



# **“Development Held Hostage”: Assessing the Effects of Small Arms on Human Development**

**A PRELIMINARY STUDY OF THE SOCIO-ECONOMIC  
IMPACTS AND DEVELOPMENT LINKAGES OF SMALL  
ARMS PROLIFERATION, AVAILABILITY AND USE**

United Nations Development Programme

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# United Nations Development Programme

The United Nations Development Programme (UNDP) helps people in 174 countries and territories to help themselves, focusing on poverty eradication and democratic governance. In support of these goals UNDP is frequently asked to help create and implement policies that are more responsive to the needs of ordinary people, and to help societies rebuild in the aftermath of war and humanitarian emergencies. UNDP is also an advocate for increased development assistance and a more inclusive global economy.

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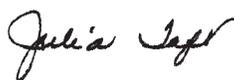
**T**here is a sense that any discussion of the impacts of small arms involves a discussion of the obvious—that small arms in the wrong hands kill many people, create a climate of terror, and contribute to a downward spiral of poverty and misery.

While the basic humanitarian suffering resulting from the use of small arms might be evident, the underlying damage to a society caused by these guns is often less clear. Beyond being used to kill more than 300,000 people a year in conflicts, usually in the world's poorest countries, small arms are often the primary instruments that can set back the development process years or sometimes decades. These illicit weapons often affect whether people can live in their own homes and communities, whether they can earn a livelihood, whether they will enjoy any legal rights or protection, and whether they will have access to health and education services.

This report is a study of what the widespread use of small arms costs society. Beyond basic assumptions, it is an initial attempt to understand the true impacts of the use of small arms on the lives of people, on communities, and on prospects for development. Clearly, there are limitations on what we know due to a lack of reliable statistics and information, yet this report provides an extensive look into the far-reaching nature of the problem.

UNDP's small arms programme, which has worked to collect thousands of small arms in projects in Afghanistan, Albania and Congo Brazzaville, continues to expand as more countries request assistance to address small arms problems. To meet this growing need, better information is needed in order to develop good policy, organize and implement effective projects, and to measure the impacts of such interventions. Understanding the costs of small arms-driven impacts on development will provide the programme with a greater ability to target these interventions and achieve the greatest benefit to the most people.

This report provides the full scope of the problems and circumstances that these programmes must address. The findings of this study reinforces the importance of UNDP's continuing commitment to fully understand the issues and identify solutions that will help end senseless conflict and violence while helping to promote long-term human development.



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# Abbreviations

<b>AKM</b>	Automatic Kalashnikov Machine-Gun	<b>NGO</b>	Non Governmental Organisation
<b>APM</b>	Anti-Personnel Mine	<b>ODA</b>	Overseas Development Assistance
<b>BICC</b>	Bonn International Center for Conversion	<b>OAS</b>	Organisation of American States
<b>BCPR</b>	Bureau for Crisis Prevention and Recovery	<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>CDC</b>	Centre for Disease Control	<b>OSCE</b>	Organisation for Security Co-operation in Europe
<b>CGIAR</b>	Consultative Group for International Agricultural Research	<b>PCASED</b>	Programme for Coordination and Assistance for Security and Development
<b>CINEP</b>	Centro de Investigacion Nacional Popular	<b>PNUD</b>	Programa del Nacion Unies Por el Desarrollo
<b>CMR</b>	Child Mortality Rates	<b>RGSA</b>	Reference Group on Small Arms
<b>DAC</b>	Development Assistance Cooperation	<b>RPG</b>	Rocket-Propelled Grenade
<b>DALY</b>	Disability-adjusted Life Years	<b>RPF</b>	Rwandese Patriotic Front
<b>DDR</b>	Disarmament, Demobilization and Reintegration	<b>SALIGAD</b>	Small Arms and Light Weapons in the Inter-Governmental Authority for Development
<b>DFID</b>	Department for International Development	<b>SAP</b>	Structural Adjustment Programme
<b>DRC</b>	Democratic Republic of Congo	<b>SAS</b>	Small Arms Survey
<b>EC</b>	European Community	<b>SIDA</b>	Swedish International Development Agency
<b>FDI</b>	Foreign Direct Investment	<b>UNDP</b>	United Nations Development Programme
<b>GDP</b>	Gross Domestic Product	<b>UNGA</b>	United Nations General Assembly
<b>GNP</b>	Gross National Product	<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>GPP</b>	Gramsh Pilot Project	<b>UNICEF</b>	United Nations Children's Fund
<b>HAIN</b>	Health Action Information Network	<b>USDOJ</b>	United States Department of Justice
<b>HDI</b>	Human Development Index	<b>UXO</b>	Unexploded Ordnance Device
<b>HDR</b>	Human Development Report	<b>YPLL</b>	Years of Potential Life Lost
<b>HPN</b>	Humanitarian and Practice Network	<b>WFP</b>	World Food Programme
<b>IADB</b>	Inter-American Development Bank	<b>WGWR</b>	Weapons Group for Weapons Reduction
<b>IASC</b>	Inter-Agency Standing Committee	<b>WHO</b>	World Health Organisation
<b>ICRC</b>	International Committee of the Red Cross		
<b>IDP</b>	Internally Displaced Person		
<b>IFI</b>	International Financial Institutions		
<b>IRC</b>	International Rescue Committee		
<b>IRIN</b>	Integrated Regional Information Network		

## Executive Summary

**A**rmed violence carried out primarily with small arms is a major contributing factor that has led to increasing poverty and human insecurity. Cheap, portable, and readily available, small arms are the weapons of choice, in gang violence, organized crime, civil wars or inter-state conflict. Their widespread availability can threaten the welfare and stability of communities, states and regions.

Because of their **long life span**, small arms are continuously recycled from old conflicts. AK-47s and M-16s used by combatants during the Vietnam War have resurfaced as far afield as Nicaragua and El Salvador more than 30 years later. Highly durable, they frequently outlast peace-agreements and can be taken up again well after the conflict has ended.

The sheer **quantity** of such weapons in circulation today (at least 550 million) can support violent solutions over peaceful ones—particularly in the absence of legitimate public authority and the rule of law.

Small arms have a direct impact on human development and kill more than 500,000 people each year. Such deaths and injuries also impact the public health sector by limiting civilian access to health facilities and contributing to the spread of infectious disease by restricting vital health interventions. In Latin America, for example, firearm deaths and injuries have destroyed millions of productive “life years” from people, and have reduced the GDP of the countries in this region by 15–20 per cent per annum.

The widespread availability of small arms also causes **indirect impacts** on human development that include:

- **Criminal violence**—perpetrated with small arms has severe implications for the quality of life for civilians, labour productivity, the costs of goods and services and the value of property, investment and tourism. In Colombia, an estimated 90 per cent of the average 20,000 homicides per year are attributed to handguns. The widespread insecurity generated by small arms availability has led to the costly privatization of security. This global industry was estimated to be worth nearly US\$100 billion in the 1990s.
- **Collapse of health and education services**—Health and education workers are often targeted or attacked in the context of arms-related violence, leading to the collapse of health care and education facilities. Furthermore, the access of patients to these services is frequently limited or constrained due to armed insecurity. For those who are able to reach essential services, they are often faced with abandoned clinics or facilities that are over-stretched. This has significant secondary impacts on health: in the arms affected areas of Mindanao, a region in the Philippines, child mortality rates exceed 310 per 100,000, whereas the national average is less than 175 per 100,000.
- **Displacement of people**—The fear and terror generated by small arms availability is a critical factor in **inducing displacement** (internal or cross border) and **inhibiting or delaying later return or resettlement**. There is evidence that firearm related insecurity is a significant factor influencing individual or household decisions on whether to flee or migrate, as measured by rates and numbers of displacement from areas affected by gun violence. Almost half of Sierra Leone’s

population has been forced to flee to neighbouring countries as a result of the terror provoked by arms-wielding rebel factions.

- **Declining economic activity**—Formal and informal trade, household and commercial investment (FDI and ODA), and agricultural production can also rapidly deteriorate in situations of armed insecurity. The presence of arms has negative implications for inter-personal transactions and can undermine productive activities that are essential for livelihoods and food security.
- **Reduced government resources**—High levels of armed violence and forced displacement can have a negative effect on government revenue (through lower tax collection) and rates of domestic savings. Lower levels of domestic savings reduce the available resources for investment and can contribute to declines in economic activity.
- **Damage to the social structure**—High levels of small arms availability can have negative implications for a society's social capital in terms of family and communal cohesion, gender relations, and customary institutions that condition social control and may undermine the prospects for human development. In Kenya, customary institutions among pastoralists such as bridal dowries, elder's councils, common property resources and informal exchange mechanisms have been distorted by small arms availability.
- **Withdrawal of development assistance**—Small arms availability has generated insecurity for development agencies, often resulting in a withdrawal from regions that are particularly affected. The

frequency of security incidents involving small arms have increased the costs of doing development across the board, including transportation, logistics and, perversely, the opportunity costs of not intervening.

Removing small arms from conflict or potential conflict situations can save lives and promote development. A preventive development approach is essential for dealing with the impact of small arms availability and use. Such an approach should focus on both the sources of supply of these weapons and the reasons why people possess them.

Basically, there are two major approaches to small arms reduction, by either attempting to contain the supply of these weapons, or by reducing the demand. While these approaches can be used in combination, it is ultimately necessary to address the root causes of armed conflict and social violence. This focus on the demand side is linked to the preventive development approach, which assumes that without well-balanced and sustainable human development, armed conflict and social violence are more likely to emerge, and thereby increase the demand for arms.

There is a growing consensus around the idea that a lack of opportunity and perceived injustice and inequality compels some people to take up arms. As a result, effort to combat the proliferation of small arms must address the issue of trust among people by building confidence, by forging collaborative networks in the community, and by supporting genuinely participatory initiatives and a long-term commitment between stakeholders.

# Introduction

**A**rmed conflict and social violence<sup>1</sup> carried out primarily with small arms<sup>2</sup> is a contributing factor to increased poverty and human misery. Poverty and suffering, in turn, threaten human security and development. If human development is about “the progress of human lives and well-being...living with substantial freedoms...(and about), enhancing certain capabilities (and) the range of things a person can do and be,” then the impacts of the use of small arms represents a formidable obstacle to its achievement.<sup>3</sup>

Although most small arms are legally manufactured, many are diverted into illicit markets. While this study focuses mainly on the problem of illicit small arms in the hands of criminals and insurgent groups, it also considers the impact of poorly regulated legal small arms possession and use, whether in the hands of government security forces or private individuals. This study provides a conceptual framework for examining the issue and identifies measurable indicators that can help assess the impact of small arms on human development. Constrained by a lack of local statistics, the presence of countervailing variables, selection-bias, and the range of situational and contextual factors that condition the effects of small arms, the study nevertheless endeavours to appraise the context in which small arms are used, a vital first step towards reducing their impacts.

It is clear that development efforts are often retarded, or even reversed, as a result of the impacts of the availability and misuse of small arms. In this context the development community is now beginning to re-think the complex inter-relationships between armed conflict and

social violence on the one hand and small arms and development on the other.<sup>4</sup> A new wave of empirical studies that document the root causes and the broad socio-economic costs of internal conflict and social violence on human development are increasingly demonstrating how armed violence reduces, and in some cases, retards, development.

Small arms, by themselves, do not cause internal conflict and development failures, but they often multiply their effects. They play an important role in triggering and lengthening the lethality, scale, and consequences of armed conflict and social violence (see **Box 1**). In other words, small arms, whether newly introduced or circulating from earlier conflicts, constitute important risk factors that aggravate pre-existing structural disparities and inequalities—ensuring widespread insecurity and inescapable poverty traps among vulnerable groups. Combined with other **risk factors** such as systemic poverty, social marginalisation, persistent unemployment and horizontal inequality<sup>5</sup>, self-perpetuating cycles of violence are ensured by the ready availability of such weapons.

Small arms have both direct and indirect impacts on human development. **Direct impacts** refer to the immediate physical effects of armed violence—deaths and injuries. The **indirect effects** of small arms include high levels of criminality, violence-induced displacement, collapsing public services, declines in normal economic activity, and the erosion of a society’s social capital. Increasingly, these indirect impacts affect development interventions and the relative safety and security of field staff.

<sup>1</sup> Social violence here refers to criminal, domestic and other forms of internecine outbursts between groups and individuals

<sup>2</sup> The definition of small arms follows the 1997 UN *Report of the Panel of Governmental Experts* (A/52/298).

<sup>3</sup> See *Human Development Report* (2000: 19) for a discussion of the concept of human development.

<sup>4</sup> Collier (1999: 2) has noted how the two phenomena of civil wars and crime and violence are linked: first, the perpetrators are members of the same target group (essentially young unemployed men) and second, “there is evidence that inadequate attention to demobilization—following a military defeat by one party or a peaceful resolution of civil wars—could fuel crime and violence by displaced and asset-less demobilized fighters”.

<sup>5</sup> According to the *Human Development Report* (1999), “horizontal inequalities” between groups—whether ethnic, religious or social—are the major cause of the current wave of civil conflicts. “Inequalities—and insecurities—matter not only incomes but in political participation (in parliaments, cabinets, armies and local governments), in economic assets (in land, human capital and communal resources) and in social conditions (in education, housing and employment)”. See also UN WIDER at <http://www.wider.unu.edu>.

Attempts to reduce the supply of weapons to war-affected countries and regions through sanctions, embargoes and moratoriums, have not been particularly successful. In many cases, disarmament programmes have been undertaken in the absence of a realistic or coherent political and economic framework. Alternatively, small arms collection and destruction programmes have been conceived as a loose “add-on” to peace-negotiations. In the aftermath of conflict, peace missions and demobilisation, disarmament, and reintegration (DDR) programmes have frequently adopted a narrow perspective by concentrating on technical supply-side issues, such as collection, rather than on

demand issues—why people have weapons in the first place.

Narrow supply-side approaches that focus on the weapons and on ex-combatants are only part of the solution. Nor can the broad range of socio-economic impacts of small arms be dealt with in a framework that focuses exclusively on weapons reduction. Because small arms play a key role in undermining development gains in conflict-affected, post-conflict, and stable societies alike, they should be of concern to the development community rather than the exclusive preserve of the security and disarmament community.

### **Box 1. Why are small arms a risk to human development?**

Because of their **long life span**, small arms and light weapons can be used in conflict after conflict. AK-47s and M-16s used by combatants during the Vietnam War have resurfaced as far afield as Nicaragua and El Salvador more than 30 years later. Because of their durability they frequently outlast peace-agreements and are taken up again in the post-conflict period. Small arms remaining in circulation despite disarmament initiatives reduce the momentum and sustainability of post-conflict reconstruction and peace-building efforts. As a result, fragile recovery periods often slip backwards into conflict and complex emergencies.

Their easy availability, simple technology and low cost means that small arms are frequently taken-up by untrained civilians, including youth and children. The AKM series rifle, for example, has only nine moving parts and weighs less than 4.5kg. They are easily concealed and are frequently used in crime and conflict alike. Since small arms are characterised by a high degree of **lethality**, they exacerbate and multiply the costs of internal conflict and widespread social violence.

