

DATA-DRIVEN PEACEKEEPING AND THE VANCOUVER PRINCIPLES:

Towards Improved Monitoring and Reporting for Grave Violations Against Children

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ABSTRACT

This article examines the UN's move toward 'data-driven' peacekeeping and its implications for the Vancouver Principles, especially implementation of states' monitoring and reporting commitments as outlined in Principle 6. I argue that data-driven peacekeeping presents both opportunities and challenges when it comes to monitoring and reporting. On the one hand, it can improve the quantity and quality of the information available about the recruitment and use of child soldiers. It can thereby foster improvements in responsiveness, performance, and accountability, both within peace operations and among other stakeholders. Yet data-driven peacekeeping also comes with challenges. These include data literacy and 'buy-in' among personnel on the ground, concerns about privacy and confidentiality, and political sensitivities around monitoring and reporting. Together these issues highlight the degree to which the Vancouver Principles are interconnected and mutually reinforcing – each affects implementation of the others, and none can be fully operationalized in isolation.

INTRODUCTION

This article examines a new trend in UN peacekeeping: the UN's move toward systematic data analysis in peace operations. The push to make peacekeeping more 'data-driven' responds to a variety of longstanding problems. Peacekeepers often struggle to achieve core objectives – like protecting vulnerable populations, including children – because they must manage risks and make decisions without access to reliable information.¹ At the strategic level, the UN also struggles to aggregate data effectively.² This makes it difficult for UN officials, member states, and partner organizations to systematically monitor and assess the performance of UN missions. The UN is committed to solving these problems by improving its capacity to gather high quality data, manage it effectively, and make sound decisions based on that information.³

What implications does this shift have for implementation of the Vancouver Principles? I focus on states' monitoring and reporting commitments as described in Principle 6, and I argue that the UN's move toward systematic data analysis presents both opportunities and challenges.⁴ On the one hand, it can improve the quantity and quality of information available about the recruitment and use of child soldiers. In doing so, it can foster improvements in responsiveness, training, accountability, and overall performance, both within peace operations and more broadly. Yet data-driven peacekeeping also comes with challenges. These include data literacy and 'buy-in' among personnel on the ground, concerns about privacy and confidentiality, and political sensitivities around monitoring and reporting. Together these issues highlight the degree to which the Vancouver Principles are interconnected and mutually reinforcing – each affects implementation of the others, and none can be fully operationalized in isolation. Peacekeepers themselves play an important dual role as both gatherers and consumers of information.

The article proceeds as follows. First, I discuss existing monitoring and reporting practices in UN peace operations as they relate to the recruitment and use of child soldiers. This includes

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- 1 Lauren Spink, "Data-Driven Protection: Linking Threat Analysis to Planning in Un Peacekeeping Operations," (Washington: Center for Civilians in Conflict, 2018), 8-9.
 - 2 Cedric de Coning and Emery Brusset, "Towards a Comprehensive Results-Based Reporting and Performance Assessment Framework for Un Peacekeeping Operations," (Oslo: Norwegian Institute of International Affairs, 2018), 18.
 - 3 Philip Shetler-Jones, "Intelligence in Integrated Un Peacekeeping Missions: The Joint Mission Analysis Centre," *International Peacekeeping* 15, no. 4 (2008): 517; United Nations, "Action for Peacekeeping: Declaration of Shared Commitments on Un Peacekeeping Operations," <https://peacekeeping.un.org/sites/default/files/a4p-declaration-en.pdf>; United Nations Security Council, "Resolution 2436 S/Res/2436 (2018)," [https://undocs.org/S/RES/2436\(2018\)](https://undocs.org/S/RES/2436(2018)).
 - 4 Government of Canada, "Vancouver Principles on Peacekeeping and the Prevention of the Recruitment and Use of Child Soldiers," Government of Canada, https://www.international.gc.ca/world-monde/assets/pdfs/issues_development-enjeux_developpement/human_rights-droits_homme/principles-vancouver-principes-english.pdf.

a short overview of peacekeepers' role vis-à-vis the Monitoring and Reporting Mechanism on Grave Violations Against Children in Situations of Armed Conflict (MRM).⁵ In the following sections, I identify points of overlap between data-driven peacekeeping and implementation of the Vancouver Principles, reviewing the opportunities and challenges that systematic data analysis creates for implementation of Principle 6 (Monitoring and Reporting). I conclude with a brief discussion of policy implications. The article presents evidence gathered through a review of primary sources, especially UN and government documents, and a variety of secondary sources, including scholarly articles and grey literature. I use qualitative methods – primarily documentary analysis – to identify relevant information about UN monitoring and reporting practices. This includes information about their relationship to the Vancouver Principles, and to issues relating to child soldiers more generally.

