

# **H i C N** Households in Conflict Network

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## **Nutrition, Governance and Violence: A Framework for the Analysis of Resilience and Vulnerability to Food Insecurity in Contexts of Violent Conflict<sup>1</sup>**

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## 1. Introduction

Violent conflict affects the lives, livelihoods and health of almost 1.5 billion people in the world (World Bank 2011). The number of armed conflicts has declined in recent years (Themner and Wallensteen 2011), but few post-conflict countries have reached a situation of stability and credible peace. Feeding and protecting citizens is a major challenge in these contexts (FAO 2010). Many individuals and households leave areas of more intense fighting to refugee and displacement camps, migrate to safer urban areas or move abroad. At the same time, numerous people live in conflict areas and survive, sometimes for decades, carrying on their daily lives in the midst of conflict and violence.

People that live in areas of enduring conflict display various degrees of resilience: some do well out of conflict, some live in conditions of fear and extreme destitution and others simply get by. Levels of resilience depend on a series of factors both within and outside of the control of those affected by conflict. These factors can be grouped into: (i) the magnitude and duration of the effects of violence; (ii) the type of coping strategies that people are able (or allowed) to access; and (iii) the effectiveness of the strategies adopted to cope with the effects of conflict and violence.

The main aim of this paper is to analyse these mechanisms based on available empirical evidence, and discuss how this evidence can be best incorporated into international and national interventions aimed at securing the access to food and livelihoods by individuals, households and communities affected by violence and conflict.<sup>3</sup> The paper is organised as follows. Section 2 discusses the main channels whereby violent conflict may impact on welfare outcomes of individuals and households exposed to violence, including food security. Section 3 analyses available empirical evidence on how individuals and households cope with and adapt to living under violence, insecurity and conflict. Section 4 discusses the effectiveness of such strategies in the short- and long-term in protecting the lives and livelihoods of conflict-affected people, and proposes a framework to explain household resilience in maintaining food and welfare security in contexts of violent conflict. This framework is based on two key pillars: (i) individual and household factors that affect levels of vulnerability to poverty and to violence; and (ii) institutional factors that shape people's access to food markets and livelihood opportunities. Section 5 concludes the paper by discussing how these two pillars may offer important entry points for policy interventions in conflict-affected contexts.

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<sup>3</sup> The review in this paper is limited to the analysis of studies based on empirical analyses of individual and household coping strategies and changes in coping strategies in contexts of violent conflict. The paper pays particular attention to studies where efforts were made to identify causal links between conflict/violence and coping strategies.

## **2. The impact of violent conflict on individuals and households**

The levels of resilience or vulnerability exhibited by individuals and households affected by violent conflict are largely shaped by how violence impacts on their lives and livelihoods at different times. Conflict and violence affect the lives and livelihoods of individuals and households through the direct and indirect transformations they entail (Justino 2009, 2011, 2012a). Direct channels include changes in household composition, changes in household economic status and effects caused by forced displacement and migration. Indirect channels can take place at the local (community) level or at the national level. Local indirect channels have to do with changes in households' access to and integration within local institutions including local markets, social relations and organisations. National-level indirect channels consist of changes in economic growth and distribution that may impact on household welfare directly or through how local institutions operate (Justino 2009).

### ***2.1. Direct impact of conflict: household composition, economic status and displacement***

Violent conflict kills, injuries and disables people. In addition, houses, land, labour, utensils, cattle, livestock and other productive assets get lost or are destroyed as casualties of fighting or due to deliberate destruction and looting (Bundervoet and Verwimp 2005, Gonzalez and Lopez 2007, Ibáñez and Moya 2006, Shemyakina 2011, Verpoorten 2009). The destruction of productive assets weakens the access of individuals and households to their sources of livelihood and economic survival. Those that face sudden losses of land, dwellings, cattle and other assets will be left without the means to earning a living or providing food and shelter for themselves and their families. Asset losses will in turn impact significantly on the ability of affected households to recover their economic and social position in the post-conflict period (Justino and Verwimp 2006, Verpoorten 2009).

Conflict and violence affect not only household endowments in terms of physical capital, but also the access to and accumulation of human capital. Recent studies have dedicated considerable efforts to providing rigorous empirical evidence on the human capital effects of armed conflict. Evidence indicates that, while in some circumstances physical capital can be recovered through reconstruction programmes and aid (Bellows and Miguel 2009), losses in human capital are often irreversible and may last across generations (Justino 2012a). A slowly accumulating body of evidence has shown that violent conflicts result in largely negative and long-lasting nutritional effects to children in war zones (see section 4.1), and in significant educational losses.<sup>4</sup> These harmful effects can often be observed

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<sup>4</sup> See Alderman, Hoddinott and Kinsey (2006) for Zimbabwe, Akresh and de Walque (2008) for Rwanda, Angrist and Kugler (2008) and Rodriguez and Sanchez (2009) for Colombia, Chamraborty and Morán (2009) for Guatemala, de Walque (2006) for Cambodia, Shemyakina (2011) for Tajikistan and Swee (2009) for Bosnia, among others.

many years after the end of the conflict, sometimes decades, affecting individual and household labour outcomes and earnings capacity across generations (Akbulut-Yuksel 2009, Ichino and Winter-Ebmer 2004, Léon 2012, Justino, Leone and Salardi 2012, Merrouche 2006).

These effects are made worse (and often caused by) the large population movements that characterise most armed conflicts. The United Nations High Commission for Refugees (UNHCR) estimates that almost 44 million people were displaced in 2011. Refugees from conflict areas and internally displaced populations (IDPs) are some of the most excluded, vulnerable and deprived population groups in the world (Chronic Poverty Report 2004-05). IDP and refugee populations often struggle to find work (Engel and Ibáñez 2007, Ibáñez and Moya 2006), are less likely to find formal employment in the post-conflict period (Kondylis 2007) and display lower productivity levels than those that stayed behind (Kondylis 2005). These effects are aggravated by the breakdown of families and communities, the rise of distrust towards displaced populations and the consequent failure of informal social protection mechanisms and social networks (Justino 2009).

The negative effects of violence may be counteracted by economic, social or political opportunities created by the conflict itself. Some individuals and households may benefit from the proceeds of looting and the growth of 'war economies' (Keen 1998). The redistribution of assets (land in particular) during conflict (Brockett 1990, Wood 2003) may also benefit some populations groups, as will the privileged access to market and political institutions for those that 'win' the conflict or support winning factions during and after the conflict (Justino 2009). Population movements, migration in particular, may also be associated with some positive effects on livelihoods through remittances and economic opportunities found outside areas of residence (Justino and Shemyakina 2007, Lindley 2007). A small body of evidence has also shown that some areas of the economic private sector – not necessarily related to the war effort – may adapt and prosper during war (McDougal 2008). These effects are as important in understanding processes of violent conflict as are the more negative effects since both will have a significant bearing in explaining how and why some people and communities remain resilient in the midst of violence and conflict, while others never recover.

