A necklace of bullets adorns a Rwandan rebel fighter (© Panos Pictures/Crispin Hughes).

Obstructing Development:
THE EFFECTS OF SMALL ARMS ON HUMAN DEVELOPMENT

4

INTRODUCTION

People are vulnerable to small arms-related violence in many contexts. This chapter examines how small arms availability and misuse can affect human potential and well-being directly and indirectly. Though limited research has been carried out on the effects of small arms in developing countries, small arms availability and misuse can be harmful to human development. Most starkly affected are those developing countries in which public institutions, such as police and health services, are predatory or failing. Large numbers of civilians resort to alternative methods of protecting themselves, including private and informal security services.

The first section of this chapter focuses on the effects of small arms availability and misuse on human development, as distinct from the effects of conflict and social violence. It finds that in many parts of the world, firearms availability and misuse are among the leading causes of fatal and non-fatal injury. The chapter also appraises the social and economic implications of lost earning power, psychological trauma, and the costs of caring for and rehabilitating people. The perceived and actual use of weapons contributes to diverse indirect effects, not all of which have been articulated by researchers. Indirect effects relate to:

Though a gap persists between talk and action, developmental responses to small arms availability and misuse are emerging.

- the scale and intensity of criminality;
- the quality and availability of social services;
- the productivity of economic activities;
- the dynamics of (foreign and local) investment, savings, and revenue collection; and
- the robustness of 'positive' social capital.

The chapter also argues that small arms control should not be viewed only as a disarmament issue, but also as a challenge facing security and development. Although outcomes often fall short of intentions, developmental responses to small arms availability and misuse are emerging. This chapter reviews how governments, multilateral organizations, and non-governmental organizations (NGOs) are responding to the issue of small arms and human development.

This chapter considers the following questions:

- **What is the relationship between small arms availability and misuse and human development?**
- **What are the effects of small arms availability and misuse on human development?**
- **How has the development community responded to the effects of small arms on human development?**

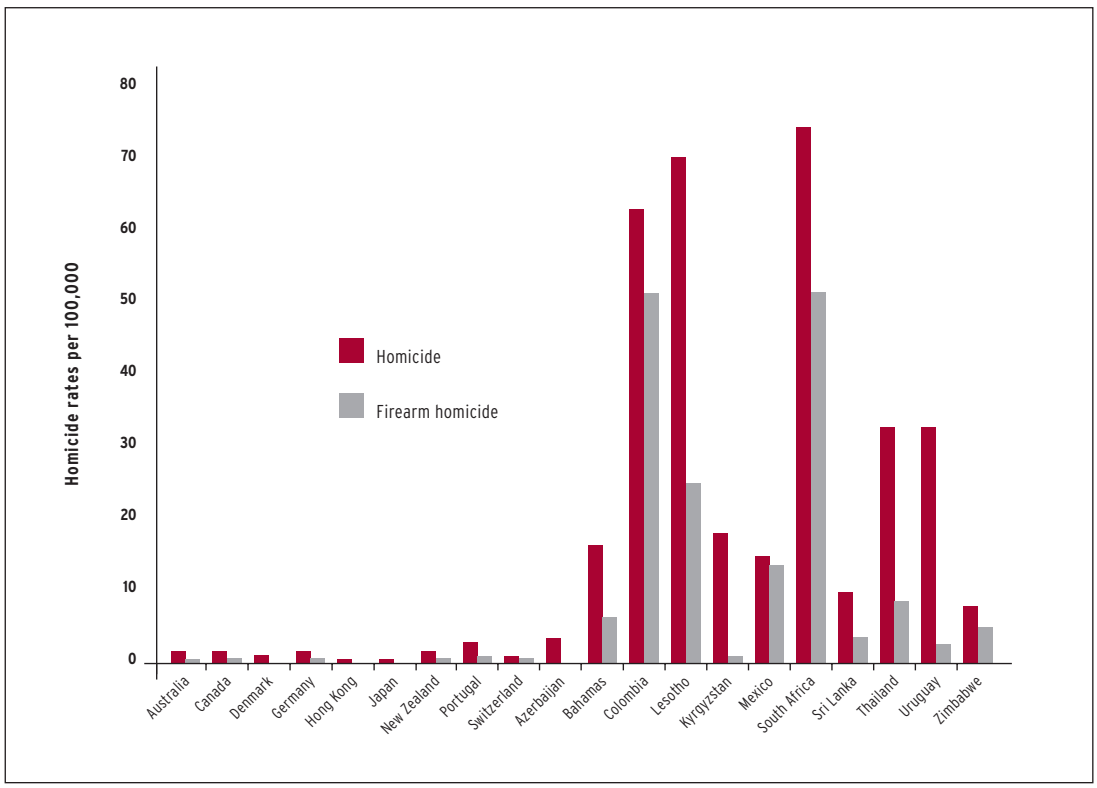
The chapter concludes by reviewing current multilateral, governmental, and non-governmental approaches to small arms issues that incorporate a developmental perspective. Three broad overlapping approaches can be identified. The first approach aims to address the demand for small arms and the root causes of armed conflict and social violence. The second approach focuses on the reform or strengthening of institutions, laws, and

regulations associated with small arms transfers (exports and imports) and possession. The final approach aims to introduce developmental considerations into the design and implementation of weapons collection and destruction programmes.

ARMED CONFLICT AND SOCIAL VIOLENCE IN DEVELOPING COUNTRIES

At the Millennium Summit in 2000, UN Member States identified the poor as especially threatened by small arms. In their view, poverty alleviation and economic growth are undermined by the availability and misuse of illegal small arms and light weapons. The Small Arms Survey (2002, pp. 155–202) has also found that the misuse of small arms is a growing problem among developing countries. Massacres in schools and high suicide rates in developed countries draw media attention to the problem of gun violence,[1] but the long-term consequences of small arms in developing countries must be seen in a broader context.

Figure 4.1 Homicide and firearm homicide rates per 100,000 in selected countries, 2000



Source: UNODC (1986–2002)

The incidence of internal *armed conflict*[2] and widespread social *violence*[3] in developing countries intensifies the risk to civilians. In many developing countries, political armed violence is not clearly distinguished from the criminal variety, particularly after war. Small arms-related violence can be so prevalent that otherwise 'peaceful' states such as Brazil, Jamaica, and South Africa often exhibit warlike symptoms.[4]

Since the 1950s, less developed societies have suffered more from warfare and violence than more developed ones.

Evidence shows that armed conflicts and social violence are concentrated in developing countries. Trends over the past decade are alarming.[5] Of the two to three dozen violent conflicts that were ongoing each year between 1992 and 2002, more than 90 per cent were in the developing world.[6] Two-thirds of the 15 ongoing internal conflicts of 2002 had already lasted eight or more years. This confirms World Bank findings that there is a great likelihood of conflict returning to areas that have recently suffered conflict (Collier, 2000). Almost 50 per cent of the lowest-ranking countries listed on the United Nations' 2002 Human Development Index (HDI)[7] were severely affected by armed conflict. Several medium-developed countries were affected by severe social violence involving firearms over the same period. The historical record supports the argument that, since the 1950s, less developed societies have suffered more from warfare and violence than more developed ones.[8]

Box 4.1 The history of development: The last 50 years

Development has undergone considerable change, in theory and practice, over the past five decades. As tension between the Bretton Woods institutions, the G-8, and anti-globalization protesters in 2003 demonstrates, what constitutes 'appropriate development' is bitterly contested. To contextualize this chapter, it is useful to revisit some contemporary interpretations.

In the 1950s, development was almost synonymous with economic growth. Development was pursued through state-led industrialization to increase factors of production and consumption, a strategy encouraged by the newly-founded Bretton Woods institutions (the World Bank and the International Monetary Fund). After the decline of the fixed exchange rate system and the two oil shocks of the mid-1970s, a radically different development paradigm emerged. Popularly known as the Washington Consensus, it represented a reversal of earlier development orthodoxy. It declared deregulation, liberalization, and privatization to be the essential ingredients of sustained *economic growth* and development.

During the 1960s and 1970s, integrated rural development and the importance of meeting people's basic needs were widely discussed. While neoliberal approaches had dominated macroeconomic policies from above, participatory approaches, feminism, the environmental movement, and non-governmental actors in development exerted influence from below. This period heralded the concept of *sustainable development,* which contained two core principles: the conservation of irreplaceable resources and the sustainable stewardship of the environment. Sustainable development was defined by the Bruntland Commission in 1987 as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987, p. 43).

The concept of development was expanded in the 1980s and early 1990s when the UNDP's *Human Development Report* was published. The report defined human development as relating to the quality of people's lives rather than their earnings. The UNDP maintained that development included the formation (and use) of human capabilities, such as improved health and knowledge. Human development as a measurement of well-being moved beyond economic indicators of development, such as income poverty (USD 1–2 a day).

Throughout the 1990s, development was discussed more often in relation to national and human security. The United Nations introduced human-centred conceptions of security and development in the early 1990s. Both interpretations privileged the rights of people over those of states. In their broadest form, they prioritized *developmental concerns:* economic and financial, food and health-related, physical and cultural, environmental and political. Coalitions of states and non-governmental actors, such as the Human Security Network and the Commission on Human Security, recognize that the main threats since the end of the Cold War are no longer cross-border military in nature, but are much broader and diverse and affect ordinary people in their everyday lives.

Source: Jolly (2002); Mehrotra and Jolly (1997)

Small arms availability is a predisposing rather than a fundamental cause of underdevelopment. The misuse of small arms affects human capacities, such as health or education, and people's ability to use their capacities in conditions of safety and security. More difficult to record is the precise relationship between small arms misuse and traditional indices of economic development, such as per capita income, foreign direct investment, government spending, and domestic savings.

The present focus on small arms and human development (as opposed to economic or sustainable development) marks a departure from conventional analysis of disarmament and development. Since the 1950s, policy-makers, defence economists, and disarmament experts have focused on the conversion of defence-related facilities—particularly those concerning nuclear and conventional weapons—to more productive (civilian) purposes, aiming to promote economic development. Redirecting spending from defence to social welfare, it was believed, would create a peace dividend, reduce strain on the environment, and ensure a more sustainable development trajectory.

Poverty encompasses current and future material deprivation and exposes people to increased insecurity and armed conflict.

It is unclear to what extent conversion is economically feasible (see Box 4.2), particularly as it pertains to small arms. The extent to which disarmament generates redistribution or development (and vice versa) is also uncertain. Very little research exists on the relationships between human development and practical or micro-disarmament. This lack of research is not surprising, given the small scale and value of small arms production and trade relative to conventional weapons (PRODUCERS, TRANSFERS).

Box 4.2 Disarmament for development: Can it work?

The present discussion of small arms and development is very different from earlier attempts to uncover the relationships between disarmament and development. In the 1970s and 1980s, the rationale for pursuing disarmament for development consisted of three basic propositions. The first highlighted the expense of arms production, acquisition, and management and their negative effect on the environment. The second was that military spending crowded out other asset-building investments, and that the capital released from unproductive expenditures (on arms) could be reinvested in other social goods such as health and education. The third anticipated that a peace dividend could be harvested from savings associated with reduced arms-related expenditures and through the conversion of armaments facilities—particularly nuclear, biological, chemical, and conventional production and storage facilities—to civilian purposes (Wulf, 1991).

Interest was such that, by 1987, the UN General Assembly had highlighted the links between disarmament and sustainable development in a series of high-profile conferences, reports, and resolutions (see, for example, UNGA, 1987; 1989; 1990; 1991; 1992; 1993). Over the following decade, the idea of a peace dividend was discredited, largely because a peace dividend did not emerge from those countries that had attempted conversion.[9] According to BICC (1998, p. 2), 'instead of producing early economic gains, disarmament appeared to devalue companies, jobs and know-how. Governments and managers hoping to re-use resources of the military sector for civilian purposes realized that a current investment was required to reap a future return'.

The experiences of the 1990s highlighted the complexity of conversion, and demonstrated that success or failure is highly correlated with autonomous factors, particularly the general macroeconomic situation of a given country. While any positive effects of reduced military spending should be assessed on a long-term basis, disarmament does not automatically lead to development, nor development to disarmament (Brauer, 1990; Intriligator, 1992). The assumption that diverted expenditures will be devoted to social goods rests on the notion that governments are committed to redirect expenditure from defence to public welfare.[10] Nevertheless, certain defence economists still research the alleged economic benefits of defence spending in developing countries, including the idea of conversion as an investment process.[11]

A child soldier in Sierra Leone.

MEASURING THE EFFECTS OF SMALL ARMS: A CONCEPTUAL FRAMEWORK

Small arms can damage human development. In many cases the effects, both direct and indirect, can be empirically recorded and analysed (Small Arms Survey, 2001, p. 198; Muggah and Batchelor, 2002, p. 16).

The *direct effects* of small arms availability and misuse on human development include fatal and non-fatal injuries, the cost of treating and rehabilitating firearms casualties, and the opportunity costs of long-term disability and lost productivity. But while the direct effects of firearms-related violence have short- and long-term consequences on human potential, they do not capture the overall societal burden of gun violence. According to Cook and Ludwig (2002b), the costs of gun violence are far greater than the public health community's traditional approach suggest. In responding to the threat of firearms, individuals and households may adapt their lifestyles and spend money on protecting themselves instead of investing it productively. The direct burden resulting from the threat to life, combined with the indirect burden of protection and avoidance, constitute a tax on the standard of living of a community. A sustained level of firearms violence may discourage private investment and domestic savings and redirect government spending into other channels, all of which retard economic growth.

Box 4.3 Why separate gun violence from armed conflict and social violence?

Many researchers have attempted to measure the socio-economic effects of armed conflict on development since the early 1990s (Azam, 2001; Auvinen 1997; Brauer and Gissy, 1997; Collier and Hoeffler 1998; Kumaranayake, Zwi, and Ugalde, 1997; Luckham *et al.*, 2001; Stewart and Fitzgerald, 2001).[12] Far fewer efforts have been made to measure the particular effects of small arms on development. Reports have tended to exaggerate the effects of small arms misuse, or to subsume the specific impacts of small arms into the general consequences of armed conflict or social violence.

A first attempt to include social and economic costs in a general analysis of weapons proliferation was developed by Christopher Louise (1995). Citing a number of cases in Africa and South Asia, Louise's study highlighted the role of small arms and light weapons availability in the breakdown of law and order, the militarization of daily life, and a range of psychosocial effects.

Treating firearms-related violence as a distinct problem from social violence is important for at least two reasons. First, as Cook and Ludwig (2002b, p. 2) note, 'guns are more deadly than other readily available weapons such as knives, clubs or fists. They provide the assailant with the power to kill quickly, at a distance, with little strength or effort or determination'. The case fatality rate for gun violence is thus disproportionately high and firearms are much more heavily represented in homicides than in non-fatal injuries. From Myanmar to Colombia, firearms are typically the preferred weapon in assassinations and armed conflicts. For the same reasons that guns are deadly, they are powerful tools for coercing people and ensuring their compliance. Guns therefore facilitate illicit appropriation, whether by corrupt police officers or in car-jackings and robbery.