MONITORING, REPORTING, AND DATA-DRIVEN PEACEKEEPING

When the UN Security Council created the MRM, it explicitly stressed the responsibility of United Nations peacekeeping missions to “ensure a coordinated response to CAAC [children and armed conflict] concerns and to monitor and report to the Secretary-General.”⁶ The MRM allows for the systematic collection of accurate, timely, objective, and reliable information about grave violations committed against children in conflict settings.⁷ As intended, UN peacekeepers currently make a variety of contributions to the UN-led MRM. In many conflict settings, they facilitate monitoring and reporting by third parties by providing a “reassuring presence.” In the Democratic Republic of the Congo, for example, some non-governmental organizations (NGOs) note that it is easier to monitor and report on human rights violations in areas where blue helmets are present.⁸ Peacekeepers also make direct contributions to the MRM. Contemporary peace operations usually include designated child protection advisors (CPAs), and sometimes Child Protection sections. These personnel are charged with gathering and verifying much of the information submitted to MRM Taskforces. Other actors within a mission, like Military Observers, Human Rights units, and Joint Mission Analysis Centers (JMACs) may also gather important information about the Six Grave Violations against

5 *The MRM monitors six grave violations against children in conflict settings: killing and maiming of children; recruiting or using child soldiers; attacks on schools or hospitals; rape or other grave sexual violence; abduction of children; and denial of humanitarian access for children. Monitoring and Reporting Mechanism on Grave Violations Against Children in Situations of Armed Conflict, “Mrm Basics,”* http://www.mrmtools.org/mrm/mrmtk_1115.htm.

6 *United Nations Security Council, “Resolution 1612 S/Res/1612 (2005),”* https://www.un.org/ruleoflaw/files/SecurityCouncilResolution1612_en.pdf.

7 *Monitoring and Reporting Mechanism on Grave Violations Against Children in Situations of Armed Conflict, “Mrm Basics”.*

8 *Watchlist on Children and Armed Conflict, “Getting It Done and Doing It Right: Monitoring & Reporting Mechanism on Children and Armed Conflict,”* (New York: Watchlist on Children and Armed Conflict, January 2008), 15.

children.⁹ This information is collated through the MRM and used to develop on-the-ground responses, provide services to children, and engage with parties to a conflict in a way that promotes accountability and compliance with international norms, laws, and standards.¹⁰

These are important contributions. They confirm that UN peacekeepers are actively involved in current efforts to monitor and report on the recruitment and use of child soldiers. Problems remain, however. Many of these problems are symptomatic of monitoring and reporting practices in peacekeeping more broadly. For instance, most contemporary peace operations are multidimensional; they are responsible for a wide range of tasks that require cooperation among different mission components as well as coordination with UN country teams and external partners.¹¹ The complexity of these missions – and the sheer number of actors involved – mean that effective analysis, coordination, and planning are an ongoing challenge.¹² In its 2014 report, the Expert Panel on Technology and Innovation in UN Peacekeeping found that peace operations frequently suffer from “data sclerosis,” which impedes information-driven decision making. According to the Panel, the way that data is collected and managed must change so that it can be “easily searched, queried against, measured, tracked over time, and visualized for better reporting, analysis, and decision-making support.”¹³ In 2015 the High-Level Independent Panel on UN Peace Operations reached similar conclusions, calling for an overhaul of the UN’s existing information and analysis structures for peace operations. It specifically observed that monitoring and reporting of human rights issues is “dispersed and fragmented;” the Panel argued that missions should be streamlining monitoring and reporting requirements in order to “ensure coherence and avoid duplication of effort.”¹⁴ In short, the complex, multifaceted nature of UN peace operations makes it difficult for peacekeepers to manage and synthesize data effectively. This includes data about the recruitment and use of child soldiers.