## ***2.2. Indirect impact of conflict on local institutions***

Processes of violent conflict affect the lives and livelihoods of individual and households not only through the direct effects discussed above, but also through economic, social and institutional changes that take place in the communities and areas where people live. At the economic level, armed conflict and the threat of violence have important effects on how local (formal and informal) markets operate. Two recent studies have analysed in more detail the effects of violent conflict on

exchange markets. Both show evidence for increases in prices of staple food during armed conflicts (in Burundi and Rwanda, respectively) due to the scarcity of crops, the destruction of land, seeds and crops and the risks associated with market exchanges during episodes of violence (Bundervoet 2006, Verpoorten 2009).<sup>5</sup> The studies show in addition evidence for reductions in the prices of agricultural assets such as cattle and other livestock, due to the likelihood of these assets being targeted by armed factions during violent conflict.

Beyond this work, there is limited evidence on how changes in market-related mechanisms during armed conflict may affect household welfare and food security. Determining the effect of these changes on household welfare is also interlinked with other factors such as increases in transaction costs when roads, train lines and infrastructure are destroyed, adjustments to credit and insurance mechanisms (formal and informal), changes in access to farm and off-farm employment,<sup>6</sup> mechanisms through which macro-level policies and interventions may reach local populations, changes in how households and communities cooperate, trust and related to each other, and other forms of institutional change that take place during conflict. These are very important issues for future research on the mechanisms regulating the impact of violent conflict on people's lives.

### **3. Individual and household coping strategies in the face of conflict**

The nature, magnitude and duration of the effects of armed conflict on individuals and households are largely determined by the way in which different people respond and adapt (or not) to violent contexts. Emerging literature on the relationship between violent conflict and development outcomes at the micro-level has significantly advanced understanding of the consequences of violent conflict on local populations, particularly the more direct channels discussed above. In addition, there is now a sizeable body of evidence on how households living in risky economic environments, even the very vulnerable, develop a complexity of (ex ante) risk-management and (ex post) risk-coping strategies.<sup>7</sup> Rigorous empirical evidence on mechanisms of coping and adaptation in contexts of violence is, however, only slowly starting to accumulate. This is largely due to the substantial data requirements involved in the assessment of these effects.

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<sup>5</sup> Prices can also be kept artificially high during conflicts when farmers hide crops to avoid looting (Azam, Collier and Cravinho 1994).

<sup>6</sup> For recent work on employment markets during conflict see Ibáñez and Moya (2006) and Kondylis (2007) on displaced populations and Matijasevic et al. (2007), World Bank (2011) and Iyer and Santos (2012) for more general reviews. These studies analyse how employment markets change during conflict. An interesting extension would be to examine how those changes may affect welfare outcomes among different population groups living in areas of conflict, and their capacity to recover once the conflict is over.

<sup>7</sup> Common coping strategies include the diversification of land holdings and crop cultivation, the storage of grain from one year to the next, the sale of assets such as cattle and land, obtaining credit from formal and informal lenders, government income transfers, and gifts and transfers from informal support networks (e.g. family, friends, neighbours, funeral societies, and so forth). Townsend (1994) provides a detailed analysis and review.

The evidence available so far suggests that most known coping strategies are considerably restricted in situations of violent conflict (Azam, Collier and Cravinho 1994, Bundervoet 2006, de Walque 2004, Gafaro, Ibáñez and Justino forthcoming, Ibáñez and Moya 2006, Tranchant, Justino and Müller forthcoming, Verpoorten 2009). As a result, outbreaks of violent conflict are likely to create cycles of conflict and poverty traps (Collier 2007, Justino 2012a). However, there are several examples – though less rigorous empirical evidence – of ingenuity and resilience of individuals, households and communities living in contexts of violence. Many households leave areas of more intense fighting to refugee and displacement camps, migrate to safer areas (often to cities) or move abroad. But many live in conflict areas and survive (Engel and Ibáñez 2007, Steele 2007, Wood 2003), carrying on their everyday lives through sometimes decades of violence (Nordstrom 1997). The subsections below examine evidence on these coping strategies in more detail.

### **3.1. Economic coping strategies in areas of violence**

Strategies adopted by households in response to economic risks and shocks in peaceful regions may differ from those adopted in contexts of conflict and violence. Violent conflicts are characterised by their destructive nature, including the intentional destruction of strategies available to households for survival, such as social networks and family ties, agricultural assets, land and so forth (see de Waal 1997, Justino 2009). Violent shocks, such as civil wars, have a covariate character, affecting often whole communities and regions. But households and individuals with characteristics that are salient to the conflict may be specifically targeted. This is often the case of households with visible assets or other characteristics that mark them as targets of violence, such as possession of large landholdings in Rwanda (Verwimp 2005, Justino and Verwimp 2006) and high levels of education during the Khmer Rouge regime in Cambodia (de Walque 2006).

Mechanisms and processes of coping, adaptation and targeting in contexts of violence and conflict are still not well understood in the development literature. A review of (limited) available empirical studies has shown evidence for five broad types of economic coping strategies adopted by individuals and households in contexts of violent conflict: use of savings and assets sales (including land), resort to subsistence agriculture and other low-risk activities, engagement in informal markets, intra-household allocation of labour and (non-forced) migration. In addition, livelihood support strategies of individuals and households in areas of violent conflict may also include fighting, looting, support for armed groups and participation in illegal activities (Justino 2009). We analyse the first five types of strategies below, and the latter set of strategies in section 3.2.

#### *3.1.1. Savings and asset sales in conflict settings*

Savings and access to credit and insurance mechanisms are important determinants of the ability of households to cope with income shocks (see Fafchamps, Udry and Czukas 1998). As discussed above, one of the most devastating impacts of armed conflicts is the deliberate destruction and plundering of property, markets and assets (Bozzoli and Brück 2009, Bundervoet and Verwimp 2005, Gonzalez and Lopez 2007, Ibáñez and Moya 2006, Justino and Verwimp 2006, Shemyakina 2011, Verpoorten 2009), which limits the ability of households to rely on assets sales as a coping strategy, affects their productive capacity and constrains their access to (formal or informal) credit and insurance markets. There is, however, limited rigorous evidence on these effects. Loss of trust, displacement and the destruction of infrastructure are likely to severely constrain the functioning of local formal and informal food, assets, employment, credit and insurance markets. This effect will be stronger when entire communities are affected by violence (Ibáñez and Moya 2006). When violence is targeted at particular households or individuals, the extent of the shock will be more localised and community-level insurance mechanisms may continue to operate (Gafaro, Ibáñez and Justino forthcoming).

The presence or threat of violence also affects the usefulness of assets as buffer stock. The sale of livestock is one common form of coping strategy used by rural households in developing countries in times of crisis. However, during armed conflicts, livestock can become a risky form of savings since it can be easily stolen or killed. Bundervoet (2006) reports that during the Burundi civil war almost 20% of households in conflict areas reported to have lost livestock due to theft and looting. Road unsafety also prevented households from accessing markets where livestock could be sold. Similar evidence is shown in Verpoorten (2009) for Rwanda, and in Ibáñez and Moya (2009b) for the case of displaced populations in Colombia. Rather than keeping livestock, households that remain in rural areas tend to resort to the cultivation of low-risk low-return crops that can feed their families. These can still be looted and destroyed, but small plots and crops are less likely to attract the attention of warring factions and may keep families fed (at least temporarily).