The risks and challenges associated with small arms availability and misuse are best addressed in a comprehensive fashion within a **preventive framework**. The development community’s “value-added” is its preventive vision and capacity to simultaneously respond to both the supply and demand factors relating to small arms availability and use. In addition to its long-term perspective, the development community has demonstrated the capacity to design and implement comprehensive, transparent, participatory and locally-appropriate responses to the small arms issue.

## Why Armed Violence and Small Arms Matter to Development

<sup>6</sup> See, for example, the Small Arms Survey (2001), Stewart et al (2000) and Sivard (1996).

<sup>7</sup> The 1994 *Human Development Report* identified 52 major armed conflicts in 42 countries and another 37 countries that had political violence.

<sup>8</sup> For example, in Mendoza Argentina, there is a huge gap between the actual number of crime victims and the number that believed that they were likely to become victims of crime. According to a survey conducted by the Argentinean Ministry of Justice, while only 6 per cent of the population in the province had actually been victims of a crime, more than 80 per cent of the population felt that they were at high risk of becoming victims. Correspondence with Martín Appiolaza, May 2001.

<sup>9</sup> Homicide per 100,000 rose from less than 4 to 7 in Europe and Central Asia; from more than 2 to approximately 9 in Sub-Saharan Africa and from less than 8 to 12 in Latin America and the Caribbean (Collier, 2000). These trends are also directly correlated with increases in regional firearm-homicide rates as documented in the UN *International Study on Firearm Regulation* (1998). It must be remembered, however, that rates depend on the accuracy of population figures and estimates.

<sup>10</sup> Escalating, in part, as a result of the growth of newly independent, and frequently unstable, countries, though declining overall between 1995 and 2000.

<sup>11</sup> Conflict was not discussed substantively in UNDP's first *Human Development Report* (1990) or in the 1997 edition. In HDR country reports for Mali, Niger, El Salvador, Georgia, Albania, Nicaragua and Sri Lanka, there is very little attention devoted to conflict, post-conflict or violence in relation to under-development. Nor have the broad impacts of conflict and crime been substantively addressed by the World Bank's *Poverty Alleviation Strategy* (1998) or in the UNDP's *Poverty Report* (2000). There has also been minimal attention to conflict, instability and humanitarian assistance in the Partnership Strategy of the OECD—though the OECD's DAC (1997) encouraged states to “pursue policies that minimise the risks of violent conflict” and is drifting toward more “results-oriented” interventions.

Since the Cold War, the location and tenor of armed conflict has changed. Of the 30 to 50 conflicts occurring each year between 1989 and 1995, more than 95 per cent took place in developing countries.<sup>6</sup> Most of these conflicts were largely internal affairs, rather than the proxy wars and independence struggles of the past, and virtually all of these wars were fought primarily with small arms.<sup>7</sup> With the global media saturated by images of local violence, opinion polls and surveys note that perceptions of insecurity, even among societies untouched by war, have increased, resulting in a generalized unease generated by the fear of firearm related social violence or crime.<sup>8</sup> Empirical evidence substantiates these concerns—with firearm related homicides increasing in the second half of the 1980s and the first half of the 1990s in all regions of the world except for the Middle East, North Africa and East Asia.<sup>9</sup>

With the number of internal armed conflicts peaking in the mid-1990s<sup>10</sup>, the limits and effectiveness of development assistance in the context of widespread human insecurity and arms availability has been repeatedly tested. In Sub-Saharan Africa alone, more than 20 per cent of the continent's population was directly impacted by civil wars during the 1990s. Devastating internal conflicts in Angola, Burundi, Guinea-Bissau, DRC, Liberia, Rwanda, Sierra Leone, Somalia and Sudan claimed the lives of millions of innocent civilians and destroyed the livelihoods of tens of millions more across entire sub-regions.

Other parts of the world have also seen a rise in the numbers of internally displaced persons (IDP), increases in armed criminality, and the unravelling of development efforts in violence-affected societies.

The opportunity costs of these armed conflicts to the affected countries and the surrounding region, in terms of foregone economic and social investment, are significant. For example, in a survey of 69 firms conducted for the *World Development Report* (World Bank, 1997), insecurity was ranked as the number one risk facing investors. Overall, there has been rapid consensus that the development paradigm has insufficiently considered the implications of conflict and social violence.<sup>11</sup>

Of the 34 lowest ranking countries on the UNDP's *Human Development Index* (HDI) in 2000, more than 20 are severely affected by conflicts. In Africa, of the 45 countries where UNDP is working, almost half are experiencing civil strife and at least eleven are convulsed by violent political crisis. Significantly, all 31 countries in the OECD and the remaining 113 countries in the medium human development categories are not affected by war.<sup>12</sup> In reviewing major conflicts occurring since the 1950s, Gurr et al (2000: 12) claim that: “societies with low social development appear to suffer more from societal warfare than more prosperous ones”.

In large parts of Latin America and the Caribbean, South East Asia, Eastern Europe and Africa, social and domestic violence, measured as a function of firearm homicide, robbery and harassment, is reaching epidemic proportions—and is threatening the long-term development of regions and otherwise unaffected states.<sup>13</sup> Small arms and armed violence have “contagion” effects<sup>14</sup>—as communities next to others with high levels of violence tend to also experience the same problems (Carneiro, 2000). Criminal syndicates and informal gangs operating in economies

weakened by conflict are trading in commodities such as diamonds, timber and illegal drugs and also procuring and selling weapons that quickly diffuse into civil society. From the local to the global level, small arms are frequently substituted as convertible currencies.<sup>15</sup>

The easy availability of small arms has played a role in re-igniting conflicts that were considered over, such as in the Balkans, Central America, and Sub-Saharan Africa. Some of these weapons are looted from vast stockpiles of guns collected from ex-combatants during episodes of civil and political unrest. Overall, small arms are likely to become more readily available during periods of growing insecurity, such as when there is a marked decline in public confidence in the legitimacy of the state and its public institutions (e.g. police).<sup>16</sup>

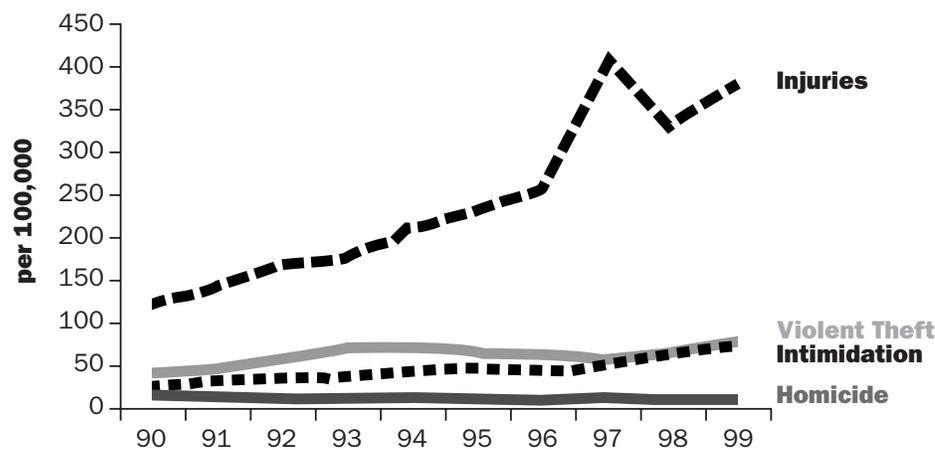
In cases where the state monopoly of force has been weakened, distinctions between war and crime break down. Rising levels of armed criminality and localised violence in weak states invariably leads to an increase in privatised security

rather than the state's police and paramilitary.<sup>17</sup> The implications of all of these trends on public authority, law and order, good governance<sup>18</sup> and equitable development are far-reaching.

Armed conflicts during the 1960s and 1970s, a study has argued, were the best predictor of complex humanitarian emergencies and systemic social violence in the 1980s and 1990s.<sup>19</sup> Comparisons of firearm homicide rates in a large number of countries before and after they have experienced wars have demonstrated a significant increase in aggregate rates, regardless of whether their post-conflict economies improved or declined.<sup>20</sup> As **Figure 1** illustrates, injuries, robbery and harassment in Nicaragua, frequently perpetrated with automatic rifles and grenades, have increased in the period following the cessation of armed conflict.

In post-war El Salvador, Honduras and Guatemala, an abundance of left-over small arms, coupled with endemic "cultures of violence," have provided an outlet for expressions of discontent over perceived injustices and access to the

**Figure 1. Indicator of Insecurity in Nicaragua: 1990-99**



<sup>12</sup> There are, a few notable exceptions. A sample of these might include Chechnya in the Russian Federation, isolated pockets of Macedonia, Georgia, the Philippines, Indonesia, Colombia and Sri Lanka.

<sup>13</sup> In Latin America and the Caribbean alone there were an estimated 102,000 homicides in 1990 (46 per 100,000). In countries such as Colombia, the annual rate of homicide increased more than 366 per cent between 1983-1993, from 24 to 88 per 100,000 (Villaveces et al, 2000).

<sup>14</sup> Contagion refers to the tendency of social violence to propagate in space.

<sup>15</sup> For example, in Colombia, the exchange of drugs for guns extends back to the late 1970s and early 1980s. In October 2001, an intercepted shipment of AKM assault rifles from a Russian criminal gang to a southern faction of the Revolutionary Armed Forces of Colombia (FARC) via Peru was valued at \$US 50 million. See also Cooper (2001) for a discussion of conflict goods and small arms.

<sup>16</sup> In the words of Louise (1995: 4) "Where states are unable to provide a secure environment for their citizens or meet the prerequisite demands of basic human needs, the proliferation of weaponry is both a principal consequence of, and a key contributor to, weak and ineffective governance". The cases of Albania and Congo-Brazzaville are particularly illustrative (Small Arms Survey, 2001: 200-201).

<sup>17</sup> For a review of the value and scale of the private security industry, consult the Small Arms Survey (2001b: 219-221).

<sup>18</sup> According to Ghai and de Alcantara (1994), good governance is the "the combination of institutions, laws, procedures and norms" that allow individuals to express their concerns and ensure that their interests are realised within a predictable and equitable context. They note that the "efficient administration of public resources is an additional element in this definition...and that the entire edifice of good governance ultimately rests upon a legitimate use of power: public authority must be sanctioned by the consent of the governed".

<sup>19</sup> Examples might include Angola, the Ethiopia-Eritrea conflict, the re-ignition of war in Southern Sudan in 1983 and the current conflict in DRC. For more on this topic, see Nafziger and Auvinen (1997).

<sup>20</sup> See, for example, the Small Arms Survey (2001), Muggah (2001a, 2001b), Buvunic et al (1998), Meddings (1997) and Archer and Gartner (1984).

state's resources. Indeed, rough estimates indicate that for every 1,000 weapons collected from former combatants in the region, there are approximately 100,000 unaccounted for in circulation.<sup>21</sup> Central America as a whole experiences firearm homicide rates of between 30 and 50 per 100,000. It is not surprising that between 1999 and 2000, the purchase of private security services and small arms in Guatemala's capital had grown more than 50 per cent on rates that were already among the highest in the world. As Cilliers and Mason (1999) have pointed out, different social groups that cannot afford the services of private security also frequently seek to protect themselves through the illegal acquisition of firearms.

The durability of small arms ensures that once they are present in a country, they present a constant risk—especially in societies where there are large accumulations of weapons.<sup>22</sup> According to the UNDP's *Human Development Report for Albania* (1999: 34), “the large number of weapons in civilian hands” was a key factor that led to large-scale violence. In March 1997, following the collapse of pyramid financial schemes, an estimated 20 per cent of the country's military arsenal was looted and by the end of 1997 approximately 1,600 civilians had been killed.<sup>23</sup> During the crisis, the number of homicides and attempted homicides multiplied by a factor of five between 1996 and 1997.

### Waking up to the Problem

The development community has started to recognise the effects of small arms violence on human development, and a discourse linking armed conflict and development has been developed in key

UN reports.<sup>24</sup> UNDP's 1994 *Human Development Report* adopted a seminal interpretation of security that stretched beyond the military domain. It acknowledged the imperative for multi-faceted and human-centered security in the daily life of people and the conviction that the search for stability lay in development rather than arms.<sup>25</sup>

As the international community's awareness of the nexus between conflict and development expanded in the late nineties, so too did multilateral thinking on the issue.<sup>26</sup> For example, both the *OECD/DAC Guidelines on Conflict, Peace and Development Co-operation on the Threshold of the 21st Century* (1997) and the 1998 *Secretary General's report on the Causes of Conflict and the Promotion of Durable Peace and Sustainable Development in Africa* acknowledged the far-reaching impacts of armed conflict on development

#### Box 2. Small Arms Facts

- Small arms are **produced** by over 600 companies in at least 95 countries.
- There are at least 550 million small arms in **circulation** today, of which approximately 56 per cent are in legal civilian possession, 43 per cent are in the arsenals of state security forces, and less than one per cent are in the hands of non-state insurgent groups.
- There appears to be a relatively small network of sophisticated **brokers** with a complex web of intermediaries operating globally
- The estimated value of the **legal small arms** trade is between \$US 4-6 billion. The illicit trade remains difficult to calculate, though it is believed to amount to 10-20 per cent of the total trade.

Source: Small Arms Survey (2001)

<sup>21</sup> US military aid to the Nicaraguan Contras during the 1980s, for example, amounted to approximately \$US 70 million annually (Louise, 1995). Although OAS and Italian government lead initiatives removed some 142,000 guns between 1991 and 1993 through a combination of cash, food and micro-enterprise incentives, many more weapons are believed to be still in circulation. In El Salvador, while some 10,200 small arms and light weapons and 9,200 grenades were successfully collected and destroyed, an estimated 360,000 are believed to be in private hands. The Ministry of Defence claims that 1,000 new arms are imported every month and that there is approximately one gun over every 20 people. In Guatemala, the estimated 1,800 small arms and light weapons that were returned by former Guatemalan Revolutionary Unit (URNG) combatants represent only a fraction of the 2 million weapons which continue to circulate illegally within the country. See Faltas *et al* (2001), the *Small Arms Survey* (2001) and UNIDIR (1997).

<sup>22</sup> Such as, for example, was the case in countries like Guatemala, El Salvador, Somalia, Ethiopia, Croatia and Bosnia affected by massive military accumulations during the Cold War.

<sup>23</sup> Including more than 650,000 weapons together with 20,000 tons of explosives, 1.5 billion rounds of ammunition and artillery shells (BICC/SAS, 2000).

<sup>24</sup> One of the first UN statements on the subject emerged in the late eighties, when the *World Commission on Environment and Development* (World Commission on Environment and Development, 1987) articulated a vision of “sustainable development” and the potential for environmental degradation to undermine peace and security.

objectives and aid budgets. Implicit in both of these seminal contributions was the idea that prevention should focus on promoting human security and human development, and that the two were mutually reinforcing.