9 *Ibid.*, 19. See note 5 above for a list of the six Grave Violations.

10 Government of Canada, “Vancouver Principles Implementation Guidance - Chapter 6 - Monitoring and Reporting,” <https://www.canada.ca/en/departement-national-defence/corporate/reports-publications/vancouver-principles/introduction/monitoring-reporting.html>.

11 United Nations Department of Peacekeeping Operations, “United Nations Peacekeeping Operations: Principles and Guidelines,” (New York: United Nations Department of Peacekeeping Operations, 2008), 23-24, 69-70.

12 Spink, “Data-Driven Protection: Linking Threat Analysis to Planning in Un Peacekeeping Operations,” 11.

13 Expert Panel on Technology and Innovation in UN Peacekeeping, “Performance Peacekeeping,” (New York: United Nations Department of Peacekeeping Operations and Department of Field Support, 2014), 8.

14 High-Level Independent Panel on UN Peace Operations, “Uniting Our Strengths for Peace: Politics, Partnership and People,” (New York: United Nations, 2015), 70.

These types of problems have a negative impact on monitoring and reporting for the Six Grave Violations against children. MRM country Taskforces are UN-led, but they must coordinate with a wide variety of NGOs, local communities, and other stakeholders.¹⁵ This sometimes leads to complaints that country Taskforces are “shrouded in secrecy” – that they do not maintain good working relationships with all of their civil society partners.¹⁶ Operating in conflict settings also means that MRM Taskforces tend to operate in places that are “data poor,” meaning that data sources are limited and there is too little data available.¹⁷ Some critics argue that MRM data is incomplete and inaccurate because of access restrictions and an excessive reliance on information supplied by UN actors.¹⁸ In some cases, though, data is “anecdotal and fragmented” because of data collection methods; many of the forms and databases that Taskforces use are “not designed to collect information that can then be used for statistical trend analysis, thus limiting the potential uses of this information.”¹⁹ In short, existing MRM practices yield useful information about the recruitment and use of child soldiers, but significant gaps remain.

Given these issues, it is not surprising that member states included a commitment to improved monitoring and reporting in the Vancouver Principles.²⁰ When peacekeepers conduct effective monitoring and reporting, they “provide valuable data that can be used to inform mission-level decision-making on actions to prevent the further recruitment and use of child soldiers, support investigations, inform sanctions, and hold perpetrators to account.”²¹ They already play an important role in monitoring and reporting grave violations against children in conflict settings, but much more can be done to improve the accuracy, consistency, and impact of that work.²² The monitoring and reporting aspects of the Vancouver Principles

15 *Monitoring and Reporting Mechanism on Grave Violations Against Children in Situations of Armed Conflict*, “Mrm Basics”.

16 *Watchlist on Children and Armed Conflict*, “Getting It Done and Doing It Right: Monitoring & Reporting Mechanism on Children and Armed Conflict,” 11; Katy Barnett and Anna Jefferys, “Full of Promise: How the Un’s Monitoring and Reporting Mechanism Can Better Protect Children,” (London: Humanitarian Practice Network, September 2008), 14.

17 *NYU Center on International Cooperation Netherlands Ministry of Foreign Affairs and UN Peacebuilding Support Office*, “Data for Peace and Security: Report of the Practitioners Workshop on Harvesting Best Practices and Building a Community of Practice,” (New York: NYU Center on International Cooperation 2019), 13.

18 Barnett and Jefferys, “Full of Promise: How the Un’s Monitoring and Reporting Mechanism Can Better Protect Children,” 14-16.

19 *Watchlist on Children and Armed Conflict*, “Getting It Done and Doing It Right: Monitoring & Reporting Mechanism on Children and Armed Conflict,” 9.

20 Government of Canada, “Vancouver Principles on Peacekeeping and the Prevention of the Recruitment and Use of Child Soldiers”.

21 “Vancouver Principles Implementation Guidance - Chapter 6 - Monitoring and Reporting”.