Second, it is important to understand the specific effects of firearms misuse. Some approaches to reducing firearms violence are not intended to reduce overall violence but only gun misuse. Methods include increasing the price or reducing the availability of guns to youths and criminals, and deterring gun carrying and use through the threat of arrest and increased penalties. Evaluating such gun-specific policies requires a focus on how gun use affects violence patterns and outcomes (Ludwig and Cook, 2002a).

Some researchers claim that the same qualities that make firearms more deadly in the hands of predatory assailants may also make them more effective in forestalling or defending against an attack. A programme that aims to reduce gun availability may deprive civilians of an important means of self-defence. A complete evaluation of a gun scarcity-enhancing policy requires some account of these, more virtuous, uses of guns. Nevertheless, as Hemenway and Miller (2000), Killias, Van Kesteren, and Rindlisbacher (2001), and the Small Arms Survey (2001; 2002) have shown, evidence suggests that increased incidence of guns results in increased criminal homicide rather than improved safety. But that is not the whole story. It is still not clear whether the capacity of certain groups—hunters and merchants in developing countries, for example—to survive in a dangerous locale may be enhanced by effective self-defence weaponry.

In responding to the threat of firearms, people may spend money protecting themselves in ways that undermine human development.

The *indirect effects* of small arms availability and misuse can include: a rise in the incidence and lethality of criminality; the collapse or erosion of social services; a decline in formal and informal economic activities (and potentially a rise in illegal ones); the distortion of investment, savings, and revenue collection; and the dislocation of social cohesion and trust in communities. Firearms-related violence poses a pervasive threat to many development interventions, in the form of the risks to field staff and extension workers and the opportunity costs associated with the declining access of agencies to beneficiary populations. This latter subset of indirect effects has received an increasing amount of attention in humanitarian research and will not be reviewed extensively in this chapter.[13] These indicators, while not exhaustive, provide a first step toward quantifying the extent to which small arms place human development at risk.

Small arms-related statistics should be treated with caution, particularly when one examines the indirect effects of injuries and the threat of violence on individuals and households. Many countries suffering from armed conflict or emerging from war cannot supply reliable and continuous vital registration data. Even in countries with low levels of violence, data relating to firearms misuse including fatal and non-fatal injuries is simply never reported or is considered

Table 4.1 The effects of small arms misuse on human development

	Impacts on development	Indicators
Direct effects	Fatal and non-fatal injuries	▶ Lost productivity Personal costs of treatment and rehabilitation Financial costs at household, community, municipal, and national levels Psychological and psychosocial costs
Indirect effects	Armed crime	▶ Rates of reported crime (homicide) Community-derived indices of crime Insurance premiums Number and types of private security facilities
	Access and quality of social services	▶ Incidence of attacks on health/education workers Incidence of attacks and closure of health/education clinics Vaccination and immunization coverage Life expectancy and child mortality School enrolment rates
	Economic activity	▶ Transport and shipping costs Destruction of physical infrastructure Price of local goods, and local terms of trade Agricultural productivity and food security
	Investment, savings, and revenue collection	▶ Trends in local and foreign direct investment Internal sectoral investment patterns Trends in domestic revenue collection Levels of domestic consumption and savings
	Social capital	▶ Numbers of child soldiers recruited, in action Membership of armed gangs and organized crime Repeat armed criminality among minors Incidence of domestic violence involving firearms or the threat of weapons Respect for customary and traditional forms of authority
	Development interventions	▶ Incidence of security threats Costs of logistics and transportation Costs of security management Opportunity costs associated with insecure environments and/or damaged investments

an issue of national security.[14] As with data on small arms production, stockpiles, and transfers, public officials may jealously guard data about small arms-related crime and public health (PRODUCERS; STOCKPILES; TRANSFERS).

Even those statistics of human development which are not controversial—such as literacy and infant mortality—can be misleading, particularly in developing countries. Statistics ordinarily used to analyse and measure development, including 'income levels, agricultural production, foreign trade and so forth—are so hopelessly inadequate that they cannot provide a full account of the actual situation and in some cases, give the totally wrong impression' (Brown and Schraub, 1992, p. 200). National statistics are often flawed because of under-reporting. Kaufman, Kray, and Zoido-Lobatón (1999) observe that under-reporting across countries is consistently related to their respective levels of development: in other words, a country's level of development appears to be correlated with the quality of its public institutions. Citizens who view public institutions, such as health and policing facilities, as weak are less likely to use those facilities, which casts a shadow on reporting rates. The UNDP's (2000) *Human Development Report* recognized that 'the need to strengthen data collection and reporting at the national and international levels cannot be overstated'.[15]

Direct effects

For many countries, small arms misuse is one of the leading causes of fatal and non-fatal injury.[16] On the basis of existing evidence, some 300,000 people are killed as a result of small arms misuse each year in conflict, and an additional 200,000 in so-called 'peaceful' societies (see also WHO, 2002; Muggah and Griffiths, 2002). While it is well-known that male deaths and injuries vastly outnumber those of females, the health effects of small arms misuse in situations of war and social violence are not adequately quantified (Murray *et al.*, 2002).[17] Instead of focusing on crude numbers and the rates of wounded, this section considers how intentional firearms-related injuries damage human development.

Little research has been done on the long-term consequences of non-fatally injured patients on medical services. When victims of gun violence cannot reach hospitals or receive emergency treatment, they may suffer permanent disability and reduced productivity. People with disabilities incur extra medical costs and are often excluded from services and community activities. Moreover, most people with firearms-related disabilities depend on family support and cannot increase their labour supply in response to income shortfalls. For example, in South Africa, a significant proportion of non-fatally injured patients go into debt to pay medical expenses resulting from firearm injuries (Small Arms Survey, 2001, pp. 217–18).

Research carried out by the Institute of Community and Public Health at Birzeit University in the Palestinian territories has indicated that 13 per cent of the 33,000 recorded weapons-related injuries sustained by Palestinians during the al-Aqsa, or the second intifada that started in 2000, are likely to result in permanent disability (Ferriman, 2002, p. 320).[18] Yet the Palestinian territories have only four centres to deal with such injuries, three of which are in the West Bank, and their beds are full. An analogous study carried out by Kobusingye (2002) on injury in northern Uganda noted that most victims of gunshot injuries take hours, sometimes days, to reach a health facility. More than 24 per cent of all gunshot victims in a recent survey did not receive medical treatment within the first seven hours of their injury, and more than 34 per cent had to wait two days or never reached a medical facility.

Even if victims can find a clinic, the standard of treatment is often inadequate. Health facilities in conflict areas often lack the most rudimentary medical supplies and are working well beyond capacity. In underdeveloped countries with high levels of gun violence, services and health worker morale may be depleted (IPIFA, 2002). The chronic shortage of hospital facilities and the limited access of poor people to them result in wounds becoming infected and the death and disability of victims.

Health facilities in conflict areas often lack the most rudimentary medical supplies.

Box 4.4 The costs of gun violence: An accounting framework

The most immediate effect of gun violence is injury. An obvious basis for judging the seriousness of gun violence is the number of dead and wounded. A standard approach to translating such statistics into an economic measure is known as the 'cost of illness' method (COI). The COI adds up the medical costs and the value of lives lost or interrupted by illness or injury. Standard practice in COI values lives by lost earnings and the financial value of unpaid work, but it is inadequate to the task of developing a comprehensive account of the value of reduced gun violence.

What is needed in a cost–benefit context is a forward-looking estimate that takes account of the full range of consequences of a programme to reduce gun violence. *Ex ante,* the concern is not the loss of lives, but the threat to each member of the community. An effective programme to reduce that threat will have direct value to everyone, and may also reduce the cost of security measures. In the long run, increased security may enable increased investment (as property rights become easier to defend) and expansion in foreign aid, ultimately fuelling economic growth (Muggah and Batchelor, 2002). A number of specific items that should be included in this accounting framework are included in Table 4.2.

Box 4.4 The costs of gun violence: An accounting framework (continued)

Table 4.2 Accounting for the economic costs of firearms misuse

Threat to life and limb	▶ The value that households place on the safety of their members The value of the net contribution (taxes paid and voluntary contributions minus public services consumed) to the community and nation by potential victims Projected medical and rehabilitation costs
Prevention defence and avoidance	▶ The costs to agencies and firms of taking precautions and guarding against gun predation, resulting in higher prices and taxes The value to households of increasing the range of safe options for where and how to live The value of a secure environment for fostering community engagement
Economic development	▶ The reduction in productive investment from both foreign and domestic sources The reduction in delivery of services and other aid from donors

Source: Cook and Ludwig (2002a)

Reliable estimates cannot easily be calculated using this accounting framework. Data from administrative records and market transactions are of some use, as Table 4.2 suggests, but will cover only part of the burden. In one year, the burden of firearms violence on households may be defined as what each household would be willing to pay for a reduction of this threat. The sum of these 'contingent valuations' (CV) is a measure of the benefit to society of such a reduction. In some circumstances, the CV may be inferred from observing how property values respond to changing levels of violence in a neighbourhood, or comparing property values in neighbourhoods with different levels of threat. The challenge is to make the correct attribution, since shifts in violence will occur along with other changes that affect property values.

The most straightforward approach is a survey of a representative sample of households. The CV survey has a long tradition, especially within the field of environmental economics. It remains controversial, however, because of doubts about respondents' ability to give meaningful answers on matters to which they have not previously given much thought. Cook and Ludwig (2000b) implemented a CV survey in the United States, asking respondents about their willingness to vote for a hypothetical government programme that would reduce gun injuries by 30 per cent at the cost of a specified increase in their taxes. The answers received appeared plausible by a number of tests, including a comparison with related efforts to estimate the costs of crime. Cook and Ludwig concluded that a 30 per cent reduction in gun violence would be valued at an estimated USD 24 billion annually in the United States alone.

Table 4.3 Cost-of-illness and willingness-to-pay approaches compared

Approach	Types of costs included	Examples of costs
Public health 'cost of illness' (COI) approach	Tangible costs to victims of gun violence	Medical expenses Lost productivity
Economic 'willingness to pay' (WTP) approach	Intangible costs to society from threat of gun violence Tangible expenditures to reduce risks of gunshot injury	Concern for safety of self and kin Costs of prosecuting and punishing gun crimes Metal detectors Flight to suburbs

Source: Cook and Ludwig (2002a)

The CV method, however implemented, tends to be static. Standard methods of estimation are not well adapted to providing information relevant to judging the effects of violence on economic growth rates.

Source: Cook and Ludwig (2002b)

Box 4.5 Fatal and non-fatal firearms injuries in Uganda

A research project carried out by the Injury Prevention Initiative for Africa (IPIFA) with the Small Arms Survey examined the consequences of firearms injuries on public health systems in three African countries: Uganda, Ethiopia, and Kenya. The study drew on health data from hospitals, clinics, and morgues in order to develop secular trends for fatal and non-fatal injuries over a five-year period. Tables 4.4-4.6 summarize a number of findings from the Ugandan study.

Table 4.4 Small arms and injury mortality in Kampala city, 1998–2001

Year	Total no. of small-arms deaths	Total no. of injury deaths	Total no. of deaths from all causes*	Small arms deaths as % of injury deaths	Small arms deaths as % of all deaths
1998**	99	889	1,300	11.1	7.6
1999	137	973	1,316	14.1	10.4
2000	133	873	1,156	15.2	11.5
2001***	181	784	1,488	23.1	12.2
Total	**550**	**3,519**	**5,260**	**15.9**	**12.3**

Notes: *Morgue data.
** 1998 data covered only the period between March and December.
***Including 2002 data covering January and February.

Source: IPIFA (2002)

Findings from Uganda indicate that the incidence of fatal injuries in the capital, Kampala, is increasing, but non-fatal injuries are decreasing. A total of 1,644 cases of firearms injuries were retrieved from four referral hospitals: three in conflict-affected areas (Lacor, Sorot, and Fort Portal) and one in the capital (Mulago). Lacor hospital in northern Uganda reported the highest number of cases, followed by Mulago (see Table 4.5). The male–female ratio in all sites was 8:1.

Table 4.5 Small arms-related admissions in Lacor hospital, Jan. 1997 to Aug. 2002

Year	Small arms admissions	Injury admissions	Admissions from all causes	Small arms admissions as % of injury deaths
1997	49	915	15,377	5.4
1998	283	728	15,438	38.9
1999	85	527	17,649	16.1
2000	190	612	17,065	31.0
2001*	65	657	17,471	9.9
Total	**672**	**3,439**	**83,000**	**20.37**

Notes: All data from patient records.
* Including 2002 data covering January and February.

Source: IPIFA (2002)

The majority of incidents (from a total of 1,569) occurred at the war front in northern Uganda (28.6 per cent), followed by on streets and highways (17.1 per cent), and in homes (16.6 per cent). More than 78.4 per cent of the cases reported were intentional, with almost 99 per cent of these reported as assaults. Alarmingly, 83.5 per cent of all small arms and light weapon-related injuries

Box 4.5 Fatal and non-fatal firearms injuries in Uganda (continued)

sustained were attributed to the use of assault rifles, followed by artillery and grenades (8.7 per cent), landmines (3.8 per cent), and pistols (1.5 per cent). Surgery was needed in more than 90 per cent of all reported cases. While 34 per cent of victims did not require acute care, 56 per cent stayed for a single day in hospital, and 6.4 per cent spent between two and four days receiving care.

Table 4.6 Seeking sanctuary

Place of injury	Frequency	Per cent
Home	260	16.6
School	10	0.6
Street/highway	268	17.1
War front	448	28.6
Public place	116	7.4
Refugee camp	44	2.8
Unknown	349	22.2
Other	74	4.7
Total number of incidents	**1,569**	**100.0**

Source: IPIFA (2002)

Health economics (including cost-effectiveness analysis, cost–utility analysis, and cost–benefit analysis) provides a useful entry point for measuring the direct effects of small arms use on sustainable human development. Many critics view it as callous to apply cost–benefit analysis when appraising violence-reduction strategies. This is because, even though reducing injuries attributable to firearms can free up medical resources, a financial determination cannot be made unless monetary values are ascribed to human life and suffering. Some critics contend that it is morally indefensible to price human life and suffering. Others are more pragmatic, arguing that many of the so-called costs of small arms-related violence are difficult to quantify since, in societies where labour supply is high and wages low, the costs of lost labour productivity are marginal. As Box 4.4 shows, contingency valuation may provide a richer approach to appraising the perceived costs of small arms-related violence.

Efforts to reduce firearms violence may harm other programmes contributing towards development.

