small arms survey

Research Notes

ARMED VIOLENCE

Armed Violence Monitoring Systems

There is increasing global awareness that accurate and reliable data on the scope, scale, and causes of all forms of armed violence is vital for shaping policy, developing programmatic responses, and monitoring progress.

Armed violence is strongly associated with negative development outcomes and slow progress towards the achievement of the Millennium Development Goals (Geneva Declaration Secretariat, 2011, p. 145).[1] Over the past few years the realization that the development and security of a wide range of countries, cities, and citizens were threatened by armed violence led to a global agenda for the prevention and reduction of such violence (OECD, 2011, p. 11). This agenda identified a number of entry points and resulted in the engagement of an increasingly diverse spectrum of actors and players, including, for example, in the areas of conflict prevention, peacebuilding, crime prevention, and public health. In the context of their own agendas, various stakeholders acknowledge the importance of applying evidence-based policy-making through the improved measurement and monitoring of armed violence. Some have established mechanisms and tools for monitoring and research, such as observatories (on crime and violence) or armed violence monitoring systems (AVMSs) to better understand the extent and distribution of armed violence in a variety of geographic settings in low-, middle-, and high-income countries (Gilgen and Tracey, 2011).

Definition and types of AVMSs

An AVMS is an intersectoral system that entails the regular and systematic collection, analysis, and dissemination of data on armed violence in either conflict or non-conflict settings. This definition covers three main types of AVMSs:

- conflict early warning systems;
- crime or violence observatories; and
- public health injury surveillance systems.

All three types of AVMSs are generally established by or in close collaboration with local, regional, or national governments, often in private–public partnerships and/or with support from various donors and international organizations (Gilgen and Tracey, 2011). Crime and violence *observatories* dealing with crime-related armed violence are generally established to monitor trends and patterns based on either public health or law enforcement and criminal justice sources. In the field of public health, injury surveillance systems are set up to monitor the epidemiology of interpersonal injuries (lethal and non-lethal).

Each type of AVMS responds to a theoretical approach underpinning the system and the geographical setting. For example, in conflict settings experts rely on early warning systems (EWSs) or early warning alert and response networks (EWARNs) to detect the outbreak or escalation of armed conflict (see Box 1).

Activities and functions of AVMSs

In general, all types of AVMS entail three core activities/functions:

- data collection;
- data analysis; and
- the dissemination of the data and results of the analysis.

Box 1 **Conflict early warning systems**

The purpose of an EWS is to assist in preparing for danger of some kind and to provide insights on how to mitigate it. Conflict EWSs involve the systematic collection and analysis of information on conflict situations in order to 'alert decision makers to the potential outbreak, escalation and resurgence of violent conflict' (OECD, 2009a, p. 22). They are based on a system of near-real-time monitoring of selected indicators designed to estimate the scope and magnitude of emerging threats. The analysis aims at identifying the nature, trends, and patterns of such threats and describing potential scenarios in order to formulate recommendations on the prevention and/or mitigation of conflict to relevant actors. EWARNs are associated with initiatives that involve instruments and mechanisms for risk management and interventions such as early response systems. Early warning and early response systems may represent an important component of peacebuilding, especially if they are well connected to civil society and other sources of information (Ettang, 2011).

The *collection* from multiple sources of data on key indicators of armed violence—for example, the number of people killed and injured, the number of victims of violent assault, the context, and the instruments used—is at the core of AVMS work. Data is collected from official government sources—including criminal justice and vital registration statistics and information from hospitals and morgues—and from reports from research bodies, NGOs, international organizations, and media. Distinctions are made between active surveillance, which seeks out at regular intervals information about armed violence from data sources or the population of a given community, and passive data collection, in which the system of data collection is integrated into existing infrastructure and daily routine activities (Gilgen and Tracey, 2011, pp. 21–22).

The second activity of AVMSs involves the *systematic analysis of collected data* to help policy-makers and practitioners understand trends and patterns of armed violence. Analysis may focus on the people affected by armed violence, the perpetrators and their motivations, the availability of arms, and the broader institutional

and cultural setting that fosters and/or protects against armed violence (OECD, 2009b, p. 15). This analysis also focuses on factors such as context-specific geographic and demographic patterns, as well as risk and protective factors for armed violence (see Box 2).