22 *Watchlist on Children and Armed Conflict*, “Getting It Done and Doing It Right: Monitoring & Reporting Mechanism on Children and Armed Conflict,” 20.

come alongside a broader UN effort to make peacekeeping more ‘data-driven’ – to improve peacekeepers’ capacity to gather, analyze, and make decisions based on high quality data.²³ I use the term data-driven peacekeeping to describe a range of tools and practices intended to improve the quality and quantity of data available to peacekeepers, and to those who fund, staff, and authorize UN missions. It also refers to changes in decision making based on that data.²⁴ In the next two sections, I ask: what implications does the move toward data-driven peacekeeping have for the monitoring and reporting commitments outlined in Vancouver Principle 6? I focus on potential synergies first, then I discuss challenges and limitations.

POTENTIAL SYNERGIES

The move toward data-driven peacekeeping is multifaceted, but there are two areas where it can make a particularly significant contribution to implementation of Vancouver Principle 6. First, the rise of systematic data analysis is closely linked with attempts to leverage new information and communication technology (ICT) in UN peace operations. One of the best examples of this is the Situational Awareness Geospatial Enterprise (SAGE) database. SAGE is a web-based database system that allows mission personnel to log incidents, events, and activities.²⁵ SAGE could provide peacekeepers with valuable new tools for collating data about the recruitment and use of child soldiers – information about their numbers and location, their approximate age, the relative distribution of girls and boys, and details about which armed groups are recruiting children and how. These are just a few examples. Information like this can change daily, and peacekeepers are uniquely positioned to monitor and report on these rapid changes. They also stand to benefit from this data insofar as it improves situational awareness. The other data-driven initiative that can advance implementation of the Vancouver Principles is the Comprehensive Performance Assessment System (CPAS). The goal of CPAS is to evaluate whole-of-mission performance and strengthen accountability through data collection and analysis.²⁶ Again, CPAS could become a valuable tool for synthesizing data about child soldiers, data that can then be used to improve decision making at the strategic level. Together, SAGE and CPAS can enhance monitoring and reporting on the Six Grave Violations against children by giving peacekeepers and other stakeholders access to information that

23 United Nations Security Council, “Resolution 2436 S/Res/2436 (2018)”.

24 This definition draws on Duursma and Karlsrud (2019), but it has been expanded to include actors and decisions made beyond the field level. Allard Duursma and John Karlsrud, “Predictive Peacekeeping: Strengthening Predictive Analysis in Un Peace Operations,” *Stability: International Journal of Security and Development* 8, no. 1 (2019): 2.

25 *Ibid.*, 3.

26 United Nations, “Under-Secretary-General for Peacekeeping Operations at the Un Security Council Thematic Debate on Peacekeeping Reform and Performance, 8349th Meeting,” <https://peacekeeping.un.org/en/under-secretary-general-peacekeeping-operations-un-security-council-thematic-debate-peacekeeping>.

is more accurate, timely, and comprehensive. Much of this information can also be used to improve planning, early warning, prevention, training, and the development of best practices, all of which are listed as priorities by endorsers of the Vancouver Principles.²⁷

SAGE was first launched in 2014, but its rollout and training for field personnel are ongoing. Peacekeepers – including military, police, and civilian personnel – can use SAGE to record outbreaks of violence, but also events like troop movements, hijackings, abductions, and protests. Incidents can be categorized by type, geographical location, number and ethnicity of victims, affiliation of perpetrators, and so on.²⁸ Different parts of a mission (eg. human rights units or child protection sections) can also insert comments that are only visible to their section. While SAGE is primarily described as a tool to improve situational awareness for peacekeepers, it is also valuable from a monitoring and reporting point of view. It helps to overcome many of the data management problems that afflict UN peace operations by standardizing data collection procedures, providing a centralized tool for organizing information, and making it easier to identify trends across time and space.²⁹

Configuring SAGE so that more peacekeepers – including those responsible for daily patrols and other routine duties – can easily share data about child soldiers would be an important step toward implementation of Vancouver Principle 6. Peacekeepers are a mission’s “eyes and ears on the ground,” and they sometimes operate in areas that NGOs and other actors cannot access for security reasons.³⁰ This is significant given that the Secretary-General’s Annual Report on Children and Armed Conflict routinely warns that access restrictions prevent the verification of information, making it impossible to report on “the full scale of violations committed.”³¹ This means that blue helmets are often “best positioned to provide an early alert to trained MRM actors of suspected violations.”³² SAGE could assist them in this role by, for example, helping them systematically record the location of checkpoints staffed by children, along with any changes in their number, location, affiliation, or activities. Having this data in a centralized, easy-to-access database would be an important step forward. If SAGE helps

27 Government of Canada, “Vancouver Principles on Peacekeeping and the Prevention of the Recruitment and Use of Child Soldiers”.