In response to criticism of the cost–benefit approach, economists point out that, in any environment in which resources are scarce, devoting resources to one use means diverting them from another. In other words, efforts to reduce firearms violence may harm other programmes contributing towards development, such as improving nutrition, education, human rights, employment, transportation, or legal infrastructure. An economic analysis of firearms violence, then, is one important source of guidance in making allocative decisions. Though developing countries lack estimates of the economic costs of firearms availability and misuse, recent studies in North America and Colombia, as well as collaborative projects undertaken by the Small Arms Survey with the Injury Prevention Initiative for Africa (IPIFA) and the World Health Organization (WHO), are collecting evidence (see Box 4.5).[19]

Indirect effects

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'No more AK-47s,' painted on a wall by the women of a village in Kenya.

Unlike fatal and non-fatal injuries, the indirect effects of small arms availability and misuse often go unnoticed. Indirect effects are also difficult to disaggregate because they are often interrelated with other factors. For example, firearms-related crime in rural communities can increase the costs of productive activities, distort household consumption patterns, and generate food insecurity. Food scarcity can then contribute to domestic and communal violence. Likewise, firearms-related deaths and armed intimidation can lead to forced displacement, which in turn overwhelms service-providers in areas of temporary settlement. Unequal access to basic services can ignite conflict between displaced and host communities. Communal tensions of this kind have led in several publicized instances (not to mention numerous unreported cases) to the excessive use of force by police and public security forces.

This section explores the indirect effects of small arms misuse in terms of six categories linked to development: armed criminality, provision of social services, economic activity, investment, savings, and revenue collection, social capital, and development intervention. Although the effects are interrelated, it is analytically useful to treat them separately.

Armed criminality

Firearms-related crime in rural communities can increase the costs of producing subsistence food and generate food insecurity.

Armed criminality is a global concern. Armed robbery and other indices of crime in developed countries are estimated to have increased dramatically since the late 1960s (see, for example, the International Centre for the Prevention of Crime, 1998, p. 5). Though largely because reporting procedures have improved, the rate of intentional homicide increased by 50 per cent between 1980 and 1990 in Latin America and Africa, and more than 100 per cent in eastern Europe and central Asia (Fajnylber, Lederman, and Loayza, 1998, pp. 11–15; Soto and Uribe, 2001). Surveys carried out in Latin America in 1996 concluded that crime is the region's key social and economic problem.[20] This phenomenon is not confined to developing countries. But what role do small arms play in this global crime wave?

While a relationship is often assumed *a priori* to exist between small arms, their misuse, and levels of armed criminality, perspectives differ on whether easy access to weapons increases or decreases crime. One view is that small arms possession serves as a deterrent leading to improved personal security and a reduction in interpersonal crime (Kleck and Gertz, 1995; Lott and Mustard, 1997). Proponents of this view assume that small arms possession in controlled circumstances serves as a micro-deterrent to would-be criminals. Another view is that small arms availability, ownership, and portability are linked to a greater incidence of violent death (e.g. homicide, suicide, and unintentional death), interpersonal violence, intimidation, and criminality (Cook, Moore, and Braga, 2001). Accordingly, more firearms equal more violent crime. More specifically, changes in gun ownership are significantly related to changes in the homicide rate.[21]

Despite competing interpretations of what drives armed crime in developing countries, policy-makers and politicians are beginning to agree that under-employment and unemployment, weak legal and judicial systems, and growing inequality may compel people, particularly young men, to take up arms.[22] For example, Caribbean leaders maintain that the causes of armed criminality include 'poverty, inequality and social marginalisation' and are 'fuelled by illegal firearms and ammunition, deportees, drug trafficking and corruption' (James, 2002). Studies focusing on poverty and homicide in urban areas of Brazil also indicate that 'municipalities with high income tend to present lower homicide rates than those with a higher proportion of population below the poverty line' (Careina, 2000, p. 119). In São Paulo in the early 1990s, for example, the firearms murder rate for adolescent males in poor neighbourhoods was 11 times that of wealthier ones (Reis Velloso and de Albuquerque, 2000). In the United States, poor people also seem more likely than rich ones to fall victim to violent crime (UNDP, 2002, pp. 88–89). The case for poverty as an explanatory variable is less clear in Colombia (Levitt and Rubio, 2000).

Box 4.6 Are poverty and firearms homicide linked?

People often assume that poverty and armed criminality (particularly firearms homicide) are linked, although few studies back up this claim.[23] Where research has identified a relationship, the correlation relies on how the dependent and independent variables are defined. Should poverty (the independent variable) be measured as a function of income (e.g. USD 1-2 a day), income inequality (e.g. the disparity between the highest and lowest income groups, or Gini), or as a composite index of literacy and health indicators and per capita income (e.g. HDI)? On the other hand, should crime (the dependent variable), be measured as reported intentional homicides, armed robbery, rape, arrests, or as the number of arrests and prosecutions?

In Appendix 4.1, three separate indicators of poverty are contrasted with firearms homicide rates. Though the sample was too small for meaningful statistical analysis, a superficial relationship seems to exist between poverty and firearms-related homicide. These figures are included for illustrative purposes only. Further research is needed.

While causes of armed crime may be disputed, there is widespread agreement on the effects of armed criminality. They are wide-ranging, affecting the quality of life of citizens, the costs of goods and services, the value of property, and efficiency-gains of productivity, investment, and tourism. According to James (2002), 'when conversations in boardrooms across the Caribbean turns to crime the concerns ... are as much about corporate survival as about personal safety'. Countries in the region 'were once safe and secure from violence ... now they are exposed to a multiplicity of threats. It is possible for small bands to terrorise an entire population'. Regional police chiefs in the region believe that this stems from the 'illicit traffic in narcotic drugs and firearms [that] underpin much of the crime'.[24]

National crime statistics are notoriously unreliable. Crime data published by Interpol, the UNDP, the United Nations Institute for Crime Research (UNICRI), and the United Nations Department for Crime Control and Prevention (UNDCCP) are not comparable. Different ministries within individual governments also produce diverging annual figures of reported crimes. Reported crime figures from Interpol indicate highly paradoxical findings (see Appendix 4.2).[25] Aggregate national statistics are deceptive because they provide only a partial understanding of the complex dynamics of criminality and small arms misuse. A comparison of national and city crime rates is more revealing. For example, in Latin America and the Caribbean, male youth between the ages of 15 and 25 form the sector most vulnerable to firearms-related homicide and non-fatal injuries. Unemployment is believed to play a central role in these casualties. Studies carried out on US cities confirm that regions with high unemployment tend to have high crime rates (Freeman, 1995) (see Table 4.7).

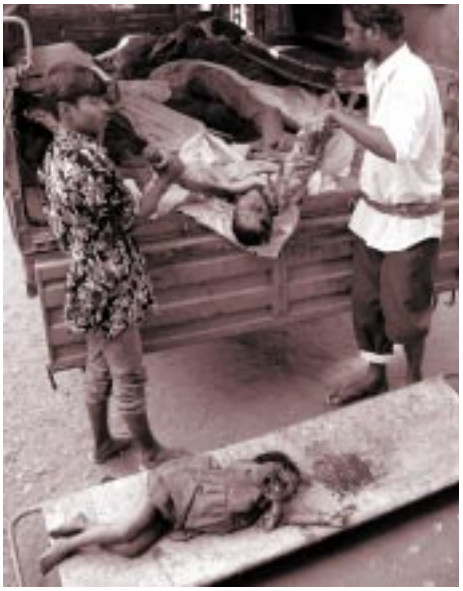
Table 4.7 Comparing homicide and unemployment in a sample of Latin American countries and cities

City	Country	National unemployment rate amongst males	City rate per 100,000	National rate per 100,000
Medellin	Colombia	18.8*	248	70.92
Guatemala City	Guatemala	5.2**	101.5	30.2
San Salvador	El Salvador	8.7*	95.4	8.9
Caracas	Venezuela	10.3**	76	15.7
São Paulo	Brazil	5.3*	55.8	29.17
Lima	Peru	7.5**	25	11.5
Mexico*	Mexico	5.5*	19.6	17.2
Santiago	Chile	4.4*	8	2.9
Buenos Aires	Argentina	16.5*	6.4	3.8

Notes: *1995. **1998.

Sources: Ayers (1998); Carneiro (2000); ILO (2001); Godnick (2002); Muggah and Batchelor (2002); UN (1998a); UN Statistics Division (2000)

Armed criminality is particularly virulent in societies emerging from conflict and where small arms are widely available. According to media reports, Cambodia's capital, Phnom Penh, experiences an armed robbery rate four times higher than that of Bangkok, and is considered one of the more dangerous capitals in Southeast Asia. A recent survey of 783 households in Phnom Penh revealed that more than 60 per cent of respondents had experienced theft in the previous year, mostly carried out by armed gangs.[26] Recent studies from Mindanao, the Philippines, demonstrated that more than 85 per cent of all external deaths in 2000 were attributable to small arms injuries. The same report claims that 78 per cent of all reported violent deaths and injuries resulting from criminal acts were committed with military-style automatic weapons and handguns (Oxfam-GB, 2001b). Even in Sudan, racked by civil war since 1984, armed criminality is facilitated by the abundance of military-style weapons in the country. The interior minister has noted that the spread of weapons outside the control of 'regular' forces has led to the deterioration of security in Greater Darfur states in western Sudan (Al-Ra'y al-Am, 2001).[27]



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Children killed in separatist violence, northeast India.

In countries with a history of state-led violence, small arms are often the predominant weapons used in acts of terrorism, whether executions, massacres, armed intimidation, disappearances, or kidnapping. In South Africa, for example, criminal violence is in part fuelled by weapons returning to the country from Mozambique, Angola, and Namibia. These weapons were originally provided by the South African Defence Force (SADF), the South African Police, and the arms industry throughout the 1970s and 1980s (Cock, 1998).

In Colombia, the use of small arms in acts of crime or political violence has long-term impacts on civilian perceptions of security, public and security sector legitimacy, and the participation of civilians in democracy (Muggah and Berman, 2001). According to the Colombian Centro de Investigacion Nacional Popular (CINEP), in 1999 there were over 1,000 massacres, more than 300 reported forced disappearances, and nearly 3,000 cases of hostage-taking.[28] Small arms were associated with all of these events.

Box 4.7 Armed crime in northern Nigeria: Clear and present danger?

Nigeria is believed to suffer from a notorious gun culture and rampant crime, though little empirical evidence backs the claim. Lagos, the largest urban centre, has a reputation for aggressive criminality, but less is known of other regions. A study commissioned by the Small Arms Survey sheds some light on the discrepancies. For comparative purposes, field research was administered in the northernmost state of Nigeria, Kaduna. Though only preliminary, findings indicate that firearms use is not as prolific as initially believed.

The study confirms that urban areas experience marginally higher rates of firearms-related crime than rural areas. Research also reveals a disparity between perceived and reported rates of armed criminality. For example, in metropolitan areas, reported criminal incidents increased from 1,956 (1997) to 2,627 (2001) in an estimated population of 815,000. In 2001, only 3.7 per cent of all reported incidents included armed robbery, 4.1 per cent rape, and less than one per cent included firearms homicide. But gun crime is growing. Latest figures indicate that the rate of firearms homicide increased by over 130 per cent in 1999–2000, to 3.19 per 100,000. In surveyed rural sites, reported crimes were lower. Armed robbery and firearms-related homicide are considered by police to be extremely rare, as doctors from a rural village's general hospital claimed that they had not registered a single case of gunshot injury since 1997.[29]

Despite low levels of recorded firearms-related crime, the public authorities have responded in dramatic fashion. One response of the federal and state governments to the perceived 'crime wave' has been a dramatic escalation of firepower. Automatic rifles have been purchased from India, while the Nigerian army has transferred G3 rifles to the police. Despite these measures, northern Nigerians still feel afraid. According to a victimization survey, between 50 and 60 per cent of urban and rural respondents invest in private security. With more than 20 registered private security firms in Kaduna city, the total number of clients climbed from 96 in 1997 to 295 by 2001, and the number of guards from 191 to 550 over the same period. Those unable to afford private security have turned instead to unregistered vigilante groups. For example, the Kaduna Chapter of the 'Vigilante Groups of Nigeria' has 30 offices in Kaduna city, providing 'protection services' to more than 4,300 households. Since few private security firms operate in rural areas, vigilante groups are less prevalent there.

Source: Ebo (2002)

Civilian insecurity in many countries has stimulated the rapid privatization of security, for rich and poor alike. From Brazil to Nigeria, wealthy residents invest in sophisticated alarms, security guards, and other forms of private policing to fortify their property and protect themselves. Many poor communities have also evolved collective responses to insecurity. From an economic perspective, however, money spent on private security is diverted from productive or productivity-enhancing activities. Unproductive spending drains household (and corporate) savings, resulting in fewer resources available for local investment.

The costs of private security for businesses, including government agencies, have reached alarming proportions.[30] In many countries, the cost and size of the private security industry exceed national expenditure on, and numbers of, police. In countries where internal security is undermined by armed violence, as in Colombia, Kenya, or Indonesia, governments have purposefully armed civilians ('paramilitaries' or 'militias') to compensate for the absence of public security. Such initiatives, however, are often counter-productive. Small arms provided to ensure security soon resurface in crime and banditry, ultimately serving to exacerbate poverty and undermine human development (Misol, 2002; Muggah and Berman, 2001).

When governments are unable to keep their people safe in underdeveloped states flooded by small arms, private security personnel disregard the rule of law. Participatory research carried out in Cambodia, Indonesia, the Philippines, and Thailand illustrates that easy access to small arms can promote corruption within public and private security agencies, undermining community trust in local authorities.[31] Police and security forces contend with low wages, limited training, and corrupt management. These economic and social inequalities translate into large inequalities in personal safety.

Box 4.8 Privatizing security in Cameroon

During the past decade, Cameroon is believed to have experienced an escalation in firearms-related crime, particularly in Douala and Yaoundé. A comparative research study commissioned by the Small Arms Survey sought to explore the relationship between small arms availability and criminality in the city of Douala (population 1.8 million) and rural sites in northern Cameroon.

The study found that firearms-related crime in Douala includes armed robbery and theft.[32] Crime in the north consists primarily of highway banditry (*coupeurs de route*), involving military-style weapons such as AK-47s and AR-15s. The gendarmerie and police in Douala and the northern region are also responsible for a high degree of firearms-related violence and crime.

Both public and private responses have emerged to the problem of armed crime. Because of the lack of police in the capital (only 925 officers, when 5,000–6,000 are believed to be needed), the number of private security firms has shot up since the 1980s. More than 180 private security companies currently employ about 15,000 personnel. As in Nigeria, most civilians resort to vigilante groups for protection, because they cannot afford private security.

Source: Atanga (2002)

Declining social services

In armed conflict, combatants and bandits searching for vehicles, medical utensils, labour, recruits, and resources often deliberately target social services.

In many developing countries, basic services such as health care and education, already overstretched, become overwhelmed by the threat and misuse of firearms. Yet these services are integral to human development. The indirect effects of small arms misuse on social services can be measured by a simple accounting of the number of schools and clinics closed or temporarily shut as a result of armed violence, the costs of preventive security measures in public institutions, the exposure of health workers, teachers, and students to armed attacks, the access of patients to health facilities, primary and secondary school attendance, and a weighted consideration of the quality and continuity of basic services (in affected and non-affected areas).

