

Under pressure

Social violence over land and water in Yemen

In February 2007 at least a dozen people, including an 11-year-old boy, were killed during a land dispute between tribesmen from al-Baydha and Sanhan that erupted in a southern suburb of the Yemeni capital, Sana'a. A sheikh from Sanhan kidnapped the son of a sheikh from al-Baydha to pressure him into renouncing ownership of a large plot of land. The youth reportedly fought back, injuring his kidnapper, and was then killed. The boy's family rejected mediation and a gun battle erupted, with further killings apparently occurring when injured fighters were taken to hospital. Fighting was only quelled when the government sent tanks to separate the parties.¹

This incident was unusual only for its notoriety and for the intervention by the highest levels of government. Typically modest in scale, social violence over land and water in Yemen is nevertheless so pervasive and self-perpetuating that it claims thousands of lives each year and severely inhibits social and economic development. While escalating political violence in Yemen is rapidly capturing international attention, more insidious land- and water-related social violence threatens to further weaken community cohesion and undermine stability. At the national level, collective land grievances are fuelling southern resentment and calls for secession.

This Yemen Armed Violence Assessment (YAVA) *Issue Brief* provides an overview of the dynamics and impacts of land- and water-related social violence, highlighting likely future trends. It elaborates on the particular contribution of small arms and light weapons as a cross-cutting factor shaping social violence. The *Issue Brief* also considers government initiatives



Women collecting water from the communal cistern, Shaharah, Hajjah governorate, February 2009. © Gavin Hales

to contain civilian gun use, and highlights the many linkages between social violence and other systemic challenges confronting Yemeni society. It finds the following:

- According to Government of Yemen estimates, violence accompanying land and water disputes results in the deaths of some 4,000 people each year, probably more than the secessionist violence in the south, the armed rebellion in the north, and Yemeni al-Qaeda terrorism combined.
- In the context of political turmoil and other grievances, land and water disputes have acted as triggers for collective violence and threaten to spark wider civil unrest.
- Rapid population growth and extensive governance challenges are exacerbating resource-related conflicts, yet the government does not appear to have a robust, long-term plan to address these systemic problems.
- Since 2007 the Government of Yemen has actively enforced restrictions on gun commerce and especially gun carrying in urban areas, reducing the availability of small arms and contributing to significant increases in market prices. Nevertheless, gun ownership is unregulated and gun carrying is unrestricted outside urban areas. Firearms remain an important vector of social violence.
- Despite government measures to reduce civilian gun use, reports indicate that leakage from the Yemeni army is an important source of ongoing supplies of military-style small arms and ammunition to civilian gun markets.

Situating social violence

YAVA *Issue Brief* 1 (May 2010) distinguished six broad categories of violence in Yemen: political, social, ransom-related, criminal, domestic, and unintended.² In a non-exhaustive review of domestic and international media reports of violence in Yemen over a 12-month period, *political violence* accounted for the majority of overall reported deaths and injuries. The archival review indicated, however, that individual incidents of *social violence* are more deadly than political or

criminal violence, resulting in higher mortality and morbidity rates per incident than the other five categories.³ An important caveat is that social violence is widely under-reported compared to political violence and thus is probably far more extensive than has been measured and reported to date.

YAVA defines social violence as 'armed violence between non-state groups, often sustained over a period of time, particularly in the context of norms relating to collective responsibility and blood revenge'. The most prevalent type of social violence relates to disputes over the ownership of, or access to, natural resources such as land and water, and border disputes.⁴ These conflicts appear to play out overwhelmingly in rural areas, where 71 per cent of the population lives,⁵ although urban areas are also affected—especially where new land and property developments are taking place. Significantly, 'the increased commercialization of land has created new relations in rural areas and between the tribes, leading to disputes'.⁶

The centrality of land and water in shaping conflict in Yemeni society is difficult to overstate. Land and water provide the basis for economic livelihoods for a majority of Yemenis. Agriculture accounts for 15 per cent of gross domestic product and employs 75 per cent of the rural workforce.⁷ Land in particular is closely tied to notions of identity and honour: in Arabic, *al-ard 'ard* (land is honour).⁸

Yet only a very small percentage of Yemen's land is economically productive. Less than 3 per cent is considered 'prime farmland'; an additional 4 per cent 'marginal farmland',⁹ and less than 0.3 per cent is 'planted with permanent crops'.¹⁰ For these reasons, it is coveted and protected 'with great passion'.¹¹ The following sections consider how land and water conflicts arise, summarize the available data on their impacts, and review key Yemeni and development actor responses to these problems.

Land conflict

Land disputes are widely held to be the most common cause of armed violence in Yemen.¹² Land conflicts occur when multiple individuals or groups make claims on a parcel of land, whether through purchase,

inheritance, or some other claim to ownership. Disputed land is typically private, but may also involve former or current state property. In a smaller number of cases, communal and *waqf* (religious endowment) lands are subject to dispute.

Conflicts over land can escalate quickly because of the symbolic and economic significance of land, the general lack of a speedy and transparent adjudication process, and the highly armed nature of Yemeni society. On the state side, excessive bureaucracy, poor state management and record keeping, and corruption exacerbate conflicts rather than contribute towards their resolution. Simultaneously, customary systems to manage land ownership and transfers are weakening because local sheikhs are often no longer perceived as unbiased decision makers, as in many cases they benefit from land concentration. Furthermore, the state may step in at any time and reverse or nullify customary judgements.¹³

The official land conveyancing (legal registration and transfer of ownership) system itself is highly problematic. Although all private land sales—typically conducted via an authorized intermediary¹⁴—are supposed to be officially entered into the state land registry, most transfers are never formally registered and private conveyancing predominates.¹⁵ At the same time, conveyancing is subject to widespread fraud and corruption, including document fraud (e.g. asserting a false claim to a piece of land) and the sale of the same property to multiple buyers. The land registry is generally unable to identify competing claims to pieces of land¹⁶ or expose fraud, with the negative consequence that it can formalize rather than avert conflicting claims.

As a result of these weaknesses, claimants extensively use the courts to formalize land ownership and address competing claims, with one estimate suggesting that 50 per cent of the caseload in primary courts is over land and property rights.¹⁷ This results in 'overburdened'¹⁸ courts, and it is not unusual for cases to drag on for ten years or more, compounding concerns about corruption and further undermining the legitimacy of the judicial system.¹⁹ Where both the formal state and informal customary mechanisms are unable to provide a

timely and legitimate means of establishing tenure, claimants often resort to violent conflict.