### *3.1.2. Subsistence agriculture and other low-risk activities*

Most households affected by violence, or that expect being exposed to violence during armed conflict, tend to minimise risk either by moving somewhere safer, or by resorting to activities that will not attract undue attention from armed groups. Rural households tend to resort to subsistence farming in the face of armed conflict (see Bozzoli and Brück 2009, Brück 2004, Deininger 2003, McKay and Loveridge 2005). This strategy is adopted by households that typically hold limited or no liquid assets (such as livestock), but also by those that anticipate being potential targets of violence.

Social instability and loss of trust between different individuals and groups may accentuate these mechanisms (Justino 2012a).

Bozzoli and Brück (2009) and Brück (2004) show that subsistence farming led to some improvements in the economic security of households living in extreme poverty during the civil war in Mozambique because market and social exchange entailed limited welfare gains. McKay and Loveridge (2005) report that during the genocide and civil war in Rwanda in the 1990s the adaptation of more autarkic modes of production was associated with improved nutritional status of children in the post-conflict period. These potentially positive effects of subsistence modes of production during conflict must, however, be balanced against the long-term effects of violence on household economic vulnerability. We return to this issue in section 4.

### *3.1.3. Informal exchange and employment markets*

A common feature of complex protracted crises is the emergence of parallel economies, including war and shadow economies (dependent on violent and illegal assets and resource appropriation), and an informal coping economy encompassing the majority of the civilian population. These resort often to subsistence agriculture, but also depend on informal activities (mostly petty trading) and in some cases illegal activities (Jaspars, O'Callaghan and Stites 2007). This is particularly the case of internally displaced people and refugees that move from rural to urban areas. These groups experience severe asset and capital losses, the breakdown of community and social relations following displacement, and face severe socio-economic exclusion and deprivation in their final locations, associated to difficulties finding appropriate employment (Engel and Ibáñez 2007, Ibáñez and Moya 2006, Kondylis 2005, 2007). As a consequence, they are often left with no alternative but to join informal networks or depend on self-employment. Some turn to illegal or criminal activities (Moser and McIlwaine 2004, Salehyan and Gleditsch 2006, Steele 2007).

Ibáñez and Moya (2006) show that the majority of internally displaced households in Colombia were victims of violent attacks and endured large asset losses. Most adult workers are absorbed into the informal economy, where earnings are typically less than half their income prior to displacement. Calderón et al. (2011) report that displaced women in Colombia find it easier to join informal urban labour markets than men, because women's skills seem to be more suitably matched to the needs of urban labour markets than the skills possessed by male IDPs. These are, however, low-paid jobs and few displaced households manage to recover economically under such employment conditions. Similar evidence has been found in the case of displaced individuals and households in El Salvador: Gammage and Fernandez (2000) report that displaced households in urban areas were disproportionately more likely to be poor and or extremely poor. The limited potential of urban

informal activities to mitigate the effects of conflict was also analysed in Raeymaekers (2011) in the context of displaced youths in Butembo, Eastern DRC. The author finds that young people are often excluded, particularly in terms of economic opportunities due to discrimination and distrust. Walraet (2011) provides similar evidence in her analysis of livelihood choices of IDPs and refugees from South Sudan. This study points further that the improvement of households and individual economic status is highly dependent on privileged relations with the state and military powers that facilitate access to resources.

The studies discussed above show that populations affected by violent conflict resort in very flexible ways to a myriad of informal opportunities. These are in general not enough to compensate for the negative impacts of conflict on their earning capacity, but may result in the acquisition of productive skills that may be relevant for economic recovery in the post-conflict period. More work needs, however, to be done in order to better understand these processes of resistance and resilience.

#### *3.1.4. Intra-household reallocation of labour*

As a result of the impact of conflict and violence on the composition of households, one of the most significant livelihood adaptation strategies adopted by households in conflict-affected countries is a change in customary gender divisions of labour. Most conflict-affected countries and areas within countries experience significant increases in female participation in labour markets (see reviews in Iyer and Santos 2012 and Justino et al. 2012).<sup>8</sup> This is a result of two factors: the increase in the number of female-headed households due to the death and disappearance of male workers, and the fact that income generating opportunities men relied on before the conflict (such as land, animals and other assets) may be no longer available (Justino et al. 2012).

Despite increases in female labour market participation in conflict-affected areas, women are particularly active in low skilled jobs and in the informal sector (Justino et al 2012, Kumar 2000), and tend to lose their jobs once the conflict is over, especially in the organised formal sector (Kumar 2000). Female- and widow-headed households also face many social and economic constraints, such as the lack of property rights over the land of parents or dead husbands (Kumar 2000, Greenberg and Zuckerman 2009, Schindler 2010). As a consequence, rises in female labour market participation may not necessarily result in improved levels of household welfare or food security.<sup>9</sup>

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<sup>8</sup> Many empirical studies have reported increases in female labour during crisis, including armed conflict. See review in Brück and Vothknecht (2011) and Justino et al. (2012).

<sup>9</sup> Justino et al. (2012) found evidence from improvements in household welfare as a result of increased female labour market participation in the conflicts experienced in Bosnia, Colombia and Timor Leste. The report found no improvement in household welfare levels in Kosovo, Nepal and Tajikistan.

In times of conflict, children may also participate in income generation activities. In particular, older children may replace adult males that have become fighters, died or have been injured. Or they may join armed groups themselves. The use of children as a form of economic security is common in many developing countries in times of economic difficulties (Nugent and Gillaspay 1983, Duryea, Lam and Levinson 2007). Akresh and de Walque (2009), Merrouche (2006), Justino, Leone and Salardi (2012), Shemyakina (2010) and Swee (2009) attribute the reduction in education outcomes observed in contexts of armed conflict to household economic insecurity and the need to resort to children to generate further income, or to join in domestic activities in order to release adult labour. In a recent paper, Rodriguez and Sanchez (2009) tested directly the impact of armed conflict on child labour and find that violent attacks in Colombian municipalities cause rises in the inclusion of children in labour markets. This form of coping strategy may, however, have negative consequences to the long-term welfare of households, particularly when it affects children's health, nutritional status and education, as discussed in section 4.1 below.

### *3.1.5. Non-forced migration*

Migration has been one of the most important forms of household coping strategy in times of crisis across human history. There is some evidence that migration plays an important role in conflict-affected countries. Some studies have shown that individuals in conflict areas migrate in order to avoid violence (Moore and Shellman 2004), but also for economic reasons (Engel and Ibanez 2007, Czaika and Kis-Katos 2009). Wealthier and healthier households are more likely to migrate from conflict-affected areas, whereas more vulnerable people may move to IDP camps (Czaika and Kis-Katos 2009). Migration from conflict areas may be long-term or permanent when household members settle in another location, or can take on a more temporary nature, with individuals moving frequently between their home and urban environments, fleeing at night and retuning during day (or vice-versa) or moving only part of the family (Raeymaekers 2011, Stites et al. 2006, Korf 2003). These fluid migration strategies may help households avoiding asset and property thefts, and enable households to derive returns from land or access food and labour markets.