In armed conflict, combatants and bandits searching for vehicles, medical utensils, labour, recruits, and resources often deliberately target social services (Muggah and Griffiths, 2002). The effects of closed health and education facilities are disastrous. Throughout sub-Saharan Africa, local governments and international agencies have reduced the distribution of relief supplies and health equipment for fear of armed attack. Immunization and vaccination efforts have been curtailed and public authorities have had to cut vital outreach services, including veterinary programmes and maintenance of boreholes (CGIAR, 1999). This erosion of basic infrastructure for the rural poor indicates that development is hampered by the availability of arms.

There also appears to be a strong correlation between areas experiencing high rates of armed violence (as measured by homicide, armed robbery, and armed assault), deteriorating public services, and areas with proportionately higher death rates from non-violent causes. Extreme variations can occur within states and even between communities and households. For example, education is a low priority during periods of armed conflict, and indicators frequently show

a marked decline in access to and quality of educational services as the intensity of violence increases. Though the attendance of children and youth is affected by historical, economic, and cultural factors,[33] armed conflict and violence further reduces attendance, participation, and completion rates of students, as well as the number of available teachers.[34]

Studies have demonstrated how enrolments in primary, secondary, vocational, and night schools in certain regions of Afghanistan, Colombia, Mozambique, Nicaragua, Sierra Leone, Sudan, and Uganda decline during periods of intense armed conflict, only to increase again once violence has 'ended' (Luckham *et al.*, 2001; Stewart and Fitzgerald, 2000).[35] Education facilities have attracted violence, for instance in Cambodia and Ethiopia, as children may be forcibly recruited or attacked at school (Muggah and Batchelor, 2002).

Children exposed to firearms-related violence may perform poorly in school (Morrison and Orlando, 1999). The cases of Albania and the Democratic Republic of Congo (DRC) are instructive. In Albania, pre-school enrolment rates dropped precipitously following the 1997 financial crisis, from 59 per cent in 1990 to 37–39 per cent in 1999. Primary and secondary enrolment rates also plummeted to an estimated 18 per cent over the same period (see, for example, UNDP, 2000). In recent victimization surveys conducted in Albania and Kosovo (see, for example, the Women's Commission for Refugee Women and Children, 1999), adolescents complained of armed violence (including sexual violence) made possible by the abundance of weapons after armed conflicts.

The situation is more disconcerting in countries still affected by widespread conflict. In the DRC, the ministry of education's own statistics claim that just under a third of all Congolese children aged between 5 and 14 years were not in school in 1999–2000. The figures in arms-affected regions are particularly revealing: in North Kivu, during 1995–96, more than 68 per cent were not in school. The recruitment of boys at gunpoint has reduced the number of children in school (Les *et al.* 2001). A recent evaluation carried out in Djugu suggests that armed confrontations have resulted in the destruction of 211 out of a total of 228 schools since 1999, and that over 60 per cent of students (39,600 down to 10,620) and teachers (1,771 to 701) have left school.

In other countries, not directly affected by armed conflict, students and school facilities have suffered as a result of armed insecurity. From the Philippines and Cambodia to Kenya and Nigeria, campus violence is rife where weapons proliferate among students (Ebo, 2002; Narang, 2002; Sabala, 2002). There are long-term costs linked to the inability of children, especially girls, to attend school. A World Bank (1996) poverty assessment of Jamaica found that 30 per cent of girls surveyed said they were afraid to go to school because of the threat of firearms-related crime. Even where children were able to attend school despite violence, there were persistent effects on the quality of education.[36]

In Kenya, some schools and clinics in the interior and northern areas have been abandoned. In spite of incentives to attract teachers and doctors to these regions, ongoing insecurity, traditional and economic biases, corruption, and a shortage of resources have reduced their numbers. Repeated armed attacks on schools, clinics, and sedentary and pastoral communities have harmed literacy rates, school enrolment, and health indicators, which are among the lowest in the country. According to one UNICEF (United Nations Children's Fund) official in the northwestern border town of Lokichokkio, inter-tribal raids are particularly threatening: 'In one raid by the Toposo against the Turkenese, a primary school was attacked with ten primary students killed. They were told to enter a hole in the ground and shot on the spot, with the hole sealed up immediately after' (Muggah and Berman, 2001). Such events have increased in frequency and lethality since the arrival of automatic weapons.

Collapsing economic activity

The availability and use of small arms can have destructive consequences for formal and informal economic activity, from multinational firms to petty traders in cities and rural communities. The effects of small arms on economic activity can be measured by primary indicators including higher transport costs and the deterioration of physical infrastructure during armed conflict, as well as secondary indicators that include the prices of local goods, declining terms of trade and agricultural productivity, and reduced levels of food consumption. But the relationship between firearms-related violence and economic development has not been addressed in mainstream development reports such as the United Nations Conference on Trade and Development's (UNCTAD, 2002b) *Trade and Development Report;* The International Fund for Agriculture and Development's (IFAD, 2001) *Rural Poverty Report;* or the World Bank's (2002) *World Development Report*.[37]

The mere threat of small arms can distort the mechanisms of commerce, influence the transaction costs of trade, and disrupt production and consumption patterns. Variations in income and consumption can occur for a variety of reasons including macro-level shocks ranging from taxation to war. In countries where economic activity is centred on agriculture and informal trade, as in many parts of the developing world, small arms availability presents a significant shock which can influence the food security of the poor. For example, a recent assessment of human development in Niger shows that weapons availability significantly affects livestock and palm oil production (UNDP, 1999).

Scarcity destabilizes prices and the meagre trade that persists becomes unpredictable.

The destruction and deterioration of physical infrastructure (e.g. roads, ports, factories, and fixed capital investment) as a result of mortar attack, shelling, and automatic gunfire can have a significant impact on overall economic activity. The cost of rebuilding damaged infrastructure depletes resources that could otherwise be invested in social services and human development. Many development actors are actively engaged in financing and implementing reconstruction of physical infrastructure.[38]

Trade becomes more difficult in situations troubled by firearms-related violence. All trade requires enforceable rules (either formal or informal) and, when rules are not legitimately enforced, transactions may disintegrate into social violence. When small arms are widely available and formal rules are collapsing (or being recreated to extract higher rents), the trust that is key to making transactions possible breaks down. Where risk-pooling and communication among urban and rural households deteriorates, local trade collapses and communities are caught in 'low-income' traps. In war, these effects may be so extreme that rules are entirely enforced through informal means. In such environments, the terms of trade are fundamentally reshaped in the interests of a small minority of vested interests, run by thugs and warlords (Ross, 2002; Reno, 2002).

Roadblocks, piracy, raids on convoys, and banditry can erode the confidence of buyers and sellers in transport networks and markets. In the Great Lakes region of Africa, for example, violence has decreased commercial activity along the Congo river, a primary transport network over the past five years.[39] Scarcity destabilizes prices, and the meagre trade that persists becomes unpredictable. Not only does armed insecurity prevent farmers from selling their produce in open markets, it also stops them from obtaining vital supplies such as fertilizers and seeds. Armed banditry can damage the supply of cash crops and transport to markets, forcing farmers to abandon commercial harvests. When this happens repeatedly on a large scale, local investment may decline. Its ripple effects erode foreign investor confidence and may inhibit the influence of overseas development assistance.

Rebel fighters inspect the belongings of refugees returning to Brazzaville.

Armed violence can also affect food production, which may need years to recover after fields have been left fallow. As with anti-personnel landmines, a legacy of small arms availability can undermine a community's willingness to engage in subsistence farming or the desire of firms to invest in agriculture or other productive activities. In Sierra Leone, for example, the country's GDP has collapsed as a result of declines in the value-added product of agriculture and industry (World Bank, 2002b). The proportion of value-added product contributed by agriculture to GDP contracted in Angola, from a peak of 23 per cent in 1991 to an average of six per cent in the following eight years. During Mozambique's civil war, agro-industry exports suffered serious declines, falling in volume terms by more than 20 per cent between 1982 and 1992 (Goudie and Neyapti, 1999).

Among pastoral and sedentary groups, high-calibre weapons can negatively affect cattle production, livestock values, and access to affordable food and commodities. The large-scale theft of livestock from pastoralists throughout east Africa has been well documented.[40] While large-scale cattle rustling can be blamed on commercialization and monopolization, armed confrontations are reducing future generations of livestock (and pastoralists). Because of recurring drought, deadly raids, and poor land management, cattle have become scarcer and of poorer quality. Pastoralists then resort to 'panic selling' their livestock and using environmentally unsustainable practices which have created tensions over common property resources. This phenomenon has also been observed in Congo-Brazzaville, the DRC, and Uganda, where smallholders and the rural poor have resorted to poaching (including gorillas) with leftover automatic weapons to supplement their diet and income (see Demetriou, Muggah, and Biddle, 2002).[41]

Investment, savings and revenue collection

According to the World Bank (2001a), countries affected by widespread social violence and armed conflict suffer disproportionately from negative growth and a massive deterioration of foreign direct investment (FDI).[42] The opportunity costs of armed violence to the affected country and the surrounding region, in terms of foregone economic and social investment, are significant. For example, in a survey of 69 corporations conducted for the *World Development Report* (World Bank, 2001c), insecurity and violence ranked as the greatest risk facing investors.

Those countries affected by endemic small arms-related violence are often excluded from investment and assistance.

Those countries affected by endemic small arms-related violence are often excluded from investment and assistance. More than half the FDI that flowed into sub-Saharan Africa over the past decade was concentrated in eight countries. Only ten per cent was distributed among the remaining 40 countries. Overseas development assistance (ODA) directed to the region also declined, from USD 17.9 billion in 1992 to USD 10.8 billion in 1999.[43] Though there are many reasons for declining aid and FDI, small arms play a significant role (see Box 4.9).

The perception that certain countries suffer small arms misuse results in segmented investment patterns. Apart from a minority of extraction-intensive industries, few external investors are willing to invest in fixed productive assets and physical capital where weapons are openly brandished. Physical infrastructure, roads, public facilities, and installations such as power generators are often destroyed. Crime has a negative effect on the investment climate. A selection of countries and institutions recently declared that armed conflict and social violence perpetrated with small arms were among the most serious obstacles to investment and tourism.

In Colombia, for example, a measurement of investment functions against firearms, homicide, and kidnapping rates demonstrates an impact as high as 40 per cent (Para, 1997). Unless there are serious possibilities for resource extraction (e.g. of oil, diamonds, or timber), foreign investment in arms-saturated environments adopts narrow investment horizons. Commercial activity seeks a quick return, wishing to minimize risk where possible.[44] In some cases, these very extractive industries are the source of armed conflict or produce rents to sustain pervasive armed violence (Collier, 2000; Keen, 2001; Ross, 2002). As noted by the World Bank (2003, p. 155), '[t]he potential access to resource rents makes it easier for private armies or warlords to acquire the arms that contribute to the incidence of civil conflict ... rebel groups successfully pay for weapons and other support with "booty futures", trading diamond concessions for mercenary services, for example, before the conflict has even begun'.

Firearms-related violence can have a devastating effect on a country's financial indicators, as measured by trends in local and foreign investment, revenue collection, and domestic savings. Domestic and foreign investment in key sectors (e.g. services and tourism) falls dramatically when there is armed conflict, though less so with social violence, as investors take their money elsewhere. Taxpayers assume the indirect costs of treating victims of gun violence and improving safety in their countries.[45] In situations of endemic violence, taxpayers, who influence the levels of government revenue and spending, may take their funds out of the country or be unable to pay during conflicts—particularly if they are displaced by force. These declining levels of investment and revenue collection will ultimately have a negative effect on human development.

Widespread armed violence can encourage so much spending on defence and law and order that few resources remain for social services. In South Africa, for example, spending on law and order has grown more rapidly than spending on social services, despite the new government's commitment to reconstruction and

Box 4.9 Gun crime and foreign direct investment: Is there a statistical relationship?

A study commissioned by the Small Arms Survey and FAFO (Forskningsstiftelsen or Fafo Institute for Applied Social Science) from the Economist Intelligence Unit (EIU, 2002) analysed the relationship that may exist between FDI flows and security issues resulting from the use of small arms. It found that there is no clear or direct relationship between the prevalence of gun crime in a country and the flow of FDI into it. Foreign companies may well prefer to operate in secure environments, but a *prima facie* analysis of the FDI statistics indicates that gun crime is not the *primary* determinant in investment decisions. Security concerns do not seem to have had a marked impact on FDI flows into those emerging markets that struggle with a gun crime problem.

But it would be wrong to conclude that gun crime and FDI are not linked. After all, it cannot be presumed that crime would be a *primary* determinant of FDI inflows. Investors make decisions to commit capital, personnel, and assets to foreign markets in order to produce or to sell. They do not make such decisions because the crime rate is low, but because the rewards are attractive. A full understanding of the relationship between small arms and FDI inflows addresses several key factors.

First, the industry into which foreign direct investment is directed is critical. Some industries are more risk-averse than others. Companies in the hydrocarbons and extraction industries need to site their activities where they find reserves of oil, gas, gold, or copper. The outlay costs of exploration and extraction are so high that additional security-related costs can be absorbed easily. Interviews with oil companies that invested in Russia and Algeria indicate that the potential reward outweighed the costs arising from personnel security. A similarly severe environment in the Republic of Cabinda in Angola has not deterred Chevron-Texaco from investing, with security costs exceeding USD 1.5 million a year.

In contrast, industries which have more flexibility over their location can be more selective. When there are several possible alternatives, gun crime could become a significant consideration. Similarly, businesses which are particularly vulnerable to gun crime–such as those in urban locations and that handle cash, like retail outlets and petrol stations–will also place greater emphasis on their exposure to small-arms risk when evaluating markets.

Second, a deeper understanding of the causes of crime, particularly of small arms crime, can shed light on foreign investment patterns. For example, it is important to distinguish between purely criminal activities and politically motivated violence. While it may be easy to distinguish them in developed markets, in emerging markets the two often go hand in hand. Criminal activity, such as smuggling, protection, or kidnapping, frequently finances political action.

Where gun crime is a function of, and fuelled by, broader conflict, the overall political environment is likely to be less stable and foreign investors less confident. If on the other hand gun crime flows more from low-income levels, foreign investors may feel more sure of their ability to plan and operate appropriate security measures. They may also draw other conclusions. If crime and poverty are linked–a discussion that this study does not address–might investors be able to view gun crime data as good correlates with wealth levels and income inequality within the market?

Finally, FDI decisions are taken within the company. Analysis of FDI and gun crime patterns does not illuminate the rationale behind multiple, individual decisions to invest and their possible relationship to small arms ownership and use. Furthermore, the decision-making process within companies is both qualitative and quantitative. Decisions to commit capital to direct investment projects abroad rely heavily on data, certainly, but they also reflect individual corporate strategies, personal relationships between key business and political players, the personalities of the senior executives involved, and the culture and risk appetite of particular firms. Unless one acknowledges that FDI inflows comprise decisions taken at the micro-level, one's understanding of the determinants of investment will be incomplete.