Merging the security and development agendas ensures, at least theoretically, a commitment to moving beyond minimalist strategies of ensuring basic kilo caloric needs and towards the critical acceptance of the need to bridge the relief-development divide. The new outlook implicitly endorses a commitment to adopting long-term development-oriented strategies in countries affected by, or emerging from systemic armed violence (OECD, 1997).

Three common approaches define the current thinking on the relationship between armed conflict and development. The first relates to the **expansion of traditional concepts of “security”**—a shift from military and state-defined notions of security—to a view that posits “humans”, with their multiple needs and capacities, at the centre of the picture. A second relates to ‘Security First’—the view that **security is a pre-requisite for development**, and that the absence of equitable and sustainable development often exacerbates social conflict and insecurity. This approach reflects current thinking on the “root causes” of conflict, such as horizontal inequality, exclusive politics, poor governance and weak public authority among states—and notes how these constitute insecurities that can lead to violence. A final approach relates to the fact that **small arms undermine development** and contribute to widespread human insecurity and unvirtuous cycles of violence.<sup>27</sup>

### Box 3. An AK-47 for a Chicken? The Economics of Illicit Small Arms

Much is made of the low-cost of small arms. Reports often state that weapons can be bought for as little as a goat, a camel or a bag of sorghum. While local demand may determine the re-sale value of small arms once they are in civilian hands, their low price often belies an economic reality about the true cost of illicit small arms.

Ultimately, however, many non-state actors engaged in armed conflict or crime must eventually generate foreign currency to pay for their resupply on the black market. For this reason, every automatic gun and every round of ammunition fired by a child soldier represents an economic transaction involving commodity exchanges with international markets in those countries where arms are not manufactured domestically (Lock, 1999: 12).

Such exchanges presuppose the accumulation of a corresponding economic surplus and the use of that surplus to illegally import arms. But since the eventual placement of the surplus in mostly oversupplied global markets of raw materials requires “illegal transactions, the marketed surplus fetches only heavily discounted prices”. This means that the illegal supply of arms is expensive, even if the “retail” price for weaponry is low as a result of present over-supply. Such illegal transactions are the common denominator of so called war economies.

## Conflict, Peace and Development

The nature of conflict is itself transformative—it changes the political, economic and social relationships on the ground. For this reason, many of the factors that sustain present conflicts are not necessarily those that originally “caused” them in the first place. Conflicts that begin as localised disputes are frequently politicised

<sup>25</sup> The 1997 edition devoted to poverty, however, has been criticised for failing to “give any in-depth consideration to countries at war” (Stewart *et al.*, 2000). The World Bank’s “Poverty Reduction Strategy”, elaborated in 1998, also makes little reference to countries at war, even though countries that have suffered from internal conflict account for “eight out of the ten countries with the highest infant mortality rates and of those with the lowest per capita incomes”.

<sup>26</sup> Both the *World Summit on Social Development* (para 27) and the *Agenda for Development* (para 158) in 1995 noted how inequalities generate insecurity and the importance of “medium to long-term social and economic development” to prevent the (re) occurrence of complex emergencies.

<sup>27</sup> UNDP has gained specific operational expertise from working on small arms in a number of developing countries. This experience extends to work on demobilisation and security sector reform in countries as diverse as Honduras and Somalia, to development incentives for arms collection in Niger, Mali and Albania. UNDP has provided expert assistance on collection and disposal of excess weapons in the Solomon Islands, Niger and the Republic of Congo. See George (2001) for more details.

and appropriated by vested interests so that they escalate into a higher order of armed violence. Armed conflicts sparked by grievances and social exclusion frequently multiply and adopt a new logic that sustains them over long periods.

Just as conflict can be fed by the exploitation of natural resources such as diamonds and oil, so humanitarian and development assistance can distort, and even prolong conflicts. Development is never politically neutral—the spoils (in this case development and humanitarian assistance) are frequently divided unequally between the “winners” and “losers” of war. Perversely, the aid architecture and infrastructure has, in some cases, indirectly fuelled the demand for weapons, though more attention is being devoted to the problem.<sup>28</sup> For example, the Secretary General noted in 1998 that “relief efforts must be a step towards development, and must be delivered in ways that promote, rather than compromise, long-term development objectives”.<sup>29</sup>

Poorly targeted **development and humanitarian assistance** has often fuelled social violence or fed directly into armed conflicts.<sup>30</sup> Studies on the impact of food aid during civil wars in Afghanistan, Mozambique and Sudan, note that even where it prevents starvation in the short term, “food aid can prolong suffering over many years by contributing to the financing of the war and diverting people from their normal economic activities” (Stewart *et al*, 2000: 195). In some instances, as in Liberia, the former Yugoslavia or Chechnya, aid was diverted away from the intended beneficiaries and was redistributed to a small number of vested interests.

In some cases, those benefiting financially from the influx of aid have an incentive in perpetuating hostilities. Likewise, at the project level, the administration of relief and development assistance where small arms are prevalent has also been known to fuel informal economies—through, for example, the substitution of rations for arms. Where humanitarian and development infrastructure is more or less consolidated, their opportunistic use for the purposes of arms trafficking has also been noted. For example, the arrival of more than one million Rwandan and Burundian refugees into UNHCR camps in Goma following the Rwandan genocide in 1994 involuntarily brought together the different military actors (including the Interahamwe) and the logistic facilities provided by the (then) Zairian government and the UN. These refugee camps provided the ideal conditions for the unrestrained proliferation of weapons.

Certainly during conflict or fragile post-conflict situations, multilateral and bilateral assistance needs to be altered in light of the political economy of the war. At the very least, donor policies should ensure that ODA is not approved for repressive governments. Furthermore, structural adjustment programmes should seek to sustain health and food entitlements for the whole population, while also working to redress horizontal inequality lest civilians turn to weapons to ensure their own needs.<sup>31</sup>

<sup>28</sup> For example, the OECD (1997:15) notes that the “social and political tensions are inevitable in the process of socio-economic development”. See Grunewald, (2001); Anderson (1999); UNGA (1999); and Duffield (1994).

<sup>29</sup> Somewhat contradictorily, the UNDP claimed in 1999 that: “development should and increasingly does happen during conflicts”. In 2001, however, the UNDP forcefully stated that: “development will be sustainable only if strategies that incorporate concern for their tensions that could lead to violence and promote measures to counteract such tensions”.

<sup>30</sup> Anderson (1999), for example, identifies three ways that donor and agency policies can exacerbate conflict, including: a top-down focus on aid allocation that obscures, distorts and undervalues impacts; over-specification of beneficiary groups that reinforces divisiveness and; fund-raising approaches that over-simplify conflict.

<sup>31</sup> James Wolfensohn, the President of the World Bank has recently noted that “security is a critical development issue and the Bank needs to more explicitly recognise it and integrate security concerns into policies and programmes, developing an ability to respond”. See the World Bank’s Post-Conflict Unit for more: [www.worldbank.org](http://www.worldbank.org).

# Measuring the Impacts of Small Arms on Development

This section introduces a preliminary framework for assessing the impacts of small arms on development (see **Figure 2**). The framework distinguishes between direct and indirect effects, and identifies a selection of indicators for the different categories of effects. The list of indicators is not exhaustive, and as such represents only a first step toward quantifying the extent to which small arms, in a variety of settings, constitute a risk factor for development.

While the direct and indirect effects of armed conflict and social violence are often inter-linked and difficult to distinguish, they are treated separately here in order to demonstrate clearly the differential range of impacts of small arms on development. In this section, each of the indicators is examined in terms of its usefulness in helping to quantify the impact of small arms on development. In some cases it is possible to distinguish between primary and secondary indicators. Primary indicators are normally short-term, quantifiable, and directly associated with small arms availability and misuse. Secondary indicators are usually long-term, more qualitative and often difficult to identify explicitly, and exclusively, with small arms availability and misuse.

The direct effects of armed conflict and social violence relate to **deaths and injuries**, and the associated costs of treatment and care for firearm casualties, measured by disability-adjusted life years (DALYs). The indirect effects relate to the impact of small arms use on **criminality, forced displacement patterns, health and education services, economic activity** and **social capital**. The indirect effects also extend to **development intervention** and the impacts of armed violence on

field staff, as well as the opportunity costs associated with the declining access of development agencies to beneficiary populations. This latter subset of impacts has received growing attention in the humanitarian literature, and will not be reviewed extensively in this study.

Available firearm-related statistics have severe limitations. In many countries affected by protracted conflict, reliable and continuous information cannot be obtained and in countries emerging from conflict there are few benchmarks to help discern trends and patterns. Even in countries at peace, information relating to firearms, homicide and injury are often considered issues of national security (or are generated by under-resourced surveillance facilities) and are frequently unreliable.<sup>32</sup> Even less controversial statistics on human development indicators, particularly among developing countries, are deceptive—with under and over-reporting, deficiencies in monitoring and an absence of verification measures.<sup>33</sup> One analyst remarked that “the figures we usually use in analysing and measuring the severity of a crisis—for 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 *et al*, 1992: 200).

Because differences in record-keeping methodologies on public health and crime statistics exist between states (and even within states), international comparisons must be made cautiously.<sup>34</sup> Even where accurate baseline statistics do exist, it is frequently difficult to ascertain with certainty the extent to which small arms availability and misuse is a significant

<sup>32</sup> According to studies carried out by Kaufman *et al* (1999), many of the causes of underreporting across countries appear to be related to their respective levels of development. The level of development also appears to be correlated with the quality of public institutions. The quality of such institutions in turn appears to affect the extent of underreporting of a range of data, including criminal activity. Predictably, as citizen confidence rises in public institutions, so does reporting of crimes.

<sup>33</sup> Small arms not only have severe impacts on human development, but also on the actual recording of these impacts. For example, in the case of health, insecurity generated by small arms disrupts surveillance and monitoring of diseases, as well as the organisation and delivery of health care. Consequently, the population, particularly children are dying from an increased number of curable and preventable diseases.

<sup>34</sup> For example, statistics on crime are purported to be “notoriously weak for reasons that are obvious and well explored”. According to Fajnzylber *et al* (2000: 282) “one of the reasons cross-country crime studies are uncommon is that it is difficult to compare crime rates across countries...Underreporting is widespread in countries with low-quality police and judicial systems and poorly educated populations”. Because it is hidden from public view or because of the powerlessness, fear and marginalisation of the victim, much social violence is unreported or misdiagnosed.

**Figure 2. A Matrix of the Effects and Indicators of Small Arms Availability and Use**

	<b>Impacts on Development</b>	<b>Indicators</b>
<b>Direct</b>	Firearm related Death and Injury	<p><b>Primary</b></p> <ul style="list-style-type: none"> <li>• Number of firearm deaths (e.g. homicide, suicide, accidental rates)</li> <li>• Number of non-fatal injuries</li> <li>• Monetary value of non-fatal firearm injuries (e.g. DALY and YPLL)</li> <li>• Costs associated with treating firearm deaths and injuries at municipal, district and national levels</li> <li>• Insurance costs associated with firearm deaths and disability</li> </ul> <p><b>Secondary</b></p> <ul style="list-style-type: none"> <li>• Incidence of psychosocial trauma</li> <li>• Demographic sectors (age, gender) affected by death and injury</li> </ul>
<b>Indirect</b>	Armed Criminality	<p><b>Primary</b></p> <ul style="list-style-type: none"> <li>• Rates (numbers, frequency) of different types of firearm related crimes—homicide, aggravated assault, robbery, car-hijacking (urban versus rural)</li> </ul> <p><b>Secondary</b></p> <ul style="list-style-type: none"> <li>• Insurance premiums (e.g. household insurance, car insurance)</li> <li>• Private security services (e.g. value of industry, non-productive labour)</li> <li>• Demographic sectors (age, gender) that are most vulnerable</li> <li>• Emigration (by profession)</li> </ul>
	Forced Displacement	<p><b>Primary</b></p> <ul style="list-style-type: none"> <li>• Rates (numbers of people) of forced displacement from arms-affected areas</li> <li>• Rates (number of incidents) of armed insecurity at site of relocation</li> </ul> <p><b>Secondary</b></p> <ul style="list-style-type: none"> <li>• Forcible seizure or loss of assets (e.g. homes, livestock)</li> </ul>
	Social Services (Health and Education)	<p><b>Primary</b></p> <ul style="list-style-type: none"> <li>• Number of health and education workers killed or attacked</li> <li>• Number of clinics and schools closed due to armed violence</li> </ul> <p><b>Secondary</b></p> <ul style="list-style-type: none"> <li>• Vaccination and immunisation coverage</li> <li>• Life expectancy and child mortality</li> <li>• Primary/secondary school enrollment rates</li> <li>• Pupil-teacher ratios</li> </ul>
	Economic Activity (Trade and Production)	<p><b>Primary</b></p> <ul style="list-style-type: none"> <li>• Higher transport costs (risk)</li> <li>• Destruction of physical infrastructure during armed conflict</li> </ul> <p><b>Secondary</b></p> <ul style="list-style-type: none"> <li>• Price of local goods</li> <li>• Local terms of trade</li> <li>• Agricultural productivity</li> <li>• National and subsistence food production (food security)</li> </ul>
	Investment, Savings and Revenue Collection	<p><b>Secondary</b></p> <ul style="list-style-type: none"> <li>• Trends in local and foreign direct investment</li> <li>• Trends in revenue collection</li> <li>• Levels of domestic savings</li> </ul>
	Social Capital	<p><b>Primary</b></p> <ul style="list-style-type: none"> <li>• Numbers of child soldiers</li> <li>• Membership of armed gangs</li> <li>• Incidents (number, type) of armed domestic violence (e.g. rape)</li> <li>• Breakdown in customary authority</li> </ul> <p><b>Secondary</b></p> <ul style="list-style-type: none"> <li>• Repeat criminal activity among minors</li> <li>• Functioning of customary institutions</li> </ul>
	Development Intervention	<p><b>Primary</b></p> <ul style="list-style-type: none"> <li>• Security incidents (firearm homicide, armed assault, armed intimidation, evacuation, etc.)</li> </ul> <p><b>Secondary</b></p> <ul style="list-style-type: none"> <li>• Cost of logistics (proportional to ODA)</li> <li>• Cost of security (insurance premiums, contracted security)</li> <li>• Opportunity costs</li> </ul>

contributing factor to underdevelopment. Challenges relate to confounding variables (e.g. drought or structural adjustment), establishing causality (e.g. does the demand and use of small arms contribute to poverty or does poverty contribute to the demand and use of small arms) and the presence of a counterfactual (e.g. what would have happened in region A if small arms were not there) or individual-level fallacy (e.g. the role of additional variables that effect individual decision-making).

## Direct Effects

### Firearm Death and Injury

The most immediately measurable impact of small arms availability and use is death and injury. The key primary indicator is **firearm-related death and injury statistics**, which are available from hospitals, clinics and international humanitarian agencies. They allow the monitoring of trends and the making of determinations based on the precise impact of small arms in the context of widespread armed violence. Institutions dedicated to assessing mortality and injury, however, have been able to generate only the most tentative estimations of the global death toll attributed to small arms. Although it is readily established that millions die each year from external causes in conflict, without focused case study material it is difficult to determine, with precision, the proportion killed directly by guns or as a result of other factors related to insecurity, such as malnutrition, preventable diseases or food insecurity.

