# small arms survey 2008

risk and resilience

THE GRADUATE INSTITUTE GENEVA INSTITUT DE HAUTES ÉTUDES INTERNATIONALES ET DU DÉVELOPPEMENT GRADUATE INSTITUTE OF INTERNATIONAL AND DEVELOPMENT STUDIES



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## FOREWORD

In many parts of the world, armed violence is a daily occurrence. Whether because of repressive regimes, civil war, or widespread criminality, the health and security needs of many people go tragically unmet in war-torn regions such as Sudan's Darfur—as well as in places at peace, such as Rio de Janeiro, Port-au-Prince, and Nairobi.

I have fought hard for the international community to recognize its collective obligation to assist populations in danger, and to intervene to alleviate acute suffering due to violence. Over the past 40 years, the principle of humanitarian intervention has helped motivate relief efforts in the Democratic Republic of the Congo, Chad, Cambodia, Somalia, Haiti, and elsewhere. But intervention is not always possible, and when it is, access to health care for violence-affected populations often disappears after aid workers depart.

It is therefore essential that we also focus on ways to improve the long-term health of communities at risk of armed violence. This is not only a matter of health promotion, but of security provision, good governance, and sustainable development. It is a complex, delicate project that requires the expertise of many disciplines and collaboration of many sectors. It means working at the macro-level, to understand the political, social, and other factors that give rise to violence, as well as at the micro-level, where specific local conditions may influence an individual's decision to use violence. When we look at violence in these ways, we readily recognize patterns that can be used to inform our responses.

The *Small Arms Survey 2008: Risk and Resilience* provides compelling evidence for expanding our approach to armed violence reduction from one focused on treating symptoms to one that also aims at prevention. This volume shines a light on public health-based efforts to identify risk and resilience factors of armed violence as well as a number of recent interventions. The 2008 *Survey* is a vital resource for policy-makers at all levels in our continuing collective work to protect populations at risk.

—Bernard Kouchner French Minister of Foreign and European Affairs

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## ABOUT THE SMALL ARMS SURVEY

The Small Arms Survey is an independent research project located at the Graduate Institute of International and Development Studies in Geneva, Switzerland. Established in 1999, the project is supported by the Swiss Federal Department of Foreign Affairs and by sustained contributions from the Governments of Belgium, Canada, Finland, the Netherlands, Norway, Sweden, and the United Kingdom. The Survey is also grateful for past and current project support received from the Governments of Australia, Denmark, France, Germany, New Zealand, and the United States, as well as from different United Nations agencies, programmes, and institutes.

The objectives of the Small Arms Survey are: to be the principal source of public information on all aspects of small arms and armed violence; to serve as a resource centre for governments, policy-makers, researchers, and activists; to monitor national and international initiatives (governmental and non-governmental) on small arms; to support efforts to address the effects of small arms proliferation and misuse; and to act as a clearinghouse for the sharing of information and the dissemination of best practices. The Survey also sponsors field research and information-gathering efforts, especially in affected states and regions. The project has an international staff with expertise in security studies, political science, law, economics, development studies, and sociology, and collaborates with a network of researchers, partner institutions, non-governmental organizations, and governments in more than 50 countries.

## **NOTES TO READERS**

Abbreviations: Lists of abbreviations can be found at the end of each chapter.

**Chapter cross-referencing:** Chapter cross-references appear capitalized in brackets throughout the text. For example, in Chapter 8 on Risk and Resilience: 'This instrument can be a knife, a stick, a broken bottle, a firearm, or any item used to intentionally inflict harm on another individual or oneself (PUBLIC HEALTH APPROACH).'

**Exchange rates:** All monetary values are expressed in current US dollars (USD). When other currencies are also cited, unless otherwise indicated, they are converted to USD using the 365-day average exchange rate for the period 1 September 2006 to 31 August 2007.

**Small Arms Survey:** The plain text—Small Arms Survey—is used to indicate the overall project and its activities, while the italicized version—*Small Arms Survey*—refers to the publication. The *Survey*, appearing italicized, refers generally to past and future editions.

**Web site:** For more detailed information and current developments on small arms issues, readers are invited to visit the Small Arms Survey Web site at www.smallarmssurvey.org.

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> -Keith Krause, Programme Director Eric G. Berman, Managing Director

On a rooftop in Medellín, Colombia, teenage members of the '29' gang show off their arsenal. © Sam Faulkner/NB Pictures

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## Introduction

Armed violence is a complex phenomenon that is usefully viewed from a number of different perspectives. When examining large-scale armed conflict or criminality, it is common to take political, social, and economic approaches. These perspectives often lead us to identify systemic problems at the root of violence, such as drastic income disparity, long-term marginalization of minorities, or the lack of sustainable livelihoods. These factors, in turn, may suggest the need for profound changes, including institutional reforms, ethnic reconciliation, and increased development assistance.