Source: EIU (2002)

development. The South African 2000–1 police budget was USD 1.96 billion, significantly higher than the health budget of USD 1.56 billion (RSA, 2001). Lower levels of spending on social services force people to spend their own savings. Lower levels of domestic saving reduce investment and ultimately affect national productivity.

Social capital

Guns have a unique capacity to project fear simply because it is more difficult to protect oneself from a gun than from other weapons. Guns kill at a distance and stray bullets may find an unintended victim. The perception of being at risk is exacerbated by the sound of gunfire. Guns intensify violence and spread terror. Norms of trust and reciprocity can be quickly overtaken by a 'war of all against all' mentality. The availability and use of firearms negatively affect behaviour, mobility, decisions about where to live,[46] and communal cohesion within society, which can undermine development. Even so, little is understood of the relationships between firearms-related violence and *social capital*, defined by Putnam (1993) as the features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating co-ordinated actions.

Indicators of the effects of small arms misuse on social capital include child soldiers, membership of armed gangs, repeated criminal activity, a surge in the incidence of domestic violence, and the breakdown of customary authority. Other indicators pertaining to the quality of community life reflect deteriorations in: neighbourhood relations; family-based networks; occupation-based help groups; rotating savings and credit groups; membership of civic associations; and the number of people walking the streets at night. The presence and threat of small arms can also affect people's involvement in political activities, especially elections and political rallies.[47]

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A Cambodian boy and his dog await the boy's father at an army camp.

The risks presented by small arms to children living in deprived situations are enormous, particularly when youth lack educational opportunities.[48] This is most problematic in countries where children and adolescents make up a disproportionately large segment of the population, such as Latin America and Africa.[49]

In conflict-affected societies, such as Colombia, Guinea, and Somalia, UNICEF has observed growing numbers of child combatants who are skilled at operating weapons. Children can be both perpetrators and victims of firearms-related violence, which amounts, perversely, to a vicious cycle. In Uganda, UNICEF (2002, p. 3) reported that, in 2002, abductions at gunpoint were increasing, and that '8,866 children, some as young as six years old, had been abducted by the Lord's Resistance Army ... and were forcefully brought to camps in Sudan where they were trained as soldiers and sent to the battlefields of Sudan and Uganda'.[50]

In communities affected by systemic social violence, children are increasingly involved in drug trafficking syndicates and street violence. In Rio de Janeiro alone, the Brazilian Institute of Innovations in Social Health has documented about 12,000 children and teenagers involved in the narcotics trade, with at least 5,369 heavily-armed 'soldiers' in 337 known drug dealing locations. An International Labour Organisation study also found that boys begin to carry firearms as early as eight or nine years of age in such syndicates (Osava, 2002).

In conflict-affected societies, UNICEF has observed growing numbers of child combatants who are skilled at operating weapons.

When countries face a tentative end to hostilities, such as in Congo-Brazzaville, the DRC, and Angola, unemployed youth with uncertain futures join militias and criminal gangs that promise prestige, power, and the possibility to plunder. Recent studies carried out among youth in Kosovo also suggest that security is closely linked to the psychological and social apprehensions of youth: 'Violence has caused a sense of loss, fear and hopelessness.' Youth were particularly concerned about their lack of mobility and recreational space, and criticized the widespread possession of weapons among youth and adolescents, 'particularly in Albanian communities ... [and the] limited efforts by parents, teachers and other authorities to address the problem' (Women's Commission for Refugee Women and Children, 2001, p. 3; see also Corrin, 2000).

In some countries, armed violence stemming from small arms can break down social capital, including customary and traditional institutions. Much has been written on how arms-wielding criminal organizations and the militarization of local feuds have eroded indigenous systems of organization and social control in eastern and northern Africa, including dowry and land-tenure arrangements, common property management, customary law, and even community policing and private security (Small Arms Survey, 2001).

Perhaps even more difficult to quantify is the damage small arms availability has done to popular confidence in local and traditional conflict-resolution techniques, though certain communities have evolved effective responses to controlling their use (YEMEN). The erosion of customary controls over grazing rights in east Africa has led to a free-for-all over grazing lands and water rights during the post-independence period. Kalashnikov-wielding cattle rustlers have forced many pastoralists either to fight back or to abandon their livelihood. Some shift to informal urban labour markets where they have few marketable skills.

In east Africa, Kalashnikov-wielding cattle rustlers have forced many pastoralists either to fight back or to abandon their livelihood.

Victimization surveys and opinion polls reveal some of the associations between small arms possession and the levels of trust between communities and individuals. The International Crime Victimization Survey (ICVS), for example, has been conducted over a period of 12 years in 25 industrialized countries.[52] It suggests that rich and poor alike are victims of domestic violence, but that the incidence is often higher in poor households. Focused research indicates that in Santiago, Chile, 46 per cent of poor women and 29 per cent of wealthy women suffer from domestic violence; in Managua, Nicaragua, the figures were 54 per cent and 45 per cent respectively (Morrison and Orlando, 1999).

Focused surveys have also shown how small arms availability in west and east Africa resulted in long-term distortions of gender relations and community development (BICC, 2002). In Sierra Leone, for example, Mansaray (2001) studied the relationship between armed conflict and sexual violence and the implications of small arms related abuse on women and female-headed households. Mapping exercises in Tanzania and Uganda have identified the degree to which small arms availability affects perceived economic well-being, mobility, and community cohesion (Jefferson and Urquhart, 2002).

Box 4.10 Violence and gender: Who's bearing the cost?

The tendency of researchers to view violence in a fragmented way (rather than as a broad social phenomenon, whether in the domestic sphere or during war) has long been questioned by feminists. They contend that violence should not be understood as private or individualized, but as socially and structurally produced. A narrow focus on the dynamics of violence around conflict and on technical approaches to arms control conceals the effects of other forms of violence. Alternative forms of violence, often socially sanctioned, precede war and continue during peacetime.

Indeed, there is a thread between 'everyday' violence and the extremes of violence witnessed in wartime. Wherever it is located, sexualized violence derives largely from the prevalence of ideologies that give men power over women and children. Adopting a gender-aware agenda offers an opportunity to challenge the ideologies that preserve and perpetuate violence in societies. Such an approach has implications for research on the effects of small arms. A small, if growing, number of gender-disaggregated studies of firearms violence in industrialized countries has observed the association between small arms availability and female victimization (Hemenway, Shinado-Tagwa, and Miller, 2002). Though men are far more likely to suffer from fatal or non-fatal firearm injuries, women experience armed violence in a number of different ways.[51]

A study by Quitoriano and Libre (2001, p. 25), for example, notes how, in parts of the Philippines, 'the collective opinion of men has been shaped in favour of arming themselves (purportedly to protect their women and property), disregarding the voice of the community's women, who argued that the resort to arms would attract more violence'. The ideology that men own women and children, and the alignment of violence and protection to which it gives rise, mirrors other contexts in which traditional gender roles support an ideal of masculinity which demands the use of arms in defence of one's country, ethnic group, or political cause.

When counting the cost of firearms violence, the distinction between legal and illicit weapons in post-conflict societies is blurred: in southern Africa, evidence indicates that many firearms used in criminal activities are systematically, often forcibly, obtained from legal owners (Altbeker, 1999). Though little gender-sensitive research has been done in the region, there is a growing perception that the unregulated availability of weapons bolsters traditions of militarized masculinity and consolidates a high degree of tolerance of gender-based violence (Cock, 2001; Turshen and Twagiramariya, 1998).

Further research is needed to gather gender-disaggregated data on the effects of small arms and carefully documented evidence of how firearms differently affect women and men. Only with accurate statistics and careful research will new, more responsive legislation be generated. Cross-regional databases on how women are affected by gun violence could also inform more gender-aware policy-making. Although collecting data in the developing world is extremely challenging, a clearer picture is required of where women stand in firearms-pervasive societies in which male policemen are responsible for crime reporting, male-dominated judicial systems process crimes, and weaponry and manliness are synonymous.

Source: Farr (2002)

Development intervention and the culture of withdrawal

Field workers of developing agencies are on the front line, in the line of fire. The presence of small arms among civilians complicates the task of poverty alleviation, from funding to programme design, implementation, and monitoring and evaluation. Small arms misuse can affect the reallocation of development assistance to relief and humanitarian assistance and distort programme and community-priorities. Insecurity created by small arms can result in the diversion of funds to security and private policing, or the withdrawal of assistance and investment in affected communities.

To avoid areas in which insecurity is escalating, planners often seek places where the returns on their investments justify continued funding from 'results-oriented' donors. Insurance premium costs have risen to the point where, in certain cases, programme administrators cannot sanction staff travel or intervention. In other cases, offices are looted, shut down, and abandoned, and staff evacuated: 'Project staff may be at risk, project sites may remain unused by the population ... and sites may attract armed attacks' (Colletta and Kostner, 2000). Thus, the unchecked availability of small arms is generating a culture of withdrawal.

The pace and scale of security incidents affecting the entire UN system, such as car-jacking, kidnapping, armed attack, armed robbery, and murder, have spiralled partly because of activities in war-affected areas (Muggah and Griffiths, 2002; Small Arms Survey, 2002). As the humanitarian and development space for interventions has become increasingly constrained, international organizations have advocated periods of tranquillity, cease-fires, and national immunization days in order to administer assistance.[53]

Primary indicators of the effect of small arms on development operations include the number and type of security incidents (armed assaults on staff). Secondary indicators include the rising costs of logistics and security as a proportion of total ODA. Situations are as varied as Asian Development Bank project engineers being abducted in the Philippines, indigenous community development workers threatened at gunpoint in Colombia, and UNDP officers robbed in Somalia. Between 1992 and 2001, more than 204 UN civilian personnel were killed in situations of armed conflict, with firearms used to fatal effect in 75 per cent of all incidents (UN, 2001).

Monitoring and evaluation of development projects is also difficult in places where arms are readily available. A UNICEF (2002) action appeal for Somalia, for example, reported that 'constant insecurity in the region has ... made consistent monitoring and timely implementation difficult'. In the Russian Federation and the Caucasus, the 'main constraints faced during the year 2001 included problems of access ... where the ongoing conflict and overall lack of security ... has prevented the normal development of projects and activities'.

The degree of insecurity in some regions has increased to the extent that even security assessments themselves are perilous. In September 2000, security officers in Somalia, who were administering security assessments to determine whether UN agencies could resume humanitarian and development operations after a six-month suspension, were attacked by a group of 30 armed men. All UN programmes were suspended after unidentified gunmen sprayed gunfire at an EU plane. In the same month, during a disarmament ceremony held in Atambua, East Timor, UN invitees were attacked by militia (Muggah and Berman, 2001).

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An Ethiopian guard protects food stored in a warehouse.

The rising costs of security logistics divert a growing proportion of aid to unproductive purposes. Some agencies spend between five per cent and 30 per cent of their outlays on private security companies and may also be forced to hire armed guards from the local community (Muggah and Batchelor, 2002, p. 36). Additional costs arise from fencing around compounds, armed convoys and escorts, emergency evacuation, and contingency plans.

SECURITY AND DEVELOPMENT

Since the Cold War, the development community has reasserted its long-held concerns about how conflict and post-conflict reconstruction are linked to poverty alleviation and human development. Some development specialists believe that armed conflict is the most important determinant of poverty, from sub-Saharan Africa to eastern Europe (Duffield, 2001; Stewart and Fitzgerald, 2001; Luckham *et al.*, 2001). The understanding and prevention of war has thus become integral to the development agenda.

This conceptual rapprochement has not been one-sided as environmental, health, and food concerns have become important elements of the new security landscape. The international security community has attached growing importance to poverty alleviation and sustainable resource use in relation to conflict prevention. Security policy has reinvented itself by identifying with many of the same concerns of development. Drawing from Boutros Boutros Ghali's *Agenda for Peace* in 1992 and the UNDP's *Human Development Report* in 1994, some argue that 'there has been a shift from the security of states ensured by military means to the security of people through prevention of conflict and other threats' (Kingma, 2000, p. 32). They claim that 'whereas national security was the guiding principle of the Cold War era, the concept of human security has gained relevance in the twenty-first century' (Hampson and Hay, 2002).

Many analysts and policy-makers talk of an integrated, proportionate, and comprehensive approach to security and development, one that combines security assistance and development aid with 'good governance' and respect for human rights. This line of thinking, currently the received wisdom within the major industrialized countries (OECD, 1997; 2001), shares the same terrain as human development. It is linked to the perception in developed country capitals that the poor may disrupt commercial activity through terrorist and criminal networks.

Indeed, as concern about terrorism has mounted, developing countries (and failed states in particular) are described as 'breeding grounds for terrorism' and incubators of conflict, transnational crime, forced migration, and terrorism. In short, underdevelopment has become dangerous. Promoting developmental security, so the argument goes, is tantamount to improving the security of people, particularly those in the developed world.

The 'securitization' of development and the 'developmentalization' of security have had consequences for how the development agenda is interpreted and practised. In addition to sustainable economic development, the wider social and political impacts of development programmes should be designed and implemented within a broader security framework. The UN Millennium Summit, for example, focused on the importance of conflict prevention, the enforcement of human rights law, and small arms reduction in relation to poverty alleviation. A year after the release of the *Millennium Report*, the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD, 2001) re-affirmed its commitment to promoting development through conflict prevention and post-conflict recovery.[54] In other words, international development organizations are increasingly aware of insecurity and its impacts and, to the extent possible, foster conflict resolution and rebuild societies in ways that prevent armed violence.[55] Mainstream international governmental organizations such as the OECD, the Bretton Woods institutions, donor governments,[56] UN agencies (e.g. UNDP, 1999; UNHCR, 1997), and influential research institutes (World Bank and Carter Center, 1997) have adopted this approach. Many multi-national corporations now also recognize that conflict prevention is essential if development and stability are to prevail (Duffield, 2001).[57]

Despite this commitment to conflict prevention, security, and development, the terrorist attacks in the United States in 2001, and elsewhere, such as in Indonesia and Kenya in 2002, have reshaped the priorities of certain governments. Genuine commitment to the 'human security and development' agenda has been slow to materialize. The UN International Conference on Financing Development, held in Monterrey, Mexico, in March 2002, for example, failed to secure the resources needed to reach the UN Millennium Development goals.[58] The Sustainable Development Summit held in Johannesburg, South Africa, in August 2002 was also unable to generate a broad consensus on fundamental development issues. Even supporters of the summits lament that escalating military assistance, ostensibly needed to fight terrorism, overshadowed successes.[59] Global military expenditure in 2002 was approximately USD 839 billion, but spending on development aid was less than USD 50 billion (Korb, Arnold, and Prove, 2002).[60]

Genuine commitment to the 'human security and development' agenda has been slow to materialize.