On average, small arms result in the deaths of 500,000 people each year, of which 200,000 occur in countries, which are not “at war”.<sup>35</sup> This compares to the 25,000 deaths that are claimed by anti-

personnel mines (APMs) each year. But, as with APMs, the greater part of the human development costs of small arms and armed violence in developing countries results from economic and social collapse rather than casualties (see **Box 4**). Nevertheless, in countries affected by conflict and widespread violence, small arms are frequently a leading cause of “external” death and injury (death or injury caused by outside forces such as firearms, rather than natural causes).

Existing surveys and epidemiological profiles of war-related casualties show three trends. First, there is substantial evidence that a growing number of civilians, as opposed to combatants, are directly targeted and killed by small arms. It is estimated that civilians account for between 35 to 90 per cent of all casualties—though in practice, this depends entirely on situational variables and the types of weapons used. Perhaps more important, the actual **proportion** of civilian casualties is rising in parallel with an increase in low intensity conflict and the blurring of the distinction between internal war and criminal activity (see **Box 5**).

Second, most of those civilians doing the killing<sup>36</sup>, as well as those killed and injured, are male youth—though women and children also suffer disproportionately from forced recruitment, psychological trauma and sexual violence. According to some estimates from UNICEF (1996), in the past decade more than two million children were killed during warfare, five million disabled and 12 million made homeless. Third, the rates of firearm-related casualties often only marginally declined following armed conflict—a result of the legacy of small arms proliferation among civilians during the war.

<sup>35</sup> Though no precise data are available on the world-wide impacts of weapons on health, the largest cross-national study conducted to date involved 36 high and upper-middle-income countries with a total population of 1.19 billion (20 per cent of global population). This study showed that more than 88,000 people had died from firearm injuries in a one-year period in the mid-1990s. Consult the Small Arms Survey (2001) and Muggah (2001b) for more details.

<sup>36</sup> The WHO estimates that males commit more than 75 per cent of all firearm homicides. Conversations with Krug, May 2001.

#### Box 4. Small Arms vs. Anti-Personnel Mines (APMs): Assessing the Impacts

Assessing the impacts of small arms differs from that of landmines. While “impact assessments” have been proposed for assessing the socio-economic impacts and risks associated with landmines and unexploded ordnance (UXO), few studies have been carried out in the case of firearms. One reason is that small arms are arguably a more contentious and multifaceted issue. There is also a legitimate sovereign claim with respect to their continued use in ensuring security and defence—whether for military, policing or, in some cases, civilian purposes. APMs, as a result of the hard-fought campaign and the Mine Ban Treaty (MBT), are more clearly defined as a “humanitarian” issue due to their detrimental and indiscriminate impacts.

It is appropriate to describe the impacts of small arms as **dynamic** rather than static. They are easily re-used in different contexts, are portable and can be engaged in a variety of ways. For this reason, measuring the internal rates of return (IRR) or assigning the cost-benefit of a particular intervention is difficult—as small arms are easily relocated and/or poor quality weapons can be returned (rather than higher quality) in exchange for those incentives on offer. APMs, however, are embedded in a fixed location, single-use, and are arguably less likely to be illegally re-used or sold elsewhere. In this sense, their use is relatively static and avoidance can be more easily “learnt”. When they are removed, their threat to human well-being diminishes significantly. By contrast, even when small arms are effectively “collected” (and not destroyed), the threat of violence can persist unless demand factors driving insecurity are targeted.

The impacts of APMs are frequently calculated within a “community perspective” and interventions are increasingly premised on “collective” decision making within communities. This is based on the assumption that risks are more or less equally shared and experienced by individuals within a community. In contrast, small arms are used by individuals against other indi-

viduals or communities and they are often intertwined with domestic and inter-personal dynamics as well as intra- and inter-communal tensions. Measurements of their impacts and ways to reduce their use, must therefore be based on both **individual and collective** or community approaches, that take into consideration their multiple usage.

APMs predominantly affect people in rural areas, causing insecurity and, consequently, reduced agricultural outputs, land yield and labour productivity. Though instances of APM use and impacts have been recorded in towns (Myanmar) and cities (Chechnya), they are rarely used in urban settings. Small arms, by contrast, are both a **rural and urban phenomena** and transcend conflict, post-conflict and criminal environments. Their impacts are multifaceted and affect countries ravaged by war or at peace.

The economic justification for clearing mines from agricultural land depends principally on the benefits accruing from future agricultural production on that land and on the clearance cost. While it is possible to model the costs of APM removal and the cost-benefits of intervention (for example, the cost of removal vs. the potential gains of improved agricultural yield) and therefore prioritise interventions, it is more difficult in the case of small arms. The economic justification for reducing the number of weapons in circulation relate to **reducing the incidence of homicide and injury** (which constitutes a health burden), **crime** (which constitutes a security burden), **improving public safety** and **lowering transaction costs and increasing productivity**. The unpredictability of small arms availability, however, makes it rather more difficult to appraise the costs and benefits of intervention.

Source: GICHD, 2000, Sekkennes, 2000; Wilkinson, 2001

Small arms are risk factors for conflict-affected and non-conflict affected societies alike (see **Box 6**). In 1995, Zambia had a firearm homicide rate of over 5 per 100,000 (10.57 for all homicides), while Brazil experienced a firearm homicide rate exceeding 25 per 100,000 (29.17 for all homicides).

Within war torn and peaceful countries, there are pockets of extreme deprivation and insecurity that neighbour more affluent regions. In Kenya, for example, it is estimated that the national firearm homicide rate hovers between 10-15 per 100,000.<sup>37</sup> In areas where small arms are widely available, such as Garrissa in the North East and Lokichokkio in the Turkana region, the firearm homicide rate soars up to 580 per 100,000—and much higher among young males. Similarly, in comparison to Colombia's already extraordinarily high firearm homicide rate of 50 per 100,000, the Department of Putumayo's homicide rate was 183 per 100,000 in 1998.<sup>38</sup> Health officials have described Putumayo as “the most violent place on the planet” (Departamento Administrativo de Salud de Putumayo, 1999: 3).

There are also severe direct impacts associated with **firearm-related injuries**. Interpersonal violence, self-inflicted injuries and war injuries are among the top five largest contributors to the global burden of disease among people aged 15-44 (WHO, 2001). The World Health Organisation (WHO) and the World Bank, for example, estimate that injury and violence contribute almost 15 per cent of the burden of disease in the developing world. However, there is substantial variation in the regional patterns, particularly of intentional injury: Africa, the Middle East, Latin America and the Caribbean,

the former Soviet Republics and China were the regions most severely affected (WHO, 2001). Indeed, the figures would certainly be higher if all firearm victims were actually accounted for. Many victims of non-fatal firearm injuries are frequently unable to solicit medical attention because of pervasive insecurity, or because their own injuries hamper their mobility.

Reaching a clinic does not ensure successful treatment. Most clinics in conflict areas lack even the most basic instruments and medicines and are taxed beyond their

**Box 5. Are 90 per cent of war-related victims really civilian?**

The statistic that 90 per cent of all casualties in armed conflict are civilian is often stated, although there does not appear to be a rigorous methodology describing how the figure was actually determined. Though advocacy on small arms and their impacts on civilians are of vital importance, such efforts should be linked to credible and legitimate data.

The ICRC has developed a database containing patient information on 28,000 people, 18,831 of whom have sustained small arms-related injuries. The ICRC does not request information on combatant status, but rather on the sex and age of patients. An analysis of the first 17,086 victims reported since 1991 noted that only 35 per cent were female, male and aged under 16, or male aged 50 and above (e.g. civilian).

Other studies also indicate that during armed conflict, the number of people wounded is at least twice the number killed - and often surges to 13 times as high. Where firearms are used against people who are immobilized, in a confined space, or unable to defend themselves the wounded to kill ratio decreases below 1 and is sometimes 0 (Coupland and Meddings, 1999).

<sup>37</sup> See, for example, Muggah & Berman (2001).

<sup>38</sup> The firearm homicide rates among young men in Putumayo exceeds 1900 per 100,000 among various towns in the region (Departamento Administrativo de Salud de Putumayo (1999).

### Box 6. Determining a Risk Rating for Small Arms

An important, if neglected issue, relates to the “types” of weapons, and the relative scale of their impacts. According to Wilkinson, in terms of casualties, “every time a pistol is used there is generally a 1 in 4 risk of the target been fatally wounded, whilst every time an RPG 7 is used the “risk rating” rises to 80 per cent”. Determining the “risk rating” of particular weapons on fatalities and injuries is one way of measuring the direct impacts of small arms. A risk rating is determined by dividing the total number of fatalities or injuries by the total number of weapons used in attacks. Such ratings can be established for both communities and countries. In practical terms, if a risk rating for each recovered weapon is multiplied by the number of weapons collected in a particular disarmament programme, it gives an indication of the potential number of lives saved by the micro-disarmament programme.

$$\text{Potential Lives Saved} = \frac{\text{Weapons Risk Rating} \times \text{Total Weapons Recovered}}{\text{Total Weapons Recovered}}$$

It is then possible to determine an estimate for the potential number of lives saved by the addition of the results for each weapon type. Although still only a crude indicator, the methodology can be developed to establish the financial cost per life saved. The costs of lives saved can be arrived at by dividing the total cost of a particular intervention programme by the total number of lives potentially saved (as above).

Source: Hughes-Wilson & Wilkinson, 2001

limit. In insecure areas of the Democratic Republic of the Congo, for example, 25 per cent of all hospital beds are occupied by “war-wounded” (IRIN, 2001). The chronic shortage of hospital facilities and the limited civilian access to treatment means that the onset of infection greatly increases the risk to the patient. According to a report produced by Oxfam-GB

(2001b: 29), “bullet wounds, if treated without proper surgical debridement, rapidly develop into deep festering wounds and bone infections (osteomyelitis). Many of the wounded admitted...had been in hiding for weeks before being able to seek refuge and care in the hospital. Others were treated in health posts that had already been looted or burnt”.

### Costing Firearm Related Death and Injury

Health economics, using cost-benefit analysis, provides a departure point for measuring the impact of small arms on human development as a result of firearm death and injury. Cost-benefit analysis, however, is not especially compelling in the analysis of benefits accruing from risk-reduction strategies in relation to small arms. While reducing the deaths and injuries attributed to firearm related assault can free up medical resources for other public health priorities, a financial determination cannot be made unless monetary values are ascribed to human life and suffering. Such assessments are frequently premised on the “willingness to pay principle”, or economic valuations of (lost) labour productivity. Many find the task of measuring the value of human life and suffering both difficult and morally indefensible. Indeed, many of the so-called “costs” of small arms violence are, as the **Box 7** at the right suggests, not quantifiable. But the actual financial burden of firearm fatalities and injury are real, and relate to household expenditures and associated medical costs, reduced labour capacity and acute shifts in public spending.

Though estimates of the economic implications of the direct human costs of small arms are fragmentary in developing countries<sup>39</sup>, a number of recent studies in

North America provide a basis for analysis. In the US there were approximately 30,700 deaths from firearms in 1998, of which roughly 17,400 were suicide, 12,100 were homicide, 670 from accidents and 320 undetermined (USDOJ, 2000). The number of non-fatal firearm injuries was also considerable—over 200,000 per year. According to surveillance programmes, the cost per injury requiring admission to a trauma centre was over

\$US 14,000 per victim—approximately \$US 2.8 billion per year. Studies show that the medical costs of firearm injuries account for 13 per cent of the total cost to society (May & Rice, 1993). Yet if one adds the costs of medical care and the lost productivity resulting from premature disability and death, firearms injuries and fatalities cost the US health economy approximately \$US 100 billion per year in the 1990s (Cook & Ludwig, 2000).

### **Box 7. The Costs of Firearm Injury on Households in South Africa**

In South Africa, the widespread proliferation, availability and misuse of both legal and illicit small arms, has had a dramatic impact on levels of violent crime, death and injury. There are more than 4.5 million legally registered firearms in South Africa, including almost 2.8 million revolvers and pistols (Chetty, 2000), with evidence that many are stolen each year. South Africa registers one of the highest firearm homicide and injury rates in the world. For example, of the 24,875 people murdered in 1998, approximately 50 per cent were killed with firearms. No distinction is made between legal and illicit firearms in the compilation of crime statistics. A recent study prepared by the National Injury and Mortality Surveillance System reported that in 1999, firearms were the leading cause of fatal and non-fatal injuries among civilians between 15 and 64 years old (Butchart, 2000). Experts note that some 80,000 bullet wounds requiring hospital treatment each year cost the health system the equivalent of \$US 5.3 million. Crime rates are also spiralling. Of the more than 74,860 armed robberies that were reported in 1998 (Gun Free South Africa, 2000), more than 75 per cent were committed with firearms.

Less well documented are the personal costs of injury to the victims, and the extent to which these injuries affect their well-being and social and economic productivity. The costs are not merely financial nor are they confined to the incident or reserved to the individual. In 2000, a key-informant survey of firearm victims was conducted through a collaborative effort of the

Small Arms Survey in Switzerland and the Institute for Security Studies in South Africa. The following personal account provides valuable insight into the impacts of injury on two civilians, one male and the other female:

“The first victim was shot at close range, and still suffers from pain, headaches. He must frequently visit the hospital to drain puss from his wounds that are not healing on account of diabetes. The second victim, a woman, was shot three times at close range—two to the stomach and one in the right hand. She has difficulty lifting heavy objects with her right hand. Both victims underwent traumatic operations to dislodge the bullets and continue to suffer from flashbacks, nightmares and psychosocial trauma” (Small Arms Survey, 2001: 218).

The direct medical costs of the hospital care pale in comparison to the indirect costs of closing down their businesses. Fearing a repeat attack, neither victim returned to work. Both victims claimed that not only their health, but also their economic status had been irrevocably damaged. Each had been a primary income earner. And although the initial payments required for emergency hospital bills had been covered through loans and informal credit from family or kinship networks, the victims used a significant proportion of their personal savings to pay off debts to meet household expenses. One of the two victims had assets (e.g. household possessions and vehicle) repossessed by the bank soon after the event.

Source: Small Arms Survey, 2001.

<sup>39</sup> The Machel report (2000), for example, notes that “comprehensive treatment and rehabilitation for survivors [of landmines and UXOs] can cost up to \$1,000 in poor developing countries where the average GNP per person is less than a few hundred dollars a year.”

<sup>40</sup> The DALY has emerged as a measure of the burden of disease and it reflects the total amount of healthy life lost, to all causes, whether from premature mortality or from some degree of disability during a period of time. In other words, it is an indicator of the time lived with a disability and the time lost due to premature mortality. It is a composite of five variables: (i) years of life lost to premature mortality, (ii) degrees of incapacity associated with different conditions, (iii) age weights, (iv) time preference (e.g. discount rates) and (v) the idea of adding health across individuals.

<sup>41</sup> Years of potential life lost (YPLL) is a measure of premature mortality and is derived by summing years of life lost over all age groups.