Inheritance issues can complicate matters further, particularly in the highland areas where inheritance constitutes one of the main mechanisms by which land is acquired, on the basis of the division of an estate according to Islamic law.²⁰ As average individual and family land holdings shrink due to population growth and finite productive land resources, families are increasingly desperate to retain their agriculture plots and acquire new land assets (see Box 1). A separate issue arises when, in contradiction to traditional norms (but following Islamic law), land passes from a deceased husband to his surviving wife. In such instances, the husband's family may try to retrieve the land and/or keep it in their family's name. This is said to frequently be the cause of armed disputes.²¹

In some cases, disputed land may involve current or former state lands, underlining an important political dimension to land issues in Yemen that in turn has fuelled political disaffection, particularly in the south. In the former North Yemen (Yemen Arab Republic), much of the state-owned land was previously owned by the imam (the religious leader prior to the 1962 revolution); in the former South Yemen (People's Democratic Republic of Yemen), lands were nationalized in 1970 by the socialist government that took power after the British withdrawal, and were previously predominantly owned by sultans.²² Other state lands include those specifically acquired by the state, as well as beaches and unpopulated islands,²³ forest and desert areas 'unless proven to be privately owned',²⁴ and *marahék* (mountains and slopes that channel rainfall to adjacent agricultural land).²⁵

No matter where they are located, state lands are poorly documented and demarcated, giving rise to additional challenges over and above conveyancing and inheritance issues and creating ownership conflicts with tribal and private claimants.²⁶ In and around cities such as Aden, Mukalla, Sana'a, and Taiz, 'investors and citizens who purchased land from the state have often had to pay for it again to settle with the tribal/private claimants'.²⁷

State lands are subject to misappropriation, illegal sales, being given to

Box 1 Ahmed's land

A member of a family of farmers living on what is now the outskirts of Sana'a city, Ahmed (a pseudonym) inherited land from his paternal grandfather. While he was alive, his grandfather had divided most of his land equally among his three sons, retaining a portion for himself. After his grandfather's death, this residual parcel was divided among Ahmed and his two surviving uncles, Ahmed's father having died some years earlier.

In 2004 Ahmed says he was summoned from his house one night by a cousin (a son of one of his two paternal uncles), who demanded that Ahmed renounce his entitlement to his share of the residual land. Once outside, and having refused the request in the course of an argument, Ahmed says he was shot at by a second man who had remained hidden. Ahmed summoned a farming colleague, who brought his Chinese-made AK-47 and handed the weapon to Ahmed. The attackers left. Later the same night a gun battle broke out, during which Ahmed estimates that 60 shots were fired at him, one wounding his leg and another hitting him in the chest. He fired back, but could not confirm where his shots landed.

In hospital three days later, Ahmed was visited by policemen who had been tipped off by villagers that a young man had been killed during the gun battle. In due course both Ahmed and his cousin were charged, in Ahmed's case with murder. While his cousin was found not guilty, Ahmed was convicted and sentenced to death. The residual piece of land, however, remained in his name.

Source: Author interview with Ahmed, Sana'a Central Prison, August 2010

private owners, or even (e.g. in the case of the military²⁸) being used by state employees for private commercial enterprises. In particular, in the aftermath of the 1994 civil war, northern elites allegedly appropriated, or were preferentially given by the northern government, large areas of formerly nationalized southern land, particularly around Aden and Lahj.²⁹ At the national level, this remains a key grievance of southerners against the northern-dominated political elite, fuelling calls for southern secession.³⁰

Water conflict

Yemen suffers from severe and increasing water scarcity and, as a result, competition for water resources is common. This is often manifested as armed violence, particularly given the importance of agriculture to the economy of Yemeni civil society.³¹ The annual per capita availability of freshwater is 120 m³ for the whole country, which is only 10 per cent of the regional average and less than 2 per cent of the global average.³² In the western part of the highlands, where 90 per cent of the population is located, the average is only 90 m³ per person per year.³³ There are no permanent rivers.³⁴

With extremely low levels of rainfall across most of the country,³⁵ conflict over water is intimately connected to land issues in Yemen. This is due to territorial (upstream) control over the

flow of surface water to downstream users and, increasingly over the last three decades, access to groundwater through the digging of (ever deeper) tube wells, predominantly on private land.³⁶ With the exception of direct rainfall, all water sources are subject to the potential for unequal access and control, key factors that lead competition to develop into conflict and armed violence. Human-made interventions such as dam construction³⁷ and spate channel 'improvements',³⁸ and natural changes such as to *wadi* (seasonal river) morphology and spate events, can all serve to interfere with delicate social balances and catalyse conflicts.³⁹ Conflict over rainwater tends to be seasonal and is most common during the rainy seasons (approximately April–May and August–September).⁴⁰

Until comparatively recently,⁴¹ rural areas were overwhelmingly irrigated by surface water, including rainfall and spate water, typically managed through locally negotiated customary approaches. Starting in the 1970s, Yemenis working in Saudi Arabia became aware of the possibilities of groundwater extraction and were soon buying tube well drilling equipment, starting in areas such as Sa'dah.⁴² Between 1970 and 2003 the percentage of total cultivable land irrigated by wells rose from 3 to 37 per cent.⁴³ Groundwater resources are now being exploited at a rate that far



Armed tribesman, Amran governorate, February 2009. © Gavin Hales

context of widespread political unrest in the south of Yemen. In many cases water disputes may be the trigger for conflict against a background of other grievances.⁵³

Ward has usefully identified five factors that can transform competition for scarce water into conflict, while al-Amry provides a sixth (see Table 1).⁵⁴

Impacts of land and water conflict

Land and water disputes are a chronic, debilitating reality for a great many Yemenis. While mortality data is extremely limited, a recent internal Interior Ministry report estimated some 4,000 violent deaths annually due to land and related disputes.⁵⁵ These deaths are over and above the roughly 1,000 criminal homicides that are publicly reported (see Box 2). Separately, it was reported that in Ibb governorate alone, where high rainfall means that the land is very productive and social conflict is said to be especially severe, 800 people were sent to prison for homicide offences between January and August 2009 alone, most related to land disputes.⁵⁶

Individual documented accounts support the extent of land- and water-related violence. As part of a five-year cycle of revenge killings, a land dispute between the Hajerah and Annis tribes in Ibb and Dhamar governorates, south of Sana'a, claimed the lives of more than 30 and wounded 100 in early July 2005 alone.⁵⁷ Elsewhere, conflict reduction specialists working for the Yemeni quasi-governmental Social Fund for Development (SFD) described an area in Sana'a governorate where land (and water) conflicts were resulting in around two armed violence deaths per week, including while conflict reduction training was being carried out.⁵⁸ Violent land disputes are a frequent occurrence in areas such as the newer parts of Sana'a city where new construction is widespread and land values are rising rapidly. In all cases the majority of victims are men and the associated effects of their deaths and injuries on family earnings and wider productivity are devastating.