A DEVELOPMENTAL RESPONSE TO SMALL ARMS

Although there is a growing acceptance that small arms availability and misuse can undermine security and erode development opportunities, a developmental approach to small arms is still in its infancy (Muggah and Batchelor, 2002; Muggah and Griffiths, 2002; Sen, 2002). The disarmament community, including an incipient civil society arms control movement, is searching for ways to reduce supplies, while the development community is exploring practical ways to reduce the demand for and misuse of small arms in developing countries. Few actors, however, have elaborated links between small arms and the broader goals of development. In most cases, their programmes have wider objectives than small arms reduction.

Key trends emerging in the developmental approach to small arms focus on:

- shaping the attitudes and behaviour of would-be small arms users to reduce their demand for small arms;
- strengthening normative and legal controls on firearms possession to reduce small arms misuse within the security sector among civilians; and
- destroying surplus weapons, including seized firearms, in order to reduce their re-circulation into society.

In rare cases, small arms concerns are being mainstreamed into development planning, implementation, and evaluation. In others, however, they remain appendages to existing programmes. The following section provides a review of some of the activities of multilateral organizations and governmental and non-governmental actors who have taken up the challenge of small arms.

Multilateral organizations

A host of development-oriented multilateral and international financial organizations, ranging from the Organisation for Economic Co-operation and Development (OECD) and the World Bank to the UNDP and UNICEF, have demonstrated an interest in small arms in relation to development. They have, in some cases, expanded their mandates or invested significant resources in security sector reform and practical disarmament. Operational arms of the United Nations, including the Department for Peace Keeping Operations (DPKO), the International Organization of Migration (IOM), and the WHO, have also been leaders in elaborating practical initiatives to reduce the misuse of small arms in the context of broader peace-building, violence-reduction, or development-related interventions.

Box 4.11 The World Bank: A greater role in disarmament?

The inclusion of security and development considerations in disarmament, demobilization, and reintegration (DDR) initiatives is receiving more attention. Increasing political interest in promoting security and development in DDR is not, however, matched by institutional commitments. With few exceptions, development organizations are poorly equipped to address security and disarmament issues. The World Bank (hereafter 'the Bank') does not deal directly with practical disarmament. Disarmament tends rather to remain the preserve of military specialists and regional security bodies. Some critics argue that, if development organizations such as the Bank are to have maximum impact in the alleviation of poverty, they must give more weight to practical disarmament. A brief review of the role of the Bank in relation to DDR highlights the pros and cons of engaging with practical disarmament.

The Bank has assumed a leading role in DDR since the early 1990s, as a major donor to DDR operations and as a lead agency in contexts as diverse as Bosnia and Herzegovina, Cambodia, Chad, the DRC, Djibouti, Guinea Bissau, Sierra Leone, and Uganda. It was one of the first institutions to develop an analytical capability in the demobilization and reintegration (DR) sectors in 1993 with an innovative study of the design and management of these programmes.[61] Despite considerable conceptual advances, however, these studies did not address the disarmament component of DDR.

The Bank does not address disarmament primarily because its *Operational Manual* states: '[I]n view of its mandate, the Bank does not engage in peacemaking or peacekeeping, which are functions of the United Nations and certain regional organizations.' It also does not provide direct support for disarming combatants (World Bank, 2001a). But, as one of the principal multilateral donors in DDR, it cannot avoid involvement in practical disarmament and small arms control. In the Great Lakes region, for example, where USD 330 million was pledged for DDR in connection with the Multi-Donor Trust Fund (MDTF) in April 2002, the Bank has taken a lead role. It is clear that the success of demilitarization in the region, and particularly in the DRC, is critically dependent on disarming armed groups and 'foreign' forces, the kind of activity that the Bank regards as 'outside' its remit. DDR can really be effectively addressed only as an integrated issue.

As a primary donor in DDR contexts, the Bank introduces conditions to which armies and militaries should normally adhere, even if they are indirectly excluded from Bank funding. The Bank's various Articles of Agreement and restrictions on political activities, which constrain the agency's engagement in security-sector governance issues, pose a challenge (Ball, 2001).

The Bank could begin to address the small arms issue outside the formal DDR process in order for development to be consolidated, although to date it has avoided involvement in civilian ownership and misuse. Perhaps this is because it is viewed as a military rather than a development issue. Even if the Bank is prevented from engaging in DDR or civilian ownership, or chooses not to do so, an upgrading of its analytical capacities in relation to disarmament would benefit its demobilization/reintegration work.

There are also some compelling reasons why the Bank might not become more engaged with small arms-related issues. First, as mentioned, the question of the Bank's mandate is central. Is it necessary to get involved in what has essentially been regarded as UN Department of Peacekeeping Operations/Department of Political Affairs (DPA) territory? There is a division of responsibilities in UN peace missions that should be maintained. Indeed, in the past, peacekeeping and disarmament have been relatively well-funded under assessed contributions.

A second obstacle relates to the Bank's capabilities, which are technical and not structured for co-operation with NGOs. The Bank does not finance the kind of small-scale and flexible projects that are required in this area, which may be better dealt with by developmental organizations and donor governments. The Bank is more used to dealing with governments, although in the DRC there is a growing recognition that it needs to interact with non-state actors. Disarmament is virtually always a highly politicized and high-risk activity—the kind of intervention the Bank has traditionally eschewed.

The Bank is unlikely to become directly involved in disarmament and small arms issues. Nevertheless, it can potentially mainstream small arms-related issues into its policy and planning agenda with respect to DDR. This would include reducing weapons leakage to ex-combatants and ensuring that ex-combatants have access to adequate economic opportunities.

Source: Ginifer (2003)

While these developments are promising and highlight the commitment of the development community to small arms control, many agencies work independently of one another. The UN Co-ordinating Action on Small Arms (CASA) illustrates the difficulties in establishing a coherent and co-ordinated approach to small arms control. Created in 1998, CASA includes a number of UN departments and international organizations devoted to disarmament, development, peacekeeping, human rights, public health, and humanitarian assistance. While it reflects an integrated and developmental approach to small arms, it has suffered from limited capacity, co-ordination, mandate, and resources.

Box 4.12 Security sector reform: What about small arms?

Security sector reform (SSR) is a concept developed by western aid donors with input from security sector specialists from both developing and developed countries. There is no established consensus on the objectives of SSR.

Key requirements for the democratic transformation of the security sector include: professional and accountable security forces; capable and responsible civil authorities; a high priority attached to human rights protection; transparency; capable and responsible civil society; conformity with international and domestic law; and a regional approach to 'security' problems.

As such, the SSR agenda goes beyond the traditional civil–military relations (CMR) approach to public security (specifically, police and judicial) reform. Given its concern with democratic governance, SSR is more concerned with enhancing civil society participation in the development and implementation of security policies. Consequently, SSR often considers reducing the means of violent conflict, such as anti-personnel landmines and small arms. CMR does not.

The donor community has only recently accepted that security is a public good. As such, it requires investment by even the most underdeveloped countries, and the international community has a role in strengthening security sector governance. During the Cold War, most bilateral and multilateral development assistance agencies did their utmost to avoid involvement with the security sectors of aid recipients, and expressed little interest in the quality of governance in that sector. The sudden emphasis on SSR by donors has led people in the developing world to question donor motivations. But donors are not alone in their concerns about highly autonomous security forces operating with little regard for law, democratic principles, or fiscal accountability. Civil societies throughout developing countries have begun to use the growing space afforded to them by demanding greater accountability from their security forces. Donors are increasingly exploring ways of incorporating these voices into SSR.

The incentives for democratic transformation of the defence sector in the transition countries of central and eastern Europe have been particularly strong, spurred on by the possibility of membership in NATO and the European Union. NATO's Partnership for Peace Programme, for example, has identified norms and guidelines for the oversight of military and internal security forces and highlighted the importance of stable civil–military relations in democratic societies. This does not mean, however, that these countries have succeeded in establishing fully democratic security sectors. The reform process is still under way in the defence sector, and democratic countries have numerous internal police and security elites that create 'a powerful conservative block, ill-disposed to far-reaching reforms' (Hendrickson and Karkoszka, 2002, p. 193).

Small arms concerns and the SSR agenda intersect most closely in the areas of crime prevention and post-conflict demilitarization. Ultimately, small arms regulation most usefully occurs in the context of broader reforms. For example, developing and implementing legislation, regulations, and guidelines concerning the use of weaponry by official security forces and by private security firms all require the sort of institutional capacity within the ministries of defence, justice, and the interior, and the legislature that SSR seeks to develop. It also requires important attitudinal and behavioural changes within the official security forces themselves that are consistent with SSR objectives. Nonetheless, small arms, as a discrete issue, have remained peripheral to many SSR programmes, because SSR is more concerned with creating institutions capable of ensuring public security than with linking the institutional development agenda with methods of directly controlling the weapons themselves.

A number of the required elements cited above are present in recent SSR initiatives undertaken in Malawi, Argentina, and Somalia. For example, in **Malawi**, a project carried out by the Norwegian Initiative on Small Arms Transfers (NISAT) and Amnesty International has helped to develop proposals for Police and Firearms Acts based on UN standards; expand the capacity of community policing forums; establish a training programme for community-based police–civil society liaison groups; and develop regional co-operation between NGOs to enhance co-operation between governments, the police, and civil society.

By way of comparison, an arms exchange programme in the Argentine province of **Mendoza** produced a provincial law on disarmament; interest in expansion into six other provinces; the establishment of a bi-provincial security commission to develop provincial border controls; the development of a permanent information exchange mechanism among police and provincial government institutions; and the harmonization of police and judicial reform. This locally initiated project has also received UN economic and technical support for public weapons destruction and a programme to improve the infrastructure and procedures for provincial government stockpiles.

Finally, the UNDP is working with the National Police of **Somalia** to control weapons in the hands of police who own their own. The UNDP effort seeks to 'migrate' these weapons to the new (trained) security forces, develop a register of weapons, provide training in their proper use, and ensure adequate storage for weapons not in use.

Source: Ball (2002)

Even so, as highlighted in Box 4.12, a number of multilateral organizations are showing a promising engagement with small arms control in relation to broader reforms in the security sector. Several development agencies are investing in strengthening police and judicial systems, from training police in human rights and increasing their responsiveness to community needs to increasing oversight of police equipment and establishing guidelines for weaponry. Some leading proponents of security sector reform contend that 'small arms reduction programmes' can strengthen the relationships between the security sector and civilians (Ball and Hendrikson, 2002; Ball, 2002).

UNICEF has recently launched pilot programmes in Kosovo, Liberia, Somalia, and Tajikistan to make adolescents aware of the dangers associated with small arms.

The Organization for Security and Co-operation in Europe (OSCE) has developed a task force to study military expenditures and development, with a special focus on small arms.[62] Both the OSCE and NATO have also drawn up guidelines on weapons collection and destruction,[63] fostered by the belief that, if the security sector has accountable governance, development can enjoy a stable and predictable environment and new partnerships will evolve between development and security institutions.

Multilateral development agencies, such as the UNDP and UNICEF, have also been leaders in responding to the developmental consequences of small arms on the ground. In west, central, and eastern Africa efforts are under way to implement sweeping reforms of government customs inspection and oversight as a means of restricting new supplies from entering, in addition to collecting and destroying collected weapons in public ceremonies. More specifically, the UNDP is seeking to influence attitudes and behaviour through awareness and sensitization campaigns and the continued promotion of 'weapons for development' programmes in over 15 countries of the Balkans, sub-Saharan Africa, and Central America.[64] UNICEF, for its part, has recently launched pilot programmes in Kosovo, Liberia, Somalia, and Tajikistan to make adolescents aware of the dangers associated with small arms, and consultative forums to identify locally appropriate alternatives to gun violence. The projects bolster UNICEF's work with youth groups by combining elementary gun safety education with leadership development, vocational training, and conflict resolution techniques (see, for example, UNICEF, 2002).

Governments

The recent efforts of a number of governments to address the supply of new weapons to developing countries have been documented by the Small Arms Survey (2001; 2002). The concern here is the conceptual and practical approaches adopted by governments with respect to weapons circulating in affected regions. It traces some of the ways that governments are reinterpreting the impacts of small arms not solely as security but also as development issues. This is reflected by recent shifts in budgeted resources for small arms control: increasingly, small arms-related programmes are being funded by development agencies rather than by foreign affairs ministries (see Box 4.13). Some governments, including those of Canada, Germany, Japan, and the United Kingdom, have developed cross-sectoral responses. In some cases, they combine the expertise of a wide range of departments to address the small arms issue from a developmental perspective (Scharf, 2002).

Unfortunately, donor governments and affected countries continue to measure the success of disarmament by the quantity of weapons collected and destroyed rather than by its contribution to development. Some of the most adversely affected developing countries are passed over by donors as they do not fit donor priorities or do not promise a favourable return on their investment. These two issues remain a source of considerable tension between governmental and non-governmental communities.

The UK's Department for International Development (DFID), for example, has established joint programmes with the Foreign and Commonwealth Office and the Ministry of Defence to address the issue of small arms and security sector reform. Between 2001 and 2004, the UK Small Arms and Light Weapons Programme expects to develop 'practical programmes around the world that will have an impact on the lives and livelihoods of people affected by small arms

proliferation and misuse' (United Kingdom DFID, 2001, p. 6). Practical programmes include weapons collection, management, and destruction programmes; assistance toward implementing new agreements (e.g. UN *Programme of Action*, *Nairobi Declaration on Small Arms*); building consensus and co-operation in affected regions; supporting civil society and building partnerships; and continued support for analysis and evaluation.[65]

The Development Co-operation and Small Arms Control (DECOSAC) project of the German Technical Co-operation (GTZ) aims to develop practical tools to control and destroy small arms.[66] At the local level, DECOSAC will promote demobilization and reintegration programmes to reduce the 'demand' for small arms, psychological awareness programmes for ex-combatants, and awareness-raising campaigns to 'reduce cultures of violence and arms'. The programme also seeks to promote voluntary weapons collection programmes, 'weapons for development initiatives', safe storage and environmentally-sound weapons destruction programmes, and training on weapons disposal.[67]

Box 4.13 Overseas development aid and small arms: A new link?

Official development assistance (ODA) has increasingly paid attention to the issue of small arms and light weapons. ODA comes in two forms: grants and (more commonly) concessionary (i.e. favourable) loans. It is either granted bilaterally by governments or channelled through multilateral institutions such as the World Bank and operational arms of the United Nations. While ODA is designed to stimulate the development of underdeveloped states, other forms of foreign aid, including military assistance, serve a different purpose. Many industrialized western states provide ODA and military assistance simultaneously in order to build and maintain alliances, reward underdeveloped states for the use of their territory (e.g. for military purposes), or as commercial outlets for domestic defence industries. A recent example of military aid is the United States' military support to Pakistan in the wake of the 'Operation Freedom' in Afghanistan.