Despite a recent rise in remittances from countries affected by conflict (Goldring 2002), we have limited knowledge about the impact of remittances on household members that remain behind or on households that return once the conflict. This is largely due to lack of data and difficulties associated with tracing migrants and informal financial flows (Lindley 2007, Zetter and Purdekova 2011). Several studies have emphasised the role of Diasporas in fuelling and funding armed conflicts across the world (see discussion in Collier 2007). At the same time, remittances may play a key role in mitigating some of the negative effects of armed conflict on livelihoods and household welfare. Justino and Shemyakina (2007) discuss how households affected directly by the civil war in

Tajikistan were more likely to receive remittances, when compared to households less affected by violence. Lindley (2007)'s study of Hargeisa in Somalia has shown that large-scale migration triggered by the conflict resulted in important sources of income for household members that remained behind. Remittances were used mostly to cover for general living expenses, rather than establishing businesses or acquiring property and have played a key role in supporting the economic security of female-headed households. Remittances in Hargeisa provided also insurance against crop failures, health problems, and loss of income and assets (Ahmed 2000). These studies suggest that remittances may support household livelihoods during and after conflict and point to an interesting area for further research and policy attention.

### **3.2. Recruitment into and support for armed groups**

Individuals and households living in areas of violent conflict face enormous challenges, and often adopt a mix of legitimate and illegal, formal and informal activities in order to survive and protect their livelihoods and maintain some level of food security. This may include the participation in and support for warring factions. Most of the available evidence on the relationship between civilians and armed groups has focussed on recruitment (forced and voluntary), although there are several accounts of how civilians survive and protect their livelihoods through various forms of voluntary and involuntary support for armed groups beyond recruitment, including the provision of shelter, food and information (Nordstrom 1997, Kalyvas 2006, Wood 2003).

Armed conflicts may lead to new opportunities and many individuals and households have made use of conflict contexts as a means to improve their social, economic and political status. One of the ways in which individuals may use conflict to their advantage is through recruitment into armed groups. While some studies have emphasised the role of individual greed in recruitment into armed groups (see Collier and Hoeffler 2004), recent empirical evidence suggests that ordinary individuals join armed groups also in order to avoid destitution, as a livelihood coping strategy, and to secure protection from violence for themselves and their families.<sup>10</sup> In one of the pioneering surveys of ex-combatants, Humphreys and Weinstein (2008) discuss how RUF fighters in Sierra Leone were recruited with promises of jobs, while the CDF militia helped to meet the basic needs of their members and provided security for their families. Ex-combatants report improved prospects of getting a job, money and food and protection for their families as some of the most important motivations for having joined both armed groups. Looting and predatory activities did not play a significant role amongst rank and file soldiers because larger profits tend to remain with the leaders.

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<sup>10</sup> Some studies have shown that socio-emotional motivations (e.g. doing the right thing, following community social norms, sense of justice) may have a significant role in explaining individual participation in collective acts of violence (Petersen 2001, Wood 2003).

Walter (2004) refers to the importance of ‘misery’ and ‘lack of voice’ as incentives for the retention of fighters in armed groups, while Kalyvas and Kocher (2007) argue that civilians collaborate with armed groups because non-participation may be more costly than participation and support. This is because armed groups offer protection from indiscriminate violence from opposing factions, as well as privileged access to resources, information and skills that are necessary for survival in zones of conflict (Kalyvas and Kocher 2007, Guichaoua 2009). Justino (2009) discusses how destitution, the risk of famine and poverty may also be factors that increase the costs of non-participation.

Although we have very limited information on the impact of civilian-armed group relations on the economic and physical security of individuals and households in areas of violent conflict,<sup>11</sup> some evidence has shown that the recruitment of young adults and children into warring factions generally leads to the interruption of schooling, affecting the capacity of young people to accumulate skills and capital and access to higher-productivity activities (Blattman and Annan 2009, Angrist 1990 1998). However, soldiering also may result in more significant individual political participation and leadership amongst ex-fighters and those victimised by war (Blattman 2009, Bellows and Miguel 2009, Wood 2003), which may well lead to improvements in their economic status and their families’ in the longer term. The long-term welfare and economic security impact of recruitment and civilian-armed group relationships remains, however, mostly under-researched.

#### **4. Effectiveness of coping strategies: individual conditions and institutional environment**

The analysis of the effectiveness of household and individual coping strategies during violent conflicts faces many methodological and theoretical challenges. One of the most significant challenges is the absence of adequate data from conflict areas, where food, health, consumption and income monitoring systems are difficult (if not impossible) to implement. For that reason, very few studies have examined empirically the effectiveness of coping strategies on household food security (or any other household welfare outcomes). Some emerging literature allows us, however, to *infer* about the potential long-term effectiveness of coping strategies on household food security by analysing outcomes that can be attributed to it and that can be observed after the end of the conflict (or in some controlled settings during conflict, such as displacement and refugee camps).

The most important outcome emphasised in the literature has been the nutrition impact of violent conflict on children at different ages. This provides a good indication of the levels of food security of households during the conflict, as well as the effectiveness of coping strategies followed by households to secure food supplies because (mal)nutrition measures provide good proxies for

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<sup>11</sup> See Agency and Governance project: <http://www.esrc.ac.uk/my-esrc/grants/RES-167-25-0481/read>.

determining how permanent violent shocks may have been to the household (Banerjee et al. 2009). There is now a relatively large body of literature on the nutrition impact of conflict and violence and we review this literature below (section 4.1).

While very useful and an important advance to knowledge on the outcomes of violent conflict, this literature stops short of providing insights as to what channels may explain differentiated nutritional effects – and hence food security – across different population groups and regions within countries. We provide a tentative framework in section 4.2. In there, we suggest that the long-term effectiveness of coping strategies adopted by households to secure food supplies – and hence household resilience in maintaining food security in contexts of violent conflict – is dependent on two key sets of factors: (i) individual and household factors that affect the levels of vulnerability to poverty and to violence, and (ii) institutional factors that shape people’s access to food markets and livelihood opportunities.

#### ***4.1. Effectiveness of coping strategies and household food security***

A number of studies have analysed the short and medium term impact of recent armed conflicts on child nutritional outcomes. Evidence shows that overall violent conflict leads to substantially negative effects on child nutrition. Akresh, Verwimp and Bundervoet (2007) analysed the effects of civil conflict in Rwanda during the 1990s on children under 5 years old. They report that boys and girls born in regions experiencing violence had height-for-age z-scores (HAZ) that were 0.30 and 0.72 standard deviations lower, respectively, than boys and girls that were not affected by violence. The study shows that these effects were related to disruptions in agricultural production. Bundervoet and Verwimp (2005) studied the impact of the most recent civil war and the subsequent economic embargo in Burundi on the health status of children aged 0-5 years. They found that rural Burundese children affected by both shocks had a height-for-age of one standard deviation lower compared to similar children that did not experienced these events. Potential explanations for these results include the direct effect of the civil war (resulting in the breakdown of the economy and health systems and consequent spreading of infectious diseases among displaced people) and increases in food prices during the economic embargo, which were particularly damaging for the rural population. In a follow-up paper, Bundervoet, Verwimp and Akresh (2009) report that an additional month of war exposure in Burundi was associated with a reduction in children’s height-for-age z-scores by 0.047 standard deviations, compared to non-exposed children. These adverse effects of the Burundi conflict on child nutrition have resulted in serious losses in human capital. Bundervoet (2012) shows that children who were malnourished during the conflict had on average attained fewer grades than other children of the same year of birth cohort.

