁶⁶ Email correspondence with MONUSCO staff member working in the Strategic Planning Cell, 2 September 2020.

¹⁶⁷ Email correspondence with MONUSCO staff member working in the Strategic Planning Cell, 2 September 2020.

¹⁶⁸ Karlsrud and Rosén, “In the Eye of the Beholder? UN and the Use of Drones to Protect Civilians,” 5; Dorn, “Smart Peacekeeping: Toward Tech-Enabled UN Operations,” 7.

¹⁶⁹ Karlsrud and Rosén, “In the Eye of the Beholder? UN and the Use of Drones to Protect Civilians,” 2.

¹⁷⁰ Ibid., 3.

¹⁷¹ Email correspondence with MONUSCO staff member working in the Strategic Planning Cell, 2 September 2020.

¹⁷² Email correspondence with MONUSCO staff member working in the Strategic Planning Cell, 5 November 2020.

3.17 POC Coordination Mechanisms

Early warning will not have a positive effect if there is no early action. Accordingly, various mechanisms have been set up in UN peace operations aimed at not only discussing POC-related threats, but also appropriate responses to these threats.¹⁷³ One crucial condition for early action is coordination between different parts of the mission. With several different sections and units within UN peace operations working on POC-related issues, UN missions have set up bodies that bring all of these sections and units together to coordinate and share information on early warning.¹⁷⁴

3.17.1 UNOCI'S PROTECTION NETWORK (2005)

One early attempt to enhance coordination regarding POC-related issues within a peace mission was the “protection network” established by OCHA in the Côte d’Ivoire in June 2005. The network consisted of international NGOs, mandated UN protection agencies, UNOCI’s Human Rights Division, and advisers from the Child Protection and Gender units. The International Committee of the Red Cross participated in the network in their customary observer role. The network’s aim was to collect and validate protection information. With humanitarian actors making up an important part of this network, this protection information not only pertained to violence against civilians, it also concerned humanitarian needs. The network also conducted joint analyses on which early warning action, advocacy, and denunciation could be undertaken by the Humanitarian Coordinator and the Special Representative of the Secretary-General. The network is credited with making the collection analysis on civilian protection more systematic and coherent.¹⁷⁵

3.17.2 MONUC'S RAPID RESPONSE AND EARLY WARNING CELL

MONUC set up a Rapid Response and Early Warning Cell in 2009 in order to bring together the full spectrum of protection actors inside MONUC, including the military component, UN Police, the human rights division, Civil Affairs, child protection, and JMARC. The cell met regularly and reported to the leadership of MONUC, providing both early warning and suggestions for possible action.¹⁷⁶

3.17.3 POC UNIT AND STRATEGIC PLANNING UNIT (SPU)

The JOC is mandated to conduct integrated situational awareness and coordination in most missions. The JOC typically coordinates POC operations based on a Standard Operating Procedure (SOP), which describes how different components relate to each other in terms of early warning, coordination, and responses. ***Since the JOC is typically aimed primarily at coordinating responses to immediate threats, UN peace operations also have Strategic Planning Unit (SPU) to fulfil a more strategic planning and coordination role.***¹⁷⁷ More specifically, according to the UN POC Handbook, the work of SPU personnel “comprises a range of activities that include ensuring a comprehensive policy framework is in place, managing strategic planning processes, advising mission leadership teams—including the office of the Chief of Staff—to help them make informed decisions, tracking implementation of reform agendas, coordinating budgeting and resource allocation processes, and leading on outcome and impact measurement.”¹⁷⁸

173 Holt, Taylor, and Kelly, *Protecting Civilians in the Context of UN Peacekeeping Operations: Successes, Setbacks and Remaining Challenges*, 14.

174 Cedric de Coning, Walter Lotze, and Andreas Øien Stensland, “Mission-Wide Strategies for the Protection of Civilians: A Comparison of MONUC, UNAMID and UNMIS,” *NUPI Security in Practice Working Paper 792* (2011).

175 Holt, Taylor, and Kelly, *Protecting Civilians in the Context of UN Peacekeeping Operations: Successes, Setbacks and Remaining Challenges*, 302-03.

176 *Ibid.*, 178.

177 United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook*, 36.

178 *Ibid.*, 7.

SPUs fulfil a strategic planning role, but even the major UN missions typically only staff the SPU with a few individuals. That investing resources and assigning more staff members to the SPU can make a positive difference can be seen in MINUSMA. In 2018, MINUSMA began to expand the SPU. This enabled the SPU to facilitate collaboration between POC advisers, military, police and other MINUSMA personnel. This whole-of-mission planning paid off when MINUSMA launched a protection campaign in response to escalating violence against civilians in central Mali in 2019. The SPU led the planning of this campaign. It also coordinated between peacekeeping troops that conducted military operations to improve security and civilian personnel that engaged in dialogue with community members. The SPU also coordinated with development and humanitarian actors.¹⁷⁹ These improvements in integrated strategic planning helped MINUSMA to protect civilians more effectively in a coordinated manner. A report published by the Center for Civilians in Conflict highlights how ***the expanded SPU of MINUSMA helped to conduct mission-wide integrated planning and “break down existing silos in analysis and planning; increase the linkages between threat analysis and operational decision-making; [and] ensure a balance between field office activities that are adequately tailored to local contexts but also serve overall strategic aims of the Mission.”***¹⁸⁰

3.17.4 COMMUNITY PROTECTION PLANS

Another coordination mechanism, at the level of the field offices of UN peace operations, is the Community Protection Plan (CPP). ***CPPs provide an overview of threats to the civilian population in a Field Office’s area of responsibility.*** CPPs also outline responses and resources required to address these risks. For instance, a CPP should include a CAN and information on key community leaders, as well as a strategy for engagement with the local population and potential perpetrators. CPPs are jointly developed by the Force, UNPOL, and CLAs, with the guidance of Civil Affairs. Where requested, the POC Unit can also be involved in the drafting of a CPP. The Head of the Office of a Field Office bears the primary responsibility of a CPP. CPPs must be shared with the mission leadership at the Mission Headquarters, as well as with the POC Unit, Civil Affairs, Political Affairs, and Human Rights.¹⁸¹

3.17.5 RAPID RESPONSE MOBILE TEAMS

While Joint Protection Teams, Joint Assessment Missions, and Joint Investigation Teams are mainly aimed at collecting information on early warning, ***Rapid Response Mobile Teams are aimed at early action through the rapid prevention and response to POC threats.*** Rapid Response Mobile Teams also provide assistance to victims where necessary.¹⁸²

3.17.6 UNMISS EARLY WARNING TASKFORCES

Since UNMISS received a specific mandate for early warning in 2014, it set up an early warning taskforce chaired by JMAC. Rather than collecting information itself, this taskforce served as a coordination forum for all parts of the mission working on POC-related early warning.¹⁸³

In spite of this taskforce, the UNMISS leadership mainly relies directly on JMAC early warning products. This qualifies the trend towards increased coordination and a mission-wide POC approach. Not involving all stakeholders in early warning analyses and coordination can in some instances be

¹⁷⁹ Ibid., 54.

¹⁸⁰ Spink, *Strengthened Planning in UN Peacekeeping Operations: How MINUSMA Is Reinforcing Its Strategic Planning Unit*, 3.

¹⁸¹ United Nations, *Protection of Civilians in United Nations Peacekeeping Handbook*, 100 and 98.

¹⁸² Ibid., 39.

