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Food aid and household food security in a conflict situation: Empirical evidence from Northern Uganda

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ABSTRACT

It is well-established that armed political conflict has a detrimental effect on food security and household welfare: conflict induces food insecurity by reducing own food production, access to food through the market, and various other resources to sustain healthy and productive lives. One way of mitigating these adverse effects is to provide food aid. In this study we evaluate the impact of a World Food Programme intervention on household food security and asset protection among conflict-affected households in Northern Uganda. We employ propensity score matching to estimate the average treatment effect on food expenditure, food consumption and preservation of assets using a sample of 1265 observations from a 2008 survey. Our results reveal that the operation's system of targeting beneficiaries was effective and in accordance with programme objectives. Food aid considerably reduced food expenditure of households, suggesting that recipients were net buyers of food, and that the food aid received was effectively consumed within the household. A corresponding positive effect on non-food expenditure was not found. Our results also indicate that food aid was effective in increasing meals consumed and in avoiding distress destocking of low value assets, but, surprisingly, only for male headed households.

Introduction

According to the Heidelberg Institute of International Conflict Research 363 political conflicts occurred in 2010, of which 28 fought out with the use of massive violence (HIIK, 2010). Most of these conflicts occurred in the developing world.

The cost of violent conflict reaches beyond the human casualties and the destruction of physical capital. Among other effects, conflict may trigger widespread food insecurity.[1] The reasons are not difficult to understand. Conflict in agricultural areas causes food production to decrease as farming populations decline through death or flight, and remaining farmers do not risk returning to their fields. Moreover hunger is often used as a weapon, as combatants use siege to seize and destroy food stocks in food-producing regions (Messer et al., 2001). Land-mining and sabotaging water supplies further aggravate food shortages. Empirical evidence shows a negative association between conflict and food production. Messer et al. (1998) found that mean food production of 14 Sub-Saharan African countries decreased by 12.3% on average during every war year in the period 1970–1994. And the Food and Agriculture Organization of the United Nations estimated that, during the period 1970–1997, the loss of agricultural output due to conflicts in the developing world amounted to 121 billion USD (FAO, 2000). Such conflict-related reductions in food availability cause income losses to farm households and reduce market access to food buyers, including farmers. Consequently, households have to adopt coping strategies to ensure sufficient access to food. These coping strategies range from diet changes – eating fewer, smaller and less nutritious meals – over borrowing from kin or from merchants, to the distress sale of productive assets such as livestock and land (Skoufias, 2003). As people are gradually stripped of essential assets, they find themselves without resources to cope with long-term food shortages. Access to food is further decreased when rural households are cut off from urban markets and from networks that normally provide insurance against negative shocks. Finally, deliberate demolition of health facilities increases vulnerability by causing health problems, which further reduce food and nutritional security. Barrett and Maxwell (2006) note that the vast destruction of assets and the reduction in economic activity due to conflict prevents recovery, leading to poverty traps with long-lasting effects on household welfare and food security, especially for vulnerable groups such as refugee and displaced populations.

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[1] According to the 1996 World Food Summit people are food insecure when they do not have physical and economic access, at all times, to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (WFP, 2007).

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One way of reducing the adverse effects of conflict on household food security is the provision of humanitarian food aid.[2] As Gilligan et al. (2007) note, food aid may insure crisis-affected households against deleterious shocks and help them sustain short-term food security, as well as serving as a safety net protecting assets and livelihoods in the longer run. One argument often raised against food aid is its potential disincentive effect on agricultural production (see for a discussion Barrett and Maxwell, 2005), but is not unanimously supported by the empirical evidence (see for instance Abdulai et al., 2005). In the case of a protracted conflict where agricultural output has sharply declined and markets are severely disrupted, the discussion about disincentive effects may seem less relevant. But providing humanitarian food aid in a conflict situation carries its own risks. First, for security reasons, careful targeting by food agency staff may be difficult to achieve. Second, actors in the conflict may subvert the targeting process in ways that help to sustain conflict. For instance, during the Ethiopian civil war food aid aimed at the victims of the 1984–1985 famine was captured by the Derg government and used to feed its troops and entice non-cooperating rural populations into forced resettlement programmes (Clay, 1988). Messer et al. (1998) argue that food aid packages may serve to prevent starvation, but rarely succeed in attaining full food and nutritional security for conflict-affected households. As a consequence, households are forced to supplement these rations by home food production, foraging or marketed foods. But in conflict situations, populations will often find it difficult to exert such livelihood activities. In conclusion, for humanitarian food aid to be effective in situations of political conflict it is key to have proper targeting combined with food aid packages that allow recipients to preserve assets, sustain livelihoods and satisfy food security.