<sup>42</sup> See Levitt & Rubio (2000) and Londono (1998).

<sup>43</sup> As measured by health impacts (health expenditures due to criminal violence), public costs (public and private expenditures on police, security, judiciary), transfers (value of asset transfers, ransoms and bribes), and intangibles (amount civilians would be willing to pay to live without violence) as a percentage of GDP in 1997. See Buvinic et al (2000).

<sup>44</sup> A study is currently underway with the Small Arms Survey and the Regional Centre for Strategic Studies in Sri Lanka to assess, through participatory assessments, the differentiated perceptions of arms related insecurity among communities in Pakistan, India, Bangladesh and Sri Lanka. Findings will be made available on [www.smallarmssurvey.org](http://www.smallarmssurvey.org).

<sup>45</sup> As of December 1999, there were approximately 706,148 small arms registered in the Philippines and an additional 349,782 loose or “unregistered” weapons. Loose firearms are believed to be used in robberies, assaults on public institutions and harassment (Dursin, 2000). According to one report, most [MILF fighters] are equipped with 70s-vintage weapons that flooded Mindanao at the height of the war for independence. Later-model guns are quietly purchased from Philippine army units. The MILF also makes its own armament: one of the several munitions factories turns out RPG-2 grenade launchers and their warheads”. See [www.ploughshares.ca](http://www.ploughshares.ca)

In the Caribbean, the rate of homicides and suicides committed with firearms more than doubled from approximately six and seven per 100,000 in the 1980s to well over 10 and 15 per 100,000 in the mid-1990s (CAREC, 2001). In Latin America, inter-personal injury is the leading cause of death for people aged 15-44, and according to the Inter-American Development Bank (IDB), accounts for between \$US 140 and 170 billion in treatment and lost productivity a year. The economic costs are particularly severe at the country level.

In Colombia, a country where an estimated 90 per cent of all homicides are committed with firearms, roughly 20 per cent of all disability adjusted life years<sup>40</sup> (DALYs) lost between 1989 and the late 1990s were attributed to small arms. In 1995 alone, 1,450,845 years of potential life were lost<sup>41</sup> (YPLL) because of violent deaths—over 60 per cent of which were attributable to homicide.<sup>42</sup> Firearm-related homicides were the leading cause of death for young Colombian males: 14 males were killed for every female killed. If criminal violence<sup>43</sup> is also included, the impacts of firearms constitute an astonishing 25 per cent of the country’s GDP. In El Salvador, almost seventy per cent of all “external” deaths of 15-19 year-olds were caused by homicides in the mid-1990s. In 1994, of the 11,056 firearm deaths occurring among the population aged 20-60, homicides accounted for over 83 per cent of the total. Indeed, more than 178,000 DALYs were lost in 1995 as a result of violent deaths, and the costs of criminal violence also amounted to more than a quarter of GDP (Londono, 1998). Though defined here as direct effects, the long-term costs of firearm mortality and injury have a whole range of indirect socio-economic effects.

## Indirect Effects

Terror and suffering, as well as the indirect socio-economic impacts of small arms, are neither discussed nor documented as extensively as death and injury, but the fear engendered by the use of small arms and the rapid breakdown of informal norms of trust and co-operation are far-reaching.<sup>44</sup> As civilians have become strategic targets in many conflicts through summary and mass executions, brutal intimidation and criminality, small arms have come to represent a potent and ubiquitous instrument of terror. Small arms availability and misuse also has a measurable impact on decisions relating to personal mobility, social cohesion, political participation, child-schooling, employment and personal-protection.

The fear of armed violence has prompted civilians in countries such as Colombia, the Philippines<sup>45</sup> and South Africa to purchase significant numbers of weapons for self-defence. According to surveys conducted in Bangladesh, the use of small arms has been identified in virtually all types of violence that includes political conflict, drug and arms trading, trafficking in women and children, smuggling, prostitution, abduction, rape, extortion, election rigging, mugging, vehicle hijacking, carjacking, highway robbery, shrimp cultivation, illegal occupation of land, auctioning of woodlots, tender and contracting enforcement, street violence, campus violence, attacks on journalists, slum eviction and settlement and poaching (Sharif, 2001).

These indirect effects are often unnoticed because they are “hidden”. For example, armed robbery can lead to a decline in food production, while the ensuing deprivation can result in domestic violence that

is itself reproduced over time. Likewise, firearm related deaths and armed intimidation act as a catalyst to forced displacement that in turn results in collapsing social services. Although the discrete categories of indirect effects are in themselves theoretical, it is useful to explore each of them separately in order to appreciate the magnitude of arms-related insecurity on human development.

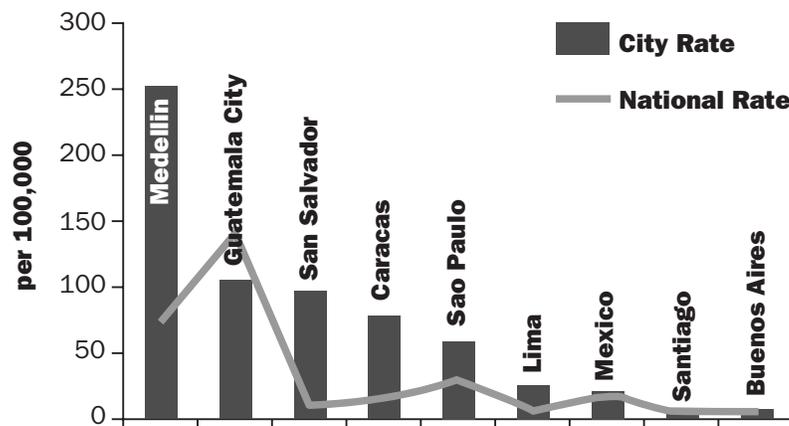
### Armed Violence and Criminality

While it is assumed that there is a causal relationship between the availability of firearms, their use and the levels of armed criminality, there are differing, and often hotly contested, perspectives on whether the easy availability of weapons facilitates armed violence.<sup>46</sup> One view is that small arms possession serves as a deterrent, leading to improved personal security and a reduction in interpersonal crime.<sup>47</sup> Proponents of this view assume that small arms possession in controlled circumstances serves as a deterrent to would-be firearm (ab)users.

The other view is that availability and ownership is associated with, among other things, a greater incidence of violent death (e.g. homicide, suicide and accidental death), inter-personal violence, intimidation and criminality.<sup>48</sup> The proponents of this perspective contend that more firearms equals more violent crime, and that “changes in gun ownership are significantly and positively related to changes in the homicide rate—with this relationship driven entirely by the impact of gun ownership on murders in which the gun is used” (Duggan, 2000). In the US, for example, recent reductions in the proportion of households owning a gun are cited to explain at least one-third of the differential decline in gun homicides relative to non-gun homicides since 1993.<sup>49</sup>

There is also disagreement over the motives that drive the criminal use of small arms in developing countries. However, there appears to be a growing consensus that lack of opportunity, perceived injustice and inequality compels some people to take up arms. According to research on crime in Latin America, increases in income inequality are directly correlated with

**Figure 3. Homicide Rates in Selected Latin American Cities**

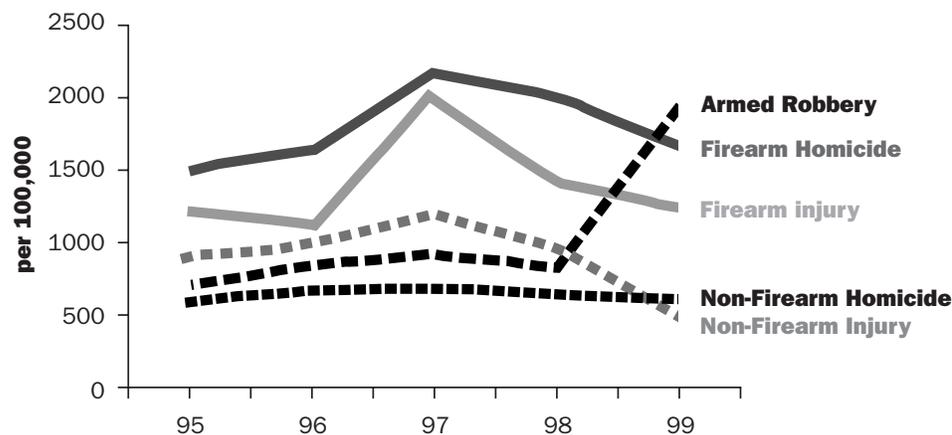


<sup>46</sup> A review of the relationship between availability and use, or the “accessibility thesis”, is carried out in the Small Arms Survey (2001: 200-208) and Muggah (2001b).

<sup>47</sup> See, for example, Lott & Mustard (2001) and Kletz & Gertz (1995).

<sup>48</sup> See the Small Arms Survey (2001) for a review of the debate, and Cook and Ludwig (2000) for detailed analysis.

<sup>49</sup> See, for example, the *Economist* (2001) that notes that between 1980 and 1998 in the USA, that a 10 per cent increase in an average state’s rate of gun ownership was associated with a 2 per cent rise in its homicide rate in successive years.

**Figure 4. Armed Security in Honduras**

increases in crime rates. Studies focusing on poverty and homicide in Brazil also tentatively reinforce this conclusion, as “municipalities with high income tend to present lower homicide rates than those with a higher proportion of population below the poverty line” (Careina, 2000: 119). The case for poverty as an explanatory variable is less clear in Colombia (Levitt & Rubio, 2000). Less controversial among all constituencies, however, is agreement on the impacts of armed criminality. In Latin America and the Caribbean, for example, criminal violence perpetrated with widely available small arms has massive implications for the quality of life of citizens, the costs of goods and services, the value of productivity and property, investment and tourism.<sup>50</sup>

The effects of small arms on human development as a result of armed criminality can be measured by a number of indicators. Primary indicators would include rates (numbers, frequency) of different types of armed criminality such as murder, assault, and robbery. Secondary indicators would include insurance premiums (by region or area) due to high levels of crime, the value of the private security industry, and rates of

emigration amongst professionals due to high levels of armed insecurity.

Predictably, due to a wide number of factors discussed above, there are extreme divergences in firearm homicide rates—from 0.01 per 100,000 in Hong Kong to more than 105 per 100,000 in Cali, Colombia. But in countries as varied as South Africa, Cambodia, the Philippines and Sudan, firearms figure prominently in violent crime and are the dominant weapon used in attempted murder, armed robbery and aggravated assault. During 1998 in South Africa, firearms, particularly handguns, were used in 85 per cent of all reported armed robberies, a ratio of 6:1 to other weapons (Chetty, 2000). According to media reports, Cambodia’s capital—Phnom Penh—experiences an armed robbery rate that is four times higher than that of Bangkok, considered one of the region’s most dangerous cities. The wide availability and use of weapons in Cambodia’s post-war period has been attributed to the 300,000 weapons provided by the US and other countries during the Vietnam war, and cultures of violence that continue to feed demand. Indeed, a survey of over 15,000 house-

<sup>50</sup> Public expenditures on security and justice also increase in relation to other sectors. In Colombia, for example, expenditures on security and justice have increased in the last decade, from 5 per cent of GDP in 1991 to 8 per cent in 1999. See Fajnzylber *et al* (2000a; 2000b); Pizam & Mansfeld (1999); and Londono (1998).

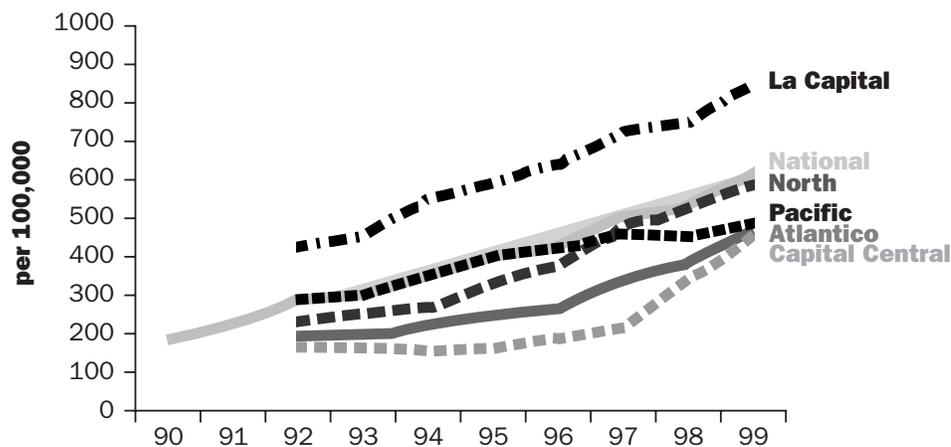
holds recorded that more than two-thirds of all respondents claimed to own a gun.<sup>51</sup> But aggregate national statistics are deceptive, providing only a partial understanding of the complex dynamics of criminality and small arms diffusion. When national statistics are compared against particular cities, sub-regions or types of incidents, the picture becomes slightly more revealing (see **Figures 3-5**).

Recent studies from Mindanao, in the Philippines, have also demonstrated that more than 85 per cent of all “external” deaths in 2000 were a consequence of small arms. This same report claims that 78 per cent of all reported violent deaths and injuries resulting from criminal acts could be attributed to military-style automatic weapons and handguns (Kidapawan, 2001). Even in Sudan, wracked by an eighteen-year civil war in the South, armed criminality is facilitated by the abundance of weapons in the country. The Interior Minister has repeatedly noted that the spread of weapons outside the control of regular forces has repeatedly lead to the deterioration of security in the Greater Darfur states in Western Sudan. He has

emphasised 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 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).

In countries where state repression and internal conflict occur in unison, small arms are often the predominant weapons used in acts of terror, whether for carrying out summary executions, massacres, armed intimidation, disappearances or kidnapping. In Colombia, for example, the use of small arms in acts of crime or political violence has long-term impacts on popular perceptions of security, public and security sector legitimacy and the participation in democracy more generally.<sup>52</sup> According to the Colombian Centro de Investigacion Nacional Popular (CINEP), in 1999 there were over 1,000 massacres, more than 300

**Figure 5. Personal Security Incidents in Nicaragua**



<sup>51</sup> Correspondence with the Working Group for Weapons Reduction (WGWR) in Cambodia and Bill Herod, May, 2001.

reported “forced disappearances” and in excess of 2,940 cases of hostage taking. During elections and political rallies, the rates increase. Similarly, 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.