¹⁸³ Email correspondence former Chief JMAC in UNMISS, 9 November 2020.

more efficient. As noted in a recent report on UNMISS: “The direct reliance on JMAC – rather than the broader consultation and coordination among the full set of early warning structures – may well be the result of the strong analytic capacities of the JMAC, and its well-established ability to track trends and anticipate threats across the country. And indeed, according to several UNMISS staff, this practice may be more effective than involving a larger group in the discussions around protection responses, though on paper it appears to contradict the UN Security Council’s call for a more systematic approach.”¹⁸⁴

3.17.7 MINUSMA EARLY WARNING TRACKING FORM AND MOBILE APP

In June 2020, MINUSMA adopted its new standard operating procedures for early warning and rapid response (EW/RR). This change brought with it a new tool – referred to as the early warning tracking form – to facilitate regular and comprehensive reviews of POC responses. ***The early warning tracking form is supposed to be used to guide efforts to improve rapid response to POC-related threats.***¹⁸⁵ To this purpose, the tool prescribes an adequate Mission response – including dialogue and engagement, physical protection, and reinforcing the overall protective environment – to plausible, possible, and impending physical threats to civilians.¹⁸⁶ The Early Warning Tracking Form consists of two mechanisms: (1) a rapid verification and dissemination of early warning information based on SAGE; and (2) a monitoring mechanism for rapid response.¹⁸⁷ These two mechanisms enable a mission-wide response and mission-wide monitoring.¹⁸⁸ The tool was first tested in the Mopti region in August and was rolled out to the other regions in September 2020.¹⁸⁹

Following the inception of the Early Warning Tracking Form, the UNOCC began to develop a full mobile app with automated emails and task assignments. This phone app was not developed for receiving the early warning itself, but rather to facilitate a rapid, coordinated, and multi-component response to early warnings received by the Mission. The developer at the UNOCC describes the tool as follows:

“Upon receipt of an early warning, this system will be triggered to send emails asking for responses from the Force, UNPOL, DSS, and civilian components to the given early warning. Each of these components will enter their response in a central mobile/web app, with continuous email alerts to all others updating them on responses as they are received. At any time, they can all login to see all components’ responses via a mobile app. This ensures a coordinated response, with all mission stakeholders receiving immediate notifications and having full visibility on all mitigative actions taken by any one of them.”¹⁹⁰

This mobile app was released by the UNOCC in late 2020, together with JOC and POC staff based in Mopti. The phone app was subsequently implemented in all regional offices in MINUSMA in early 2021. Discussions are ongoing on possibly extending the use of this app to MINUSCA, MONUSCO, and UNMISS.¹⁹¹

184 Day et al., *Assessing the Effectiveness of the United Nations Mission in South Sudan (Unmiss)*, 69.

185 Email correspondence with the Chief JMAC in MINUSMA, 2 November 2020.

186 MINUSMA, “Standard Operating Procedure: Early Warning and Rapid Response,” (2020): 2-3.

187 The monitoring mechanisms also informs the CPAS.

188 MINUSMA, “Standard Operating Procedure: Early Warning and Rapid Response,” 2-3.

189 UN Secretary-General, “Situation in Mali: Report of the Secretary-General. S/2020/952.”

190 Email correspondence with UNOCC staff member, 18 February 2021.

191 Email correspondence with UNOCC staff member, 18 February 2021.

4. African Union

While lagging behind the UN in terms of the use of POC early warning tools used, POC has gained increasing importance in the AU context. The AU began to work on the Draft Guidelines for the Protection of Civilians in AU Peace Support Operations in 2009, publishing it in 2012.¹⁹² This guideline states that “POC issues should be assessed and analyzed within the pillars of the [African Peace and Security Architecture] APSA from the outset, including through the monitoring of an emerging or existing conflict situation. The monitoring of emerging protection of civilians considerations should be one of the core activities of the Continental Early Warning System (CEWS).”¹⁹³ It is also stated in the AU guideline on POC that “POC issues should be taken into account in decision-making in relation to the establishment of [Peace Support Operations] PSOs and the development and monitoring of implementation of their mandates by the Peace and Security Council (PSC)”¹⁹⁴

This section on the AU looks at the CEWS and its relation to POC. Since the AU mission Burundi between 2003 and 2004 and the AU mission in Darfur between 2004 and 2007 both precede the AU's turn to having an official policy on POC, no formal early warning tools were used during these missions. Yet, the AU has implemented a civilian casualty tracking tool in its ongoing major peace mission in Somalia. Hence, in addition to looking the CEWS, this section also looks at the civilian casualty tracking tool in the context of the African Union Mission in Somalia (AMISOM).

4.1 Continental Early Warning System

African leaders adopted the Peace Security Council Protocol in Durban on 9 July 2002. Article 2 of this protocol stipulates that the AU PSC is supported by the Commission of the AU, a Panel of the Wise, an African Standby Force, a Special Fund, but also by a CEWS. The implementation of the CEWS started in 2006 with the signing of the Framework for the Operationalization of the CEWS. The CEWS is set up to help the PSC implement its conflict prevention mandate. To this purpose the CEWS Situation Room, located at the AU Conflict Management Directorate, collects data on potential, emerging, and actual conflict situations across Africa. Moreover, **with the adoption of the AU Draft Guidelines for the Protection of Civilians, the CEWS was mandated to assess and analyze POC-related issues.** In fact, the guideline recommended that the monitoring of emerging protection

¹⁹² African Union, “Draft Guidelines for the Protection of Civilians in African Union Peace Support Operations.”

¹⁹³ Ibid., paragraph 5.

¹⁹⁴ Ibid., paragraph 7.

of civilians considerations should be one of the core activities of the CEWS.¹⁹⁵ Asked whether this recommendation has changed anything, an AU staff member working on the CEWS indicates that it has not, but also highlights that “it should be underscored that the mandate of CEWS is the anticipation and prevention of violent conflicts. And in a broader sense, this includes the protection of civilians (not only in the context of PSOs). So, we do have a number of tools, processes and instruments that enable CEWS to fulfil its mandate including regular briefings to PSC.”¹⁹⁶

The input data collected for the CEWS is based on “clearly defined accepted political, economic, social, military, and humanitarian indicators.”¹⁹⁷ The CEWS relies on the Africa Media Monitor (AMM) and live-monitoring software to monitor conflict indicators and to collect and process relevant data. The EU Joint Research Centre (JRC) has provided scientific and technical support to the AU for developing and improving CEWS. This support was financed via the African Peace Facility (APF).¹⁹⁸ This support focused on developing the system between 2008 and 2010, adding the AMM and live-monitoring software to the CEWS. Between 2011 and 2015, the JRC supported with developing the Conflict Analysis and Alerting System (CAAS), which is a tool that brings together all the disparate sources of information available to analysts in one comprehensive application. It provides an interface to the data based on maps and filters, as well as includes a function to automatically create reports.

CEWS has mainly aimed at early warning related to armed conflict in practice, but nevertheless also considers threats against civilians. ***CEWS produces several early warning products based on structural, dynamic, and actor data collection and analysis:***

- ◆ A ***daily news highlight*** compiled from open source reporting. This news highlight is made available to the public.
- ◆ A ***daily field report*** based on information provided by reports from all AU field missions.
- ◆ A ***weekly update on military and political developments.***
- ◆ ***Updates on ongoing conflict situations.***
- ◆ ***Flash reports*** that are designed to provide immediate attention to crisis situations.
- ◆ ***In-depth early warning reports*** to AU decision-makers.
- ◆ ***Horizon-scanning papers*** which outline best-case and worst-case scenarios on situations developing.¹⁹⁹

When the Framework for the Operationalization of the CEWS was adopted in 2006, it was noted that “One of the true tests of the CEWS will be its ability to generate not only timely analysis but also effective response options.”²⁰⁰ The Chairperson of the AU Commission is mandated to use information coming from CEWS to raise awareness within the Peace and Security Council on potential threats to peace and security in Africa and identify options for early action.²⁰¹

However, besides informing the Peace and Security Council and a few senior staff members at the AU

¹⁹⁵ Ibid., paragraph 5.

¹⁹⁶ Email correspondence with Senior AU CEWS staff member, 3 November 2020.

¹⁹⁷ African Union, *The African Union Peace and Security Council Handbook* (Addis Ababa 2020), 78.

¹⁹⁸ Interview with JRC staff members in Ispra, 5-7 February 2018.

¹⁹⁹ African Union, *The African Union Peace and Security Council Handbook*, 79.

²⁰⁰ “Framework for the Operationalization of the Continental Early Warning System,” (2006). Available at: <http://www.peaceau.org/en/article/framework-for-the-operationalization-of-the-continental-early-warning-system-framework-for-the-operationalization-of-the-continental-early-warning-system>.

²⁰¹ *The African Union Peace and Security Council Handbook*, 80.

Headquarters in Addis Ababa, very few people benefit from the early warning generated through CEWS.

An AU assessment on the African Peace and Security Architecture published in 2015 emphasized that “CEWS early warning reports are available to only a few selected users within the AU. This limits the reach and opportunities offered by the reports to engage efficiently on preventive diplomacy and mediation.”²⁰²

In addition to being elite-focused, one major challenge for the CEWS has been to determine when a situation exactly calls for early warning.