Minoiu and Shemyakina (2010) find similar effects in their work on the impact of the 2002–2007 civil conflict in Cote d'Ivoire on child health. Their results indicate that children from the northern regions where conflict was more intense suffered severe health setbacks, when compared to children from the lesser affected south. These adverse effects were especially pronounced for children born soon after the start of the conflict (during 2003–2005) and who were exposed to the conflict for a longer period of time. The authors attribute these results to increases in food prices during the conflict and reduced availability and quality of health care.

Aldoori, Armijo-Hussein, Fawzi and Herrera (1994) examined the impact of the conflict in Basrah, Iraq, using survey data from a cross-section of children aged 0-5 years attending maternal and child clinics six months after the end of the Gulf war. The study found that 8% of children were wasted, and 24% were stunted, with worse indicators for children from low socio-economic status. A comparison of these results with a previous survey shows evidence for a deterioration of nutritional status after successive armed conflicts, likely associated to shortages of basic foods due to economic sanctions, coupled with exceptionally high prices, destruction of infrastructure, lack of medications and reduced ability to treat sewage. Also in the case of Iraq, Guerrero-Serdan (2009) shows that, in 2006, children born in areas affected by high levels of violence are shorter than children born in low conflict provinces. The effect on young cohorts (13 months or younger) is between -0.22 to -0.48 standard deviations. This is equivalent to a staggering 0.8 cm shortfall in height for a 6 month infant affected by the conflict, when compared to a similar child not exposed to violence. The channels explaining this result include the lack of well-functioning public services and rises in diarrhoea incidence among children living in the more conflict-affected districts due to water, sewage and electricity shortages.

Baez (2011) takes on a slightly different approach by examining the causal effects of hosting refugees on outcomes of local children, using the case of Kagera in Northwestern Tanzania, which in early 1994 was flooded by more than 500,000 refugees fleeing from the armed violence in Burundi and Rwanda. The study finds evidence of adverse impacts over one year after the refugee movement. These adverse impacts include a worsening in children's malnutrition (0.3 standard deviations), an increase in the incidence of infectious diseases (15–20 percentage points) and an increase in mortality for children under five (7 percentage points). The study has found further that intra- and inter-cohort variation in childhood exposure to the refugee crisis is linked to reduced height in early adulthood, schooling and literacy. This is one of few studies showing causal evidence for the indirect effect of civil wars on the well-being of children across borders in refugee-hosting communities. These effects are explained by disease outbreaks, food and land scarcity, unsafe drinking water, wage competition, overburdened school and health care facilities, environmental degradation, and increased criminality.

A complementary body of evidence suggests that some of these effects may be irreversible and remain present into adulthood. For instance, Akbulut-Yuksel (2009) finds empirical evidence for strong long-term consequences of WWII on the well-being of German children affected by bombing by Allied Air Forces. The study reports that children who were of school age in areas that were bombed during WWII are now about a half inch shorter and 8 percent less likely to be satisfied with their current health. These results are attributed to exposure of these individuals to malnutrition during WWII, due to food shortages and changes in food composition. Akresh, Bhalotra, Leone and Osili (2012) have investigated the impact of the Nigerian civil war of 1967-70 on long-run impacts on human health capital by looking at adult height of females still alive today. Findings show that women exposed to the war at all ages between birth and adolescence (from 0 to 16 years), who are still alive today, exhibit reduced adult stature. Contrary to other studies, this paper shows that the conflict has had the largest effects during adolescence (13-16 years) than during younger ages. These effects are attributed to severe food shortages (notably, the collapse of protein imports) in the most conflict affected regions in the Biafra. de Walque (2006) also finds that the most adverse nutritional effects of the genocide committed during the period of the Khmer Rouge (1975-79) in Cambodia affected only teenagers. One possible explanation is that poor nutrition in early childhood during the conflict period was likely to end in the death of the child, while for teenagers it was more likely to result in stunted growth. In the case of Mozambique, Domingues (2010) shows that women who were exposed to the conflict during the early stages of their lives have, on average, weaker health in comparison to other women, reflected in lower height-for-age z-scores. The results are explained by killings, starvation, lack or disruption of health services and the enrolment of child soldiers.

Akresh, Lucchetti and Thirumurthy (2010) show similar long-term adverse effects of armed conflict during the international war between Eritrea and Ethiopia on children's health in both nations. Findings show that children born during the war and living in regions that were more exposed to violence during the war have 0.77 or 0.31 standard deviations lower height-for-age z-scores in Eritrea and Ethiopia, respectively, than children less affected by the conflict. The main mechanism through which conflict may have affected child health was the displacement and deportation of thousands of civilians, who suffered large reductions in food production, asset losses, and worsened access to water and health infrastructure. No effects were found for the presence of alternative channels such as restricted food aid or theft of assets.

Alderman, Hoddinott and Kinsey (2004) have found similar evidence in Zimbabwe. The authors show that in 2001, on average, children (under 5 years old) affected by the war and drought in Zimbabwe during the 1970s would have been 3.4 cm taller had the war and adverse weather conditions not taken place. The loss in stature, in addition to school losses, has resulted in reduced

lifetime earnings of about 14 percent. The effects of civil war on nutrition status are likely to be associated to lack of amenities in 'protected villages' constructed during the war, and on restrictions to physical movement.

In addition to the results reviewed above, some emerging evidence has suggested that effects of conflict on children through nutritional channels may take place even before the child is born. In a pioneering study, Camacho (2008) shows that exposure to violence may affect future generations through effects on foetus during the first three months of pregnancy that result in lower birth weights and premature deliveries. Her results are based on the empirical analysis of the birth effects of landmines explosions in the municipality of residence of women in early stages of pregnancy in Colombia.

More recently, Valente (2011) analysed the impact of exposure to violent conflict in Nepal on in-uterus foetuses and on babies shortly after birth during the Maoist insurgency between 1996 and 2006. The study has found that exposure to violence in the first few years of life has an adverse effect on child nutritional status. Maternal exposure to conflict before conception is negatively and significantly correlated with lower height-for-age (by 0.39 standard deviations in relation to the reference population). The author attributes these results to psychological stress. Similar evidence is reported in Parlow (2012) for the case of Kashmir. This study has found that stress during pregnancy and limited access to health services in the more conflict-affected regions of Jammu and Kashmir have resulted in children that are smaller at birth: overall, children more affected by the insurgency are 0.9 to 1.4 standard deviations smaller compared with children less affected by the insurgency.

These results indicate that the effectiveness of coping strategies followed by conflict-affected people is very limited in terms of long-term food security. These effects are observed both in the short-term, once the conflict is over, and in the long-term, sometimes decades after the end of the conflict. These latter results suggest that the adverse effects of violence exposure on child nutrition may be irreversible: adults that were affected by violence in their childhood (and are alive today) are likely to be shorter, less educated and earn less than comparable individuals that did not experience violence in early ages. Some of these are individuals that received help and aid after the conflict or in IDP and refugee camps during the conflict. Still, the adverse effects of the conflict remain with them throughout their lives. Recent evidence shows further that conflict and violence may affect child outcomes even before the child is born: children born to mothers exposed to violence, stress and malnutrition are already at a serious disadvantage, indicating that women of bearing age and pregnant women are particular vulnerable groups to the effects of violence and consequent household economic decline. Available evidence shows also that these largely adverse effects are not

general and there are substantial differences across types of households, regions and levels of violence. What determines these differential effects?