A well-known case of violent conflict is the civil war that broke out in the late 1980s in Uganda. Over two decades, the Lords Resistance Army and the government of Uganda fought each other across the Acholi, Teso and Lango regions in the northern part of the country (see Fig. 2). Before the conflict, northern Uganda was considered the granary of Uganda. It consistently produced grain surpluses for domestic and sometimes international markets (WFP, 2009). However, agricultural output and trade, crucial for most peoples survival, declined rapidly when the civil war erupted and access to land and markets became problematic. Land was no longer properly tended and protection and storage of stocks were compromised because of widespread insecurity, the presence of land mines, and the massive displacement of populations (Clover, 2003). The civil war that broke out in 1987 and lasted for over 22 years, left over two million people displaced from their homes. Production and income losses from cash crops and livestock, which were the main sources of livelihood, caused acute food insecurity. For example in Gulu, there was an estimated 130,000 cattle prior to the conflict. By 2007, as a result of the war, there remained an estimated 6000–12,000 cattle only (FAO, 2008).

To cope with the adverse effects on food security, conflict-affected households mainly relied on humanitarian handouts, with World Food Programme (WFP) leading the distribution of food aid. In 2005, the WFP implemented an initial relief and recovery operation (PRRO 10121.1). However, as it became clear that continued and increased food assistance was indispensable to address the food needs in the conflict-affected areas,[3] the WFP stepped up its effort. The response – implemented from June 2007 onwards through an extension of PRRO 10121.1 and PRRO 10121.2 – included several activities. General food distribution (GFD) aimed to reduce the net food gap in the conflict-affected areas and help food insecure households make the transition to greater self-reliance.[4] In order to entice people to resume their farming activities, food rations for IDPs were set at between 40% and 60% of the recommended dietary allowance. Extremely vulnerable individuals on the other hand, such as the disabled, elderly and child-headed households, received a 100% ration. Second, the WFP supported mother–child health and nutrition (MCHN) clinics in order to provide pregnant and lactating women and their infants with supplementary feeding. Food-for-asset (FFA) activities supported the reestablishment of households livelihoods and infrastructure such as the construction of classrooms and health clinics. Fourth, emergency school feeding (ESF) programmes aimed to boost educational services in camps, transit sites and return areas. Finally, HIV/AIDS and tuberculosis (TB) programmes – food incentives for anti-retroviral therapy, prevention of mother-to-child transmission and treatment of TB – were set up to assist these vulnerable groups. The targeting of food-insecure households was based on assessed need. For GFD, a combination of land use surveys, emergency food security assessments and nutritional surveys were used to determine need. In the case of people living with HIV/AIDS and TB the selection was based on strict food-insecurity measures. For the MCHN component, two criteria were considered: the food insecurity situation of the catchment area and the capacity of the health centres to coordinate the programme. FFA activities were set to be implemented in the most food-insecure areas while ESF programmes targeted schools in food-insecure camps, transit sites and return areas with the highest drop-out rates (WFP, 2008a).

In this study we evaluate the impact of the GFD component of the operation by analyzing the effectiveness of the targeting system and by looking at the impact of GFD on food expenditures, food consumption and preservation of assets. We assess whether the operation was successful in sustaining livelihoods and increasing food security of food insecure, conflict-affected households. We employ propensity score matching to estimate average treatment effect of food aid on our outcome variables using a sample of 1265 observations. Smoothed Kernel density graphs indicate that the GFD system of targeting beneficiaries is effective. We also estimate the probability of participation with a probit model. The coefficients of several relevant independent variables – such as a dummy for being displaced, age of household head and the distance to the nearest market – provide further evidence that targeting meets objectives. As to the impact of GFD on our outcome variables, we find that food aid reduces food expenditures by 34.8% on average. This indicates that beneficiaries consume a considerable part of the food received themselves. This result is robust with respect to different matching techniques. Contrary to expectations, we do not find any corresponding positive effect on non-food expenditures. Concerning the impact on net food consumption, our findings indicate that food aid increases the number of meals taken by adults and children between six and thirteen years old. Somewhat surprisingly, in view of the evidence elsewhere, our data suggest that this only occurs in male headed households. Finally, our results show that households that receive GFD are less likely to sell low-value assets such as chicken or goats. This suggests that in the absence of food aid households would have divested some of these assets, a sign that the programme is effectively targeting vulnerable people. Again, only in male headed households is this effect of reduced sales of low-value assets observed.

How does our investigation add to the body of finding on food aid? A number of previous studies have analyzed the impact of

[2] Next to humanitarian food aid, one can distinguish two other types of food aid, i.e. project food aid and programme food aid. For a general discussion on the different aspects of food aid, see Barrett and Maxwell (2005).

[3] For instance, an estimated 940,000 internally displaced persons (IDPs) and returnees in the Acholi, Teso and Lango regions – i.e. the conflict-affected areas – were still considered to need food assistance as only 50–60% of their food baskets were self-supported. For returnees, malnutrition indicators pointed to a deterioration in food security: the GAM rate for children under five rose from 1.9% in 2005 to 7.1% in April 2007 (WFP, 2008a).

[4] By then the security situation was becoming better with the expectation of a peace agreement between the Government of Uganda and the LRA. Some people indeed started accessing their land again, despite the fear oflandmines.