The Peace and Security Council concluded in September 2019 in this regard that there is a need for establishing “a trigger mechanism and indicators to facilitate the role of the PSC in assessing whether a given situation calls for an early action by the PSC. In this context, the Commission should elaborate the mechanism and indicators for consideration by the PSC.”²⁰³

4.2 Regional Mechanisms

The AU CEWS was already envisaged to be linked to regional early warning mechanisms throughout Africa since its implementation started in 2006, but this was taken a step further with the signing of a Memorandum of Understanding (MoU) between the AU and the Regional Economic Communities (RECs) in January 2008, intending to establish and improve information-sharing channels on early warning. **An internet portal was developed to facilitate data sharing, which put the CEWS Situation Room in direct contact with the observation and monitoring units of the early warning mechanism of RECs.**²⁰⁴

An example of a regional early warning system that is fully integrated into CEWS is the Conflict Early Warning and Response Mechanism (CEWARN) used by IGAD. CEWARN was already launched in 2002. It has primarily focused on early warning related to cross-border pastoralist conflicts and other associated issues. The CEWARN early warning has focused on three main geographical clusters: (1) the Karamoja cluster (includes cross-border regions of Ethiopia, Sudan, Kenya, and Uganda); (2) the Somali cluster (encompassing cross-border regions of Ethiopia, Kenya and Somalia); and (3) the Dikhil Cluster (cross-border regions of Djibouti and Ethiopia). CEWARN has relied on media reports and alerts issued by a network of local informants.²⁰⁵ **There are many success stories that show how the work of CEWARN has led to early action.**²⁰⁶ For example, CEWARN reports how an informant warned about an impending raid in Kotaruk on 26 April 2011. The District Peace Committee (DPC) and the chief of area subsequently met with both communities, after which the conflicting communities agreed to maintain peace.²⁰⁷

Another up and running regional early warning system is ECOWARN, which is the early warning system used by ECOWAS. The Observation and Monitoring Centre of ECOWARN is located in Abuja

²⁰² “The African Peace and Security Architecture Assessment Study: Final Report,” (April 2015): paragraph 58.

²⁰³ *The African Union Peace and Security Council Handbook*, 81.

²⁰⁴ *Ibid.*, 47.

²⁰⁵ IGAD. CEWARN. Available at: <http://www.igadregion.org/cewarn/>.

²⁰⁶ For an overview of numerous success stories in Ethiopia, Uganda, and Kenya, see: CEWARN. Success Stories. Available at: <https://www.cewarn.org/index.php/reports/archived-early-warning-reports/success-stories>.

²⁰⁷ CEWARN. Success Stories: Kenyan Side of the Karamoja Cluster, July 2010 – May 2011. Available at: <https://www.cewarn.org/index.php/reports/archived-early-warning-reports/success-stories/ken-5/156-success-stories-compilation-of-all-areas-of-reporting-in-karamoja-cluster-kenya-july-2010-may-2011-1/file>.

in Nigeria. For functional purposes, CEWARN has split the ECOWAS sub-regional into four zones each with a zone office in charge of the data collection. Zone I covers Cape Verde, the Gambia, Guinea-Bissau, and Senegal. The office of Zone I is located in Banjul. Zone II covers Burkina Faso, Côte d'Ivoire, Mali, and Niger. The office of Zone II is located in Ouagadigou. Zone III covers Ghana, Guinea Conakry, Liberia, and Sierra Leone. The office of Zone III is located in Monrovia. Finally, Zone IV covers Benin, Nigeria, and Togo. The office of Zone IV is located in Cotonou. These sub-regional officers are in charge of collecting data on 94 pre-defined indicators that are used as a grid to analyze risks and rapidly detect security trends in a given area.²⁰⁸

One challenge of completely streamlining the early warning of Africa's RECs and CEWS is the tension between the open-source based monitoring of the CEWS and intelligence-based early warning of some RECs, most notably the early warning system used by SADC.²⁰⁹ ECOWARN and CEWARN are both predominantly based on media reports. The early warning systems of the EAC and ECCAS are still under development, while COMESA has not yet taken the initiative to set up an early warning system.²¹⁰

4.3 AMISOM Civilian Casualty Tracking, Analysis and Response Cell (CCTARC)

AMISOM was established in January 2007 to support the Transitional Federal Government (TFG) in its fight against Al-Shabaab. After several years of fighting, AMISOM and TFG finally succeeded to take control of Mogadishu in August 2011. This drove Al-Shabaab into southern Somalia and Puntland. By early 2012, AMISOM forces prepared to extend their operations beyond Mogadishu. Since AMISOM is more a counter-insurgency mission than a peacekeeping operation – as evidenced by the fact it did not have a POC mandate when it was established in 2007 – it has been conducting relatively few routine protection activities since its inception in 2007. Both the UN and the AU agreed that AMISOM could not engage in POC effort while simultaneously engaging in offensive operations against Al-Shabaab, but both the UN Security Council and the AU Peace and Security Council have repeatedly called for AMISOM to uphold respect for International Humanitarian Law in the conduct of its operations.²¹¹ Two Civilian Planning and Liaison Officers in the Peace Support Division of the AU Commission noted in 2012 that AMISOM's counter-insurgency "successes have come at considerable cost to the Somali civilian population" and that AMISOM has "more focused on reinforcing the fledgling TFG, diminishing the military capabilities of Al-Shabaab and hunting down terrorists than with the protection of civilians."²¹²

Nevertheless, in parallel to drafting the Draft Guidelines for the Protection of Civilians in AU Peace Support Operations between 2009 and 2012, AMISOM and the United Nations Country Team in Somalia initiated the establishment of a working group aimed at sharing information on civilian casualties and coming up with practical means to address POC concerns.²¹³ **While both the AU and the UN realized that a POC mandate for AMISOM was not feasible, both sides agreed in late 2011 that a more**

208 ECOWAS. ECOWARN. Internal Report.

209 African Union, *The African Union Peace and Security Council Handbook*, 78.

210 Ibid., 78-79.

211 Walter Lotze and Yvonne Kasumba, "AMISOM and the Protection of Civilians in Somalia" *Conflict Trends*, no. 2 (2012): 18.

212 Ibid.

213 Campaign for Innocent Victims in Conflict (CIVIC), *Civilian Harm in Somalia: Creating an Appropriate Response* (Washington, DC 2011).

centralized civilian casualty tracking mechanism should be established.²¹⁴ This decision was endorsed by the UN Security Council in Resolution 2036 of February 2012, in which the UN Security Council called for the establishment of a Civilian Casualty Tracking, Analysis and Response Cell (CCTARC).²¹⁵

The purpose of the CCTARC is essentially to track incidences of civilian harm caused by AMISOM operations, including death, injury, Sexual Exploitation and Abuse (SEA), and damage to property. The CCTARC is mandated to investigate such incidents and to decide on compensation when required. AMISOM uses the term “ex-gratia payments”, which is defined by AMISOM as “recognition and assistance to civilians they harm within the lawful parameters of combat operations, despite having no legal obligation to do so.”²¹⁶ This can include apologies, monetary payments, in-kind assistance, or other symbolic or material gestures. Since the payment of “blood money” is an important customary practice in Somalia, ex-gratia payments fulfil a crucial role to maintain the legitimacy of AMISOM.²¹⁷

It was decided that CCTARC would be run by eight staff members.²¹⁸ However, **it was not until 2015 that the CCTARC became fully operational, when its first officer began working out of the AMISOM Force Headquarters in Mogadishu. Moreover, the CCTARC had just two active technical staff members and some military support staff by mid-2017 and only four active technical staff members by mid-2018, making it virtually impossible to follow up on all allegations and verify civilian casualties in a timely manner.**²¹⁹ Making the CCTARC operational was challenging for several reasons. One reason for this was simply resource constraints. AU Civilian Planning and Liaison Officers in the Peace Support Division of the AU Commission already noted in 2012 that “at present the mission has neither the necessary mechanisms and personnel in place to operate a civilian casualty tracking and response cell, nor does it have the financial resources to pay compensation claims on a sustainable basis.”²²⁰ However, this challenge was solved through the UK’s commitment to fund the CCTARC.²²¹

Indeed, **perhaps a bigger challenge to making CCTARC operational was resistance from within AMISOM.** Williams notes how the delay in setting up CCTARC was “was largely because of the controversy the CCTARC generated within AMISOM. As one [Information Support Team] IST official noted, both the head of mission, Ambassador [Boubacar Gaoussou] Diarra, and some senior AMISOM commanders had been reluctant to move forward with the CCTARC, viewing it as a form of Western surveillance, especially given the way that the US-led coalitions in Afghanistan and Iraq had for a long time avoided counting civilian casualties.”²²² It seems that there has been little political support for the CCTARC by the mission leadership, which is often crucial for setting up POC-related mechanism.