In addition to mortality and morbidity, violent land disputes—and associated revenge norms—result in potentially productive land remaining

exceeds natural recharge⁴⁴ and water levels have plummeted in areas such as Sana'a, Sa'dah, and Taiz.⁴⁵ Predictions suggest that 'the majority of aquifers [will] run dry in a period of 15 to 50 years',⁴⁶ with potentially devastating consequences for social stability.⁴⁷

Conflict over access to underground water takes a number of forms. Competition among well owners drawing water from the same aquifer can lead to a 'race to the bottom'⁴⁸ of the aquifer. Conflict can also arise between rural and urban users where water is taken from rural areas for urban use. This has occurred in Taiz, where rural users saw their water

sources dry up from being used to supply urban areas.⁴⁹ This has also taken place in Abyan, where extracted water is piped to Aden and locals destroyed well-field pipelines in protest.⁵⁰ It also occurs between citizens and the state, where grievances accumulate relating to failures in public service provision. In June 2009, for example, protesters took to the streets in Lahj to protest the month-long disconnection of the municipal water supply.⁵¹ Then in August 2009 one person was killed and three injured in Aden in clashes between police and protesters over the same issue.⁵² These incidents should be seen in the

Table 1 Factors transforming water competition into conflict

Factor	Explanation
Predictability of flow	More predictable flow creates the conditions for consensus about resource management; spate events give rise to intense stress and conflict. ⁵⁹
Number of users	Large shared systems generate more potential for stress as individual control diminishes. ⁶⁰
Visibility	Surface water flows are easier to measure and manage, but, being visible, may quickly give rise to conflict; groundwater sources are not. ⁶¹
'Symmetry of cause and effect'	More direct competition between individuals is more likely to trigger conflict than, for example, depletion of groundwater affecting a broad community. ⁶²
Power relations	Large power imbalances between winners and losers tend to mitigate conflicts. ⁶³
External interference	The state, donors, and others can trigger conflict when they interfere with existing water management practices or ignore the management and maintenance implications of new infrastructure projects. ⁶⁴

unused, the destruction of valuable crops, and the delay or cancellation of new investments.⁶⁵ Research on Yemen's coffee industry, for example, highlights the way that 'multiple rights to the same piece of land' have served to limit investment and have even resulted in resource destruction such as tree cutting.⁶⁶ Water disputes can lead to water supplies being impeded or even cut.⁶⁷

Social conflict dynamics

Land and water conflicts are complex phenomena involving long-standing

customs and impacted by wide-ranging socio-economic and political changes. This section reflects on some of the key dynamics affecting the likelihood and escalation of land and water conflicts, including a widening 'governance gap' between the state and customary regulation, collective responsibility and revenge norms, small arms proliferation, and the existence of powerful vested interests.

Customary vs. state authority.

The relationship between traditional customary norms relating to conflict and resource management and state authority is crucial to understanding

land and water conflict in Yemen.⁷⁵ In rural parts of the northern highlands, customary tribal norms and mechanisms predominate,⁷⁶ while in southern areas such as Aden and Hadramout the state and its institutions have more central roles, reflecting both different cultural and political histories and the relative presence or absence of state institutions.⁷⁷ Prevailing authority in urban areas such as Sana'a is more fluid and often depends on the specific type of incident or issue and the tribal (or otherwise) status of the parties concerned. As a broad generalization, both customary and state approaches recognize each other, and indeed may cooperate in pursuit of outcomes satisfactory to all parties.⁷⁸

The processes of modernization—including urbanization and the emergence of a market economy—and the patronage-based Yemeni political model both have important implications for customary norms and practices. In particular, the legitimacy of key actors, particularly sheikhs, has diminished,⁷⁹ while many traditional norms are no longer respected to the extent they once were.⁸⁰ Factors limiting the capacity and legitimacy of the state include a traditional resistance to central government authority in favour of autonomy;⁸¹ the limited presence of state institutions in many—particularly rural—parts of Yemen;⁸² and corrupt, partisan, or counter-productive decision making,⁸³ even when there is a clear demand for the state to play a role.⁸⁴ The fragmentation of and lack of coordination between government policing and security institutions serve to further undermine their effectiveness and exacerbate the 'governance gap'.⁸⁵

Collective responsibility and revenge norms. Tribal society in Yemen is built on the notion of collective responsibility and collective action to deal with external threats.⁸⁶ At the same time, there is strong adherence to the notion of blood revenge (*tha'r*),⁸⁷ which is closely tied to honour. It views the acceptance of 'blood money' compensation payments as shameful and can only rarely be overcome by intense negotiation and mediation.⁸⁸ Revenge may be exacted against male family members or even their fellow tribesmen, e.g. when a murderer cannot be directly targeted.⁸⁹ This can paralyze communities and prevent access to schools, health centres, and markets,⁹⁰

Box 2 Counting land and water conflict deaths

An unpublished Interior Ministry report estimates that approximately 4,000 people die in land and related disputes each year in Yemen. These deaths, which probably also include water conflict deaths, are not included in the published 'security and justice' statistics, which indicated 874 'intentional murders', 138 'unintentional killings', and 24 'assaults leading to death' in 2008.⁶⁸

Three factors likely explain the under-count. First, the published statistics represent only cases that have been passed to a prosecutor, therefore typically including only those in which a suspect has been identified.⁶⁹ Second, recorded crimes in Yemen can have more than one victim.⁷⁰ Third, the number of deaths resulting from security operations or the Sa'dah war is unreported and unknown.⁷¹

When pressed on why land and water dispute deaths are generally not recorded in published crime statistics, a government official suggested three reasons.⁷² First, and most importantly, a significant proportion of such cases are dealt with by customary rather than formal state mechanisms.⁷³ Moreover, in many cases the military is used to intervene, raising sensitivities about the impact of state actions. Finally, the tribal nature and dynamics of many such conflicts can make it impossible to identify who shot whom (reducing the likelihood of prosecutorial involvement). As the official put it, 'it is like a war conflict'. With Yemen's population of around 23 million, 4,000 violent deaths are equivalent to about 17.4 deaths per 100,000 population per year.

An ongoing hospital-based injury surveillance project being conducted by the Yemeni Ministry of Public Health and Population, with support from the World Health Organization, may provide additional evidence in due course, but the YAVA project has been unable to gain access to its data.⁷⁴

and even force men to remain confined to their homes for long periods to avoid the risk of being killed.⁹¹ The cycle of violence often escalates and becomes protracted, complicating efforts to achieve non-violent resolution. For example, research on conflicts in Marib, al-Jawf, and Shabwa between 2000 and 2005 found that 79 per cent (129 out of 164) of the conflicts had started before 2001 and 410 out of 612 deaths related to conflicts that had started before 2000; one conflict had even remained unresolved for 92 years.⁹²

Small arms and light weapons use.

At a minimum, 'small arms are a vital component in any effort to protect land and exert control over its possession and use'.⁹³ Although comparatively limited quantitative data exists, firearms are probably the primary tool used to commit violence in the course of resource-related disputes. As reported in *YAVA Issue Brief 1*, civilian gun ownership in Yemen is widespread, with credible estimates of ten million small arms among a population of around 23 million.⁹⁴ Small arms proliferation has a complex relation to social and political life in Yemen, sometimes acting as a stabilizer in intra- and inter-tribal relations, but as a destabilizer when traditional means of controlling armed violence are weakened or break down completely.⁹⁵

Historically, the long-standing tradition of civilian ownership and the use of guns have been regulated by non-statutory customary norms. Tribal violence was—and in many cases still is—dealt with through dialogue, mediation, and arbitration by sheikhs or others with a reputation and status as mediators such as a *maragha* (hereditary highest tribal authority), or members of the *sayyid* and *qadi* (judge) elite classes.⁹⁶ Although gun violence is relatively common in Yemen, given the level of weapons proliferation and the relative absence of state controls in much of the country, traditional norms have undoubtedly prevented even more frequent violence.