28 See Duursma and Karlsrud (2018, 2019) for a more detailed description of SAGE. Duursma and Karlsrud, “Predictive Peacekeeping: Strengthening Predictive Analysis in Un Peace Operations,” 3-4; “Predictive Peacekeeping: Opportunities and Challenges,” (Oslo: Norwegian Institute of International Affairs, 2018).

29 “Predictive Peacekeeping: Strengthening Predictive Analysis in Un Peace Operations,” 4.

30 Government of Canada, “Vancouver Principles Implementation Guidance - Chapter 6 - Monitoring and Reporting”.

31 United Nations, “Children and Armed Conflict: Report of the Secretary-General a/73/907 - S/2019/509,” (New York: United Nations, 2019), 1.

32 Government of Canada, “Vancouver Principles Implementation Guidance - Chapter 6 - Monitoring and Reporting”.

peacekeepers gather better data and synthesize it in new ways, it will supplement existing information and make a significant contribution to monitoring and reporting. It could also make important contributions to early warning, protection, and prevention – goals outlined in Vancouver Principles 3, 7 and 8 – by helping peacekeepers predict where and when they are likely to encounter child soldiers, or allowing them to pinpoint times and locations where recruitment is taking place.

Attempts to monitor the effectiveness of peace operations – including their work on child protection – have long been constrained by the UN’s failure to systematically organize, analyze, and share information within the organization.³³ The current system involves several independent processes, which serve “different constituencies and a range of purposes.”³⁴ This fragmentation undermines the coherence of monitoring and reporting. It also inhibits evidence-based decision making because it prevents states, peacekeepers, and UN officials from systematically tracking a mission’s progress toward mandate implementation.³⁵ To address these problems, the UN Department of Peace Operations (DPO) has introduced CPAS. To date, it has been launched in eight missions and the goal is to have all missions using CPAS by July 2020.³⁶ The system is not designed for monitoring and reporting at the operational level, but it is intended to help DPO assess the overall effectiveness of peacekeeping.³⁷ Specifically, CPAS will use “robust monitoring and analysis” to support “strategic adjustments to planning and decision making.”³⁸ Implementation of CPAS will involve developing key performance indicators and means of verification, setting up a headquarters-level dashboard to compare substantive performance within and across missions, and creating a database that links to existing data sources and tools to fill information gaps.³⁹ Detailed public information about how CPAS will function remains scarce, so potential synergies with the Vancouver Principles remain more speculative than for SAGE. Nevertheless, it seems very likely that – as the rollout

33 Cedric de Coning, “Are Un Peace Operations Effective?,” *The Global Observatory, International Peace Institute*, <https://theglobalobservatory.org/2019/11/are-un-peace-operations-effective/>.

34 de Coning and Brusset, “Towards a Comprehensive Results-Based Reporting and Performance Assessment Framework for Un Peacekeeping Operations,” 6.

35 Aditi Gorur, “The Need for Monitoring and Evaluation in Advancing Protection of Civilians,” *The Global Observatory, International Peace Institute*, <https://theglobalobservatory.org/2019/10/the-need-for-monitoring-evaluation-in-advancing-protection-of-civilians/>.

36 United Nations, “Under-Secretary-General for Peacekeeping Operations at the Un Security Council Thematic Debate on Peacekeeping Reform and Performance, 8349th Meeting”; United Nations Evaluation Group, “Vacancy Announcement - Information Technology Consultant (Comprehensive Performance Assessment System - Department of Peace Operations),” <http://www.unevaluation.org/vacancies/detail/775>.

37 Gorur, “The Need for Monitoring and Evaluation in Advancing Protection of Civilians”.

38 United Nations Evaluation Group, “Vacancy Announcement - Information Technology Consultant (Comprehensive Performance Assessment System - Department of Peace Operations)”.