The public health model represents a complement to these broad social science perspectives. Steeped in analytic methods that have helped reduce and sometimes eliminate the incidence of disease, the public health approach views armed violence as a phenomenon with identifiable patterns within particular populations. It is thus able to focus on small groups and to design targeted interventions at the local level. Another advantage is its use of health data, which—while sometimes difficult to collect—is less subject to changeability than social or political identifiers, such as group affiliation and political goals.

In previous editions of the *Small Arms Survey*, we have highlighted topics that bear on the theme of public health, including direct and indirect mortality arising from small arms and light weapons in armed conflict (2005), and the medical, economic, and social costs of violent acts perpetrated with firearms (2006). In addition, our country case studies invariably review the health effects of armed violence.

In the *Small Arms Survey 2008: Risk and Resilience* we take both a broader and more detailed look at the public health approach to armed violence. This approach involves far more than measuring health impacts. At its core is a set of conceptual tools and methods to identify risk and protective factors among victims and perpetrators of armed violence. Its aim is to generate evidence-based programming by unpacking those factors in order to design preventive interventions for target groups.

While public health research and related advocacy on armed violence prevention has been under way in a small number of countries—most notably the United States—for more than 25 years, the public health approach has been slow to penetrate international policy-making. That is now changing. The last five years have witnessed the emergence of a number of global initiatives that incorporate public health perspectives to address armed violence.

In 2002, the World Health Organization (WHO) launched its *World Report on Violence and Health*, which, while not exclusively focused on armed violence, laid the groundwork by presenting the first comprehensive health-based review of the problem of violence around the world. The following year, UN Member States adopted a World Health Assembly resolution calling for the support of evidence-based approaches for the prevention of violence and the evaluation of model violence prevention programmes. In 2005, WHO and the UN Development Programme (UNDP) established the Armed Violence Prevention Programme (AVPP). Now in its second phase, the AVPP is developing an armed violence prevention policy framework for applying public health tools to identify the causes, nature, and impact of armed violence.

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More recently, public health concepts are at the core of the increasing convergence of armed violence prevention and human development assistance and planning. The signatories of the Geneva Declaration on Armed Violence and Development (2006), which seeks to integrate armed violence programming into sustainable development frameworks, have agreed to focus prevention efforts on specific risk factors and groups. These initiatives suggest that the international community is increasingly absorbing the public health model into its approach to armed violence.

#### **Chapter highlights**

In keeping with previous editions, the *Small Arms Survey 2008* is divided into two sections. The first comprises chapters that update or extend our knowledge on the production, transfer, stockpiles, and holdings of weapons, and measures to regulate them. The conceptual link tying this section together is the problem of diversion from legal to illicit users. The stockpiles and transfers chapters provide frameworks for understanding diversion in either context, while underscoring steps to prevent it from occurring. Similarly, the measures chapter examines the extent to which states are complying with their commitments regarding end-user certification—an important tool for preventing transfer diversions—while the South Africa chapter focuses on the diversion of firearms from civilians, private security firms, and public institutions. This section also includes a comic strip illustrating the potential ease by which someone with access to forged documentation can make arrangements to ship munitions virtually anywhere in the world.

The thematic section this year consists of three chapters that collectively introduce and explore the public health approach to armed violence. We examine the historical roots of the approach and the concepts that have been valuable in addressing disease and injuries in other contexts; the methods for identifying the multi-dimensional risk and resilience factors that affect the likelihood of violence; and the many challenges of addressing these factors through preventive programming. This section includes an overview of the global and regional burden of armed violence, and two detailed case studies of armed violence in El Salvador and the United States—focusing on specific initiatives to control violence in both countries. The thematic section concludes with a discussion of public health-oriented interventions, a review of lessons learnt from this approach over the last 20 years, and considerations for future work in this area.

#### Update and diversion chapters

**Chapter 1 (Light weapons):** This year's production chapter focuses on light weapons, highlighting their portability, lethality, availability, and potential for proliferation and technology transfer to non-state armed groups. At least 51 countries currently produce light weapons and a number of non-state armed groups manufacture and possess these weapons illegally.

This chapter generally follows the 1997 UN Panel of Governmental Experts categorization of light weapons to include: man-portable air defence systems (MANPADS), anti-tank guided weapons (ATGWs), heavy machine guns (including anti-aircraft guns), anti-materiel rifles, recoilless rifles and guns, hand-held, under-barrel, and automatic grenade launchers, unguided 'anti-tank' rocket launchers, and mortars.