But a number of analysts have documented the gradual erosion of customary norms controlling the use of guns. A wide range of anecdotal evidence suggests that recourse to arms to resolve conflict is increasingly common and that the proliferation of weapons is strongly associated with

the rapid escalation of disputes.⁹⁷ A dispute can begin with a goat straying onto a neighbour's *qat* plantation and quickly lead to a shooting death.⁹⁸ Moreover, violence is often the first recourse, rather than mediation, as when one person shoots at another for beginning home construction on disputed land.⁹⁹

Although the Yemeni government has not explicitly publicly acknowledged the problem of gun proliferation as a factor in social violence, in recent

years it has nevertheless taken significant steps to robustly enforce gun-carrying laws in cities and curtail some gun commerce.¹⁰⁰ But the state's lack of control over many rural (and particularly tribal) areas means that customary laws and norms, although weakening, remain the principal check on the use of small arms there. Gun retailers and larger markets are found in many areas, although they are reported to be concentrated in Sana'a, al-Baydha, Shabwa, Dhamar, and

Box 3 Gun accessibility and social violence in Yemen

Civilian gun commerce in Yemen is robust by most standards, with arms shops sitting beside food, clothing, spice, and service outlets in many towns. Estimates from 2007 suggest that there were 300 small gun shops and 18 more organized arms markets in Yemen,¹⁰² while a national survey of more than 2,000 people found that almost three-quarters of gun owners had bought their guns at a market and almost all of the remainder from known arms dealers; less than 2 per cent were acquired from friends and relatives.¹⁰³ Well-known larger markets, such as those in Jihana (in Sana'a governorate) and Sowadia (in al-Baydha governorate), and formerly in al-Talh (in Sa'dah), can comprise dozens of weapons vendors selling a wide range of small arms and light weapons, including military-style assault weapons, rifles, rocket-propelled grenades, ammunition, and accessories.¹⁰⁴ Larger weapons, including heavy machine guns, rockets, and artillery, are also reportedly available, although they are no longer openly sold. Specific models of small arms documented by the Small Arms Survey in a sample of arms markets include Chinese, Russian, and German Kalashnikov-modelled assault rifles; Mauser K98 bolt-action rifles; Mauser rifle copies known locally as 'Czech guns'; Chinese hand grenades; Pakistani and French rifles (unknown types); US-produced FN FAL rifles; and a range of handguns. In contrast to most other civilian societies, Yemeni citizens are primarily armed with military-style small arms, notably AK-47 variants.

Interviews and field research conducted in 2009 by the Small Arms Survey indicate that the volume of transactions and weapons prices in gun markets have changed over time. Prior to the first Sa'dah war in 2004, prices were relatively low and all small arms transactions took place in the open, face to face. Since the war broke out—six rounds of fighting have taken place as at mid-2010—prices have steadily increased, in some cases up to ten times their previous levels, and transactions involving higher volumes and heavier weapons are now conducted in private, although initial contacts are made in common markets. The volume of arms and ammunition sales transacted is reported to have dropped considerably over the same period.

Interviews with arms dealers suggest that government intervention is an important reason for these changes. The government has closed a number of gun shops in main cities since the renewed enforcement of the 1992 gun law from 2007,¹⁰⁵ restricting supply and driving prices up in remaining outlets. According to reports, the largest arms market in the country, at al-Talh in Sa'dah, was initially closed in 2004 in the context of the Sa'dah war,¹⁰⁶ although trade appears to have continued to some degree until at least 2007. The government also publicly 'blacklisted' a number of high-profile arms dealers in 2009 and restricted the movement of trafficked goods at the northern border and ports, further reducing inflows of guns to civilian markets.¹⁰⁷

The sources of the weapons on sale are diverse. One source is second-hand weapons sold to vendors by civilians, notably for cash to finance important events, such as weddings. Diversion from military sources also appears to be an important vector. Army commanders, military depot keepers, officers, and individual soldiers are all reportedly sources of weapons to gun markets in Yemen, often working in cooperation both with one another and brokers to facilitate transactions.¹⁰⁸

Systematic corruption in the military may partly explain the leakages. Military budgets in Yemen are typically controlled by commanding officers and based on the numbers of soldiers under their command. To increase their budgets, officers inflate the ranks with 'ghost soldiers'—men who either do not exist or do not serve. Up to one-third of the officially reported 100,000 military personnel in Yemen may be fictitious.¹⁰⁹ Officers pocket or distribute the funds designated for ghost soldiers and supplement their incomes by selling items destined for these soldiers—including firearms.

Amran governorates.¹⁰¹ Gun and ammunition prices have risen significantly in recent years. For a discussion of gun accessibility and government attempts to control gun carrying and use, see Boxes 3 and 4.

Vested interests. Many of Yemen's largest landowners and consumers of water are senior sheikhs, politicians, and other members of the elite (and quite often, several of these at once) who have used their positions to disproportionately capture land, water, and other resources. The rapid expansion of groundwater exploitation is said to have resulted in 'profound shifts in economic and political power'.¹¹⁰ Importantly, elites are in a position to block reforms that might curtail the profitability of their investments, such as efforts to limit water consumption (including curtailing the cultivation of *qat*), better record and manage state-owned lands, and improve the legitimacy and transparency of justice processes.¹¹¹ They are also often traditionally arbitrators or mediators according to customary norms, positions that were historically predicated on the status of sheikhs as 'first among equals'.¹¹² It is also significant that in Yemeni custom mediators and arbitrators are often paid for their services, and may therefore catalyse or prolong conflicts.¹¹³

Linkages to political conflict.

Given the governance issues raised by the management of scarce resources, land and water disputes are often important dimensions of wider conflicts, particularly political conflict. The discussion above has highlighted the way that both the disposal of state lands and water shortages have inflamed political tensions in the south of Yemen. In the northern governorate of Sa'dah, both the disposal of religious endowment (*waqf*) lands¹¹⁴ and competition for water (and land) resources¹¹⁵ are reported to have contributed to the broader tensions that led to the outbreak of civil war in the governorate in 2004. Conversely, the May 2008 outbreak of fighting—alleged by official sources to have been related to the Sa'dah war—at Bani Hushaish, some 20 km from Sana'a, has been described as 'more akin to a local land ownership conflict between tribesmen and a prominent military figure' than a genuine political conflict.¹¹⁶ This serves to further highlight the overlapping and

complex nature of conflict and resulting armed violence in Yemen. An important implication is that the resolution of political conflicts may often require interventions addressing resource-related grievances.

Reflections

Yemen's land and water problems are primarily viewed both domestically and internationally through the prisms of natural resource depletion, economic sustainability, and development (with occasional references to climate change). The fundamental resource allocation and depletion challenges facing the country are indeed dire. Rapid population growth and diminishing land and water reserves are placing the country on a collision course with widespread collective suffering, and possible social unrest. Yet a greater understanding of the role of armed violence associated with land and water conflicts could constructively inform policy choices and provide added impetus for long-term strategic planning.