However, in attempting to tackle the small arms issue, the goal of ODA is the promotion of stability and development. Traditionally, funds for weapons collection programmes, legal assistance, research, and advocacy on small arms have emerged from departments of foreign affairs or ministries of defence. In the last five years, however, a number of donors have adopted a more multifaceted and integrated approach, integrating disarmament and developmental concerns.[68]

Though governments may differ in their focus, the bulk of resources destined for small arms-related issues seems to be devoted to weapons collection and destruction programmes. Until very recently, the United States spent virtually all of its budgeted resources on destruction. It is now gradually widening its scope of operations to weapons collection and, recently, to stockpile management. Canada, Denmark, the Netherlands, Norway, and Sweden all have a very similar approach: while the bulk of resources goes to weapons collection and destruction programmes, a significant portion is also devoted to awareness and sensitization campaigns, and to pragmatic interventions by NGOs in the field and research.

Both developed and developing country governments have also taken steps to address small arms availability in affected countries. Governments from west Africa to Southeast Asia have taken part in ceremonial destruction programmes (Small Arms Survey, 2002, pp. 279–321). The government of Mali, for example, under the auspices of the UNDP's DDR initiative, destroyed some 3,000 weapons in a public burning ceremony in 1996. Congo-Brazzaville's government, with the assistance of the UNDP and the IOM, also carried out significant disposal and destruction in the late 1990s and 2001 (CONGO). The governments of Cambodia destroyed over 15,000 small arms in 1998, and of South Africa 260,000 automatic rifles since 1995. The governments of Germany and Sweden have repeatedly destroyed huge stockpiles, the former following reunification and the latter during the early 1990s.

Non-governmental organizations

Some of the more successful efforts to link small arms control to development have been driven by local people at the local level. The range of actors and interventions is vast, from international NGOs to local community organizations. Their mandates are also widely divergent, as their actions have frequently been guided by broader efforts to promote peaceful conflict resolution, reverse patterns of armed violence, promote education and public health, and drive community development, as much as small arms control. Therein may lie a useful lesson for those seeking to develop a small arms control initiative. Many successful interventions to reduce small arms and their misuse are a feature of NGO

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A Colombian soldier stands guard next to food in transit.

objectives rather than the central objective itself. Conventional development agencies and civil society coalitions are mounting campaigns and advocacy strategies to contain arms flows as part of wider efforts to promote a reduction in conflict and preventive development (Small Arms Survey, 2002, pp. 176–93).[69] At the level of implementation, NGOs have also evolved a series of complementary approaches to small arms control that focus on encouraging behavioural change and practical weapons collection.

A number of international NGOs, such as Oxfam, World Vision, and Care, have called for investment in development to be redoubled in order to alleviate the factors that feed the demand for small arms. What precisely stimulates the 'demand for small arms' is not understood; it is claimed that 'measures to address the complex factors that contribute to end-user demand (for small arms), including poverty, insecurity, lack of sustainable livelihoods, lack of equitable access to services, assets and opportunities' will contribute to human development.

A broad network of NGOs, many of them members of the International Action Network on Small Arms (IANSA), have focused on strategic campaigning and awareness-building programmes to encourage attitudinal changes towards arms reduction.[70] Such efforts are designed to generate public outrage in developed countries and to compel donor governments to respond by changing exporting procedures and offering assistance to affected countries.

CONCLUSION

Small arms availability and misuse are just two of the challenges facing the international community. At the UN Conference on the Illicit Trade in Small Arms and Light Weapons In All Its Aspects, held in New York in 2001, participating states recognized that 'the excessive accumulation and uncontrolled spread (of small arms) in many regions of the world ... pose a serious threat to ... safety, security, stability and sustainable development at the individual, local, national, regional and international levels' (UNGA, 2001).

Development-oriented organizations have the potential to respond practically to small arms issues.

In almost any context, small arms availability and misuse can have devastating effects on human development. Small arms-related injuries can overwhelm health clinics and the spending capacities of governments. But the indirect effects are more insidious and potentially of greater concern. Small arms availability and misuse constrain the choices available to people, including safety from criminal violence, access to basic services and food security, economic opportunities, and mutual trust.

Unlike the humanitarian community, development-oriented organizations have the potential to respond practically to small arms issues. Where humanitarian actors should concentrate on accumulating evidence of the impacts by tightening reporting procedures and undertaking focused studies, development actors should be developing practical interventions to reduce the demand for weapons. Fortunately, an incipient response is emerging within the development community.

Interventions carried out by multilateral organizations, the donor community, and NGOs on small arms have focused on preventing armed violence, improving governance and legislation related to small arms control, and

designing and implementing practical collection, destruction, and DDR programmes to reduce the threat of arms availability and misuse. Nevertheless, a narrow focus on counting collected guns has yet to reveal how effective the impacts of such programmes are in promoting development.

In order to boost awareness and design more appropriate interventions to reduce armed violence, significant investment should be made in developing and undertaking surveys (with comparable methods across countries), to collect data on the direct and indirect effects of small arms availability and misuse on human development. Furthermore, there is an urgent need for donors to strengthen monitoring and evaluation practices with respect to arms reduction interventions. Measurements of success should move beyond the number of guns collected or soldiers demobilized, and examine the extent to which such programmes reduce death and injury and improve the security and safety of individuals and communities. Development actors should be interested in such efforts because they can have positive repercussions on the economy, the quality of life of beneficiaries, and development project success rates.

There is an urgent need for donors to strengthen monitoring and evaluation practices with respect to arms reduction interventions.

4. APPENDICES

APPENDIX 4.1 Exploring the relationships between firearms homicide and poverty

	% of population below USD 2 per day (2000)	HDI* (2002)	Gini coefficient** (year)	Firearms homicide rate per 100,000 (2000)
Australia	0	0.939	35.2 (1994)	0.31
Azerbaijan	9.6	0.741	36 (1995)	0.22
Bahamas	2	0.826	NA	6.23
Belarus	2	0.788	21.7 (1998)	3.31
Canada	0	0.94	31.5 (1994)	0.54
Colombia	28.7	0.772	57.1 (1996)	51.77
Costa Rica	23.3	0.82	45.9 (1997)	3.38
Czech Republic	2	0.849	25.4 (1996)	2.07
Denmark	0	0.926	24.7 (1992)	0.26
Estonia	5.2	0.826	37.6 (1998)	1.53
Germany	0	0.925	30 (1994)	0.47
Hong Kong	0	0.888	NA	0.01
India	86.2	0.577	37.8 (1997)	0.93
Japan	0	0.933	24.9 (1993)	0.03
Kyrgyzstan	15	0.712	40.5 (1997)	0.68
Latvia	8.3	0.8	32.5 (1998)	1.26
Lesotho	15.3	0.535	56 (1987)	24.54
Lithuania	7.8	0.808	32.4 (1996)	2.25
Mexico	34.8	0.796	51.9 (1995)	3.66
Moldova	38.4	0.701	40.6 (1997)	0.47
New Zealand	0	0.917	NA	0.47
Portugal	2	0.88	35.6 (1994)	0.84
Slovakia	2	0.8335	19.5 (1992)	2.17
South Africa	35.8	0.695	59.3 (1994)	74.57
Sri Lanka	45.4	0.741	34.4 (1995)	3.02
Sweden	0	0.941	25 (1992)	0.2
Switzerland	0	0.928	33.1 (1992)	0.56
Tajikistan	25	0.667	NA	9.16
Thailand	28.2	0.762	41.4 (1998)	8.47
United Kingdom	0	0.928	36 (1991)	0.12
Uruguay	6.6	0.74	42.3 (1989)	2.52
Zimbabwe	64.2	0.551	56.8 (1991)	4.75

Note: * Life expectancy at birth, average of over-15 literacy, and primary, secondary, and tertiary enrolment, and per capita purchasing-parity of GDP.
** 0 = perfect income equality, 100 = perfect inequality.

Source: UNDP (2002); UN (1998a; update 2000 on-line only); World Bank (2002b).

APPENDIX 4.2 Paradoxical findings: Interpol statistics in 54 countries

Ranking of the most insecure regions by homicide and armed robbery as a % of all reported crimes	Reported crimes that are homicide and armed robbery as a % of all reported crimes	Ranking of the most insecure regions by number of reported criminal incidents (per 100,000)*	Ranking of the safest regions by number of criminal incidents reported (per 100,000)
Nepal	36.7	Russian Federation	Nepal
Albania	28	Norway	Myanmar
Ecuador	20.7	Dominica	Vietnam
South Africa	13	Finland	Indonesia
Estonia	9.6	Canada	Senegal
Angola	9.3	Germany	Angola
Hong Kong	7	Switzerland	Azerbaijan
Belarus	6.2	South Africa	Albania
Paraguay	6.2	Australia	Algeria
Spain	5.6	France	Ethiopia
Uganda	5.2	Zimbabwe	Pakistan
Indonesia	5	Hungary	Uganda
Vietnam	4.9	Swaziland	Paraguay

Note: * According to Interpol (1999), 'criminal incidents' include homicide; sex offences (including rape); theft (of all kinds); aggravated theft; armed robbery; breaking and entering; motor car theft; other theft; fraud; counterfeit currency offences; and drug offences.

Source: Interpol (2001)

4. LIST OF ABBREVIATIONS

CASA	Co-ordinating Action on Small Arms
CINEP	Centro de Investigacion Nacional Popular
CMR	Civil–military relations
COI	Cost of illness
CV	Contingent valuation
DDA	Department of Disarmament Affairs
DDR	Disarmament, demobilization, and reintegration
DECOSAC	Development Co-operation and Small Arms Control
DFID	Department for International Development (UK)
DPA	Department of Political Affairs
DPKO	Department for Peace Keeping Operations
DR	Demobilization and reintegration
DRC	Democratic Republic of Congo
EU	European Union
FAFO	Forskningsstiftelsen

FDI	Foreign direct investment
GTZ	German Technical Co-operation
HDI	Human Development Index
IANSA	International Action Network on Small Arms
ICVS	International Crime Victimization Survey
IFI	International Financial Institution
IGO	Inter-governmental organization
IOM	International Organization of Migration
IPIFA	Injury Prevention Initiative for Africa
MDTF	Multi-Donor Trust Fund
MLC	Liberation Movement of Congo
MONUC	United Nations Organisation Mission in the Democratic Republic of Congo
NGO	Non-governmental organization
NISAT	Norwegian Initiative on Small Arms Transfers
ODA	Overseas development assistance
OECD	Organization for Economic Co-operation and Development
OSCE	Organization for Security and Co-operation in Europe
SADF	South African Defence Force
SSR	Security sector reform
UNSECOORD	United Nations Security Coordinator
WHO	World Health Organization
UNDCCP	United Nations Department for Crime Control and Prevention
UNICRI	United Nations Institute for Crime Research
WTP	Willingness to pay

4. ENDNOTES

[1] Mass shootings in Europe were reported in Budapest (Hungary), Erfurt (Germany), Nanterre (France), and Zug (Switzerland) in 2001. The assassination of Mr Pim Fortuyn, a right-wing Dutch politician, in April 2002, and of a senior Labour Ministry official in Italy, in May 2002, further intensified the debate on gun control in Europe (McNeil, 2002).

[2] A definition for 'armed conflict' is provided by Gleditsch and Strand (2001) who describe it as 'a contested incompatibility that concerns government or territory or both where the use of armed force between two parties results in at least 25 battle-related deaths. Of these two parties, at least one is the government of a state'.

[3] A definition for 'social violence' is developed by Muggah and Batchelor (2002) and includes criminal, domestic, and other forms of internecine outbursts between groups and individuals that do not escalate to 'conflict'.

[4] Some 467 minors were fatally injured by firearms in the Israel–Palestine conflict between 1987 and 2001. By way of contrast, firearms have killed at least 3,937 youths over the same period in the state of Rio (Brazil) alone (Viva Rio, 2002). Although there is an abundance of firearms in the two regions, high levels of armed violence are not necessarily always dependent on high possession rates, as the case of Yemen shows.

[5] Personal communications with Paul Collier (January 2002) and Frances Stewart (November 2002).

[6] See <http://www.isanet.org/archive/npg.html> for details on trends in armed conflict between 1946 and 1999. See also Wallensteen and Sollenberg (2000) for a more detailed analysis of armed conflicts between 1990 and 2000.

[7] See UNDP (2002). The HDI is a composite index of life expectancy at birth, adult literacy rate, combined primary, secondary and tertiary education gross enrolment rates, and GDP per capita. It was developed by the UNDP in 1990 to capture a broader interpretation of 'human development' than that previously recorded through monetary or household-income indices.

[8] See also the Integrated Network for Society Conflict Research at <http://www.cidcm.umd.edu/inscr/>

[9] A major conference entitled 'Sustainable Disarmament for Sustainable Development' was held in 1998: see <http://www.disarmconf.org>

[10] The debate on conversion was resumed in 1998 after the Assembly established a high-level steering group composed of the Under-Secretary General of Disarmament Affairs, the Under-Secretary General of Economic and Social Affairs, and the administrator of the UNDP. The Under-Secretary General for Peacekeeping was invited at the request of the steering group for their inaugural meeting in May 1999. The Steering group reviewed issues such as 'conversion, conflict-prevention, causes of conflict and arms acquisition, post-conflict practical disarmament measures, military expenditures, the role of other United Nations departments ... (including) the World Bank, international events relevant to the issue of disarmament and development, the lessons learned by UNDP and the Department of Peacekeeping Operations in post-conflict situations' (UNGA 2000a).

[11] For example, an independent report issued in 2001 concluded that 'the economic costs of reducing exports are relatively small and largely one-off' and that jobs lost in the defence exports sector would be more than offset by greater employment growth in the civilian sector. With respect to the United Kingdom, the report argued that the balance of argument about defence exports should depend mainly on non-economic considerations (Chalmers *et al.*, 2001; Mepham, 2002).

[12] Early studies rated the severity of a war according to absolute numbers of combat-related deaths. This proved to be far too narrow a proxy for measuring the impacts of conflict on development in light of the fact that the larger burden of war is attributable to secondary costs such as disease and malnutrition (Ghobarah, Huth, and Russett, 2001).

[13] The Small Arms Survey, together with the Centre for Humanitarian Dialogue, Johns Hopkins University, and the WHO, have initiated a large-scale multi-year study of the impacts and risks of small arms on the personnel of more than ten humanitarian and development agencies. The key instrument of the study, a survey, was piloted between September and December 2001, and was implemented between June and November 2002. Findings should be released in June 2003.

[14] In Colombia, for example, the Superior Judicial Council, based on a 1997 survey, estimated that 63 per cent of crimes go unreported and that 40 per cent of all reported crimes go unpunished. See the *Small Arms Survey 2002,* (p. 158) for a comprehensive review of some of the difficulties regarding the collection of data on the impacts of small arms availability and use.