214 Lotze and Kasumba, “AMISOM and the Protection of Civilians in Somalia” 22.

215 UN Security Council, “United Nations Security Council Resolution 2036, 22 February 2012,” (2012).

216 UNSOM and OHCHR, “Protection of Civilians: Building the Foundation for Peace, Security and Human Rights in Somalia,” (December 2017).

217 Natasja Rupesinghe, “The Civilian Casualty Tracking Analysis and Response Cell in the African Union Mission in Somalia: An Emerging Best Practice for AU Peace Support Operations?,” *NUPI Policy Brief* 3 (2019): 240; Sahr Muhammedally, “Minimizing Civilian Harm in Populated Areas: Lessons from Examining ISAF and AMISOM Policies,” *International Review of the Red Cross* 98, no. 1 (2016).

218 Lotze and Kasumba, “AMISOM and the Protection of Civilians in Somalia” 23; Rupesinghe, “The Civilian Casualty Tracking Analysis and Response Cell in the African Union Mission in Somalia: An Emerging Best Practice for AU Peace Support Operations?”

219 P.D. Williams, *Fighting for Peace in Somalia: A History and Analysis of the African Union Mission (AMISOM), 2007-2017* (Oxford University Press, 2018), 274-75; Rupesinghe, “The Civilian Casualty Tracking Analysis and Response Cell in the African Union Mission in Somalia: An Emerging Best Practice for AU Peace Support Operations?”

220 Lotze and Kasumba, “AMISOM and the Protection of Civilians in Somalia” 23.

221 Williams, *Fighting for Peace in Somalia: A History and Analysis of the African Union Mission (AMISOM), 2007-2017*, 274-75.

222 Ibid.

Another major challenge is that the sectoral composition of AMISOM hinders effective exchange of information. All TCCs to AMISOM have their own sector of operations for which they are responsible. The CCTARC initially relied mainly on open-source information from social media and local newspapers, but the idea was always to also use internal information. Indeed, the comparative advantage of the CCTARC is that it can draw on internal, detailed information on operations in areas only AMISOM troops can reach. However, the flow of information to the CCTARC from the sectors has been limited. Situation-reports from the sectors are not always forthcoming and do not always contain a sufficient amount of detail.²²³

Finally, the biggest weakness of the CCTARC in terms of POC is simply that it focuses solely on AMISOM-related harm. This focus is understandable because of limited resources and because AMISOM does not have a POC mandate, but it means in practice that only a relatively small part of the incidents in which civilians in Somalia are harmed are tracked. It is estimated that AMISOM has only been responsible for around 4.6% of civilian fatalities in recent years.

In short, the creation of the CCTARC is the first time an AU peace support operation established a mechanism solely dedicated to tracking civilian casualties and responding to harm to civilians. This is a major achievement. **The CCTARC is credited to have fed at least some of its assessments into the planning of future operations. This has helped to change operational procedures in order to minimize harm to civilians.**²²⁴ For instance, AMISOM commanders began to use early warning mechanisms before commencing military operations, including verbal warnings to people to vacate an area.²²⁵ Nevertheless, the CCTARC faces some challenges, chief among them the limited sharing of information within AMISOM.

4.4 Peace Support Operations Center (PSOC)

While the AU currently still does not have a unit that analyzes POC-related threats in its peace missions, it should be noted that the Peace Support Operations Division (PSOD) of the AU has created a Peace Support Operations Center (PSOC), which is expected to, among others, monitor POC-related issues. The idea of the PSOC is to fulfill the same function as the CEWS Situation Room within the Conflict Prevention and Early Warning Division (CPEWD). Nevertheless, the PSOC has not yet been implemented due to a lack of staff members. As a staff member working on the CEWS notes: “Despite the PSOC is well equipped and ready for use, it is yet to be manned by personnel. We provided a number of trainings to the colleagues in PSOD to customize some of our tools to fulfil their mandates, but unfortunately it never materialized as most staff in PSOD are seconded from Member States and work in a rotation base.”²²⁶

223 Rupesinghe, “The Civilian Casualty Tracking Analysis and Response Cell in the African Union Mission in Somalia: An Emerging Best Practice for AU Peace Support Operations?”

224 Ibid.

225 Williams, *Fighting for Peace in Somalia: A History and Analysis of the African Union Mission (AMISOM), 2007-2017*, 273.

226 Email correspondence with Senior AU CEWS staff member, 3 November 2020.

5. NATO

POC was for a long time not on the agenda of the North Atlantic Treaty Organization (NATO), but NATO leaders endorsed the NATO Policy for the Protection of Civilians at the Warsaw Summit in July 2016. NATO's policy on POC states that "Protection of Civilians (persons, objects and services) includes all efforts taken to avoid, minimize and mitigate the negative effects that might arise from NATO and NATO-led military operations on the civilian population and, when applicable, to protect civilians from conflict-related physical violence or threats of physical violence by other actors, including through the establishment of a safe and secure environment." This includes, among others, civilian harm mitigation from its own actions, but also protection of civilians from others' actions.²²⁷

This section on NATO will first address how NATO adopted a data-driven tool to mitigate civilian harm from its own actions in Afghanistan, which will be followed by a short discussion on the role of data-driven POC tools in POC planning in NATO operations.

5.1 Civilian Casualty Tracking Cell (CCTC) and the Civilian Casualty Mitigation Team (CCMT)

When NATO assumed leadership of the International Security Assistance Force (ISAF) operations in August 2003, the imperative was to support the reconstruction of the Afghan national army. However, from 2006 onwards, armed opposition groups stepped up their attacks. This dramatically increased the combat operations in which ISAF was involved and also led to a sharp increase in civilian casualties.²²⁸ Following an internal report on a US air strike in Shindand in April 2007, ISAF Commander General Dan McNeill issued ISAF's first tactical directive on reducing harm in June 2007. The directive provided guidance on night raids and the use of air-to-ground attacks. Crucially, the directive stipulated that all assaults require formal collateral damage estimates (CDEs) that need preapproval.²²⁹ The directive further stated that "Whenever our actions in battle cause injury or death to civilians or property damage or destruction, we diminish our effectiveness."²³⁰ Another directive was issued following two air strikes that resulted in a large number of civilian casualties in Azizabad in June 2008. This directive was fairly similar to the directive issued in 2007, but also called for acknowledgement of civilian casualties, including property damage, and for forces to

²²⁷ North Atlantic Treaty Organization, *NATO Policy for the Protection of Civilians*.

²²⁸ Center for Civilians in Conflict (CIVIC), *Civilian Harm Tracking: Analysis of ISAF Efforts in Afghanistan* (Washington, DC, 2014), 3.

²²⁹ Ibid.

²³⁰ Sarah Sewall and Larry Lewis, "Reducing and Mitigating Civilian Casualties: Afghanistan and Beyond – Joint Civilian Casualty Study, Joint Center for Operational Analysis, US Joint Forces Command," (2010): 23. See also: Joseph H. Felter and Jacob N. Shapiro, "Limiting Civilian Casualties as Part of a Winning Strategy: The Case of Courageous Restraint," *Daedalus* 146, no. 1 (2017); Astri Suhrke, "Waging War and Building Peace in Afghanistan," *International Peacekeeping* 19, no. 4 (2012).

document civilian harm through a battle damage assessment (BDA) process.²³¹ However, ISAF did not systematically track allegations of civilian casualties at that moment in time.²³²

Consequently, ***the ISAF leadership set up the Civilian Casualty Tracking Cell (CCTC) in August 2008. The CCTC was tasked to gather data on harm caused during ISAF operations.***²³³ The CCTC was initially staffed by two to five staff members, depending on resources. The CCTC was housed within the Combined Joint Operations Command in Kabul. The work of the CCTC initially focused mainly on strengthening ISAF's situational awareness of civilian harm, allowing the ISAF leadership to better respond to allegations.²³⁴ Yet, ***over time, the CCTC began to systematically collect information on civilian casualties and examine these data for trends. These trend analyses were subsequently used to provide recommendations to the ISAF leadership on civilian casualty mitigation.***²³⁵ Indeed, several additional directives focusing on mitigating civilian harm were issued following the creation of the CCTC. A directive issued in August 2010 stipulated that ISAF forces required verification that there were "no civilians present" in order to obtain approval for air strikes outside of self-defence.²³⁶