#### ***4.2. An analytical framework to analyse household resilience in conflict contexts***

Household resilience in maintaining food security in contexts of violent conflict is dependent on two key sets of factors: (i) individual and household factors that affect the levels of vulnerability to poverty and to violence, and (ii) institutional factors that shape people's access to food markets and livelihood opportunities. We argue that a better understanding of these two factors will provide useful entry points for policy interventions aimed at improving the resilience and food security of individuals and households affected by conflict and violence. These factors may also explain the success or failure of policy interventions that aim to support people's livelihoods in contexts of armed violence.

##### *4.2.1. Vulnerability to poverty and vulnerability to violence*

The analysis in the two previous sections suggests that the types of coping strategies adopted by individuals and households are a function of two important variables.<sup>12</sup> The first is related to initial characteristics, which determine people's levels of *vulnerability to poverty*. The second is the likelihood of being targeted by violence during conflict, in other words, their *vulnerability to violence*.

People's economic position at the start of the conflict, including household composition, ethnicity, religion and location, are important determinants of how individuals and households adapt to violent conflict by, for instance, drawing on savings and accumulated assets, adapting to losses in productive assets or accessing new forms of livelihood when displaced. Those that possess land, livestock and savings may be able to use them to secure their access to food and credit and to replace lost assets due to violence. Therefore, individuals and households that are economically better-off at the start of the conflict may in principle be in a more advantageous position to secure themselves against the adverse effects of violence. However, armed conflicts can have a covariate or an idiosyncratic character depending on whether violence is applied indiscriminately to communities caught in the crossfire or in contested areas, or whether violence is selective, targeting specific individuals and households (Kalyvas 2006). The idiosyncratic nature of violence means that households will adopt different coping strategies not only according to their economic needs, but also according to their perceived likelihood of being killed, displaced or looted, i.e. according to their level of *vulnerability to violence* (Justino 2009). These characteristics may have to do with observable

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<sup>12</sup> This section is based on the theoretical framework developed in Justino (2009) to analyse why individuals may participate in and support armed groups as a form of coping strategy to secure physical and economic security.

forms of group membership (for instance, being from a certain race, ethnic, religious or any other cultural, social or political group), with their geographical location (such as living in areas contested by armed groups or in areas where resources of interest to armed groups may abound) or with their economic characteristics (for instance, possessing property and other visible assets in demand by warring factions).<sup>13</sup> As a consequence, households that are poorer at the start of the conflict do not necessarily face the worst consequences of violence because better-off households may have specific characteristics that may make them likely targets of violence. As a consequence of these characteristics, people may make decisions (like burning crops, killing cattle and livestock or abandoning landholdings) that may make them vulnerable to poverty in the long-run, but may prevent being a target of violence in the short-term. Understanding the complex trade-offs between economic and physical forms of vulnerability that individuals and households living in areas of conflict experience is of key importance in the design of appropriate policies that aim at securing household food security during and after violent conflict.

Furthermore, levels of vulnerability (to poverty and to violence) of specific individuals and household are not static and may evolve during the conflict in response to the economic, social and political transformations and institutional change that take place locally as a result of the conflict. We discuss these interactions in more detail below.

#### *4.2.2. Institutional transformation*

The availability and effectiveness of coping strategies adopted by individuals and households in areas of armed violence are determined not only by their own (cultural, economic, social and political) characteristics, but also by the institutions and organisations that emerge from the conflict, and how these shape the availability of and access of people to markets and social and political opportunities. One crucial aspect of institutional change in conflict-affected contexts is related to the emergence of governance and order in areas outside the control of the state (Gafaro, Ibanez and Justino forthcoming, Arjona, Justino and Kalyvas forthcoming, Justino 2012b, Justino, Brück and Verwimp forthcoming, Kalyvas 1999, Mamphilly 2011).

Although in some conflicts rebel groups may not necessarily intend to take on or replace state functions, many armed conflicts are characterised by the emergence of non-state actors that replace weak, inexistent or inappropriate state institutions. There are abundant examples of these actors: the FARC in Colombia, the Tamil Tigers in Sri Lanka, Hezbollah in Lebanon, the Taliban in

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<sup>13</sup> Justino and Verwimp (2006) and Verwimp (2005) show that households that were land-rich and non-poor in 1990 were the worst affected during the 1994 Rwandan genocide. The concept of vulnerability to violence is also explored in Verwimp (2008).

Afghanistan, Al Shabaab in Somalia, amongst many others. Many of these actors resort to the use or threat of violence to maintain their authority, but not all do so, nor do the more violent groups exercise violence at all times. In many of the cases listed above, armed non-state groups have taken on some (if not all) of the functions of the state in terms of security provision, access to basic needs, building infrastructure and so forth. Some of these actors replace the state entirely as an exercise in demonstrating their capacity to rule once the conflict is over (Mampilly 2011, Olson 1963), others act in Mafia-like structures (Gambetta 1996, Volkov 2002) and others may act as mediators between local people and state institutions (Mampilly 2011).

These processes of institutional change have been described in the literature as forms of ‘state collapse’ (Milliken 2003, Zartman 1995) or ‘state failure’ (Ghani and Lockhart 2008, Milliken 2003). However, despite the absence or failure of the state apparatus, governance structures may emerge amidst violent conflict when different actors replace weak or inexistent state institutions (that may well have been absent at the start of the conflict) in the provision of local public goods, the enforcement of property rights and social norms and the provision of security. In some cases, these actors are outsiders to the communities they (intend to) control, while in other cases they may be part of local communities and leadership structures or be related to community members via kinship, ethnic or other ties (Justino 2012b). These forms of local institutional change that emerge during the conflict are likely to have substantial effects, negative and positive, on the lives and livelihoods of populations living in these areas. They may also determine and control to a very large degree how aid structures and food provision systems may reach vulnerable populations. However, current understanding of these institutional changes is extremely limited, which has limited considerably political and development interventions in conflict contexts.

Armed non-state actors adopt criminal and predatory behaviour, but also operate through non-violent means that remain largely overlooked in the literature but shape household and community decision-making structures and the provision of property rights, public goods, security and justice (Arjona 2009, Lubkemann 2008). Furthermore, local institutions, and the actors that control them, determine the functioning of organisations, norms and behaviour well beyond the end of the conflict (Arjona 2009, Justino 2012b, Mampilly 2011, Wood 2008). Some recent literature has shown evidence for how local populations coexist with armed groups in areas of conflict. In particular, armed groups may provide employment (forced or voluntary) to household members (Humphreys and Weinstein 2008), facilitate (or control) access to land (Wood 2003), establish the conditions under which small businesses and land cultivation may continue to operate (Steele 2007, Wood 2003) and offer physical security against outside attacks (Kalyvas and Kocher 2007). Armed groups in turn make use of different forms of support from local populations to advance strategic objectives (Weinstein 2007). These are all important determinants of how some individuals and

households may survive in contexts of violence that remain seriously under-researched and outside the scope and design of policy interventions in conflict-affected contexts.