39 *Ibid.*

of CPAS continues – it will foster the growth of new, mission-level processes for collecting, analyzing, and sharing data. It should also improve states’ and DPO’s capacity to track long-term trends in UN peace operations.

CPAS has the potential to advance implementation of the Vancouver Principles – especially Principle 6 – by promoting better data collection practices and by integrating performance-related data. This would make it easier to track progress over time on issues like child protection.⁴⁰ For example, headquarters-level comparisons across missions could help identify patterns showing which types of child protection programming are most effective, or which approach to DDR is most likely to prevent the re-recruitment of child soldiers.⁴¹ CPAS data could also be leveraged to identify best practices and update training curricula, goals outlined in Vancouver Principles 5 and 16.⁴² It is important to note, however, that these contributions will depend on whether CPAS data includes information about child protection in general, and about the recruitment of use of child soldiers, specifically.

CHALLENGES AND LIMITATIONS

The UN’s move toward data-driven peacekeeping also comes with challenges that have a direct bearing on implementation of the Vancouver Principles. These include data literacy and ‘buy-in’ among personnel on the ground, concerns about privacy and confidentiality, and political sensitivities around monitoring and reporting. These obstacles can all be overcome. Still, doing so will require a concerted effort on the part of member states, UN officials, and other concerned stakeholders. Member states, in particular, will have to rise above self-interest and deficiencies of political will to realize synergies between data-driven peacekeeping and the Vancouver Principles.

In order to be useful for monitoring and reporting, data needs to be gathered according to procedures that are rigorous and consistently applied. It also needs to be stored in ways that are conducive to systematic analysis if it is going to help achieve related goals like early warning, prevention, and better planning at the strategic and operational levels (Vancouver Principles 3, 8, and 2).⁴³ To date, this has not always been the case for information about the recruitment and use of child soldiers, with some observers claiming that data is biased or inaccurate as a

40 Gorur, “The Need for Monitoring and Evaluation in Advancing Protection of Civilians”; Security Council Report, “May 2019 Monthly Forecast,” Security Council Report, <https://www.securitycouncilreport.org/monthly-forecast/2019-05/peacekeeping-2.php>.

41 United Nations Evaluation Group, “Vacancy Announcement - Information Technology Consultant (Comprehensive Performance Assessment System - Department of Peace Operations)”.

42 Government of Canada, “Vancouver Principles on Peacekeeping and the Prevention of the Recruitment and Use of Child Soldiers”.

43 Ibid.

result.⁴⁴ This may occur because of technological problems or access restrictions, but limited “data literacy” among field personnel also fuels concerns about “dirty” data.⁴⁵ Insufficient data literacy is widespread because the UN’s force generation and recruitment practices do not guarantee that peace operations are staffed by personnel with the necessary skills, nor does existing training provide sufficient guidance.⁴⁶ If blue helmets are going to collect reliable information about the recruitment and use of child soldiers, they need clear guidance telling them when and how to do so. This means helping them become proficient with databases like SAGE, but also helping them acquire the skills needed to identify key omissions or sources of data bias.⁴⁷ Providing this type of training – and working to streamline monitoring and reporting processes – could also increase ‘buy in’ among field personnel by alleviating concerns that data entry will become an additional burden on top of existing reporting requirements.⁴⁸

Gathering and storing sensitive information – like data about the activities of non-state armed groups – always comes with risks around privacy and confidentiality. Improvements in monitoring and reporting will come at considerable human cost if UN missions do not collect, store, and use that data responsibly. In the Democratic Republic of the Congo (DRC), for example, armed groups have launched retaliatory attacks on individuals and communities who are thought to be sharing information with peacekeepers.⁴⁹ These concerns are magnified when dealing with information about children, and they loom even larger for data about child soldiers, a population that is especially vulnerable to stigma, reprisals, and other types of physical, social, and psychological harm.⁵⁰ The existing MRM process takes these risks

44 Barnett and Jefferys, “Full of Promise: How the Un’s Monitoring and Reporting Mechanism Can Better Protect Children,” 14-16; Watchlist on Children and Armed Conflict, “Getting It Done and Doing It Right: Monitoring & Reporting Mechanism on Children and Armed Conflict,” 9, 23-24.