In 2011, the CCTC was expanded into the Civilian Casualty Mitigation Team (CCMT). The CCMT was provided with more resources to reach out to civil society for cross-checking allegations and informing mitigation efforts.²³⁷ In addition, the CCMT created several internal working groups with representatives from ISAF headquarters and subordinate commands. These working groups were used as a platform to provide guidance on civilian casualty mitigation. ***The CCMT collected lessons learned and best practices in avoiding civilian harm, which were discussed in these working groups. This led to changes in policies and standard operating procedures.***²³⁸ For instance, analyzing incidents in which civilians were harmed revealed that the ISAF forces sometimes wrongly assessed hostile intent when determining the right to use lethal force. The CCMT disseminated information that Afghans digging in the ground during the night are not necessarily placing an improvised explosive device (IED), as Afghans prefer to work during the cooler night during hot weather. Similarly, it was made clear that because Afghanistan has an armed culture, possession of a weapon does not equate to hostile intent. Finally, lessons learnt were also integrated into pre-deployment and in-mission training on how to reduce civilian casualties, as well as found their way in publication of the Afghanistan Civilian Casualty Prevention Handbook and Rules of Engagement Vignettes.²³⁹

In short, the creation of the CCTC and later the CCMT helped ISAF systematically track civilian harm. Lessons identified based on information collected by the CCTC and the CCMT made it possible to learn from mistakes. Indeed, ISAF's turn to causality reporting is widely credited with helping to

231 Center for Civilians in Conflict (CIVIC), *Civilian Harm Tracking: Analysis of ISAF Efforts in Afghanistan*, 2-3; Muhammedally, "Minimizing Civilian Harm in Populated Areas: Lessons from Examining Isaf and AMISOM Policies," 233.

232 "Minimizing Civilian Harm in Populated Areas: Lessons from Examining ISAF and AMISOM Policies," 234.

233 Ibid.

234 Center for Civilians in Conflict (CIVIC), *Civilian Harm Tracking: Analysis of ISAF Efforts in Afghanistan*, 5.

235 Muhammedally, "Minimizing Civilian Harm in Populated Areas: Lessons from Examining ISAF and AMISOM Policies," 234.

236 NATO, "ISAF Tactical Directive," (4 August 2010).

237 Center for Civilians in Conflict (CIVIC), *Civilian Harm Tracking: Analysis of ISAF Efforts in Afghanistan*, 7; Muhammedally, "Minimizing Civilian Harm in Populated Areas: Lessons from Examining ISAF and AMISOM Policies," 236.

238 Center for Civilians in Conflict (CIVIC), *Civilian Harm Tracking: Analysis of ISAF Efforts in Afghanistan*, 7; Muhammedally, "Minimizing Civilian Harm in Populated Areas: Lessons from Examining ISAF and AMISOM Policies," 236.

239 "Minimizing Civilian Harm in Populated Areas: Lessons from Examining ISAF and AMISOM Policies," 237.

reduce civilian deaths as a result of ISAF operations.²⁴⁰ As noted in a CIVIC report, “the major value-added of the civilian casualty tracking cell was that it could draw on restricted data coming from within the mission to determine how the force was impacting on the local population.”²⁴¹ However, the fact that these ‘best practices’ do not appear to have been applied in other NATO contexts, raises questions about the ‘lessons learned’ capacity of NATO.

5.2 NATO Horizon-Scanning

NATO is currently developing a POC military concept. This concept includes four mutually reinforcing POC functions. The first function relates to mitigating harm through the use of military force or threat of force to prevent, end, or deter actions that cause direct or indirect harm to civilians without causing more damage from NATO’s own actions. The second function focuses on the facilitation of basic needs. This function seeks to minimize the impact of NATO’s own forces on the local environment, infrastructure, resources, and population while enabling the civilian population’s access to basic needs and services. The third POC function NATO sees as a pillar of its POC concept is to contribute to a safe and secure environment through supporting and developing the host-state and its institutions. This function is specifically aimed at reinforcing local capabilities to reduce the chance of large-scale fighting and ensure rule of law, public order, human rights, and freedom of movement for all.²⁴²

The fourth element of the NATO’s POC concept is understanding the human environment. This function applies to all three other elements of the NATO POC concept “by providing a continuous process of observation, perception, and interpretation of a conflict or crisis that provides decision-makers with the necessary context, insight, and foresight to enable the effective planning and conduct of operations.”²⁴³ In other words, **early warning and situational awareness play a crucial role in NATO’s POC concept.**

In spite of the crucial role that situational awareness plays in NATO’s POC concept, NATO has not yet developed any early warning tools specifically on identifying POC-related threats. Neither is there is unit or center specifically tasked with analyzing POC-related issues.²⁴⁴ However, since POC is seen as a cross-cutting issue and since POC early warning is seen as requiring a holistic approach, several different analysts in different units and centers within NATO deal with POC-related issues. In other words, some NATO analysts indirectly work with data-driven tools related to POC.²⁴⁵

Indeed, NATO analysts are continuously scanning the horizon for situations that may involve NATO operations. This could include operations with a human security element. Accordingly, there are NATO units and staff assessing conflict areas around the world. NATO may also tap into national intelligence products from alliance members in this regard. Until now, these processes have not specifically looked into POC or human security, although this may be about to change, now that

²⁴⁰ Ibid., 238; Center for Civilians in Conflict (CIVIC), *Civilian Harm Tracking: Analysis of ISAF Efforts in Afghanistan*.

²⁴¹ *Civilian Harm Tracking: Analysis of ISAF Efforts in Afghanistan*.

²⁴² U.S. Army Peacekeeping and Stability Operations Institute, *Protection of Civilians Military Reference Guide* (Pennsylvania: United States Army War College, January 2018), 173-74.

²⁴³ Ibid.

²⁴⁴ Telephone interview with NATO staff member at the J9 Division, 3 November 2020.

²⁴⁵ Telephone interview with NATO staff member at the J9 Division, 3 November 2020.

NATO has its own POC policy. Furthermore, if NATO decides that a situation is likely to demand an actual response, the operational planning process will kick in in which POC-related early warning and POC-related responses can play an important role.

In short, NATO has nothing specifically tailored to POC, but the alliance holds a lot of relevant information on conflict actors, situations, and events that are relevant for POC.

6. Conclusion

The need for data-driven early warning to effectively protect civilians is clear. Without early warning, security actors will struggle to prevent or minimize harm to civilians. Just AS progress has been made with regard to the mandate of peacekeepers to protect civilians and equip them with the capabilities to engage in POC, so too is there a clear need for advancing data-driven POC tools. This section briefly summarizes the state of the art of POC-related early warning and situational analysis, followed by a gap analysis and several recommendations on how to improve data-driven POC.

6.1 Summary and Lessons Learnt

Early warning is one of the necessary conditions to engage in POC-related activities. Without high-quality data, peacekeeping staff struggle to conduct POC-related early warning. A CIVIC report aptly notes in this regard that “When the cycle of information collection, storage, analysis, planning, and decision-making functions well, peacekeepers can identify protection concerns, reposition assets to high-threat areas, and prevent or respond to violence against civilians. When the cycle fails, missions are caught off guard by attacks and fail to protect civilians.”²⁴⁶ This report has set out to analyze how security actors use and apply data for daily protection activities in-mission. To this purpose, this report has mapped the various data-driven POC tools that have been used in the past and are currently used for early warning. Each of these tools have their own strengths and weakness.

6.1.1 UNITED NATIONS

The Human Rights sections of UN peace operations collect information on human rights abuses. This serves two purposes. First, it serves as yardstick to measure change over time. Keeping track of injuries and deaths makes it possible to put the severity and scale of a certain episode of armed violence in context. The trend analyses on human rights violations of Human Rights officers must therefore feed into POC threat assessments, reporting and decision making. **Second, casualty recording serves as evidence-based early warning of a potential worsening of the human rights situation. In some instances the information collected by Human Rights officers merits a quick response. In these cases, Human Rights officers issue an emergency report, sometimes also referred to as a flash report.** The standards for evidence are much lower for emergency reports because there is a need to inform all relevant stakeholders within a peace mission as quickly as possible.

The U2 section of the Force collects information on incidents and situations that might require a military response, such as armed clashes or attacks on civilians. The U2 has even engaged in military operations specifically aimed at collecting information – which is often referred to as intelligence-led operations – in Haiti and the DRC. **One weakness of U2 intelligence officers is that they are often only deployed for a period of six months.** This means that these intelligence officers often lack the expertise to fully place the information they collect into the right context.

²⁴⁶ Spink, “Data-Driven Protection: Linking Threat Analysis to Planning in UN Peacekeeping Operations,” 2.