Some development actors are coming to recognize the linkages between resource management and conflict. For example, the UK Department for International Development has been increasing its focus on conflict sensitivity, particularly in the context of land and water resources. The Yemeni quasi-governmental Social Fund for Development, and particularly the German Agency for Technical Cooperation (GTZ), have taken significant steps towards mobilizing conflict sensitive forms of development in Yemen. This is done primarily on the basis of bottom-up consensus building, e.g. through supporting water user associations and basin committees.¹¹⁷ Indeed, it seems likely that the key to addressing land and water disputes will be found through integrated approaches that set the policy agenda much more strongly at the national level—possibly with pressure from international donors—with implementation through regulated local accountability structures that draw on customs that prioritize consensus building, dialogue, and social responsibility. Overcoming vested interests will be central to any strategy such as this, particularly in respect of water depletion. There are no simple solu-

tions, although widespread education about the implications of not taking action, e.g. to address water consumption in the agricultural sector, may conceivably assist. One of Yemen's great strengths, particularly in tribal areas, is the customary emphasis on 'responsibilities towards others' and maintaining social balances.¹¹⁸

One area where the government has acted with conviction is in recognizing the threat posed by weapons in civilian hands. Specifically, public authorities have taken action to suppress firearms carrying in cities, notably by enhanced enforcement of provisions in Law No. 40 of 1992 (enacted 1994). Nevertheless, the law remains permissive by international standards and neglects rural areas, where most resource-related violence takes place (see Box 4). On its own, it cannot possibly reduce all land- and water-related violence, particularly in the context of weakening governance and in the absence of meaningful land and water reform.

To date, broader land and water reform efforts have been piecemeal and hindered by competing interests among elites and branches of the executive. The national Water Law passed in 2002, for example, is supposed to regulate water extraction from wells, and the National Water Sector Strategy and Investment Programme (NWSSIP) launched in 2005 has resulted in very positive moves towards decentralized water management, in particular with the support of GTZ. These have generated some consensus regarding the exploitation of water resources in areas such as Amran, and are alleged to have averted conflict.¹¹⁹ However, the disconnect between the Ministry of Water and the Environment, responsible for resource management and domestic water supply and sanitation, and the Ministry of Agriculture and Irrigation, which deals with irrigation efficiency, dams, and watershed management, has 'left the rate of consumption itself . . . unaddressed in the agricultural sector', which is responsible for 90 per cent of water consumption.¹²⁰ At the same time, attempts to reform *qat* cultivation, a notable contributor to water consumption, have stalled 'indefinitely' in parliament,¹²¹ and traditional water management rules continue to 'treat water as an everlast-

Box 4 Suppressing gun carrying and use

In addition to regulating imports and the trade in small arms, Law No. 40 of 1992, Regulating Carrying Firearms and Ammunitions and Their Trade (enacted 1994), restricts gun carrying in the Yemeni capital and the capitals of the governorates through a system of licensing (art. 10). Consistent with global norms, civilians in these areas who own guns and wish to carry them must apply for a licence; be at least 18 years of age; and be free of serious or consecutive criminal convictions. Prohibited carriers include alcohol and drug abusers and those with mental and psychological disabilities.¹²²

Applicants must also demonstrate 'sufficient reasons and justifications' for a licence by providing proof of their having a 'political and social position . . . [that] justifies carrying a personal weapon' (art. 6). Licences are valid for a single weapon for three years (art. 17); prohibit the transfer of licensed weapons (art. 13); and must be produced on demand by authorities. Lost or stolen weapons are to be reported within 24 hours.

A number of significant gaps exist in the law. First, no licensing component is required to purchase or own (possess) a firearm. National gun laws typically contain a 'licence to purchase' system, with an additional component to allow, under certain circumstances, the carrying of weapons in public places.¹²³ In contrast, the current Yemeni law takes a near universal right to the ownership of guns as a point of departure. Since 1995 the Yemeni government has been attempting to extend the current regulations.¹²⁴ A number of draft amendments to the existing law have been issued, most recently in 2007, when further restrictions were proposed banning even licensed weapons from a number of locations, including 'public places and stores . . . [m]osques and schools and the like, and in markets, weddings and public transport'.¹²⁵ However, ambivalence over allowing the state to enter and search homes to enforce possession restrictions, broader concerns from (primarily) tribal groups and interests that wish to remain outside government authority,¹²⁶ and specific objections to the clause banning all weapons carrying in public places¹²⁷ have prevented the amendments from moving forward.

Second, the 'licence to carry' regulations apply only to the largest cities in Yemen, leaving civilians in the rest of the country with little or no legal obligations covering the carrying of their weapons. This was likely in acknowledgement of the state's limited authority in tribal and rural areas excluded by the law. The effect is that the state's enforcement will have little effect on (a) the majority of the Yemeni population, who reside in rural areas, and (b) areas where resource conflict is particularly acute.

Despite these limitations, the government has enforced the extant law vigorously, especially since 2007. It annulled all existing licences before introducing the new licensing system, forcing all previous licensees to reapply to the Interior Ministry, and banned the carrying of rifles, including AK-47s, in urban areas for all but a few exceptions.¹²⁸ Following a decision by the cabinet in June 2008, the government shut down major arms markets in the capital and elsewhere, reportedly closing 250 shops and arresting 148 arms traders during 2008.¹²⁹ The net effect appears to have been that of forcing the arms trade to operate on an increasingly closed basis. The government has also added supplemental interventions. In Aden, for example, all firearms commerce is prohibited; civilian weapons carrying is banned; and all weapons and ammunition ownership must be licensed, among other additional restrictions.¹³⁰ Finally, a short-lived buy-back scheme was implemented in 2007, which saw the state buying weapons, including 'mortars, surface-to-air missiles, anti-tank shells, rocket-propelled grenades as well as large quantities of mines, explosives and ammunition'.¹³¹

Ultimately, the state is not facing squarely the challenges of land and water conflict. The longer public authorities delay vital reforms, the more likely that the land and water conflicts will eventually threaten social—and ultimately political—stability. Against a host of competing economic, political, and security concerns, land and water resource-related social violence in Yemen has received relatively little recognition or systematic attention from policy-makers and development actors. While increasing resource scarcity is widely acknowledged, it appears that the chronic and low-level nature of most social violence has allowed it to remain off the radar. The disclosure by government that at least 4,000 deaths a year result from land and water disputes, however, demands an urgent rethink, as does growing evidence about the debilitating impact of armed social violence on social and economic development more broadly. ■

Notes

This Issue Brief was prepared by Gavin Hales, lead researcher of the YAVA.