Civilian insecurity in many countries in Central America, South Asia and Africa has prompted extra-legal responses and the rapid privatization of security. From an economic perspective, the use of private security results in unproductive expenditures from household (and corporate) savings and fewer resources available for local investment.<sup>53</sup> While private security is not in itself necessarily threatening, in the context of weak or failing states where small arms are abundant, private security begins to become progressively more virulent. In countries where internal security is severely undermined by armed violence, such as Kenya, Indonesia or Colombia, governments have purposefully armed civilians (e.g. “paramilitaries” or “militias”) in order to quell dissent.<sup>54</sup>

Such initiatives, however, often produce counter-productive effects and the arms quickly resurface in acts of violent crime and banditry. The costs of private security for businesses, including government agencies, in countries such as South Africa, Brazil, Nigeria and the US have reached alarming proportions. In many of these countries, the value of the private security industry often exceeds national expenditure on policing.<sup>55</sup>

### Forced Displacement

Forced displacement destroys families and communities, disrupts normal economic activities, and undermines human development. The impact of small arms on human development as a result of forced displacement can be measured by primary indicators that include the rates (numbers) of forced displacement from arms-affected areas, and the rates (numbers) of arms-related security incidents at relocation sites. Secondary indicators would include the value of assets seized or lost as a result of forced displacement. Reliable data for rates

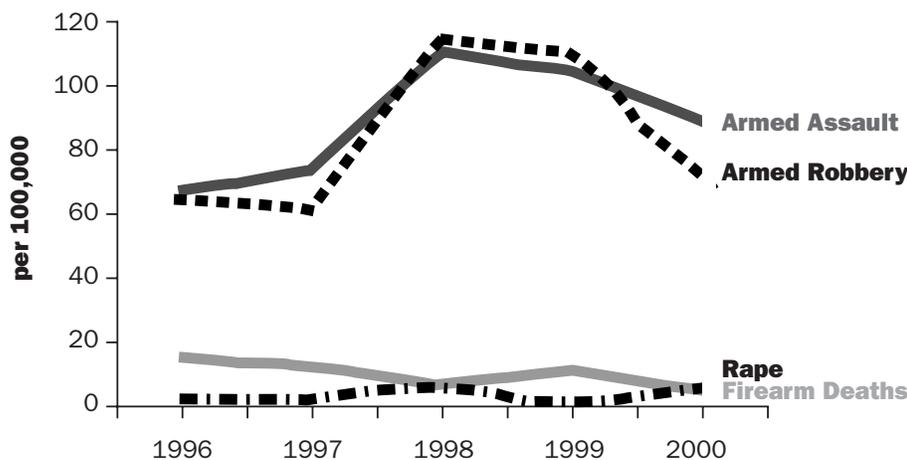
<sup>52</sup> A recent study on homicide and violence in Brazil, for example, noted that 10 per cent of all homicides in Rio de Janeiro were actually committed by police forces (Carneiro, 2000: 121). Similar findings have been reported by Moser & Holland (1997: 8) in their participatory assessment of violence in Jamaica: “a serious problem in all communities was relations with the police...a focus group of young men...ranked police brutality third—equal to, but distinct from war and gang violence”.

<sup>53</sup> In the 1990s the global private security industry was estimated to be worth US\$100 billion, and is expected to rise to over US\$400 billion by 2010 (Small Arms Survey, 2001: 220).

<sup>54</sup> For a more substantive discussion on homeguards and paramilitaries in Kenya, Colombia and East Timor, consult Muggah & Berman (2001).

<sup>55</sup> In South Africa the value of the private security industry in 1999 was worth US\$1.6 billion, which was roughly the same as the national police budget. In 1998 the private security industry in the US was worth US\$90 billion, compared to US\$40 billion worth of spending on public policing (Small Arms Survey, 2001: 220). In Brazil, by contrast, spending on security is growing at 5 per cent per annum and is now estimated to exceed US\$ 9.5 billion per year. This compares with less than US\$ 6 billion of public spending on policing. The 1.5 million security guards outnumber the police by three to one (Economist, 2001).

**Figure 6. Kakuma Refugee Camp: 1995-2000**



of forced displacement (both refugees and IDPs) as a result of armed insecurity is readily available from international organisations such as the UNHCR and IOM. By the end of the 1990s, more than fifty million people were violently forced to leave their homes, either as refugees, or more likely, internally displaced within their own borders.<sup>56</sup> Millions more fled, eschewing assistance and “official” protection for fear of violent re-creation and social or economic marginalisation.

Armed conflict and political violence have been consistently identified as critical factors that lead to mass displacement. Not only is armed violence frequently a critical factor in prompting internal or cross-border displacement, it also plays a major role in inhibiting **return or resettlement**. Evidence from a variety of conflict areas, as well as from severely crime-affected societies, indicates that small arms related insecurity is a key factor in individual or household decisions to flee or migrate.<sup>57</sup> As a result of the scale of armed intimidation, IDPs have also been known to flee from areas of high political volatility to regions vulnerable to floods, drought and urban violence. As civilian dispossession has become the aim, rather than the by-product of armed conflict, firearms have been used to increasingly devastating effect and in violation of international humanitarian law.

In Sierra Leone, a country that only began receiving significant quantities of weapons in the early 1990s, between 25,000-50,000 people have been killed and tens of thousands maimed as a result of the internal conflict that has been raging since 1991. In this context small arms and ammunition have become an essential part of the coercive and symbolic functions of warfare in the country. As in Rwanda, testimonial

evidence documents how armed groups frequently accompanied new recruits charged with massacring civilians with knives and machetes.<sup>58</sup> As a result of the sheer scale and lethality of armed violence, between 24 and 40 per cent of the population have been displaced at any one time—and more than 500,000 refugees have spilled across the country’s borders (World Bank/ADB, 2000).

There is ample evidence that insecurity persists for refugees and IDPs (and host communities) during and after relocation. This is largely because, in spite of the best intentions of humanitarian agencies, they are resettled in overcrowded conditions, often in inhospitable regions, in conditions of extreme deprivation. They also are often explicitly targeted by armed factions and bandits. IDPs are particularly vulnerable due to the absence of security to ensure their protection, much less their basic rights.<sup>59</sup> According to the Organisation for Security Co-operation in Europe (OSCE), for example, insecurity and threat from armed violence are currently viewed as the priority concern of migrant communities in Kosovo.<sup>60</sup> In response to increasing camp militarisation, key interventions called for by the UNHCR (1999: 1-2) include “disarming exiled groups who have access to weapons and curtailing any flow of arms into refugee populated areas...[and] disarming exiled soldiers and other armed elements, and ensuring their effective re-absorption into civilian society”.

The case of Kenya is illustrative. In both of Kenya’s refugee camps (Dadaab and Kakuma), located in the border areas of Northern Kenya, Sudanese, Ethiopian and Central African refugees are subjected to armed violence on a daily basis. Though the camps themselves are believed to be

<sup>56</sup> There are approximately 39 million displaced people in the world today, including 12.8 million refugees/asylum seekers, 23 million IDPs and 3.2 million Palestinian refugees (Muggah & Berman, 2001).

<sup>57</sup> For example, multivariate regression analysis has found a positive relationship between political armed violence and refugee flows out of a country (Stanley, 1985).

<sup>58</sup> For testimonial references, see Moser and McIlwaine (2000), Moser and Holland (1997), Fajnzylber (2000), ICRC (1999) and UNICRI (1997). Also see Fajnzylber, Pablo, Daniel Lederman and Norman Loazya. 2000. 'Crime and Victimization: An Economic Perspective'. *Economia* Vol 1 (1): 219-278. surveys were administered by the ICRC and UNICRI — and include the ICRC (1999) "People on War Series", published out of Geneva, which focus on some 14 countries as well as UNICRI. 1997. International Crime Victim Survey. Turin: UNICRI.

<sup>59</sup> See, for example, the UN Commission on Human Rights (2000) and Cohen & Deng (1999).

<sup>60</sup> Correspondence with UNDP in Kosovo, May 2001. See also [www.osce.org/kosovo](http://www.osce.org/kosovo).

heavily militarised, it appears that refugees themselves bear the brunt of the armed insecurity that results. For example, a significant proportion of women refugees collecting scarce firewood are raped at gunpoint by armed assailants. Livestock has been banned in the camp since 1999 due to armed incursions between local inhabitants and refugee pastoralists who traditionally depend on livestock-rearing. Armed insecurity has reached such alarming levels that more than 150 police reservists have been enlisted to police the camp (see **Figure 6**).<sup>61</sup>

Although beyond the scope of this study, violently displaced people are universally exposed to acute morbidity with the most common cause of death being diarrhoeal disease, measles, respiratory infection and malaria—all of which are exasperated by malnutrition.<sup>62</sup> Severe restrictions on the mobility of IDPs and refugees, on their daily transactions and informal commercial activity, leads to decreased food security and overall morbidity. An escalation in fighting in Afghanistan, for example, has affected nearly half a million people in the central highlands region, prompting ongoing displacement to Kabul, Iran and Pakistan. Fear of further conflict combined with poor agricultural prospects have contributed to the exodus. According to IRIN reports: “It is estimated that 34,000 children are malnourished in the five most severely affected districts of the highlands.” In the Mindanao region of the Philippines, in which an estimated 100–150,000 people have died since the 1970s, “many civilians were displaced from their homes and relocated to evacuation areas—most of which provide poor living conditions. In these centres, many suffer as cramped living spaces make them vulnerable to diseases like measles and diarrhoea.

## Declining Social Services

In many developing countries, basic social services such as **health care and education** frequently deteriorate as a result of small arms related insecurities. This provision of social services, such as health and education, is an important determinant of a country’s level of human development.

The indirect effects of small arms on health and education services can be measured by a range of indicators. Primary indicators would include the number of health and education workers killed or attacked with small arms, and the number of schools or clinics closed due to armed attacks. Secondary indicators would include the capacity, and coverage of services (e.g. school enrolment rates) as a result of incidents of armed violence.

In the context of armed conflict, armed units searching for vehicles, medical utensils, labour, recruits and resources often deliberately target social services. The impacts of collapsing social services are long-term—as a missed vaccination or even one to two year gaps in schooling can condemn a child to a lifetime of diminished opportunities. In situations of forced internal displacement that lasts for years, where such services are frequently absent altogether, the consequences are dire.

Across East Africa and the Horn, where several million small arms are believed to be circulating, district and municipal governments have reduced the distribution of relief supplies and health equipment for fear of attack. Immunisation and vaccination efforts have been curtailed<sup>63</sup> and public authorities have been forced to cut vital outreach services including veterinary programmes and borehole maintenance and

<sup>61</sup> In 1999, the UNHCR elaborated a “ladder of options” in response to rising insecurity in refugee camps. These range from so called “soft options”, including preventive measures and co-operation with law enforcement (such as programmes in the United Republic of Tanzania), to “medium options” that focus on deployment of civilian or police monitors (including the Kosovo Verification Mission in 1998) and “hard options” stressing military deployment.

<sup>62</sup> See, for example, UNHCR (2000); Levy & Sidel (1997); and CDC (1992).

<sup>63</sup> A recent UNICEF (2001) press release claims that: “conflict remains one of the primary obstacles to the eradication of polio”. Ceasefire arrangements and “Days of Tranquillity” have been essential to the success of vaccination efforts in countries such as Afghanistan, Angola, the DRC, Congo-Brazzaville, Liberia, Sierra Leone, Somalia and Sudan.

repair programmes. The erosion of the most basic infrastructure for the rural poor suggests that development remains far out of reach in situations of rampant small arms availability. Evidence from a number of communities in the Horn of Africa suggest that the collapse in social services has contributed to heightened insecurity and declines in development (SALIGAD, 2000).

There also appears to be a strong correlation between areas experiencing high rates of armed violence and deteriorating public services and areas with proportionately higher death rates from non-violent causes. Extreme variances can occur within states, and even between communities and households. A recent IRC (2001) report on violence in the DRC confirms this association: “while only 10 per cent of all deaths, or 14 per cent of the excess deaths, were attributed to violence, there is a strong association (across both time and space) between higher violence rates and higher death rates from infectious disease...In Mboa and Kalemie, it is estimated that 75 per cent of children born during this war have died or will die before their second birthday”.

Sierra Leone provides a striking illustration of this trend. With Sub Saharan Africa’s lowest life expectancy rate at just 37 years, it also has the highest child mortality rate (CMR) at 169 per 100,000 (World Bank Indicators, 2001). The trends are painfully similar from Liberia and Mozambique to Sudan and Uganda where indicators for life expectancy and child mortality all either worsened during the conflict period or improved by less than non-war countries in the region. In areas of these countries still plagued by armed conflict and a high availability of

weapons in civilian hands the rates escalate.<sup>64</sup> In the arms-affected areas of Mindanao, for example, UNICEF has reported that the CMR exceeds 310 per 100,000 whereas the CMR for the country as a whole is less than 175 per 100,000 (HAIN, 2001). While high CMRs can be attributed to a host of variables including exclusion, inequality and armed conflict more generally, it is well known that gun violence and armed confrontations have also increased in Mindanao during the period in question, restricting the mobility and access of civilians to health services.

Education is a low priority during periods of conflict and education indicators frequently decline as the intensity of armed violence increases. Though historical, economic and cultural factors affect the extent to which children and youth, whether male or female, attend schools—armed conflict reduces enrolment rates, the extent of participation and completion rates of students and the number of available teachers.<sup>65</sup> Studies have demonstrated how primary, secondary and night school enrolment in arms affected regions of Afghanistan, Colombia, Mozambique, Nicaragua, Sierra Leone, Sudan and Uganda declined during periods of intense armed conflict—only to increase after armed violence had “ended”.<sup>66</sup> In some cases, education facilities have themselves attracted armed violence and small arms—such as in Ethiopia and Cambodia—where schools served as recruiting grounds or were deliberately attacked.

In Albania, for example, pre-school enrolment rates dropped dramatically following the 1997 crisis, from a high of 59 per cent in 1990 to between 37 and 39 per cent in 1999. Primary and secondary enrolment rates also plummeted, to an estimated 18

In parts of the Democratic Republic of the Congo, armed disputes have resulted in the destruction of 211 out of total of 228 schooling facilities since 1999 and well over 60 per cent of all students and teachers have left school.

<sup>64</sup> See for example Oxfam-GB (2001a), IRC (2001) and Oxfam-GB (2000b).

<sup>65</sup> Sri Lanka, however, is a notable exception to the rule. See the work of O’Sullivan (1997) on household entitlements during wartime.

<sup>66</sup> See, for example, Luckham *et al* (2001) and Stewart *et al* (2000).

per cent over the same period (UNDP, 2000d). In recent surveys conducted in the region, one of the principal complaints among youth were the high levels of armed violence (as well as sexual violence) and the abundance of weapons that made this possible.<sup>67</sup> The situation is even worse in countries still affected by systemic armed conflict and social violence. In the DRC, the Ministry of Education's own statistics claim that 30 per cent of Congolese children between 5-14 were not in school between 1999-2000. The figures in small arms-affected regions were particularly revealing: in North Kivu, between 1995-1996, more than twice that number (68 per cent) were not in school—and are likely illiterate. The forced enlistment of boys at gunpoint into various armed factions has further reduced the number of children in school.<sup>68</sup> According to a recent evaluation on small arms carried out in Djugu, armed disputes have resulted in the destruction of 211 out of a total of 228 schooling facilities since 1999 and well over 60 per cent of all students and teachers have left school (from 39,600 to 10,620 and 1,771 to 701 respectively).<sup>69</sup>

In other countries, school facilities have also suffered as a result of armed insecurity. In Kenya, some primary and secondary schools and health clinics built in the interior and Northern parts of the country (since independence) have been long abandoned. In spite of incentives to attract teachers and doctors to the area, persistent insecurity in such regions, coupled with traditional cultural and economic biases, corruption and severe shortage of resources have reduced their numbers. Repeated armed attacks against schools, clinics and pastoral communities have decreased literacy rates, school enrolment and health indicators in affected

regions to the extent that they are among the lowest in the country. According to a UNICEF official in Lokichokio (NW Kenya), during a raid by the Toposos on the Turkane "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". Such events have increased in number and lethality since the large-scale diffusion of automatic weapons began.