Furthermore, the data collected by the Human Rights sections and U2 is less suited to identify growing tensions. The qualitative data collected by the Civil Affairs sections in the form of situation-reports is better suited for this. **Civil Affairs officers are tasked with gathering and reporting information about perceptions and concerns of different groups with regard to POC and other aspects relevant for the mandate of the mission.** While Civil Affairs officers often are highly familiar with local dynamics, sometimes even more local knowledge and understanding is needed in order to prevent attacks on civilians. This is why the UN began to employ CLAs from 2008 onwards and why it subsequently set up CANs. Early warning systems in which locals can participate often produce highly relevant early warning data.

CLAs are local staff that are commonly deployed alongside military force of the mission. CLAs have taken on a comprehensive role through engaging with local communities and help with collecting relevant information. In urgent cases, CLAs provide alerts or flash reports. CLAs not only collect information on risks, they also gather information on opportunities for reconciliation and peace processes. It should, however, be noted that CLAs are not equally effective in collecting information across different contexts. For instance, the logistical and security conditions in Mali have made it difficult to make use of the CLA instrument. Furthermore, CLAs often operate in areas with only intermittent access to the telephone network and the internet. This makes regular reporting difficult. Another challenge is to balance maintaining close relationships with the local community, but at the same time avoid biases and not leak any internal UN information.

In spite of the wealth of data collected in UN peace missions, there might sometimes be information gaps. JPTs and JAMs are often tasked to collect information in order to fill such gaps. They are deployed on a temporary basis in order to analyze local POC-related dynamics on the basis of which local protection plans are formed. The JPTs consist of several sections and units that are relevant for POC. JAMs are fairly similar to JPTs, with one important difference: that they are conducted with humanitarians.

Two of the most important actors within the UN in terms of early warning for POC are the JOC and the JMAC. The UN Department of Peace Operations created these units in 2005-2006 in order to develop structures for information-gathering and analysis. The JOC serves as an information hub at the peace mission's headquarters in order to ensure mission wide situational awareness through integrated reporting on current operations as well as day-to-day situation reporting. JMACs are mandated to act as a strategic planning body, mainly to support senior management in analyzing the security landscape and the political context. To this purpose, JMACs conduct all-source intelligence gathering using military, police and civilian personnel.

JMACs conduct POC trend analyses in order to determine areas most of risk of physical violence against civilian communities and objects. The ultimate goal of a JMAC trend analysis is to produce forward-looking information on the basis of conflict dynamics and patterns of violence against civilians. One weakness of the trend analysis is that JMAC and JOC mainly draw on conflict data previously collected to determine trends, which means levels of impending POC risk are primarily determined by current levels of violence against civilians. **JMAC staff also conduct network analyses that link the different actors that are relevant to the implementation of the mandate of the mission.** In terms of the POC mandate, these network analyses serve to inform decision-makers within the mission how to best respond to threats or how to involve a certain actor in one of the mandated processes. JMAC analysts commonly make use of a software tool called I2 Analyst for their network analyses, which is essentially a visual analysis tool that facilitates the study of pattern in data using features like

connected network visualization, social network analysis, and geospatial views. **Finally, JMAC staff also develop worst-case and best-case scenarios, which outline possible responses that can be taken to mitigate the worst-case scenario.**

While it is currently clear that the U2, JOC, and JMAC are responsible for information collection and analysis, there has been one experiment with upgrading the intelligence capacity of the UN. In 2013, the ASIFU was created within MINUSMA. The ASIFU experiment has been criticized as a non-viable blueprint for information collection and analysis in UN peace operations because it is deemed as too expensive and the mode of operating too confidential for the UN. This explains why the ASIFU was merged with the U2 section of the military component of MINUSMA in late 2017.

In addition to the more general early warning tools used by the JMACs, several UN peace missions have established their own tools. **MONUSCO has used ITEM to track protection incidents, though this database has now been replaced by SAGE.** One major weakness of ITEM was that the different mission components contributed to it unevenly. **The MINUSMA STIM, developed in 2020, goes a step further and aims to not only track POC-related incidents, but also assess the impact of force operations on the protection of civilians.**

Many other early warning tools used in UN peace operations make use of a qualitative assessment. For instance, the MINUSCA Flashpoint Matrix, the UNMISS Weekly Predict Risk-Assessment Matrix, and the MONUSCO's Local Conflict Mapping and Risk Assessment Tool all use qualitative data in order to determine levels of risk and prioritize responses.

These tools discussed show a clear trend towards innovation in individual field missions when it comes to early warning for POC. Nevertheless, many of these processes are still ad-hoc, based on local innovation, and have significant potential for improvement. The different sections and units within UN peace operations collectively produce a wealth of data on a daily basis, but these data are often lost and different sections hold on to their own data. The UN has undertaken a massive effort to centralize the many different data streams. To this purpose the Department of Peace Operations has rolled out SAGE. **With SAGE, the UN has set up a more standard structure for information gathering within peace missions.** Early warning will not have a positive effect if there is no early action. Accordingly, various mechanisms have been set up in UN peace operations aimed at not only discussing POC-related threats, but also appropriate responses to these threats. Of particular importance is the SPU. **Since the JOC is typically mainly aimed at coordinating responses to immediate threats, UN peace operations have a SPU to fulfil a more strategic planning and coordination role. Another coordination mechanism, at the level of the field offices of UN peace operations, is the CPP. CPPs provide an overview of threats to the civilian population in a Field Office's area of responsibility.**

6.1.2 AFRICAN UNION

While lagging behind the UN in terms of the use of POC early warning tools used, POC has gained increasing importance in the AU context. When the AU was established in 2001, it was agreed that the AU PSC would be supported by the CEWS to help the PSC implement its conflict prevention mandate. The implementation of the CEWS started in 2006 with the signing of the Framework for the Operationalization of the CEWS. **To this purpose the CEWS Situation Room, located at the AU Conflict Management Directorate, collects data on potential, emerging, and actual conflict situations across Africa. Moreover, with the adoption of the AU Draft Guidelines for the Protection of Civilians 2009, the CEWS was mandated to assess and analyze POC-related issues.**

The input data collected for the CEWS is based on political, economic, social, military, and humanitarian early warning indicators. ***The CEWS produces several outputs, including a daily news highlight, a daily field report, a weekly update on military and political developments, updates on ongoing conflict situations, flash reports, in-depth early warning reports, and horizon-scanning papers.*** The Chairperson of the AU Commission is mandated to use information coming from CEWS to raise awareness within the Peace and Security Council on potential threats to peace and security in Africa and identify options for early action.

The CEWS was linked up with the early warning systems of Africa's RECs in 2008. One challenge of completely streamlining the early warning of Africa's RECs and CEWS is the tension between the open-source based monitoring of the CEWS and intelligence-based early warning of some RECs, most notably the early warning system used by SADC.

The AU's largest peace mission – AMISOM in Somalia – does not have an early warning tool for POC, which logically follows from the fact that AMISOM does not have a POC mandate. ***Nevertheless, while both the AU and the UN realized that a POC mandate for AMISOM was not feasible, both sides agreed in late 2011 that a more centralized civilian casualty tracking mechanism should be established.***

This led to the creation of the CCTARC in 2012. The purpose of the CCTARC is essentially to track incidences of civilian harm caused by AMISOM operations, including death, injury, Sexual Exploitation and Abuse (SEA), and damage to property. The CCTARC is mandated to investigate such incidents and to decide on compensation when required. However, it was not until 2015 before the CCTARC became fully operational. Making the CCTARC operational was challenging for several reasons. One reason for this was simply resource constraints, but this challenge was solved through the UK's commitment to fund the CCTARC. Perhaps a bigger challenge to making CCTARC operational was resistance from within AMISOM. Several AU senior officials viewed CCTARC as a form of Western surveillance.

Another major challenge is that the sectoral composition of AMISOM hinders effective exchange of information. All TCCs to AMISOM have their own sector of operations for which they are responsible. The flow of information to the CCTARC from the sectors has been limited. Situation-reports from the sectors are not always forthcoming and do not always contain a sufficient amount of detail.

Finally, the biggest weakness of the CCTARC in terms of POC is simply that it focuses solely on AMISOM-related harm. This focus is understandable because of limited resources and because AMISOM does not have a POC mandate, but it means in practice that only a relatively small part of the incidents in which civilians in Somalia are harmed are tracked.