- 1 Yemen Times (2007); author interview with Western diplomats, Sana'a, April 2008; author interview with Yemeni head of international NGO, Sana'a, January 2009; author interview with extractive industry consultant, Sana'a, October 2009.
- 2 Small Arms Survey (2010, p. 8).
- 3 These results are reported in Small Arms Survey (2010).
- 4 Social violence also includes religious clashes, e.g. those relating to religious practices or control of religious institutions such as mosques and religious schools. These conflicts are not discussed here.
- 5 CSO (2009a).
- 6 UN (2008, p. 3).
- 7 CES (2008, p. 77).
- 8 Lichtenthaler (1999).
- 9 World Bank (2006, p. 15).
- 10 Library of Congress (2008, p. 5).
- 11 Hydro-Yemen and CARE (2005, p. 19).
- 12 In the governorates of Marib, al-Jawf, and Shabwa, 'the primary causes of violence and conflict are in fact land claims' (NDI, 2007, p. 3). Author interviews with sheikhs, Interior Ministry officials, chiefs of police, and NGOs in other areas support this claim.
- 13 World Bank (2006, p. 15).
- 14 In the part of Yemen that comprised the former North Yemen, private land transactions are typically mediated by a notary public ('*amin*'); in the former South Yemen, by a lawyer (World Bank, 2005 p. 13).
- 15 In the case of Sana'a, estimates suggest that only 20 per cent of all land and prop-

ing, unlimited resource'.¹³² Meanwhile, land reform has been primarily concerned with the urban investment climate,¹³³ but even here progress has been extremely limited and there appear to be genuine grounds for concern about how enforcing increased compliance with the land registry can avoid triggering conflict.

The national 'Ten-Point Agenda for Reform' announced by the Yemeni deputy minister of finance, Jalal Yacoub, in 2009, and backed by the president, mentions both land disputes (priority 5)

and water (priority 9).¹³⁴ Its pragmatic approach lacks ambition and urgency, however, and its political future is not promising.¹³⁵ The land dispute priority reportedly consists of a 'proof of concept' for strengthening land registration in the upmarket Hadda residential neighbourhood of the capital, Sana'a.¹³⁶ Meanwhile, water will be dealt with through the implementation of the NWSSIP, which was already government policy and, as has been seen, does not meaningfully address the scale of water over-consumption.

erty transactions are recorded by the land registry (World Bank, 2005, p. vii), while nationally the figure for urban land and property is believed to be 5–10 per cent (World Bank, 2009, p. 12). In any case, it is argued that registration with the land registry ‘does not, in itself, secure title to land’ (World Bank, 2005, p. 5).

World Bank (2005; 2006).

World Bank (2009, p. 12). See also World Bank (2008, p. 47).

World Bank (2006, p. 15).

Carter (2009, p. 7, n. 22, citing Yemeni Polling Centre). It should be noted that the legitimacy of the court system varies significantly across Yemen. In the former North, customary law or ‘*urf*’ has predominated, while in the former South, the courts are much more frequently used to resolve land disputes (author interview, international consultant/Yemen expert, Sana’a, October 2009).

World Bank (2006, p. 48).

A woman does not take her husband’s name in Yemen and therefore presents a potential threat to the territorial integrity of her late husband’s tribe (and therefore its honour), particularly if the marriage did not produce sons (author interviews with female government official, Sana’a, September 2009; head of Yemeni women’s NGO, Sana’a, November 2009).

World Bank (2005, pp. 12–13).

For fuller details, see World Bank (2005, pp. 73–74). The process of appropriating land for public works projects such as road building requires careful handling and may give rise to grievances and potentially conflict (see Jennings, 2009, p. 47).

This exception is said to be especially problematic; see World Bank (2005, p. 129).

World Bank (2005, p. 129).

World Bank (2005, p. viii).

World Bank (2005, p. 129).

See, for example, ARD (2006, pp. 4, 10).

It is reported that, ‘[a]ccording to some estimates, the Northern elite has taken possession of fifty percent of Adeni land’ (Dahlgren, 2008, p. 50) and ‘the northern-dominated military flooded into the south, appropriating land and extending the hegemony of northern elites in the region’ (Phillips, 2007, p. 8). See also Hill (2009), UN (2008), Carter (2009, pp. 17, 27), and HRW (2009, pp. 12, 19, 66–67). Some of this land in the south was given to Yemeni mujahideen veterans of the Afghan–Soviet war, who were instrumental in the defeat of the southern Yemeni Socialist Party in the 1994 civil war (author interview with Western diplomats, Sana’a, April 2008). On the latter, see Johnsen (2006), Cheterian (2008), Hafez (2008), and Sharp (2009, p. 2).

Since 2007 this dissatisfaction has been increasingly expressed through calls for the independence of the former South, under the banner of the *Hiraak al-Janubi* (Southern Movement). See Dahlgren (2008) and HRW (2009).

Agriculture is estimated to be responsible for more than 90 per cent of water use in Yemen, with around 8 per cent used for municipal water supply and 2 per cent for industry (CES, 2008, pp. 5, 55).

Hellegers et al. (2008, p. 33).

CES (2008, p. 4).

Ward (2005, p. 3) provides an excellent overview of water management and conflict in Yemen.

In 2006 the highest annual rainfall was recorded at Ibb, with 1,276 mm; the lowest was in Marib, with only 16 mm; while Sana’a recorded 151 mm (CSO, 2009b, table 3, giving 2006 figures from the Civil Aviation and Meteorology Authority).

Hellegers et al. (2008, p. 8). There are an estimated 45,000 tube wells in Yemen (CES, 2008, p. 5), of which 13,500 have been documented in the Sana’a basin alone (Lichtenthaeler, 2010). Of the latter, only 125 are owned and operated by the Sana’a Local Corporation for Water Supply and Sanitation (Lichtenthaeler, 2010).

See, for example, Vermillion and al-Shaybani (2004) and al-Amry (2008, p. 12).

See, for example, Hydro-Yemen and CARE (2005, p. 11).

Ward (2005, p. 8), citing Dresch (1993), Maktari (1971), and Varisco (2005).

Author interview with government official, Sana’a, July 2009. For 2006 rainfall data for the main meteorological stations in Yemen, see CSO (2009b, table 3).

Hellegers et al. (2008, p. 8).

Lichtenthaeler (1999).

World Bank (2007, p. 20).

CES (2008, p. 5).

See, for example, Ward, Ueda, and MacPhail (2000, p. 5).

CES (2008, p. 5).

Ward (2005, p. 5).

Ward (2005, p. 4); Lichtenthaeler (2010).

Ward (2005, pp. 11–12). As al-Amry (2008, p. 5) clarifies, ‘[a]ccording to traditional rules tribesmen have a right over their land and the resources attached to this land, e.g. water. Any transfer of the water belonging to tribal land property to other areas can result in violent conflict. This is especially valid for the transfer of water from rural areas to urban areas’.

Author interview with international hydro-geologist, Sana’a, December 2008. According to the same source, the pumping of water from Abyan to Aden contravenes Yemeni water laws that forbid inter-basin water transfers.

Al-Jaradi (2009).

Reuters (2009).

Al-Amry (2008, p. 7), for example, describes the way that water ‘[c]onflicts on the local level evolve mostly around the access to water and very often around conflicts between families or clans that are not related to water but to another [sic], often for unknown reasons’.

Ward (2005, p. 12); al-Amry (2008).

Author interview with Yemeni government official, Sana’a, July 2009.

Author interview with Yemeni government official, Sana’a, August 2009.

IRIN (2006). The significance of revenge killings will be considered below.

Author interview, Sana’a, March 2009.

SFD staff reported a decrease in conflict following the training.