## **5. Final remarks and policy implications**

In general, we have very limited knowledge about what people do in areas of violent conflict, and how their choices and behaviour may affect their wellbeing and livelihoods (including food security) during conflict and in the post conflict period. Emerging empirical evidence on individual and household coping strategies during and after violent conflict suggests that people living in areas of conflict show remarkable levels of resilience by staying alive and carrying on their daily lives amidst contexts of violence that may last for generations. Stories of how people live and survive through conflict abound, and have led to a renewed policy interest in what makes people resilient in the face of such precarious living conditions. However, care should be taken in promoting this story of resilience. Although many people stay alive and carry on their daily lives in contexts of conflict and violence, in general, the decisions taken and strategies followed by conflict-affected individuals and households to secure access to food, but also physical security, translate into largely negative long-term welfare consequences (particularly, in the form of reduced child nutrition). These populations need serious help and support, and evidence suggests that policy interventions in conflict-affected communities have a long way to go in terms of supporting people affected by conflict and violence, even when these people show resilience in the face of violence. What can then governments, aid agencies and donors learn from this research?

The empirical evidence reviewed in this paper suggests three action points for policy and practice in contexts of conflict and violence:

- (i) Need to better understand what people do (well and less well) in order to support those activities during and after conflict;
- (ii) Need to acknowledge that the security of lives and livelihoods in contexts of enduring violent conflict depend on institutional factors linked to political and social distributions of power: humanitarian and development interventions cannot be de-linked from institutional and political processes;
- (iii) Need for better data collection and evaluation systems: rigorous evidence on conflict processes, how lives carry on and the effectiveness of interventions in contexts of violence is scarce and unsystematic.

### ***1. Understanding and supporting what people do (well and less well) to secure lives and livelihoods in contexts of conflict and violence.***

There is very limited rigorous evidence about the mechanisms and processes of coping, adaptation and targeting of populations that live in contexts of enduring violent conflict. The paper reviewed six broad types of coping strategies studied in new emerging literature: use of savings and assets sales, subsistence agriculture, engagement in informal markets, intra-household allocation of labour, migration and recruitment and support for armed groups. This review suggests several important lessons about how people survive and adapt to the challenges of living under violence that may provide important entry points for policy intervention. In particular, existing evidence shows that households adopt a myriad of coping strategies even when savings, insurance and exchange markets, both formal and informal, break down: individuals not targeted by armed groups or living in IDP camps engage in a myriad of informal activities including petty trade and illegal activities, women and children join labour markets, some households members are able to migrate and send remittances and others join and support armed groups. In some circumstances, these coping strategies may be relatively successful in ensuring some economic, social and physical security to individuals and households, resulting in the acquisition of productive skills that may be useful in the post-conflict period. Policy interventions to support these forms of resilience may include:

- (i) *Strengthening of female labour market participation.* It is now a well-established fact that violent conflict is associated with increases in female labour market participation. Women generally join low-paid low-skilled occupations when main household workers die, get injured, join armed groups or migrate. A recent report by IDS-UN Women has shown that against all odds, and despite the dire conditions under which some of these women work, in some settings female earnings have contributed to the economic recovery of households in the post-conflict period (Justino et al. 2012). Given that improvements in women's economic empowerment may have considerable gains for child nutrition and household food security, it is possible that policies that support the continuation of female employment after the end of the conflict may yield important benefits for children, other household members and the women themselves. However, most evidence from conflict-affected countries suggests that in the post-conflict period women tend to lose their jobs due to substantial societal and policy pressure to return to pre-conflict status quo (Justino et al. 2012). Part of the solution to support the continuing employment of women and stronger empowerment effects will require changes in social attitudes, as well as ensuring that men are not left out from formal employment. Employment generation programmes including food- and cash-for-work programmes may be important in these contexts, although there is very limited evidence of their effectiveness in conflict-affected contexts.
- (ii) *Support of mechanisms and institutions that allow the transition from subsistence agriculture to market exchange.* The resort to subsistence agriculture is one of the main coping strategies adopted by

households to mitigate the effects of violent conflict. This may be a result of lack of opportunities outside the household and due to security restrictions, but also to the fact that subsistence crops are likely to attract less the attention of armed groups. Some limited evidence has shown that subsistence agriculture, despite its limitations, may provide an important source of food security and nutrition for children during periods of violent conflict. These effects will be important in ensuring the economic and health survival of household members during periods of intense instability but come at a cost to the household by limiting its ability to join exchange markets once the situation is more or less stable. In addition, during conflict and also in the post-conflict period, several restrictions will be imposed on the functioning of markets and on who is able to access them. Policies that will encourage more intense agriculture production (provision of seeds, implements and fertiliser, or micro-insurance policies, for instance) may help households move from subsistence agriculture to more market-based processes that allow a surplus and increased food stability. These policies must be combined with macro-economic policies that guarantee more stable prices given the role of increased food prices in the negative nutrition effects of conflict (see section 4 above).

(iii) *Creation of mechanisms to reduce and eventually end child labour.* During violent conflict children are often removed from school: conflict-affected countries are responsible for over forty percent of all out-of-school children in the world (UNESCO 2011). There are many reasons why this happens: children are recruited into armed groups, fear of abduction and harm, displacement and the targeting of schools, teachers and students (Justino 2011). A now substantial literature has put forward household economic needs as one of the main reasons for the removal of children from school during conflict (see Shemyakina 2011). Different forms of child labour help maintaining food security of the household during periods of distress. However, it may also lead to negative long-term effects to the children involved, and their own families, as these children are likely to have fewer opportunities than those that continue their education. The influential UNESCO (2011) report on education during conflict refers to the need for education recovery to be part of early interventions in conflict-affected countries and among conflict-affected populations. There is also some ongoing discussion about the potential role of conditional and unconditional cash transfers in conflict-affected countries (ODI 2009), but almost no rigorous evidence on the possible design and effectiveness of cash transfer programmes in those contexts.

(iv) *Demobilisation, disarmament and reintegration (DDR) programmes to encompass better understanding of why people join and support armed groups.* Section 3 showed how individuals and households join armed groups or support their actions (voluntarily or involuntarily) in order to manage the

risks of economic destitution and of violence. DDR programmes are one of the most important set of policies implemented in countries that emerge from violent conflict. These programmes aim at the demobilisation of combatants into civilian structures or their incorporation into the state military. The programmes focus substantially on the dismantling of military structures and the handing in of guns and other armament. Ex-combatants are provided with money, social or psychological support and employment training in return. The effectiveness of such programmes is at best mixed (Humphreys and Weinstein 2006), often because the motivations for why individuals join armed groups or why they support them beyond recruitment are not well understood (Humphreys and Weinstein 2008, Guichaoua 2011). As discussed in section 3, armed groups sometimes act as important social structures and safety nets for individuals and their families: men (and women) join armed groups because they may provide needed protection against violence, may help keeping their families safe, may be able to provide for basic needs and may ensure that recruits and their immediate social networks are equipped with information and resources to survive in war zones. These considerations are often absent from DDR programmes, which continue to focus on the more military aspects of recruitment. In situations where armed groups were used as a form of safety net or coping strategy against destitution and violence, alternative safety nets provided by legitimate governments may go a long way to support the reintegration of ex-combatants into society and dismantle the structures that may lead to the re-ignition of violence. Justino (2007) provides empirical evidence for the role of social transfers and safety nets in preventing the rise of communal violence in India. Evidence on these policies mechanisms in contexts of armed conflict has remained elusive.