**Chapter 2 (Stockpile diversion):** Diversion from the stocks of civilian users and state security forces lies at the heart of illicit arms proliferation. In some regions, this unauthorized transfer of arms and ammunition comprises 40 per cent of the illicit market. Across the world, diversion of arms and ammunition sustains the activities of non-state armed groups, terrorist organizations, and armed criminals. This chapter provides a timely and focused review of trends in diversion, encompassing both civilian-owned weapons and ammunition and military stockpiles.

The chapter observes that diversion stems from negligence on the part of states, militaries, and civilians. In most instances, states can address the problem through relatively low-cost improvements to accounting, monitoring, and the physical security of arms and ammunition. Many states fail to implement these measures, however. Weak regulatory frameworks governing the storage of civilian weapons, combined with inadequate management of security force stockpiles, leave states and societies prone to armed violence fuelled by diversion.

**Chapter 3 (Surplus destruction):** Dozens of small arms, light weapons, and ammunition destruction projects are currently under way, the largest systematic destruction of excess small arms and light weapons since the end of the Second World War. On average, about 430,000 surplus military small arms have been destroyed each year since 1991.

This chapter reviews the challenges of small arms and ammunition destruction projects. It finds that of some 200 million military firearms worldwide, at least 76 million can be considered surplus. The world also harbours 100–140 million tons of military ammunition, of which 20–30 million tons are for military small arms, much of it surplus. The most systematic progress in surplus destruction involves MANPADS.

The UN *Programme of Action* and other international instruments create a predisposition to eliminate surpluses through destruction, but in practice exports often are preferred. Two mechanisms that greatly increase short-term willingness to destroy surpluses are the promise of membership in regional organizations and security sector reform.

**Chapter 4 (Transfer diversion):** Arms transfer diversion takes many forms—from the illicit online sale of individual AR-15 rifles to massive, multi-ton shipments of machine guns, rocket launchers, and shoulder-fired missiles arranged by major international arms brokers and their associates. Diversion schemes are responsible for some of the largest documented illicit transfers of small arms and light weapons, sometimes rivalling—in quantity and quality—the national inventories of legitimate governments.

This chapter assesses the strategies employed by traffickers in several actual cases of diversion, and the various transfer controls adopted by governments to detect and prevent these schemes. This assessment reveals that diver-

## Definition of small arms and light weapons

The Small Arms Survey uses the term 'small arms and light weapons' broadly to cover both military-style small arms and light weapons as well as commercial firearms (handguns and long guns). It largely follows the definition used in the United Nations' Report of the Panel of Governmental Experts on Small Arms (United Nations, 1997):

Small arms: revolvers and self-loading pistols, rifles and carbines, assault rifles, sub-machine guns, and light machine guns.

Light weapons: heavy machine guns, hand-held under-barrel and mounted grenade launchers, portable anti-tank and antiaircraft guns, recoilless rifles, portable launchers of anti-tank and anti-aircraft missile systems, and mortars of less than 100 mm calibre.

The Survey uses the terms 'firearm' and 'gun' to mean hand-held weapons that fire a projectile through a tube by explosive charge. The terms 'small arms' and 'light weapons' are used more comprehensively to refer to all hand-held, man-portable, explosively or chemically propelled or detonated devices. Unless the context dictates otherwise, no distinction is intended between commercial firearms (such as hunting rifles) and small arms and light weapons designed for military use (such as assault rifles).

The UN definition was agreed through consensus by government officials. It was negotiated, in other words, to serve practical political goals that differ from the needs of research and analysis. While the UN definition is used in the *Survey* as a baseline, the analysis in this and subsequent chapters is broader, allowing consideration of weapons such as home-made (craft) firearms that might be overlooked using the UN definition. The term small arm is used in this chapter to refer to both small arms and light weapons (i.e. the small arms industry) unless otherwise stated, whereas light weapon refers specifically to light weapons.

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sion occurs throughout the transfer chain and that all states—even if they do not produce or export small arms—are vulnerable to diversion. Yet the cases profiled in this chapter also show that, in many instances, the governments involved in the diverted transfer could have detected and prevented the diversion had they implemented the right combination of transfer controls.

The chapter also lists the top importers and exporters of small arms and light weapons, and includes the annual update of the Small Arms Transparency Barometer.

**Chapter 5 (End-user certification):** This year's measures chapter considers whether and how states are fulfilling their commitments to ensure 'effective control' over small arms transfers, by focusing on end-user documentation and systems. End-user certificates and other kinds of end-user documentation constitute a key line of defence against the diversion of authorized small arms transfers to unauthorized—often illicit—end users and end uses. Yet these documents are effective only in the context of a broader system that includes a thorough consideration of diversion risks at the licensing stage, the verification of end-user documentation, and complementary post-shipment controls.