The *dissemination* of the results of the analysis to all relevant stakeholders is directed towards ensuring that AVMS findings are used not only to inform the design of armed violence prevention or reduction strategies, but also to measure how these interventions impact on the levels of armed violence (Gilgen and Tracey, 2011, p. 25). Linking evidence to policy and programming is fundamental to the effectiveness of AVMSs and a critical part of reducing and preventing armed violence.

AVMSs represent an ideal setting for intersectoral collaboration in departments and levels of government, and among public, private, and non-profit sectors to support the coordinated collection, dissemination, and use of information on armed violence. This enables a comprehensive multi-disciplinary analysis of the scope and scale of such violence. As a result, the chances for coordinated action among policy-makers and programming stakeholders are likely to be strengthened (Gilgen and Tracey, 2011, p. 51). AVMSs are well placed to bring security and development actors together around a shared understanding of the context-specific dimensions of armed violence in order to develop an intersectoral agenda for action (Bayne and Gourlay, 2010).

Key and emerging issues affecting AVMSs

Role of government

Regardless of whether an AVMS is established by a public body, private institution, or UN agency, recognition by and collaboration with relevant governments are essential to its sustainability (Gilgen and Tracey, 2011, p. 50). The ability of an AVMS to provide accurate information is closely related to the willingness and capacity of government agencies to act on that

information and to the establishment of constructive cooperation (Gilgen and Tracey, 2011, p. 13). Effective coordination across institutions often requires high-level policy decisions to be made and translated into clear administrative tasks and responsibilities that can be implemented locally (Zavala and Hazen, 2009, p. 23). Political support for data collection and monitoring trends also depends on the extent to which the methods used are understood and evidence is accepted to inform policy. This is especially relevant in cases where data collection might be particularly difficult or expensive, or ranks as a low priority for the use of scarce time and resources (Zavala and Hazen, 2009, p. 27).

Quality of data collection and analysis mechanisms

The quality and coverage of data collection and analysis mechanisms are integral to the effectiveness of an AVMS. To overcome the limitations of any one data source and create a more complete picture of armed violence, many AVMSs make use of and integrate multiple data sources, including survey data and NGO reports (see Figure 1).

Official (government-based) reporting systems are a key component. In the long run the building of capacity for a reliable system of government-based data collection mechanisms should be part of an effective AVMS development strategy. While sophisticated systems exist in high-income countries and in several low- and middle-income countries particularly in Latin America and the Caribbean, they are still lacking in most of sub-Saharan Africa and parts of Asia (Parliamentary Forum, 2012). Some AVMSs are biased in favour of government reporting systems (Gilgen and Tracey, 2011, p. 62). The collection of data on the scope and scale of sexual and gender-based violence is a particular challenge for AVMSs reliant on official administrative data sources. The gender disaggregation of data is a pre-requirement that still seriously limits the availability of information about violence against women. In addition, not all monitoring

Figure 1 **Percentage of surveyed AVMSs by data source used (multiple responses)**

Percentage of AVMSs using the sources
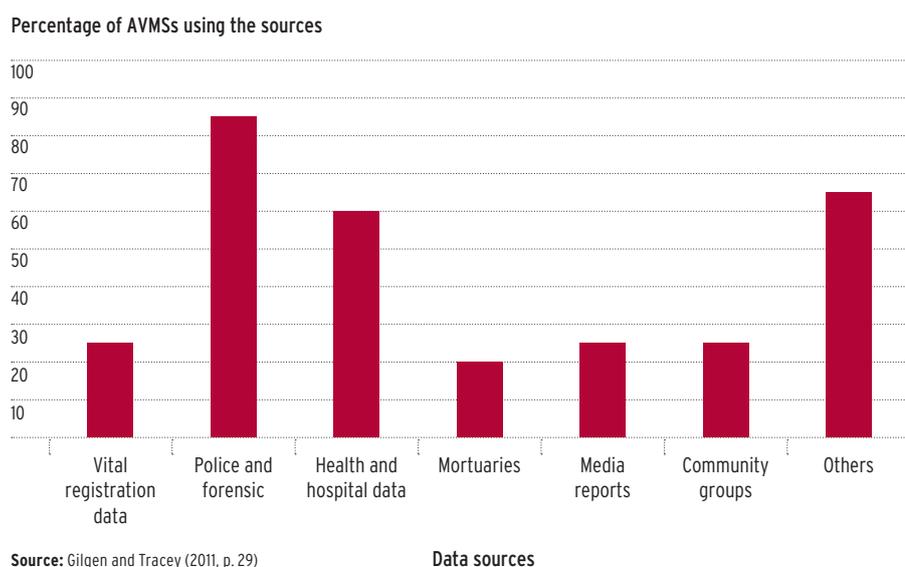
Source: Gilgen and Tracey (2011, p. 29)

Data sources

systems include an analysis of key armed violence indicators, such as the instruments (types of firearm) used in incidents. For these reasons, many AVMSs rely on ad hoc population-based surveys to collect the necessary information. While these surveys generally provide good-quality data, their cost may not be sustainable in the long run.