The review of evidence in section 4 suggested that successful forms of resilience are rare and in most cases individuals and households are only partially able to maintain food security during periods of violent conflict. Efforts to maintain food security are constrained by a series of factors highlighted in an emerging literature on the causal effects of conflict on nutritional outcomes. These factors are mostly related to the destruction caused by fighting resulting in the disruption of agriculture production and markets, the breakdown of health systems, the lack of availability of medicines, the shortage of safe water, sewage treatment and electricity and restrictions to physical movement (due to safety issues but also as a means of population control). These factors are compounded by the spread of infectious diseases in camps and by hikes in food prices due to market constraints but also due to international embargoes in some conflicts. The evidence shows further that very young children (often unborn), pregnant women and women of bearing age face the most serious risks in terms of food insecurity during violent conflict. The negative nutritional effects of conflict are highest amongst those exposed to violence for longer periods of time.

These mechanisms indicate the main areas of priority to policy interventions in the immediate post-conflict period: the recovery of agriculture production systems and markets, the reconstruction of health systems and basic infrastructure, and the control of infection diseases. Nutrition interventions that target pregnant women and very young children are of crucial importance in order to mitigate the long-term effects of conflict on development outcomes through the negative accumulation of human capital. Ideally these are also areas where interventions should concentrate during the conflict itself, although that may be unrealistic due to the restrictions imposed by fighting. Although new studies have provided important rigorous evidence for the magnitude of these mechanisms and their importance in explaining food insecurity outcomes in contexts of violent conflict, these are well-known facts and areas where humanitarian interventions already focus.

However, both humanitarian and development interventions in conflict-affected countries have been criticised heavily by their low effectiveness, inability to protect vulnerable populations, lack of coordination and difficulties in breaking vicious cycles of violence and poverty (see Addison and Murshed 2002, among many others). We argued in this paper that part of this failure may lie in the challenge in understanding key institutional changes that take place due to conflict and violence. We discuss this point in more detail below.

## ***2. Acknowledging that the security of lives and livelihoods in contexts of enduring violent conflict depend on institutional structures that emerge during the conflict.***

The paper argued and showed evidence that individual and household resilience in maintaining food security in contexts of enduring violent conflict is dependent on two key sets of institutional factors: (i) how people expect to be (and are) targeted by violence; and (ii) how the organisation of local institutions may shape people's access to food markets and livelihood opportunities. A better understanding of these two factors will provide useful entry points for policy interventions aimed at improving the resilience and food security of individuals and households affected by conflict and violence. These factors may also explain the success or failure of policy interventions that aim to support people's livelihoods in contexts of armed violence.

The first institutional factor is that the *decisions, choices and behaviour of people living in conflict areas depend heavily on their (actual or perceived) levels of vulnerability, not only to destitution and poverty, but also to violence.* Decisions that may appear irrational from an economic survival point of view – abandoning or burning crops, killing cattle and livestock, joining armed groups and so forth – may be explained by how different individuals and households expect to be targeted by violence at different times during the conflict. These dual processes of economic and physical survival will determine in turn who copes and how with the effects of violence. Development and humanitarian interventions in

conflict-affected contexts are, however, still typically directed to groups of the ‘poor’ and ‘vulnerable’ defined by some measure of geographic location (refugee or IDP camps), or ethnic identity, without much empirical evidence on who the ‘poor’ and ‘vulnerable’ really are, and why they have become poor or vulnerable in the first place. This way of identifying populations at risk misses a large number of people that are vulnerable across many dimensions – including in terms of physical but not necessarily economic security – that live in areas of violence but are difficult to find or identify, in particular when violence becomes part of people’s everyday lives (Justino 2009).

The second factor is that *forms of coping and adaptation shape and are shaped by how institutions are organised locally during conflict*. Development policies will fail when conflict processes, in particular the forms of political and social institutional transformation that they entail, are not well-understood. Furthermore, these institutional outcomes and processes tend to be very persistent and do not disappear once the conflict is over. This was clearly illustrated in the recent events in Somalia where local armed groups eventually played key roles in how humanitarian actors accessed vulnerable populations, sometimes providing relief themselves. However, the control of populations and the provision of security by non-state actors are perceived suspiciously by the international community, which associate the actions of these groups with illegitimacy, illegality and informality, operating outside the rule of law and of state institutions (Mampilly 2011). The problem is that, in the contexts analysed in this paper, state structures are absent, do not work or are illegitimate themselves in the eyes of the populations they aim to govern. Emerging evidence is starting to show that non-state actors and the organisations they establish sometimes operate sophisticated structures of governance, promoting (some form of) the rule of law, providing security, food and basic services (Arjona 2009, Arjona, Justino and Kalyvas forthcoming, Kasfir 2005, Mampilly 2011, Mehlun, Moene and Torvik 2006, Olson 2000, Weinstein 2007). Understanding how and when to intervene to strengthen the economic security of people affected by conflict and violence requires detailed and systematic knowledge of how state and non-state actors compete throughout the conflict, and how each interact with local populations. These institutional changes are important because they determine how political and development interventions, including justice and security reforms, demobilisation and reconstruction programmes, systems of food distribution, employment programmes and social service provision, may support or fail to support local populations.

In a nutshell, humanitarian and development interventions cannot be de-coupled from institutional and political processes that emerge during violent conflict and persist once the conflict is over. This implies acknowledging that actors beyond the state shape levels of economic, social and physical vulnerability of populations targeted by development and humanitarian interventions, and that engaging with these forms of institutional transformation is a central part of the process of ending cycles of poverty and violence.

### ***3. Better data collection and evaluation systems.***

The issues raised in the two action points above involve the understanding of mechanisms and relationships that are not easy to map, analyse and understand. The difficulties associated with this type of research and the resulting scarcity in empirical analyses mean, in turn, that interventions in conflict-affected contexts are being designed on the basis of very limited hard evidence on fundamental processes linking armed conflict and household welfare. This is a challenging but not impossible task given the recent improvements in data availability and in analytical qualitative and quantitative methods to better understand different types and levels of violence, how rebel organisations organise themselves and related to civilians, and how household preferences and behaviour respond to different sets of opportunities and constraints in the midst of violent conflict.<sup>14</sup> Research remains however sparse, scattered and based on small samples, while policy interventions in conflict affected contexts are very rarely evaluated and monitored using rigorous analytical methods. Further efforts at the construction of rigorous, systematic and comparable evidence across different conflict-affected contexts requires considerable investment in appropriate methodological systems, as well as serious engagement between researchers, the international policy community and local governments (including their own statistical offices). Better knowledge will in turn result in better and more effective policy interventions to provide food and economic and physical security to the millions of people that continue to live under violence and conflict.

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<sup>14</sup> See work being developed in the Households in Conflict Network ([www.hicn.org](http://www.hicn.org)) and MICROCON ([www.microconflict.eu](http://www.microconflict.eu)). More extensive discussions are provided in Brück, Justino, Verwimp and Avdeenko (2010) and Verwimp, Justino and Brück (2009).

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