45 NYU Center on International Cooperation Netherlands Ministry of Foreign Affairs and UN Peacebuilding Support Office, “Data for Peace and Security: Report of the Practitioners Workshop on Harvesting Best Practices and Building a Community of Practice,” 8.

46 Spink, “Data-Driven Protection: Linking Threat Analysis to Planning in Un Peacekeeping Operations,” 24.

47 NYU Center on International Cooperation Netherlands Ministry of Foreign Affairs and UN Peacebuilding Support Office, “Data for Peace and Security: Report of the Practitioners Workshop on Harvesting Best Practices and Building a Community of Practice,” 13.

48 Spink, “Data-Driven Protection: Linking Threat Analysis to Planning in Un Peacekeeping Operations,” 31.

49 Charles T. Hunt, “All Necessary Means to What Ends? The Unintended Consequences of the ‘Robust Turn’ in Un Peace Operations,” *International Peacekeeping* 24, no. 1 (2017): 115-16; John Karlsrud, “Peacekeeping 4.0: Harnessing the Potential of Big Data, Social Media, and Cyber Technologies,” in *Cyberspace and International Relations: Theory, Prospects and Challenges*, ed. Jan-Frederik Kremer and Benedikt Müller (Berlin: Springer, 2014), 150.

50 Theresa S. Betancourt et al., “Past Horrors, Present Struggles: The Role of Stigma in the Association between War Experiences and Psychosocial Adjustments among Former Child Soldiers in Sierra Leone,” *Social Science & Medicine* 70, no. 1 (2010): 17; Human Rights Watch, “Coercion and Intimidations of Child Soldiers to Participate in Violence,” Human Rights Watch, <https://www.hrw.org>.

into account; all MRM activities are supposed to uphold the best interest of the child as articulated in the Convention on the Rights of the Child, with “due consideration” for the security and confidentiality of witnesses, children who have suffered grave violations, and other informants.⁵¹ Still, privacy dilemmas can take unexpected forms when dealing with new technology or changes in reporting requirements. For example, SAGE and CPAS data could significantly improve monitoring and reporting on grave violations against children, but the UN has already been the target of cyber-attacks. Strong rules are needed to determine who will have access to sensitive information about child soldiers, how it will be stored, and what security measures will be used to ensure the integrity of that data.⁵² Responsible planning and careful training are essential to ensure that peacekeepers’ monitoring and reporting – or the activities that follow from it – do not place local informants and other stakeholders at risk.

Finally, peacekeepers and UN officials must contend with political sensitivities around monitoring and reporting. Some proponents of statistical data analysis believe it can depoliticize contentious issues by supplying decision makers with objective evidence.⁵³ Still, monitoring grave violations is a normatively charged issue, and parties to a conflict may resist the UN’s attempts to gather reliable information about their treatment of children. Host states sometimes invoke concerns about state sovereignty and non-interference to prevent peacekeepers from using all the data gathering tools at their disposal. The government of South Sudan, for example, has resisted the deployment of Unmanned Aerial Vehicles (UAVs) for surveillance purposes, arguing that they could be used to ‘spy’ on local security forces.⁵⁴ This type of resistance creates significant obstacles from a monitoring and reporting point of view, especially given that Government Security Forces in South Sudan have a history of recruiting and using child soldiers.⁵⁵ At the same time, respecting the wishes of host states and focusing more on grave violations by non-state actors would undermine the MRM’s commitment to impartiality and objectivity. The MRM is committed to gathering, “without

org/news/2008/04/16/coercion-and-intimidation-child-soldiers-participate-violence; Office of the Special Representative of the Secretary-General for Children and Armed Conflict, “Reintegration of Former Child Soldiers,” United Nations, <https://childrenandarmedconflict.un.org/wp-content/uploads/2018/09/Reintegration-brochure-layout.pdf>.

51 *Monitoring and Reporting Mechanism on Grave Violations Against Children in Situations of Armed Conflict, “Mrm Basics”.*

52 *Duursma and Karlsrud, “Predictive Peacekeeping: Opportunities and Challenges,”* 3.