Training for key AVMS personnel is also crucial in an effort to strengthen the qualification, integration, and analysis of data collected from multiple sources.

Translating evidence into policy and programming

The comprehensive, reliable, and timely dissemination of information on armed violence is key to the effectiveness of AVMSs. However, the use of evidence for policy-making and programming is not yet systematically integrated into AVMS mechanisms (Gilgen and Tracey, 2011, p. 51). This prevents decision makers and practitioners from maximizing the impact of the use of AVMS data in policy and practice. To address this gap in implementation capacity, it is necessary to strengthen analytical capabilities and mechanisms not only to crunch numbers, but also to produce policy-relevant and actionable analysis and information that can be used by multiple stakeholders.

Policy-makers may lack familiarity with and confidence in the use of data to plan and apply appropriate and effective responses. There may also be a lack of political will to promote armed violence reduction across the government concerned and to drive through policies and reforms. AVMSs can use an intersectoral approach to help address these challenges. This approach enables multiple stakeholders to share findings and best practices and implement joint initiatives that bring together the multiple skills and inputs necessary to reduce armed violence (Gilgen and Tracey, 2011, p. 41).

AVMSs in weak institutional settings

AVMSs face inherent challenges when operating in settings affected by armed conflict or in situations where governmental institutions are fragile or non-existent. In such situations official data may not exist (or may be scarce and unreliable) and the state or local institutions that are generally in charge of collecting such data may not have the necessary resources, personnel, and infrastructure. AVMSs in low-income and institutionally weak settings have increasingly used alternative data sources, such as media, NGOs, and eyewitness reports of violence, to address a lack of official statistics. This is resulting in some innovative practices that demonstrate what can be achieved with limited resources.

Recent advances in geographic information systems, website development and information, and communication technologies could radically change the way in which armed violence is monitored in these settings. Crowdsourcing, for example, combines multiple eyewitness accounts of armed violence, sent via email or text message, to provide timely and relatively accurate reports of an event. Crowdsourcing was first used during the 2008 post-election violence in Kenya to make authorities aware of outbreaks of violence, and again in the 2010 Haiti earthquake to alert rescuers and relief workers to survivors and local needs (Kahl, McConnell, and Tsuma, 2012, p. 28). Despite criticism that such informal data sources are susceptible to bias and manipulation of reporting, these new forms of data collection are opening up important opportunities for citizens to participate actively in crisis-management, violence-monitoring, and conflict-prevention mechanisms (Eavis, 2011, p. 16).

Moving forward

Small, localized armed-violence-monitoring mechanisms have been shown to be responsive to local problems. The development of AVMSs in these situations, such as in Colombia with the establishment of more than 20 municipal violence observatories, has proved to be an efficient use of scarce resources, given that they have been linked to larger response programmes (Gilgen and Tracey, 2011, p. 53).

The development of a *toolkit* compiling best practices and training tools for AVMSs in weak institutional settings would assist national and international agencies to establish and implement appropriate data collection and analysis systems. This would provide hands-on support to nascent AVMSs, with a particular focus on:

- methods for data collection and analysis, including the role of innovative and emerging technology;
- indicators and training curricula; and
- mechanisms for communicating and disseminating results to feed into policy and programming.

Conclusion

AVMSs have relevance for many low- and middle-income countries that face major challenges to their attempts to scale up armed violence prevention and reduction activities. The development of national and sub-national capacities to monitor, measure, and analyse the scope, scale, and distribution of armed violence through AVMSs has demonstrated their ability to make important contributions to armed violence reduction and prevention efforts (Eavis, 2011, p. 57).