### **Collapsing Economic Activity**

The use of small arms has destructive consequences on **formal and informal economic activity**. The threat and use of small arms touches both formal and informal commercial transactions, including trading patterns, and household and national agricultural production. In many situations, small arms availability can be a direct cause of declining food security. A recent assessment of the problem of small arms in Niger shows how weapons availability has had a significant impact on economic activity at the local level.<sup>70</sup>

The impact of small arms on economic activity can be measured by primary indicators that include higher transport costs and the destruction or deterioration of physical infrastructure during armed conflict, and secondary indicators that include prices of local goods, local terms of trade, agricultural productivity, and levels of food production (and food security). Sustained increases in the prices of local goods, and declines in levels of agricultural productivity and food production as a result of prolonged periods of armed violence can have disastrous consequences for human development.

<sup>67</sup> See also Women's Commission for Refugee Women and Children (2001) on Kosovo.

<sup>68</sup> See the Coalition to Stop the Use of Child Soldiers. 1999. *The Use of Children as Soldiers in Africa: A Country Analysis of Child Recruitment and Participation in Armed Conflict*. Geneva: CSUCS. The other is Les, Robert, Charles Hale, Fethi Belyakdoui, Laura Covey, Roselida Ondeko, Michael Despines and John Keys. 2001. *Mortality in Eastern Democratic Republic of Congo*. Atlanta: IRC Health Unit.

<sup>69</sup> For more detailed analysis, consult Oxfam-GB (2001b).

<sup>70</sup> Consult UNDP/PNUD (2001j) for more details.

The **destruction or deterioration of physical infrastructure** (e.g. roads, ports, factories) as a result of war and armed conflict can have a dramatic impact on economic activity (World Bank, 1998). The direct costs associated with the reconstruction of vital infrastructure (e.g. roads) in a post-conflict era, can also limit the available domestic and foreign resources for social services, thereby retarding human development. Many development actors, such as the World Bank, are now actively engaged in the financing of post-conflict reconstruction, including the rebuilding of physical infrastructure.<sup>71</sup>

All **trade** requires enforceable rules (either formal or informal) and where such rules are not legitimately enforced, transactions frequently disintegrate into social violence, including criminality. In situations where arms are widely available and rules are breaking down, a climate of insecurity erodes the social capital that is absolutely vital for sustaining the relationships and communication necessary for transactions to take place. Where trust, risk-pooling and communication among rural households break down, and mobility is restricted as a result of fear, so called “unvirtuous circles” form where local trade collapses and individuals, households and communities are caught in “low-income” traps. In situations of outright conflict, armed insecurity is often so pervasive and rules are entirely moderated and enforced by informal mechanisms. In such environments trade is dominated by arms-wielding thugs and warlords (Reno, 1998).

Periods of armed violence affect **food production**, often taking years to recover. In Sierra Leone, the country’s GDP has collapsed over the past five years largely as

a result of declines in the value-added of agriculture and industry (World Bank Indicators, July 2000). The proportion of value-added contributed by agricultural production to GDP contracted in Angola from a height of 23 per cent in 1991 to an average of six per cent in the following eight years. During Mozambique’s civil war, fought primarily with small arms, agro-industry exports suffered serious declines—with export volumes falling an estimated 34 per cent between 1982-1983 (Goudie and Neyapti, 1999).

Among predominantly pastoral groups, the presence of small arms also affects cattle production and basic commercial transactions. The large-scale theft of livestock from pastoralists throughout East Africa, exacerbated by the abundance of cheap automatic rifles, has severely affected production and the terms of trade in the region.<sup>72</sup> Due to a combination of recurring drought, an increasing number of deadly raids, and the deterioration of the delicate balance required for rangeland management, cattle are now scarcer and of poorer quality. Faced with reduced food security as a result of the armed violence, pastoralists have resorted to environmentally unsustainable practices that have generated additional tensions over common property.

While the commercialisation and monopolisation of trade by vested interests can be seen as one of the root causes of large-scale cattle rustling in East Africa, the virulence of the armed confrontations is reducing future generations of livestock (and pastoralists) at the subsistence level. As the terms of trade have worsened, pastoralists have been forced to sell increasing numbers of animals to meet minimum subsistence needs.<sup>73</sup> According to the World Food

<sup>71</sup> See the publication *Post Conflict Reconstruction: The Role of the World Bank* for a discussion of the role of the World Bank in financing post-conflict reconstruction projects.

<sup>72</sup> The annual value of livestock production and export in the Horn of Africa has been estimated at well over \$US 100 million per year. A recent report on pastoralists in Kenya by SALIGAD (2000) notes that: “47 per cent of people interviewed in Turkana district say that they have lost their livestock due to raids”. As a result, many have replaced the trade in livestock with the trade in weapons”.

<sup>73</sup> See, for example, Hendrickson et al. (1998); UNDP Somalia Report (1998).

Programme (WFP, 2001), increasing levels of food insecurity in the Horn of Africa have led to rising levels of “malnutrition-related diseases, such as infectious diarrhoea, which is among the leading causes of morbidity and mortality among children less than five years of age”. According to research conducted by Consultative Group on International Agricultural Research (CGIAR, 1996) armed violence has “put at least 80 million people at risk of hunger and malnutrition”.

Armed blockades and informal road-stops, piracy, raids on convoys and systematic armed robbery can erode the confidence of buyers and sellers in the reliability of transportation networks and markets. At the very least, scarcity contributes to a destabilization of prices for a range of goods, and the meagre trade that continues is entirely unpredictable. Not only does armed insecurity prevent farmers from selling their produce in open markets, it prevents them from obtaining vital inputs such as fertilizers and seeds.

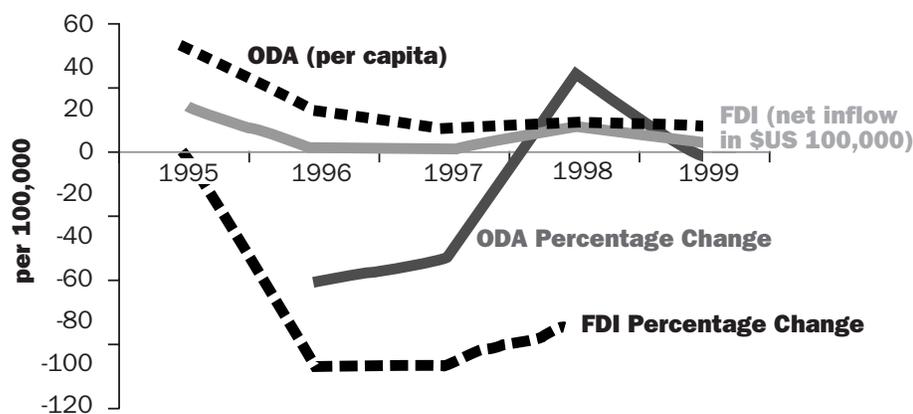
Armed banditry can severely affect the supply of cash crops, as public and commercial transportation to markets is often

interrupted, and consequently, farmers are forced to abandon commercial harvests. Where this happens repeatedly on a large scale, local investment often declines with broad ripple effects on both foreign investor confidence and overseas development assistance (ODA) (see **Box 8**).

### Investment, Savings and Revenue Collection

Few external investors are willing to invest in fixed productive assets in places where small arms are openly brandished. A diverse array of countries and institutions has recently declared armed conflict and social violence perpetrated with small arms as one of the most serious obstacles to investment and tourism. In Colombia, for example, a measurement of investment functions against the firearm homicide or kidnapping rate demonstrates an impact as high as 40 per cent (Parra, 1997). Unless there are serious possibilities for resource extraction (oil, diamonds, timber), foreign investment in regions where arms are widely available takes on a “short-termist” perspective—and commercial activity aims for quick returns as a

**Figure 7. FDI and ODA Flows in Albania 1995-99**



### Box 8. FDI, ODA and small arms

The impact of small arms on the investment climate can be illustrated by the case of **Albania**. Following the collapse of pyramid schemes and the widespread looting of arms depots in 1997, net inflows of foreign investment declined almost 50 per cent in three years. To put this into monetary terms, FDI contracted from \$US 70 million in 1995 to \$US 45 million in 1998 as a result of armed violence and instability. But the story does not end there. Aid per capita also increased over the same period—from \$US 56 to \$US 72 per head (see chart). Generally, these trends represent a cost to both Albanians and the international community—both in terms of opportunity costs in relation to lost investment as well as increasing ODA.

risk avoidance strategy.<sup>74</sup> In some cases, these extractive industries are often the source of armed conflict, or are used to sustain armed conflict (Keen, 2001).

According to the World Bank, conflict-ridden countries suffer disproportionately from negative growth and a massive deterioration in FDI. For example, more than 50 per cent of FDI that flowed into Sub Saharan Africa during the last decade was concentrated in a mere eight countries, with only 10 per cent distributed among the remaining 40. Overseas aid flows also declined, falling in total volume from \$US 17.9 billion in 1992 to \$US 10.8 billion in 1999 (World Bank Indicators, 2001).

Small arms related violence can have a devastating impact on a country's financial indicators, as measured by trends in local and foreign fixed investment, revenue collection and domestic savings. As noted above, both domestic and foreign investment often declines in the context of armed conflict and social violence as

investors take their money elsewhere. Tax payments, which affect the levels of government revenue and spending, often stop or decline during armed conflict, particularly if people and communities are forcibly displaced. Declines in levels of investment and revenue collection, particularly in terms of the allocation of government spending can have a negative impact on human development.

Violence or armed conflict force governments to spend more on defence or law and order, allowing fewer resources for social services (health and education). In South Africa, spending on law and order has grown at a faster rate than spending on social services such as housing, health and education, despite the legacies of apartheid and the new government's commitment to reconstruction and development. The 2000/2001 national police budget is US\$1.96 billion, significantly more than for the national health budget of US\$1.56 billion.<sup>75</sup> Lower levels of spending on social services in turn forces people to use their savings to make up for the shortfall in public spending and consequently, lower levels of domestic saving reduce the amount of investment resources in a country and can have a significant impact on national economic activity.

### Social Capital

Small arms related violence is felt (and assessed) most profoundly at the household and individual level, and the use of small arms by certain groups, such as young men, can have negative effects on gender relations and family and communal cohesion. A range of indicators can be used to measure the impact of small arms on social

<sup>74</sup> Though still very much speculative, a review of US *Foreign Direct Investment Climate* reports, suggests that even where many armed conflicts are thriving in countries rich with oil reserves and exploitable primary commodities, FDI from oil, petroleum, mineral and other resource-extraction firms increases. In Niger, in the midst of the uranium mining boom and the internal conflict with the Tuareg, FDI grew more than 386 per cent between 1993 and 1996 from \$US 22 million to \$US 85 million. Also, between 1996 and 1997 in Colombia, capital inflows rose from \$US 1.8 billion to \$US 2.9 billion in spite of serious warning from the Chamber of Commerce.

<sup>75</sup> Figures from 2001 Budget Review (Department of Finance, 2001).

capital. Primary indicators would include the numbers of child soldiers, membership of armed gangs, incidents of armed domestic violence (e.g. rape) and the breakdown in customary authority. Secondary indicators would include repeat criminal activity among youth and the collapse of community and customary institutions.

It is currently estimated that at least 300,000 children under 18 are fighting as soldiers with government forces and armed opposition groups in more than 30 countries worldwide (Machel, 2000). In addition, in more than 85 countries, hundreds of thousands of children have been recruited into government armed forces, paramilitaries and a wide variety of non-state armed groups.<sup>76</sup> According to the Coalition to Stop the Use of Child Soldiers ‘the widespread availability of modern lightweight weapons (small arms) has also contributed to the **child soldiers** problem, enabling even the smallest children to become (an) efficient killers in combat. Child soldiers not only lose their childhood and opportunities for education and development, they also risk physical injury, psychological trauma and even death.

Combined with a dearth of adequate education or schooling possibilities, the risks presented by small arms availability to traumatized children in situations of extreme deprivation are enormous. In Congo-Brazzaville, for example, youth facing unemployment and uncertainty rapidly joined militias and gangs that offered “prestige, access to power and the possibility for plunder” (UNDP/PNUD 2001: 3). According to a recent study of violence among youth in Kosovo, concerns about security among young people were closely linked to their psychological and social apprehensions: “violence has caused a sense

of loss, fear and hopelessness”. They voiced special concern with their lack of mobility, recreational space and criticised 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, 2001: 3).<sup>77</sup>

The scale and lethality of violence made possible by military-style small arms has contributed to the breakdown of customary institutions and takes its toll on indigenous systems of organisation and social control (such as dowry, land-tenure arrangements, common property and customary law). In addition, faith in local solutions and traditional approaches to conflict resolution has declined, though some indigenous systems have also evolved local responses (see Box 9).

The end of grazing restrictions in East Africa, for example, led to a free-for-all over grazing lands and water rights during the post-independence period. In parts of Kenya, the resulting insecurity (e.g. highway banditry and car-hijacking, raiding and stock theft, robbery and looting, intimidation, physical injury and rape and murder) ranks as one of the principle causes of suffering and human misery (SALIGAD, 2000). Due in part to the insecurity now associated with cattle herding, many pastoralists are forced to abandon their traditional livelihoods and shift to informal urban labour markets or face unemployment. Among some communities, dowries are conferred by credit (rather than by cows themselves), affecting the endowment set of pastoral households. In towns such as Garrissa and Wajir in North Eastern Kenya, “councils of elders” have lost their legitimacy in the

<sup>76</sup> Figures from Global Report on Child Soldiers (2001).

<sup>77</sup> A project is currently being developed by the UNDP entitled “Support to Human Security in Kosovo” to this effect. See UNDP (2001b).

**Box 9. An Indigenous Response:  
The Kuria's Sungusungu  
in Kenya**

Small arms have led to a tragic breakdown in customary and cultural institutions, such as councils of elders, common property resources and grazing rights, religious ceremonies and marriage rites. Children bearing small arms are often bestowed status, which can undercut the authority of government, community, or even family authorities. Yet sometimes, time-tested customs can adapt. For example, in Nyanza Province of Southern Kenya, the Kuria people have invoked a traditional form of law and order (sungusungu) to effectively control and manage the impacts of small arms.

In searching for alternative mechanisms to manage the rising tide of armed violence, the District Administrator and the local community identified a traditional custom called “sungusungu”: a system in which the community identifies criminal offenders and collectively determines the level of compensation for the victims. The relative success of sungusungu, where modern systems of law enforcement have failed, suggests that the initiative is potentially a viable response to the endemic problem of cattle rustling and small arms. Furthermore, it offers lessons for other similar situations elsewhere in the region.

Source: SALIGAD, 2000

face of escalating levels of armed violence—and the social fabric of these societies is in an advanced state of decay.