53 *NYU Center on International Cooperation Netherlands Ministry of Foreign Affairs and UN Peacebuilding Support Office, “Data for Peace and Security: Report of the Practitioners Workshop on Harvesting Best Practices and Building a Community of Practice,”* 8.

54 *Tito Justin, “South Sudan: Un Doesn’t Need Drones, Attack Helicopters,” VOA News <https://www.voanews.com/africa/south-sudan-un-doesnt-need-drones-attack-helicopters>.*

55 *United Nations, “Children and Armed Conflict: Report of the Secretary-General a/73/907 - S/2019/509,”* 23-24.

prejudice, information on violations committed by all parties to a conflict.”⁵⁶ These are not the only political sensitivities that need to be managed. Using systematic data analysis to monitor grave violations against children may also expose shortcomings on the part of UN peacekeepers themselves. Evidence of underperformance could become a source of friction with troop- and police-contributing countries (TCCs and PCCs), especially if it is used to assign blame for inaction or wrongdoing.⁵⁷ Again, this underlines the fact that peacekeepers have a dual role to play. They are charged with gathering information, but also with acting on it. These political challenges can all be addressed, but not without a concerted effort on the part of member states, UN officials, and peacekeepers themselves.

POLICY IMPLICATIONS

1. These findings illustrate the importance of appropriate training for blue helmets. Member states, the UN Secretariat, TCCs and PCCs, and other stakeholders will have to consider the role of data literacy within pre-deployment, induction, and in-mission training for all peacekeepers. This should likely include training in how use SAGE effectively and how to handle sensitive information responsibly.
2. Cooperation will be required between member states, the Secretariat, Heads-of-Mission, and other interested parties to ensure that tools for gathering and analyzing peacekeeping data are configured to support implementation of the Vancouver Principles, including the monitoring and reporting duties outlined in Principle 6. This will include attention to whether Mission Information Requirements (IRs), Mission Intelligence Acquisition Plans, and Commanders Critical Information Requirements (CCIRs) include information about the recruitment and use of child soldiers. It will also involve configuring SAGE to ensure that field personnel can record this information as a matter of course and access it in real-time to inform decision-making.
3. Cooperation will be required between member states, the Secretariat, and other key stakeholders to determine how the Comprehensive Performance Assessment System (CPAS) can best be leveraged to advance implementation of the Vancouver Principles.
4. Alleviating barriers to effective monitoring and reporting, including political concerns about systematic data analysis, will require a concerted effort on the part of member states and other interested parties. These efforts might include dialogue with concerned states and other stakeholders, advocating transparency in UN data collection practices,

56 *Monitoring and Reporting Mechanism on Grave Violations Against Children in Situations of Armed Conflict, “Mrm Basics”.*

57 Adam Day, “Can Data Save Un Peacekeeping?,” *World Politics Review*, <https://www.worldpolitics-review.com/articles/27479/can-data-save-u-n-peacekeeping>.

and promoting awareness of the risks associated with data breaches and violations of privacy, especially for children and other vulnerable populations.

CONCLUSION

Existing data about grave violations against children in conflict settings is often fragmented and incomplete.⁵⁸ The UN's efforts to make peacekeeping more 'data-driven' can advance implementation of the Vancouver Principles – especially the monitoring and reporting duties outlined in Principle 6 – by supplying more comprehensive information about the recruitment and use of child soldiers. Initiatives like SAGE and CPAS can help by standardizing data collection procedures, providing centralized tools for organizing information, and making it easier to identify trends across time and space.⁵⁹ Challenges remain, however. New data streams will only be reliable if peacekeepers possess the skills and capacity to collect reliable information. Clear rules and training are also needed to address concerns about privacy, confidentiality, and the integrity of data.⁶⁰ Finally, proponents of the Vancouver Principles and systematic data analysis will have to manage political sensitivities around monitoring and reporting, including resistance from host governments, non-state armed groups, and potentially from TCCs and PCCs. These findings highlight the fact that peacekeepers play a dual role as both gatherers and consumers of information. They can be instrumental in efforts to improve monitoring and reporting of grave violations against children, and they can then leverage that information to achieve related goals. This dynamic underlines the extent to which the Vancouver Principles – especially goals like early warning, protection, prevention, and training – are interconnected and mutually reinforcing.

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