Support for an AVMS results in advancing an intersectoral approach that helps government agencies—such as departments of health, social services, the environment, security, and criminal justice—to move away from working in isolation (Gilgen and Tracey, 2011, p. 51). The adoption of an integrated approach to armed violence based on the data supplied by AVMSs is crucial to obtaining a comprehensive assessment of the scope, scale, and sources of violence and insecurity, which is a prerequisite for effective violence prevention and reduction programmes and policies. ■

Notes

1   Armed violence is defined as 'the intentional use of illegitimate force (actual or threatened) with arms or explosives, against a person, group, community, or state that undermines people-centred security and/or sustainable development' (Geneva Declaration Secretariat, 2011, p. 12). This definition covers armed violence perpetrated in both armed conflict and non-conflict settings.

References

Bayne, Sarah and Catriona Gourlay. 2010. *Preventing and Reducing Armed Violence: Development Plans and Assistance.* Background Paper prepared for the Oslo Conference on Armed Violence: Achieving the Millennium Development Goals. Oslo, 20–22 April. New York and Oslo: UNDP and Norwegian Ministry of Foreign Affairs. <http://www.preventviolence.info/showResourcespdf.aspx?id=e4e2103d-a287-434c-8a66-48080d922bed>

Eavis, Paul. 2011. *Working against Violence: Promising Practices in Armed Violence Reduction and Prevention.* Working Paper. Geneva: Geneva Declaration Secretariat. <http://www.genevadeclaration.org/fileadmin/docs/WP-AVRP/GDWP_Working-against-violence.pdf>

Ettang, Dorcas. 2011. 'Early Warning and Early Response Systems in Africa: Gaps and Prospects.' Discussion Paper. Pretoria: Consultancy Africa Intelligence. <http://www.consultancyafrica.com/index.php?option=com_content&view=article&id=679:early-warning-and-early-response-mechanisms-in-africa-gaps-and-prospects-&catid=60:conflict-terrorism-discussion-papers&Itemid=265>

Geneva Declaration Secretariat. 2011. *Global Burden of Armed Violence 2011: Lethal Encounters.* Cambridge: Cambridge University Press. <http://www.genevadeclaration.org/measurability/global-burden-of-armed-violence/global-burden-of-armed-violence-2011.html>

Gilgen, Elisabeth and Lauren Tracey. 2011. *Contributing Evidence to Programming: Armed Violence Monitoring Systems.* Working Paper. Geneva: Geneva Declaration Secretariat. <http://www.genevadeclaration.org/fileadmin/docs/general/GD-WP-2011-Contributing-Evidence-to-Programming.pdf>

Kahl, Anne, Christy McConnell, and William Tsuma. 2012. 'Crowdsourcing as a Tool in Conflict Prevention.' *Conflict Trends*, Vol. 1. <http://www.accord.org.za/publications/conflict-trends/downloads/968-conflict-trends-2012-1>

OCVP (Observatory of Conflict and Violence Prevention). 2013. *Annual Report 2013.* Hargeisa: OCVP.

OECD (Organisation for Economic Co-operation and Development). 2009a. *Preventing Violence, War and State Collapse: The Future of Conflict Early Warning and Response.* Conflict and Fragility. Paris: OECD Publishing. <http://reliefweb.int/sites/reliefweb.int/files/resources/318BF9C6C8868F4EC12576DF0048FE82-OECD-jun2009.pdf>

—. 2009b. *Armed Violence Reduction: Enabling Development.* Conflict and Fragility. Paris: OECD Publishing. <http://www.genevadeclaration.org/fileadmin/docs/OECD_Guidelines.pdf>

—. 2011. *Reducing the Involvement of Youth in Armed Violence: Programming Note.* Conflict and Fragility. Paris: OECD Publishing. <http://www.oecd.org/development/incaf/47942093.pdf>

Parliamentary Forum. 2012. *Policy Statement on Reliable Data on Armed Violence.* General Assembly of the Parliamentary Forum on Small Arms and Light Weapons, meeting in the Swedish Parliament. Stockholm, 15 December. <http://parliamentaryforum.org/sites/default/files/Parlforum%20Policy%20Statement%20on%20Reliable%20Data%20on%20Armed%20Violence_0.pdf>

Zavala, Diego and Jennifer Hazen. 2009. *Understanding Violence: The Role of Injury Surveillance Systems in Africa.* Working Paper. Geneva: Geneva Declaration Secretariat. <http://www.genevadeclaration.org/fileadmin/docs/Geneva-Declaration-Injury-Surveillance-Systems-in-Africa.pdf>