Ward (2005, p. 12). Deaths relating to water and related land disputes are said to peak during the two rainy seasons in Yemen (author interview with government official, Sana’a, July 2009). It is suggested that spate flooding events, which are ‘considered the main renewable water resource’, are ‘becoming noticeably less predictable during the year. Further, year-to-year water variability can be quite significant as a characteristic of an area undergoing an apparent change in climate’ (al-Amry, 2008, p. 18). See also Hydro-Yemen and CARE (2005).

Ward (2005, p. 12).

Increasing awareness of groundwater hydrology is exacerbating conflict as users better understand the relationship between different types of extraction, e.g. tube wells and springs (Ward, 2005, pp. 12–13).

Ward (2005, p. 12).

Ward (2005, p. 13).

Al-Amry (2008) highlights a number of mechanisms by which donor activity may cause conflict, including the way that projects and facilities are sited (p. 20) and communities are offered ‘a menu of options’ (p. 19), and comments that ‘[m]any projects in the water sector do not apply a conflict sensitive approach when planning or implementing’ (p. 13). It was reported elsewhere that a Yemeni government water project implemented over 30 years ago in al-Jawf triggered a conflict that has since resulted in over 70 people being killed (author interview with international researcher/consultant, Sana’a, November 2009). See also Hydro-Yemen and CARE (2005, p. 2).

In relation to the minerals sector, for example, see MacDonald and Khalil (2009, p. 52). Land disputes were also cited as a barrier to investment in Yemen by a group of Yemeni expatriates during a conference in Sana’a in October 2009 (Assamiee, 2009).

ARD (2005, p. 9).

See, for example, Hydro-Yemen and CARE (2005, pp. 14–15), documenting a case of a dispute in Amran relating to the management of a water pump, which ultimately resulted in the water source being cut off.

CSO (2009c).

Author interview with Yemeni government official, Sana’a, July 2009.

Author interview with Yemeni government official, Sana’a, July 2009; author interview with Western diplomat, Sana’a, February 2010.

Author interview with Yemeni government official, Sana’a, July 2009; Ministry of Interior data published by the Central Statistical Organisation (CSO, 2009c).

Author interview with Yemeni government official, Sana’a, July 2009.

In Yemen crimes are generally only formally recorded once ‘detected’; i.e. a suspect has been identified and the relevant file passed to a prosecutor.

Repeated attempts over a period of more than a year to access the data produced by this project were not successful.

- 75 For an excellent overview of state and non-state justice in Yemen, see al-Zwaini (2006). On customary conflict resolution in Yemen, see, for example, GTZ (2006) and al-Dawsari (2008).
- 76 See, for example, Caton (2005), Weir (2007), NDI (2007, pp. 14–15), and Ward (2005, p. 20, citing al-Hamdi, 2000, p. 81).
- 77 Author interview with government official, Sana'a, July 2009.
- 78 See, for example, al-Zwaini (2006, pp. 11–12).
- 79 It is said that 'many times tribes want to resolve conflicts, but no one will come to arbitrate', which implies issues with capacity within the customary system (author interview with international researcher/consultant, Sana'a, November 2009; see also World Bank, 2006). It is also argued that the increasing marginalization of the Hashimi religious elite (descendants of the Prophet Mohammed) has 'removed a safety mechanism for dealing with tribal disputes', given the traditional role of the Hashimi in mediating in disputes or providing sanctuaries within which meetings between belligerent groups could take place (Carter, 2009, p. 23).
- 80 A significant number of interviews have highlighted the way that traditional norms are weakening, such as restrictions on acts of violence in 'protected' locations such as markets and mosques and against 'vulnerable' victims such as women and children (e.g. author interview with Yemeni conflict reduction expert, Sana'a, December 2008). These processes are long standing: Sergeant (1982, pp. 27–28), for example, refers to the weakening of sanctuary (*hijra*) norms in the 19th century as the imams increasingly centralized their power. A generational change of decreasing 'understanding of and respect for the values of the tribal system' is also apparent (interview with Yemeni NGO manager, Sana'a, September 2009; see also EDC, 2008).
- 81 The focus on autonomy by tribes is said to reflect a 'need to control their destiny' (author interview with international Yemen researcher, Sana'a, June 2009).
- 82 For example, it is reported that there is no court in al-Jawf governorate, the prosecutor for which is based in Sana'a (author interview with Yemeni NGO manager, Sana'a, December 2008; author interview with government official, Sana'a, July 2009).
- 83 It is, for example, alleged that the state often acts in a partisan manner, which can even extend to selling or giving weapons to one or more parties to a conflict (e.g. author interview with Western NGO personnel, Sana'a, August 2009; author interview with Yemeni NGO manager, Sana'a, September 2009), and that often a policy of 'divide and rule' is pursued (e.g. author interview with Western diplomat, Sana'a, June 2009). The latter includes the government creating sheikhs to counter the power and influence of existing community leaders, e.g. by providing individuals with money to buy influence (e.g. as reported during an author interview with a sheikh from an area 25 km from Sana'a, Sana'a, March 2009). More generally, state intervention may be too little, too late, and have counter-productive outcomes (NDI, 2007, p. 19; Ward, 2005, p. 24; tribal sheikh contributing to a symposium on weapons carrying hosted by the Yemeni Democracy School as part of its Future Leaders Programme, Sana'a, July 2009), particularly given its 'top-down' approach (author interview with Yemeni conflict reduction expert, Sana'a, December 2008). Regarding water governance, for example, 'government emerges as a leading cause of conflict' (Ward, 2005, p. 24).
- 84 For example, it is reported that even in heavily tribal areas such as the governorates of Marib, al-Jawf, and Shabwa, tribal leaders express support for state intervention, not least because 'the ability of tribal leaders to address local problems was being overwhelmed' (NDI, 2007, p. 19). This includes, for example, intervention in cases of murder, when the arrest and detention of the perpetrator may help communities to successfully maintain truce conditions; the key is said to be the need for state institutions to be sensitive to the local context and genuinely act as honest brokers (author interview with Yemeni NGO manager, Sana'a, December 2008). The impact of the absence of state institutions is underlined by the finding that, '[o]nce blood has been shed in an area with no functioning state justice system, it is up to local, tribal conflict resolution systems to manage the issue' (Hydro-Yemen and CARE, 2005, p. 3).
- 85 For example, Sayigh (2009, p. 12).
- 86 It must be acknowledged that collective responsibility norms are also a powerful check on conflict, as 'punishments are not imposed upon an individual but on the collectivity' (al-Zwaini, 2006, p. 3).
- 87 For example, discussion at donor and NGO 'conflict forum', Sana'a, January 2009. See also al-Zwaini (2006, p. 8).
- 88 Al-Dawsari (2008, p. 3). Al-Zwaini (2006, p. 8) states that blood feuds are 'the result of a failure (or unwillingness) to engage in a tribal resolution, and constitute one of the major causes of social instability in Yemen today'. It is said that customary norms are good at averting conflict, but weak at dealing with conflict once it has started, particularly in revenge cases (e.g. author interview with Yemeni conflict reduction specialist, Sana'a, September 2009), and that in any case customary norms are most effective when the power relations between the respective parties are balanced (author interview with Yemeni political analyst, Sana'a, October 2009).
- 89 A Yemeni NGO manager described this displacement, saying that if revenge seekers 'cannot target the killer, then they will target the next highest profile alternative' (donor and NGO 'conflict forum', Sana'a, January 2009).
- 90 NDI (2007).
- 91 Hydro-Yemen and CARE (2005, p. 15).
- 92 NDI (2007, pp. 10, 12).
- 93 Miller (2003, p. 43).
- 94 This estimate, although conservative, is not without its detractors; see Small Arms Survey (2010, p. 13, n. 64) for further discussion.
- 95 Miller (2003, p. 39).
- 96 See, for example, al-Zwaini (2006) and GTZ (2006).
- 97 The head of an international NGO working on conflict reduction in Yemen described the importance of access to arms in escalating conflict, allowing people to 'react quickly' to provocations (author interview, Sana'a, January 2009). Steve Caton, who has written about traditional tribal conflict management approaches in Yemen (Caton, 2005), suggested that the proliferation of weapons may have fundamentally altered the traditional balance between symbolic violence—traditionally dominant and used, for example, to catalyse mediation—and instrumental (or coercive) violence (author interview, Sana'a, June 2009). See also, for example, Hydro-Yemen and CARE (2005, p. 21).
- 98 Author interview with extractive industry manager, Sana'a, June 2006.
- 99 Author interview with Yemeni NGO manager, Sana'a, January 2009.
- 100 These measures have been primarily concerned with (a) Yemen's reputation and therefore ability to attract inward investment and tourism (*Saba*, 2007), and (b) the civil war that broke out in the northern governorate of Sa'dah in 2004 (IRIN, 2007; Awas, 2009, p. 17).
- 101 Awas (2009, p. 16).
- 102 IRIN (2007).
- 103 Al-Hakimi (2009, p. 11).
- 104 Small Arms Survey interviews, 2009; see also Mudayash (2007).
- 105 See Box 4 for more details.
- 106 Salmoni, Loidolt, and Wells (2010, p. 197).
- 107 Oudah (2009).
- 108 Small Arms Survey interviews, Sana'a, 2009. Faris Mana'a, the well-known Yemeni arms dealer and broker—arrested in 2010, but then released under circumstances that are not entirely clear—has also claimed that arms are 'brought from military garrisons and sold in markets. They are brought discreetly, in a special way' (*Elaph*, 2010). See also Salmoni, Loidolt, and Wells (2010, p. 40).
- 109 ARD (2006, p. 4).
- 110 Ward (2005, p. 23).
- 111 Parliamentary debate of a draft law that would include a ban on new *qat* cultivation in highland areas has been 'delayed indefinitely' (Lichtenthaeler, 2010). 'The gaps in the water law provide essential benefits to power holders who have an interest in maintaining the status quo. Elite groups in cooperation with businessmen, benefit from the low success rate of the water law' (al-Amry, 2008, p. 11).
- 112 World Bank (2007, p. 37).
- 113 This issue is also highly salient in respect of extortion and protection rackets targeting the extractive industries in Yemen (see Small Arms Survey, 2010, p. 8). Armed violence is often staged by individuals to then allow them to demonstrate that they can provide a solution, on the basis of which they will demand