6.1.3 NATO

When the war in Afghanistan escalated again from 2006 onwards, NATO had to step up its military operations. This led to a large number of civilian casualties as a result of NATO operations. ***To this purpose, the ISAF leadership set up the CCTC in August 2008. The CCTC was tasked to gather data on harm caused during ISAF operations. The work of the CCTC initially mainly focused on strengthening ISAF's situational awareness of civilian harm, allowing the ISAF leadership to better respond to allegations. Yet, over time, the CCTC began to systematically collect information on civilian casualties and examine these data for trends. These trend analyses were subsequently used to provide recommendations to the ISAF leadership on civilian casualty mitigation.*** One major change in the rules of engagement was that ISAF forces required verification that there were “no civilians present” in order to obtain approval for air strikes outside of self-defense.

In 2011, the CCTC was expanded into the CCMT. The CCMT was provided with more resources to reach out to civil society for cross-checking allegations and informing mitigation efforts. In addition, the CCMT created several internal working groups with representatives from ISAF headquarters and subordinate commands. These working groups were used as a platform to provide guidance on civilian casualty mitigation. The CCMT collected lessons learned and best practices in avoiding civilian harm, which were discussed in these working groups. This led to changes in policies and standard operating procedures, reducing the number of civilian deaths due to NATO operations.

In addition to setting up the CCTC and the CCMT in Afghanistan, NATO has been developing a policy on POC. ***POC was for a long time not on the agenda of NATO, but NATO leaders endorsed the NATO Policy for the Protection of Civilians at the Warsaw Summit in July 2016. Early warning and situational awareness play a crucial role in NATO's POC concept. It is seen as a necessary condition for three of NATO's POC functions, including (1) effectively mitigating harm through the use of military force or threat of force to prevent; (2) the facilitation of basic needs; and (3) to create a safe and secure environment through supporting and developing the host-state and its institutions. In spite of the crucial role that situational awareness plays in NATO's POC concept, NATO has not yet developed any early warning tools specifically on identifying POC-related threats.***

6.2 Gaps and Recommendations

The institutional push towards both POC and data collection and analysis means that there is a lot of momentum to push data-driven early warning further. This section discusses opportunities to improve current tools on the basis of best practices and current gaps in data-driven POC tools.

6.2.1 RECOMMENDATIONS FOR IMPROVEMENTS TO EXISTING TOOLS AND METHODS

1. ***UN member states should invest in early warning and situational awareness. Early warning can be a force multiplier when it allows the leadership of a mission to send its peacekeepers to hot-spots.*** Indeed, available evidence suggests that early warning is a significant determinant in the speed of protection response.²⁴⁷ Moreover, as a result of budgets cuts, UN missions have fewer resources. MONUSCO has responded to this through shifting towards a protection strategy based on projection. This reduced presence in certain areas has made early warning and situational awareness arguably even more important. However, early warning that enables proactive protection also requires funding. With support from member states, the UN should make available travel budgets to support information collection, fund positions for information analysts and coordination officers, invest in training on data management and the analysis of POC-related data, and also invest in equipment to implement early warning tasks (e.g. drones).²⁴⁸
2. In addition, ***it is crucial to invest in casualty reporting in missions without a POC mandate such as AMISOM and ISAF.*** The staffing of the CCTC in Afghanistan and the CCTARC in Somalia is a fraction of the total mission size. For instance, the CCTC of ISAF in Afghanistan initially only consisted of a handful of staff to conduct its

²⁴⁷ Office of Internal Oversight Services, "Inspection of the Performance of Missions' Operational Responses to Protection of Civilians."

²⁴⁸ Spink, "Data-Driven Protection: Linking Threat Analysis to Planning in UN Peacekeeping Operations," 4.

causality reporting. AMISOM initially faced budget constraints with regard to its casualty recording. The relative success of ISAF with regard to casualty reporting underscores that casualty reporting helps change policies within the mission and ultimately saves innocent lives.

3. Relatedly, ***the CCTARC in Somalia would benefit from going beyond its sole focus on AMISOM-related harm.*** This sole focus on AMISOM-related harm is understandable because of limited resources and because AMISOM does not have a POC mandate, but it means in practice that only a relatively small portion of the incidents in which civilians in Somalia are harmed are tracked.
4. The UN has moved towards drawing on local staff and local early warning networks. This has greatly enhanced early warning capacity, because the best information often comes from locals. ***The UN should further develop the use of early warning systems in which locals can participate.*** This could mean providing more training to early warning networks or further expand these networks. It also means investing in procedures and in some cases technology that ensure the safety of local staff and informants as best as possible.
5. The UN has also started to employ new technologies – such as drones – to facilitate the collection of information. Drones can help to increase access to information in cases where the UN must take action to protect civilians. ***The use of drones seems to improve the situational awareness of peacekeepers in those areas where these technologies have been implemented. The UN should therefore continue to invest in its ability to use drones for the collection of information.***
6. ***Security actors should continue their efforts to prevent a data deluge.*** With the increased use of new technologies, information analysts in missions will have to process more and more data. High volumes of information, especially when some of the information is contradictory, increases complexity and can thus actually undermine effective decision-making.²⁴⁹ In the context of UN peacekeeping Karlsrud notes that a data deluge means that the major challenge for UN information analysts “will be to sift through rapid data streams, analyze them, and then produce actionable information in real-time.”²⁵⁰ ***It is therefore paramount that all missions and all components within the missions remain committed to SAGE. Analyzing large amounts of data and possibly contradicting pieces of data is much easier when all the data is one place to begin with, rather than when these data sit with different parts of the mission.*** The systematic storage of data in one place is therefore a major achievement. There seems to be a tendency among many UN staff to dismiss SAGE because of some problems and challenges with SAGE. This seems the wrong approach: ***SAGE should be improved rather than ignored. One major difficulty in this regard is that SAGE can only be improved with the full support from some parts of the mission that would rather ignore it.*** The experience of ITEM in MONUSCO is instructive in this regard. It was set up to integrate data across the mission, but it eventually failed because different mission components contributed to it unevenly.²⁵¹ This scenario should be prevented for SAGE.
7. The ability of UN peacekeeping staff to use one platform across the mission to report incidents is a significant improvement. However, a pertinent question for

249 Duursma, “Information Processing Challenges in Peacekeeping Operations: A Case Study on Peacekeeping Information Collection Efforts in Mali.”

250 J. Karlsrud, *The UN at War: Peace Operations in a New Era* (Springer International Publishing, 2017), 72.

251 See: Spink, “Data-Driven Protection: Linking Threat Analysis to Planning in UN Peacekeeping Operations,” 30-31.

peacekeeping staff working in missions is who has access to SAGE. SAGE data is in theory accessible to all components in a UN mission for whom access to SAGE data is required. The JOC acts as the facilitator and information-broker within the SAGE information management workflow. Nevertheless, it seems that JOCs are generally highly restrictive in terms of who gets access to the data. In practice, SAGE seems to be mainly used by JMAC, JOC, and UNPOL and the Force component of the mission. Moreover, not all information from substantive sections is integrated into SAGE. ***The UN should make sure that all substantive sections in all missions contribute to SAGE. In turn, the UN, and in particular JOCs, should find ways in which SAGE can more easily be accessed by more UN staff members in a way that still guarantees the confidentiality of the data.***

8. In addition to having access to SAGE, ***it is important that different components of the mission share information between them.*** One current weakness of SAGE is that the different mission components contributed to it unevenly. It is important that information is shared horizontally because each component of a mission has its own comparative advantage when it comes to collecting information. For example, UN Civil Affairs collects useful information on communal tensions, while the U2 is better in collecting conflict event data. ***The trend analyses in which JMAC coordinates between different components of the mission facilitates horizontal information sharing – and therefore improves early warning analyses. It is important that JMACs continue to conduct these trend analyses and that the other components of the mission remain committed to such exercises.***
9. ***Besides engaging in early warning, the security organizations should continue to explore ways in which they can improve how it systematically measures how well its staff respond to armed violence or threats of armed violence.*** Such a quantitative data-driven methodology is in accordance with UN Security Council Resolution 2378 in 2017, which emphasized and requested the Secretary-General “to ensure data streams related to the effectiveness of peacekeeping operations, including peacekeeping performance data, [...] to improve analytics and evaluation of mission operations, based on clear and well identified benchmarks.”²⁵² Indeed, analyzing responses will ultimately lead to better early action. The CPAS fulfills this need within the UN. CPAS was first rolled out in MINUSCA in August 2018 and has gradually expanded to all UN peace missions. ***The UN should keep the momentum and support the pioneering work of the CPAS unit.***

6.2.2 RECOMMENDATIONS FOR DEVELOPING NEW TOOLS AND METHODS

10. Turning to recommendations for new tools that could be developed, ***NATO should consider developing a single tool to produce early warning for POC-related threats.*** Understanding the human environment is a crucial element of NATO’s POC concept. Yet, NATO has not yet developed a tool specifically aimed at identifying POC-related threats. The reason why it has not yet done so is that most policymakers within NATO want to look at security threats holistically rather than focusing on a single threat. However, the UN’s turn to POC-related early warning shows the benefits of bringing different parts of a mission together to look solely at POC-related issues.