[15] Data is often unavailable for the 57 core indicators selected in the UN country assessments. Indeed, for more than 90 countries, no data is available on youth literacy; and for 66 developing countries there is no recent data on the incidence of income poverty using the standard USD 1 a day measure. For only 117 countries is there data on underweight children under five (UNDP, 2000, pp. 142–43).

[16] So called 'external causes' of death include circumstances or conditions associated with the occurrence of injury, poisoning, or violence.

[17] Interpersonal violence, including self-inflicted injuries and war injuries, are among the top five largest contributors to the global morbidity among people aged 15-44: it is estimated that injury and violence contribute up to 15 per cent of the burden of disease in the developing world. This figure could be higher, as many victims of non-fatal firearms injuries are frequently overlooked in national statistics because of a lack of access to basic services, pervasive insecurity, or because their own injuries hamper their mobility. See Small Arms Survey (2002) and WHO (2001).

[18] As reported by the Small Arms Survey (2002, p. 165), the types of injuries most likely to lead to permanent disability were those inflicted by fragmented bullets fired by Israeli M-16s.

[19] The Violence and Injury Programme of the WHO, in collaboration with the Small Arms Survey, has initiated a three-year study to describe the direct health effects of armed violence and the indirect consequences on social and economic well-being. The research study will also provide a better understanding of the major determinants of armed violence, with an emphasis on examining those that are amenable to modification through preventive policies and programmes. Finally, the study intends to assess the evidence of the effectiveness of programmes that either explicitly or implicitly have the objective of reducing armed violence.

[20] This is taken from the Latino Barometro and quoted in Londono and Guerrero (1999, p. 6).

[21] See, for example, Cook, Moore, and Braga (2001); Hemenway and Miller (2000); Killias, Van Kesteren, and Rindlisbacher (2001); and Duggan (2000).

[22] According to research on crime in Latin America, increases in income inequality are directly correlated with increases in crime rates (Londono and Guerrero, 1999; see also n. 23). Ehrlich (1996) has also developed a number of innovative economic models to appraise criminal behaviour.

[23] For a review of studies attempting to assess the relationship between poverty and crime, consult the World Bank at <http://www.worldbank.org/poverty/inequal/abstracts/violence.htm>

[24] In Barbados, for example, stiffer penalties have been introduced for gun crimes, and the island's constabulary is setting up a unit to deal with illegal firearms.

[25] When compared longitudinally, the findings can be paradoxical. A review of Interpol data between 1995 and 2000, for example, suggests that the safest regions (measured by the number of criminal incidents reported per 100,000) include Albania, Angola, Indonesia, Myanmar, and Pakistan. On the same criteria, the most dangerous regions include Canada, Finland, Germany, Norway, the Russian Federation, and Switzerland. Nevertheless, a more realistic picture emerges from an appraisal of the proportion of all crimes involving homicide and robbery. The application of more specific criteria indicates that Albania, Angola, Ecuador, Estonia, Nepal, and South Africa exhibit the highest rates of violent crime (see Appendix 4.2).

[26] The findings are drawn from a two-stage cluster survey carried out by Non-Violence International between December 2001 and January 2002. Complete findings will be published in 2003.

[27] Also emphasised was the fact that the capabilities of the police and security apparatus were weak in comparison with groups armed with sophisticated weaponry. A recent government statement agreed with those findings, adding (not uncontroversially) that 'armed robbery, in all its forms, constitutes the greatest danger to security in the Greater Darfur states after the proliferation of small arms in the hands of citizens as a result of the consequences of war in neighbouring states, the arms trade and the ease in obtaining weapons' (*Al-Ra'Y Al-Am*, 2001).

[28] Consult <http://www.ciponline.org/colombia/background.htm> for a thorough list of related resources and updated figures on Colombia.

[29] Given the tradition of hunting in the area, most injuries were believed to result from hunting rifles, and were often treated out of the hospital.

[30] The Small Arms Survey (2001) reported that the private security industry is valued at USD 100 billion and is set to rise to over USD 400 billion by 2010. Consult EIU (2002) for a more in-depth review of the costs of firearms-related insecurity in particular commercial sectors.

[31] A participatory action research study on the effects of small arms misuse in Southeast Asia was administered by local researchers between April and November 2002. Results will be published by Non-Violence International and the Small Arms Survey in 2003.

[32] The majority of weapons used in armed crime in Douala are pistols, 75 per cent of which are allegedly supplied by actors within the police, gendarmerie, and military establishments. When the Secretary of State for Defence recalled 300 gendarme officers who had been assigned to ministers and senior state officials as bodyguards, more than 50 per cent (169) could not account for their weapons.

[33] See, for example, a recent study of 41 countries that demonstrates that female disadvantage varies tremendously (Filmer, 1999).

[34] See, for example, UNICEF (2002) and the Coalition to Stop the Use of Child Soldiers: <http://www.child-soldiers.org/report2001/global_report_contents.html>

[35] According to the World Bank (2001c, p. 19), net primary enrolment rates (the indicators most commonly used to measure school enrolment) are available only for approximately 50 developing countries for 1990–2000, 'not enough to make reliable aggregations by region or across countries'.

[36] A recent study concluded that the 'net accumulation of human capital' in Latin America and the Caribbean had been cut in half because of the increase in crime and violence over the past 15 years (Londono, 1996).

[37] The World Bank (2001c) does, however, consider the issue of armed conflict on poverty reduction (see pp. 11, 50, and 80). Specifically, it notes that 'international action to reduce the access to the resources to finance conflict and to reduce the international trade in armaments ... constitutes one of the most urgent areas for action affecting some of the poorest people in the world'.

[38] See, for example, World Bank (2000) for a discussion of the activities of the Bank in financing such projects.

[39] For example, the first commercial convoy on the Congo river since hostilities erupted in the DRC in 1999 left the capital port of Kinshasa on 22 July 2002. The two barges, carrying about 1,000 metric tons of logging equipment, fuel, and other commercial supplies, travelled through a region controlled by the Liberation Movement of Congo (MLC), a former rebel group. The barges were escorted by the UN peacekeeping mission in the DRC (known by its French acronym, MONUC) to ensure security and to facilitate safe passage at checkpoints (IRIN, 2002).

[40] The annual value of livestock production and export in the Horn of Africa has been estimated at well over USD 100 million a year. A recent report on pastoralists in Kenya (SALIGAD, 2000) notes that at least '47 per cent of people interviewed in Turkana district say that they have lost their livestock due to raids', and as a result 'many have replaced this trade in livestock with the trade in weapons'.

[41] Personal communication with John Hart, 2002, in Kinshasa, DRC, and Helga Rainer, 2002, in Kampala, Uganda. The Small Arms Survey commissioned a study in 2002 on poaching and conservation practices in the Great Lakes Region of sub-Saharan Africa. Findings will be available in 2003.

[42] There are, however, notable exceptions. Despite South Africa's spectacular crime statistics, only Colombia comes close to South Africa's total of 59 homicides per 100,000. Nevertheless, the country has attracted close to USD 9 billion in FDI since 1994. Meanwhile, Colombia itself was the main recipient of FDI within the Andean Community in the second half of the 1990s. FDI inflows reached USD 2.4 billion in 2000, a recovery relative to 1999 but well below the historic record of USD 5.6 billion in 1997 (EIU, 2002).

[43] Conventional risk rating agencies also support the relationship between political and capital volatility on the one hand and economic deterioration on the other. See, for example, the work of Erb, Campbell, and Tadas (1996).

[44] See, for example, research carried out by FAFO (2002) at <http://www.fafo.no/piccr/background.htm>

[45] In the United States, for example, the estimated costs to taxpayers of murder cases resulting from the higher fatality rate of gun assaults is approximately USD 2.4 billion a year. One in ten secondary schools now administers random metal detector checks on students (Cook and Ludwig, 2002a).

[46] As noted by Cook and Ludwig (2002a, p. 91), 'for families, the largest investment in increased safety from violence is ... in the decision of where to live. Choosing a safe neighbourhood and schools may come at the cost of economising on space, enduring a long commute and losing easy access to the cultural amenities of the central city. Research demonstrates that the rate of out-migration from central-city neighbourhoods is highly sensitive to homicide rates'.

[47] For example, the Commission on Elections in the Philippines has regularly implemented gun bans during election periods in order to reduce violence and as a pretext for disarmament.

[48] For a seminal contribution to the debate on the costs of firearms on children, consult *The Future of Children* (2002).

[49] For example, adolescents aged between ten and 19 years represent 21.9 per cent of the population in Latin America and the Caribbean, ranging from 17 per cent in Uruguay to 26 per cent in El Salvador. This compares with 13.7 per cent for North America. Quoted in Moser and van Bronkhorst (1999).

[50] See, for example, UNICEF Action Appeals at <http://www.unicef.org/emerg/Appeals.html>

[51] A study by Hemenway, Tomoko, and Miller (2002), for example, sought to determine the association between firearms availability and the extent of female homicide in 25 high-income countries between 1994 and 1999. The findings indicate that the United States accounted for 70 per cent of all female homicides and 84 per cent of all reported female firearms homicides. In high-income countries, the researchers concluded, an increase in household firearms availability led to an increase in the number of female homicide victims. Such studies highlight the real daily experience of firearms-related violence among women, even in otherwise stable societies.

[52] Surveys have also been carried out in 46 cities elsewhere around the world, involving interviews with over 200,000 respondents, of which slightly fewer than 50 per cent took place in developing countries. Questions concerning gun possession, firearms use, and the types of weapons used are included in the surveys.

[53] Donors, such as the UK's Department for International Development (DFID), have also begun to intervene in a bid to increase the level of security awareness, training, and technical assistance for field personnel to enhance their contingency planning. The Security Management System and UN Security Coordinator (UNSECOORD) are also establishing Minimum Operating Security Standards and Minimum Security Telecommunications Standards to reduce the threat of armed violence.

[54] Building on 1997 guidelines, OECD governments renewed their commitment to mainstreaming conflict prevention and to taking account of the relationships between security and development. They also agreed to invest in the strengthening of peace processes, the building of partnerships between states and civil society, and to 'work with the private sector to avoid fuelling violence and to enhance donor co-ordination and policy coherence' (OECD, 2001, p. 3).

[55] Research communities working on development and disarmament have been producing a rapidly growing literature on preventive development, security sector reform, and post-war reconstruction. In addition, donor governments, international financial institutions (IFIs), inter-governmental organizations (IGOs), and the UN have all created specialist units and committees to address the issue of security and development.

[56] According to United Kingdom, DFID (2001, p. 2), 'security is an essential condition for sustainable development and a strong concern of the poor ... There is a growing consensus that security needs to be approached just as much from the perspective of protecting individuals and communities from violence as from the degree to which defence spending crowds out development expenditure'.

[57] See also the Copenhagen Declaration of the World Summit on Social Development (UN, 1995b), the Agenda for Peace (UN, 1992), the Commission on Global Governance (1995), and the World Bank's *Comprehensive Development Framework* (World Bank, 2000).

[58] The 'Monterrey Consensus', as it came to be described, called for an increase in and improvements in the administration of ODA and FDI (UN, 2002) See, for example, <http://www.un.org/esa/ffd>

[59] The EU agreement to reach 0.39 per cent of GNP as an EU average will provide an additional USD 7 billion by 2006 and will make available an extra USD 20 billion over the period 2000–6. This commitment, however, is just 50 per cent of the UN target and is not legally binding. The US pledge, after being rectified some days after the initial announcement, consists of three years' instalments, as follows: USD 1.6 billion in year one, USD 3.2 billion in year two, and USD 5 billion in year three: a total of USD 9.8 billion. American officials confirmed that the extra USD 5 billion would then become a permanent increase for the years to come. As it is not linked to

a percentage of GNP, it is difficult to measure the US efforts in terms of national wealth. Furthermore, the aid comes with a number of stringent conditions. For a critique of the agreements, consult <http://www.bond.org.uk>

[60] The US Administration, for example, submitted a USD 2.13 trillion budget in October 2001, which came draped in a red-white-and-blue cover and featured for the first time colour photographs of light weapons and 'ordinary' Americans. Defence spending is projected to rise by USD 48 billion, or 12 per cent (USD 331 billion in 2002 to USD 379 billion in 2003), the biggest increase in 20 years, while domestic 'homeland' security spending will jump 111 per cent to USD 37.7 billion. Meanwhile, funding for hundreds of programmes, including education, health, environment, and infrastructure, is to be reduced. See, for example, <http://news.bbc.co.uk/hi/english/business/newsid_1800000/1800954.stm>

[61] A follow-up study, which included a best-practices component, was published in 1996 on Ethiopia, Namibia, and Uganda (Colletta, Kostner, and Wiederhofer, 1996).

[62] The OECD (2001, p. 129–47) guidelines, for example, while outlining the deficits of 'buy-back schemes', do not highlight small arms collection and destruction as a priority area in relation to post-conflict reconstruction. The World Bank also claims that successful demobilization and rehabilitation, rather than small arms control, is an explicit priority. Private communication with Kuroda, PCU-World Bank, February 2002.

[63] The OSCE's (2000) *Document on Small Arms and Light Weapons*, adopted by 55 countries, contains a section on stockpile management and destruction of arms. NATO's Partnership for Peace (PfP) expanded its anti-personnel landmine destruction trust fund to include small arms and light weapons, encouraging PfP countries to commit to destruction of surpluses and training in DDR, and to support these efforts financially. See the small arms and light weapons component of NATO's PfP at <http://www.nato.int/pfp/docu/pwp0001/pwp0001.htm>

[64] See, for example, the Bureau for Conflict Prevention and Response at <http://www.undp.org/erd/smallarms>

[65] This is to be accomplished by strengthening weapons-control regimes and building an international consensus for stronger non-proliferation measures, as well as expanded support for practical programmes in key developing countries to reduce the volume of weapons in circulation.

[66] Programmes focus on strengthening democratic control over security forces, promoting human rights training among soldiers, formulating coherent guidelines for security forces, supporting judicial reform as well as legal and constitutional reform, and promoting customs and border controls. See, for example, <http://www.gtz.de/smallarms/english> The DECOSAC programme currently provides support for three major activities: the Help Desk for Practical Disarmament <http://www.disarmament.de>, the SALIGAD project in the Horn of Africa <http://www.saligad.org>, and the EU-sponsored programme in Cambodia.

[67] See, for example, <http://www.gtz.de/smallarms/deutsch/kontakt.html>

[68] See Latham (2002) for details of ODA spending on small arms by key bilateral and multilateral donors.

[69] Approaches adopted by the humanitarian community are reviewed in Muggah and Griffiths (2002) and in the *Small Arms Survey 2002*. These include curtailing supplies to regimes that regularly violate human rights, enforcing humanitarian law in violence-affected societies, and operational reform to improve the security of personnel in the field.

[70] See also Oxfam-GB's Cut Conflict Campaign at <http://www.oxfam.org.uk/campgain/cutconflict> and World Vision-UK's website at <http://www.worldvision.org.uk/world_issues/peace_building/small_arms.html>

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Main contributors

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