**Development Intervention and  
the Culture of Withdrawal**

The field staff of development agencies are increasingly finding themselves in the line of fire. The existence of small arms complicates the task of poverty alleviation at every stage of the project cycle, from

funding, to programme design, implementation to monitoring and evaluation.

To measure the impact of small arms on development intervention, primary indicators include the number and type of security incidents (armed assault of field staff). Secondary indicators include the rising costs of logistics and security as a proportion of total development assistance.

To avoid areas where there are rising levels of insecurity—particularly the risks posed to government and NGO extension workers—planners turn to regions where the return on their investment and performance justify continued funding from “results-oriented” donors. Insurance premium costs have skyrocketed to the point where programme administrators are unable to sanction staff travel or intervention. In other cases, programmes are looted, shut down, 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 & Kostner, 2000). Thus, the unchecked availability of small arms is generating a “culture of withdrawal”.

The pace and scale of “security incidents”, such as car-jacking, kidnapping, armed attack, armed robbery and murder affecting the UN system has spiralled in recent years, although this growth can in part be attributed to an increase in activities in war-affected areas. Between 1992 and 2000, more than 185 UN staff were killed in situations of conflict—with a firearm homicide rate of between 17 and 25 per 100,000 (Muggah & Berman, 2001). Referring to the DRC, UN Under-Secretary-General for Humanitarian Affairs, Kenzo Oshima notes that “in such an environment of massive humanitarian

**Box 10. Security and Oxfam-GB**

In early 2001 a questionnaire entitled “Arms Availability and Humanitarian/ Development Impacts” was administered in twenty countries where Oxfam-GB operates. The survey was conducted to raise awareness of, and responses to, the threat of small arms. According to the report over 90 per cent of all Oxfam-GB staff agreed that arms availability, whether assault rifles, handguns, APMs or mortars, contributes to insecurity in their day-to-day operations. Respondents noted the impacts of small arms in relation to both their development work and their relative capacity and opportunity to intervene on behalf of vulnerable groups in the field.

Increasing attention has been devoted to how the militarisation of “humanitarian intervention” leads to the militarisation of the “humanitarian space” available to agencies. Practitioners have studied how increasing private security, designed ostensibly to ensure protection of staff and beneficiaries, has counter-intuitive effects. The debate is emotive—and strikes at the roots of the humanitarian objectives of “impartiality”—as an armed presence often escalates tensions between vested interests in the field and the NGO presence. Oxfam-GB has made a conscious decision not to engage armed actors unless absolutely necessary—and this is reflected in the responses received. Only 20 per cent of Oxfam-GB respondents noted that they used armed security at either their office, during transportation of goods to and from the field or in their private residence. Importantly, there appears to be a common belief that “guns draw gunfire” and should be avoided. More than 56 per cent of all respondents did not feel that privatised security significantly contributes to their security. That said, the very real threat of small arms use remains—and is felt intensely by some staff in the field.

Source: Muggah, 2001c

deficit, the major impediment facing the humanitarian community is the lack of access to vulnerable populations, worsened by a combination of factors including the country’s vast size, poor infrastructure, and rampant insecurity” (IRIN, 2001).

The intensity of insecurity in some regions has increased to the extent that even security assessments themselves are perilous. For example in September 2000, security officers in Somalia who were conducting a security assessment 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 hastily suspended after unidentified gunmen sprayed gunfire at a European Community plane. During a disarmament ceremony held in Atambua (East Timor) during the very same month, UN invitees were attacked by the militia who sought to reclaim their weapons, and were forced to take refuge beneath the facade (Muggah & Berman, 2001).

The **rising costs** associated with security logistics—transportation, security and information infrastructure—ensure that a growing proportion of aid is being devoted to unproductive purposes. For example, agencies are known to spend between five and thirty percent on local private security services alone.<sup>78</sup> In some cases, they are forced to hire armed guards from the local community lest they trigger still more violence. Additional costs relate to the barricading of walls and fencing around compounds and residences, armed convoys and escorts, high-tech satellite telecommunications systems, intelligence gathering, emergency evacuation and planning costs.

<sup>78</sup> For more detailed analysis of the costs of private security on relief and development agencies, consult Muggah & Berman (2001) and Lilly (2000).

# Conclusion: Confronting the Problem

Considering the far-reaching and long-term implications and impacts of the use of small arms on human development, it is for affected countries and regions to embark on strategies aimed at reducing the prevalence of small arms in their societies, by simultaneously addressing the supply and the demand for these weapons.

The international development community can play a major role in responding to the problems associated with the proliferation, availability and misuse of small arms. Any interventions by the development community should consider both the supply and demand side elements of small arms proliferation, availability and use, and must deal with both legal, and illicit, weapons.

The **supply and availability** dimension of the small arms problem is concerned with existing supplies of weapons in conflict zones, flows and exports or transfers of weapons to developing countries. Since most small arms start out their lives legally, it is important to focus on the various ways in which these arms are diverted into illicit markets. A focus on the supply side is linked to the accessibility thesis, which assumes that an increase in the stock, or availability, of small arms in a society can lead to an increase in the potential for armed conflict and social violence.

Interventions on the supply side could include the conversion of the defence industry to civilian production; strengthening of regulatory controls on suppliers, producers, retailers, brokers and transport agents; the introduction of more rigorous export and import certification (“end-user certificates”); more resources for customs and excise agencies; improved arrangements

for tracing and marking; stockpile management and destruction of surplus weapons; and technical assistance programmes for developing countries. However, these supply-side interventions cannot on their own deal with the factors that prompt people to acquire weapons. Therefore, what is required is an approach that links reducing supply and availability, with a focus on the demand side of the problem.

The **demand-side** dimension of the small arms problem is concerned with the factors that prompt people to acquire or possess small arms, either legally or illicitly. This requires an analysis of the root causes of armed conflict and social violence. A focus on the demand side is linked to the preventive development approach, which assumes that without well-balanced and sustainable human development, armed conflict and social violence are more likely to emerge, thereby increasing the demand for arms.

The demand-side approach is concerned with identifying the economic, political and social factors that cause armed conflict or social violence, and which in turn prompt people to acquire weapons. Interventions on the demand side could include development policies to alleviate poverty and inequality, and generate employment and alternative livelihoods (especially for ex-combatants and child soldiers); security sector reform and the strengthening of police and customs; good governance and the reform of the judicial system; effective demobilisation, disarmament and reintegration of ex-combatants into civil society; post-conflict reconstruction of physical infrastructure; and public awareness and education programmes about the impacts of small arms. These demand-side efforts should highlight the

fact that demand and supply are intimately linked, for fresh supplies of arms can fuel the negative impacts of small arms availability and use (e.g. forced displacement), and consequently drive-up the demand for these weapons. It is also worth noting that such interventions can not only reduce the demand for small arms (for example, by lowering crime), but also at the same time deal with many of the negative impacts of small arms on human development (for example, reduced capacity of social services).

### Supply Side Interventions

The development community can, and should, play a significant role in the following supply side interventions:

i) development of production and export controls, including conversion of surplus defence industrial capacity; ii) the development and consolidation of legislative frameworks, iii) capacity building for police and customs, to ensure better controls over the production, stockpiling and trade in small arms; and iv) support for weapons collection and destruction programmes.

Weapons collection efforts should serve the fundamental purpose of improving security by taking weapons permanently out of circulation. Disarmament has traditionally been approached “by command”, a process that is “organised, supervised, public and collective”, with the objective of both collecting and destroying weapons. But because of the limited attention devoted to small arms at the political level, the articulation of definitions, principles, philosophy and a methodology of response at the technical level, has been relatively slow.<sup>79</sup>

<sup>79</sup> According to one expert, “only one weapons collection programme to date, has been conducted without any civilian casualties caused by the handling of unsafe and unstable ammunition and explosives that they were returning...The planning and execution phase of many of these operations has been amateurish because of the lack of involvement from Day 1 of appropriately qualified and trained individuals. As a result there has been unnecessary loss of life, which arguably could have been avoided by a more professional approach.”

### Box 11. What Can Voluntary Weapons Collection Achieve?

Experience tells us that weapons collection programmes suffer from two critical weaknesses: they do not effectively disarm criminals, nor do they significantly reduce the number of weapons in a specific target area. In El Salvador, for example, between 1996-1999, a “Goods for Guns programme” collected 4,357 firearms, 3,180 grenades and more than 100,000 rounds of ammunition. While considerable, this amounted to a mere 8 per cent of the new arms legally imported into the country during the same period.

But rather than strictly removing weapons from the hands of abusers, weapons collection programmes provide a useful awareness-raising function. They aim to influence a change in culture and attitudes towards the role of guns in society, by convincing them that guns were contributing more to their insecurity than their safety. There are two main contributions of weapons collection that extend beyond the objective of removing guns from society.

First, collection programmes can **consolidate relationships between civil society groups** and create a model for collaboration in the future. The El Salvadorian initiative combined a number of actors, including the Church, the private sector, NGOs, and the state, to great effect. The participation of business to improve public security was one particularly important, and innovative, feature. Second, voluntary weapons collection programmes can effectively **support, reinforce, or trigger additional initiatives** aimed at improving human security and development in general. Media attention and awareness-building programmes are one relevant example in this regard. These awareness or sensitisation efforts can have tremendous symbolic effects on public perceptions of arms use.

It is crucial that narrow supply-side disarmament interventions should be expanded to include a multifaceted approach that aims to change perceptions about the desirability of possessing weapons. Disarmament programmes, where they have occurred, are rarely successful at collecting vast numbers of weapons. While the number of weapons collected remains important in its own right<sup>80</sup>, such disarmament programmes require a more expansive perspective—seeking to build confidence, forge collaborative networks in the community and support genuinely participatory initiatives and a long-term commitment between stakeholders (see **Box 11**).<sup>81</sup> Disarming is first and foremost about building trust. When there is trust, it is argued, either the guns will rot away in the ground where they are hidden, or they will simply be turned in. Seen from this perspective, disarmament represents a vital component of the “reform of the state security apparatus, of the military, police and judiciary and penal systems, and furthermore, of a broader process of democratisation...an aspect of good governance and development policy” (Mason, 1999).

## Demand-Side Interventions

The development community already plays an important role in various demand side interventions, which are aimed at reducing poverty and inequality, and promoting sustainable human development. These types of interventions are extremely important for dealing with some of the factors that prompt the demand for small arms. In addition, the development community can, and should, also play a critical role in other demand side interventions such as: i) demobilisation, disarmament

and reintegration of ex-combatants, ii) good governance, iii) security sector reform and enhanced capacity of law enforcement agencies, iv) peace-building and post-conflict reconstruction; and v) education and public awareness.

Interventions to curb the demand for small arms should primarily concentrate on the alleviation of poverty and structural inequality, thereby helping to reduce some of the factors prompting people to keep or acquire weapons. These interventions are usually part of the core mandate of development agencies. In the context of armed conflict and social violence, such efforts address some of the fundamental root causes of conflict, while at the same time balancing development intervention with the principle of ‘doing no harm’.

Another key intervention on the demand side involves the demobilisation, disarmament and reintegration (DDR) of ex-combatants (including child soldiers), and the development of policies to create alternative livelihoods for these ex-combatants. Seen in this context, DDR programmes should be conceived as efforts to significantly reduce the risk of renewed armed conflict and the possibility of arms being re-used by ex-combatants in crime and banditry.<sup>82</sup> In the case of Central America in the early 1990s, where weapons are not removed from society in the aftermath of armed conflict, they are often re-used in crime, helping to make today’s combatants tomorrow’s criminals. DDR efforts, then, should seek to focus on the extent to which weapons-holders believe they need to retain their weapons. Endorsing both positive and negative incentives and the permanent removal of weapons from society, ensures this kind of longer-term vision.

<sup>80</sup> See, for example, the evaluation of the Gramsh project by BICC/SAS (2000).

<sup>81</sup> Indeed, evidence suggests that efforts to forcibly disarm communities have the perverse consequence of actually intensifying their demand for weapons. For this reason, amnesty, collection and destruction programmes carried out in “peacetime” settings for the purpose of reducing and preventing crime are frequently voluntary in nature, using both carrots (incentives) and sticks (sanctions). Critical surveys on gun amnesties in the US suggest that high-risk groups, such as young unemployed men, may not be effectively targeted. They also note that as in other amnesty programmes the world over, ineffective and poor-quality weaponry are often turned in instead of more lethal arms. Such evaluations also question the real extent to which such programmes are therefore effective. But measurement of results is often hampered by the fact that they are often implemented at the community level (either within or outside a national framework) that may conceal their short-term effectiveness in reducing rates of firearm violence among small populations. But recognised risk factors associated with small arms can be reduced. For example, merely taking the firearm out of civilian hands is a worthwhile intervention: innumerable studies show that the presence of a firearm in the household is positively associated with a high risk of firearm violence.

<sup>82</sup> This view is being vigorously endorsed in Sierra Leone, where after repeated failures, DDR is being perceived as one of “the most crucial elements”. The Special Representative of the UN Secretary-General, Oluyemi Adeniji has stressed that “it is essential both in the interests of overall peace in Sierra Leone and in the interests of the peace and security of individuals that we get the process right”, IRIN (2001).

Interventions such as “weapons in exchange for development” have helped improve security and well-being, even where the number of arms collected appears relatively small in comparison to expenditures on development projects.<sup>83</sup> In the view of one evaluation, the value of these projects (as opposed to simple weapons collection projects) lies “not only in encouraging people to disarm, but also in their contribution to economic growth, community development and public security” (BICC, 2000: 7). Such initiatives can harness pre-existing desires on the part of many civilians to disarm themselves and by involving the community, can support disarmament processes that might already be underway, empower the local people and encourage them to cooperate with the local authorities to improve conditions in their communities”. The Gramsh Pilot Project (GPP) in Albania creatively combined a technical weapons collection programme with participatory needs assessments that focused on small-scale and labour-intensive development projects.

Reducing demand also depends on generating critical awareness of the impacts of small arms. This requires a capacity to learn from experience, establish priorities, and generate innovative and integrated strategies.<sup>84</sup> In this regard the development community can play an important role in sensitising communities and policy-makers to the varied risks that small arms pose to human development through awareness building interventions. For example, the annual publications from major development actors (UNDP, World Bank, OECD) could be better used to highlight the inter-linkages between small arms, armed conflict and human development. The development community could also build local capacity to collect and analyse baseline data on the impact of small arms as part of their existing interventions. Focused country studies could highlight the specific impacts of small arms, and thereby identify the necessary interventions for reducing the supply of, and demand for, such weapons.

<sup>83</sup> At the time of this writing, the GPP had collected 5,981 weapons and 137 tons of ammunition. It had also successfully built 34 kilometres of access roads and bridges, installed a radio and telephone system in Gramsh as well as street lighting in the town itself (BICC/SAS, 2000).

<sup>84</sup> Community studies are one possible approach to understanding the small arms problem in context. Mainstreaming socio-economic analysis of the impact of small arms into project design and implementation, as well as feasibility studies and programme evaluations are another.

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