²⁵² UN Security Council, “Security Council Resolution 2378, S/Res/2378,” (20 September 2017).

11. In spite of some negative perceptions of SAGE, and it being clear that SAGE needs to be a complementary early warning tool, the potential of SAGE should not be underestimated. Conflict monitoring has never been systematized within UN peace missions prior to SAGE. Many early warning tools within the UN are still based on qualitative assessment. The quantitative data currently used by the UN for early is mainly descriptive, aimed at locating where violence is taking place and assuming that violence will continue to take place in this area. Indeed, one weakness of the trend analysis is that JMAC and JOC mainly draw on conflict data previously collected to determine trends, which means levels of impending POC risk are primarily determined by current levels of violence against civilians. With SAGE, the UN has for the first time in history the opportunity to draw on a large amount of quantitative data. ***SAGE could potentially even make a predictive peacekeeping tool possible. Machine-learning algorithms could be used to detect patterns of armed violence in the SAGE data and predict where future armed violence might take place.*** In addition, data in SAGE could potentially be used to evaluate the effectiveness of POC activities. In short, in addition to preventing a data deluge, SAGE data could be used to explore the utility of machine-learning models to predict incidents of violence against civilians.
12. The UN could also experiment with forecasting violence against civilians based on text data. The UN collects detailed data on local conflict dynamics as part of its ongoing peace operations. A lot of these data are in text form. ***Staff members in UN peace missions write regular situation reports in which they discuss political and military developments that shed light on attacks on civilians. The UN could draw on this unique data source to explore the feasibility of text-based conflict prediction at the sub-national level.***
13. ***It is, however, important that when new tools based on machine-learning techniques are developed, the potential biases of the data on which these tools draw on are taken into account. Indeed, with data playing an increasingly more important role in missions, security actors should continuously critically reflect on biases in the data collected.*** No data collection is perfect, especially in zones of armed conflict, which are characterized by uncertainty and complexity. The key to improving data collection efforts is to understand biases in the data and where possible mitigate these biases as much as possible. For example, data collected in Afghanistan is generally biased towards areas that are relatively secure, while data is less likely to be collected in remote areas.²⁵³ This could lead to what Larrauri and Kahl refer to as the bias of connectivity.²⁵⁴ In the context of ISAF, this might mean that the local population in remote places are less likely to report on civilian casualties. NATO should therefore take extra care to prevent under-reporting on casualties in remote areas. Furthermore, data on armed clashes and attacks on civilians in the context of UN missions is generally more comprehensive in closer proximity to peacekeeping bases.²⁵⁵ The UN should therefore invest in integrating data on areas where no UN peacekeepers are deployed through collecting data remotely.
14. ***One area where UN data collection could be more systematized is the collection of information by locals.*** UN Civil Affairs collect a wealth of information on local

²⁵³ David Mansfield, *Effective Monitoring and Evaluation in Conflict-Affected Environments* (Washington D.C.: USIP, 2015).

²⁵⁴ H. Puig Larrauri and A. Kahl, "Technology for Peacebuilding," *Stability: International Journal of Security and Development* 2, no. 3 (2013).

²⁵⁵ Duursma, "Counting Deaths While Keeping Peace: An Assessment of the JMAC's Field Information and Analysis Capacity in Darfur."

dynamics through its CLA and CANs. This information is included in situation-reports and some of the information is included in SAGE. **Compiling a dataset on local early warnings, the UN could explore what type of early warnings provided by locals are followed by a POC-related incident and which ones do not.** This could potentially provide more insight into where local information is most useful when forecasting POC-related events.

15. **There is also a need to familiarize intelligence officers within the Force component of UN missions as quickly as possible with the context in which they collect information.** One weakness of U2 intelligence officers is that they are often only deployed for a period of six months. This means that these intelligence officers often lack the expertise to fully put the information they collect into the right context. The UN and TCCs should therefore invest in mechanisms to get military intelligence officers familiar with a context before the deployment. Crucially, when an intelligence officer replaces another intelligence officer, there should be a heavy focus on exchanging lessons learnt, as well as linking the new intelligence officer to JMAC staff that can help understand the context.
16. **Coordination is key for effective early warning and action. Security actors should therefore ensure effective coordination between different mission components. One aspect of coordination is to combine different early warning tools.** For instance, UN Human Rights officers enter human rights violations into a database linked to the OHCHR in Geneva. The JMAC staff in missions collect data in I2 Analyst. The Civil Affairs section in New York stores all situation-reports from the larger peace operations in the Civil Affairs Activity Database. These are just some examples of datasets that are supplementary to SAGE. **Coordination in terms of early action is also crucial.** A lack of coordination between military, police, and civilian personnel is likely to lead to siloed planning and responses. The UN should continue to make use of joint threat assessments and joint planning in order to improve both early warning and early action.
17. Enhancing coordination is also imperative for missions without a POC mandate. First of all, **casualty reporting is based on collecting information from within the mission, which requires cooperation.** Indeed, this is what has been challenging in AMISOM. The AMISOM leadership should try to improve procedures the information-sharing process between the sectors and CCTARC.²⁵⁶ The CCTARC needs full political support by the mission leadership in developing a comprehensive information collection system of civilian casualties based on information provided by all TCCs. A NUPI report highlighted that one practical option to enhance information-sharing could be for each TCC to second a liaison officer into the CCTARC.²⁵⁷ Furthermore, **besides coordination with regard to information collection on civilian casualties, coordination is required with regard to preventing civilian harm based on information collected.** The experience of ISAF with casualty reporting in Afghanistan suggests that advocates from within the leadership of the mission need to step up in order to ensure that any lessons learnt from the casualty reporting are translated to policies aimed at mitigating civilian harm.²⁵⁸

256 Rupesinghe, "The Civilian Casualty Tracking Analysis and Response Cell in the African Union Mission in Somalia: An Emerging Best Practice for AU Peace Support Operations?".

257 Ibid.

258 Ibid.

18. **Security actors should not only be concerned with the early identification of a threat, but also with early action aimed at mitigating this threat.** Systematic data analysis can help the leadership of peacekeeping missions to decide where to deploy troops to protect civilians, it can guide conflict prevention efforts, and it can help pre-empt threats to the mission itself. However, an important caveat in this regard is that these benefits hinge on successfully translating early warning into early action. Edward C. Luck, the Special Adviser to Assistant Secretary-General Ban Ki Moon, pointed out in this regard that early warning is not an end in itself: “Early warning without early and effective action would only serve to reinforce stereotypes of UN fecklessness, of its penchant for words over deeds.”²⁵⁹ **In other words, a top-notch data-driven early warning system will have little added value if this system is not translated into more effective early action.** Security actors should therefore continue to improve the links between early warning and early action. The movement within UN missions towards a whole-of-mission approach and integrated planning, though not without its challenges, shows that this helps to improve situational awareness and therefore ultimately leads to better decision-making. **In terms of translating early warning to early action within the context of the AU, the AU should invest in developing structures to decide when a situation merits early action.** Indeed, one major challenge for the CEWS has been to determine when a situation exactly calls for early action.
19. Furthermore, **the AU should invest in tools to disseminate its early warning more broadly within the organization.** The Chairperson of the AU Commission is mandated to use information coming from CEWS to raise awareness within the Peace and Security Council on potential threats to peace and security in Africa and identify options for early action. However, besides informing the Peace and Security Council and a few senior staff members at the AU Headquarters in Addis Ababa, very few people benefit from the early warning generated through CEWS. Rather than solely informing elite-level decision-makers at the AU Headquarters, early warning should also help peace support staff in the field.
20. Finally, this report has tried to map data-driven tools and systems for early warning and situational awareness across different security organizations and across different missions within these organizations. As such, the report has tried to sketch the contours of the entire early warning ecosystem. **A promising avenue for future research is to zoom in on one particular mission to reveal the inner workings of early warning systems.** For instance, a single report could focus on how the UN produces early warning in UNMISS in South Sudan or in MINUSCA in the Central African Republic.

²⁵⁹ Edward C. Luck, “Statement by Edward C. Luck Special Adviser to the United Nations Secretary-General. Informal Interactive Dialogue on Early Warning, Assessment, and the Responsibility to Protect United Nations General Assembly,” (9 August 2010).

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