payment (author interviews in Sana'a with extractive industry executive, April 2009; extractive industry security manager, August 2009; Yemeni conflict reduction specialist, September 2009; extractive industry consultant, October 2009).

114 Hamidi (2009, p. 168).

115 Lichtenthaeler described dwindling water (and land) resources as potentially 'spilling over into the growing fundamentalist sectarianism and civil strife in the [Sa'dah] region' (Lichtenthaeler, 1999, cited in Ward, 2005, p. 6).

116 ICG (2009, p. 5), quoting *Al-Sharea*, a Sana'a independent weekly (7 June 2008).

117 See, for example, Lichtenthaeler (2010) and GTZ (2007).

118 Al-Zwaini (2006, p. 3).

119 See, for example, Lichtenthaeler (2010).

120 Lichtenthaeler (2010).

121 Lichtenthaeler (2010).

122 There are many exceptions to these and the other requirements of the law. See the English translation of the law at <<http://www.yemen-ava.org>>.

123 Legal analysis provided by Sarah Parker, Small Arms Survey consultant on national gun laws, August 2010.

124 Arrabyee (2007).

125 Yemen (2007, p. 12).

126 Awas (2009, p. 9).

127 Al-Fahaidi (2009).

128 Awas (2009, p. 12).

129 Awas (2009, p. 17).

130 See Small Arms Survey (2010, p. 6).

131 Aljazeera.net (2007).

132 Hydro-Yemen and CARE (2005, p. 2).

133 See World Bank (2005). The World Bank is now turning its attention to rural land reform (personal correspondence, February 2010).

134 See, for example, Chatham House (2010).

135 According to Western diplomatic sources consulted by the YAVA in June 2010, there are signs that the ten-point plan has been sidelined and lost impetus in Sana'a.

136 Author interview with government officials, Sana'a, August 2009. It is alleged that much of the developed residential land in the Hadda area was previously *waqf* land that was illegally appropriated and then privately developed (author interview with Yemeni political analysts, Sana'a, October 2009).

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About the Yemen Armed Violence Assessment

The Yemen Armed Violence Assessment (YAVA) is a multi-year initiative administered by the Small Arms Survey, an independent research project of the Graduate Institute of International and Development Studies in Geneva. Designed with the support of and funding from the UK Conflict Prevention Pool, the project seeks to collect and disseminate quantitative and qualitative research to support efforts to prevent and reduce real and perceived armed violence in Yemen. The YAVA will focus on addressing the following broad research themes:

- the demand for small arms and other weapons (motivations and means);
- armed violence typologies and the drivers of armed violence (risk factors);
- the impact of small arms and other weapons (on specific demographic groups and geographical areas);
- the market for small arms and stockpiles throughout the country (supply); and
- measuring the effectiveness of various approaches to armed violence prevention and reduction.

The YAVA will draw information from key informant interviews, field research, and secondary analysis of existing data sources, along with a review of publicly available literature (in Arabic and English). Where appropriate, it will triangulate findings with available statistics (e.g. on crime),

public health records (e.g. hospital admissions data), and media monitoring or 'incident reporting'. Summaries of key findings will be periodically released in the form of short policy-relevant *Issue Briefs*, as well as a final report in late 2010. All publications will be made available in both English and Arabic. For more information, see <<http://www.yemen-ava.org>>.

Credits

Project manager: Robert Muggah

Project coordinator: Gavin Hales

Editor: Emile LeBrun

Copy editor: Alex Potter (fpcc@mtnloaded.co.za)

Design and layout: Richard Jones (rick@studioexile.com)

Contact details

For more information or to provide feedback, contact Robert Muggah, Small Arms Survey research director, at robert.muggah@smallarmssurvey.org.

Yemen Armed Violence Assessment
Small Arms Survey
47 Avenue Blanc
1202 Geneva, Switzerland

t +41 22 908 5777

f +41 22 732 2738