Research conducted for the chapter indicates that, while the basic components of effective transfer control (diversion prevention) systems appear to be in place in leading exporting states, they leave much to the discretion of individual licensing officials, allowing them to decide when to increase or decrease the level of scrutiny in specific cases. It is unclear, in particular, how thoroughly diversion risks are being assessed at the licensing stage and how systematically end-user documentation is being verified. It is quite clear, however, that post-shipment controls are neglected. Many governments require that the delivery of weapons at destination be verified, but this is not uniform practice. With rare exceptions, verification stops at the time of delivery. As a rule, governments do not monitor the end-use of exported weapons, not even selectively. They do not know, in other words, whether their decision to export weapons to a specific end-user was wise.

**Chapter 6 (South Africa):** This chapter reviews what is known about the diversion of firearms in South Africa in the wake of recent sweeping domestic firearm legislation. It describes the provisions of the Firearm Control Act of 2000 (which came into effect in late 2004) that aimed to prevent diversion from civilians, private security firms, the South African Police Service, the South African National Defence Force, and other government agencies.

By reviewing available data on the number of firearms lost, stolen, and recovered from crimes, it maps out the sources of diverted firearms. The chapter finds that civilian-sourced firearms account for the significant majority of diverted firearms in South Africa. It also finds that diversion continues to occur from official institutions despite improvements in administrative controls.

**Adventures of a Would-be Arms Dealer (Comic strip):** This year's foray into the graphic arts illustrates the making of an illicit arms deal in comic strip form. What does diversion involve? A Survey researcher, employing well-established operating techniques, shows that with the right connections and modest 'start-up funds', one can buy a blank end-user certificate and use it to arrange the supply and transport of munitions to the destination of one's choice (e.g. Somalia). Although, in this case, no ammunition or weapons were purchased or transported, the real-world implications are clear. The risks remain manageable, the profits handsome.

#### **Public health section**

**Chapter 7 (Public health approach):** The public health approach to understanding and reducing armed violence emphasizes the preventable nature of violence. It also acknowledges the complexity of violence, the multi-dimensional

factors that contribute to it, and the need to design collaborative and multi-faceted interventions. The basis of the public health approach is a scientific model for research, evaluation, and the design of targeted interventions through the systematic collection of data.

This chapter provides an overview of the global and regional burden of armed violence. It then describes the public health approach and how it works in practice. A special focus on the community level reveals how community factors influence the risk as well as the impact of violence and the likelihood of future violence.

**Chapter 8 (Risk and resilience):** Preventing violence requires an understanding of why it occurs, who commits violent acts, and who is at risk of victimization. At the centre of this approach is the identification of risk and resilience factors—those factors that contribute to individuals engaging in violent acts and those that aid individuals in risky circumstances to overcome adversity and avoid violence. These factors paint a picture of perpetrators, victims, means, and types of violence in a community, which in turn enables communities to design interventions to target those committing violence and to protect those who are most vulnerable.

The chapter discusses how risk and resilience factors can be identified in practice, and provides an overview of key findings about risk and resilience. It also explains how risk and resilience factors can be used to develop violence reduction programmes, various possible types of interventions, and means to design more effective interventions in the future.

**Chapter 9 (Interventions):** Public health interventions include any programme, strategy, or policy designed to prevent violence, reduce the harmful effects of violence, or improve community perceptions about violence.

The chapter provides an overview of the range of available interventions developed to counter armed violence. It then offers detailed studies of such interventions undertaken in the United States and El Salvador. These case studies provide an overview of armed violence in each country, the countries' responses to the problems, and the programming put in place to reduce armed violence. The chapter concludes by highlighting a number of lessons learnt from various studies of violence reduction initiatives over the past two decades.

## Conclusion

The core mission of the *Small Arms Survey*—to make reliable data and analysis of small arms and armed violence widely available—is wedded to the expectation that such work can help prevent human suffering. In this spirit, the 2008 edition of the *Survey* reviews a set of tools and concepts built on the understanding that interpersonal armed violence is in many contexts a preventable phenomenon.

While policy-makers at the international level have yet to fully embrace the public health approach, its appearance is already evident in a number of multilateral and national initiatives. This approach does face major challenges, which we explore in this volume, but it will continue to make valuable contributions to our collective work in the years ahead.

Future editions of the *Survey* will focus on post-conflict disarmament, demobilization, and reintegration (DDR); the intersection of gangs, armed groups, and guns; and our emerging understanding of the significance of security sector reform (SSR) for armed violence reduction. As in previous years, future editions will build on collaborative relationships with our many institutional partners around the world, and will seek to expand the knowledge base to support efforts to reduce and prevent armed violence.

—Emile LeBrun Co-editor