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Conflict, Food Insecurity, and Globalization

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Abstract

We explore how globalization, broadly conceived to include international human-rights norms, humanitarianism, and alternative trade, might influence peaceful and food-secure outlooks and outcomes. The paper draws on our previous work on conflict as a cause and effect of hunger and also looks at agricultural exports as war commodities. We review studies on the relationships between (1) conflict and food insecurity, (2) conflict and globalization, and (3) globalization and food insecurity. Next, we analyze country-level, historical contexts where export crops, such as coffee and cotton, have been implicated in triggering and perpetuating conflict. These cases suggest that it is not export cropping per se, but production and trade structures and food and financial policy contexts that determine peaceful or belligerent outcomes. Export cropping appears to contribute to conflict when fluctuating prices destabilize household and national incomes and when revenues fund hostilities. Also, in these scenarios, governments have not taken steps to progressively realize the right to adequate food or to reduce hunger and poverty. We conclude by exploring implications for agricultural development, trade, and human-rights policies.

Key words: hunger, conflict, war, globalization, export cropping, coffee, cotton, sugar, human rights, right to food, fair trade

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1. Introduction

This paper explores how globalization, broadly conceived to include international human-rights norms, humanitarianism, and alternative trade, might influence peaceful and food-secure outlooks and outcomes. For more than two centuries, proponents and critics of an open global economy have debated whether the free flows of goods, services, and capital make the world more or less peaceful and food secure. Proponents argue that, as nations expand the commercial, financial, communications, and cultural ties that bind them, they are less likely to go to war (see Schneider, Barbieri, and Gleditsch 2003 for a summary of these positions). Critics counter that as global economic liberalization worsens socioeconomic inequalities within and between nations, conflict frequently follows (see, for example, Danaher 1994; Lappé, Collins, and Rosset 1998; Shiva 1999; Bello 2001; Araghi 2000; on the ills of financial globalization, see Stewart 1993; Smith 1994; Addison 2005).

Not surprisingly, the two sides disagree over whether more liberalized trade in agricultural commodities will provide a "way out" of poverty for developing-country farmers and economies or exacerbate their poverty problems; so much depends on contexts. What is not in dispute is that trade in primary commodities is associated with most wars of the 1980s, 1990s, and 2000s, either as cause or source of conflict, or as means of payment for arms and armies (P. Collier 2003). Because conflict contexts are integrally linked to food insecurity (Messer, Cohen, and d'Costa 1998; FAO 2000), the connections between global trade and conflict are a concern for food and nutrition policymakers, who are especially interested in agricultural commodities, which have been left out of most globalization–conflict models (see, for example, P. Collier 2003).

As our previous studies have demonstrated (Messer 1994, 1996a; Messer, Cohen, and D'Costa 1998; Messer and Cohen 2001; Messer, Cohen, and Marchione 2001), most wars of the late 20th century and early 21st century are "food wars," meaning that food is used as a weapon, food systems are destroyed in the course of conflict, and food insecurity persists as a legacy of conflict. We have shown that food insecurity, which as

used here can denote food shortage, lack of access to food, malnutrition, or some combination of the three, can also be a source of conflict. Our concern here is to demonstrate how globalization, including trade in primary agricultural commodities but also global norms and institutions promoting humanitarianism, human rights, and alternative development and trade, is connected to conflict and food insecurity.

Our entry point to explore these connections is to examine cases of food wars for a single year, to see whether and how the associated country-level attributes of conflict, food security, and trade in agricultural and other primary commodities support globalization-and-peace, globalization-and-war, or neither hypothesis.

Because no previous studies explicitly attempt to explore the links among all three factors, a second way to consider the relationships is to summarize and integrate the analytical frameworks and findings of the many previous studies that have dealt with any two of the three factors: conflict and food insecurity, conflict and globalization, and globalization and food insecurity. This literature review fills gaps and critiques certain conclusions of the existing conflict-transformation literature, which emphasizes conflict typologies and historical trends.

A third approach is to sketch particular country-level, historical contexts where widely grown and traded agricultural commodities, such as sugarcane, coffee, and cotton, appear to have contributed to conflict, to see what lessons these cases suggest for agricultural policy.

A fourth, and final perspective is to consider where globalization, widened in concept to include humanitarian operations, human-rights norms, and alternative trade organizations, appears to have contributed to more peaceful and food-secure outlooks and outcomes. We conclude by suggesting how greater scrutiny of the local and country-level conditions of agricultural production and trade, and this broader globalization concept, might be useful for formulating more comprehensive agricultural, globalization, and conflict models for research and policy.

2. Conflicts, Food Insecurity, and Globalization, and Their Consequences

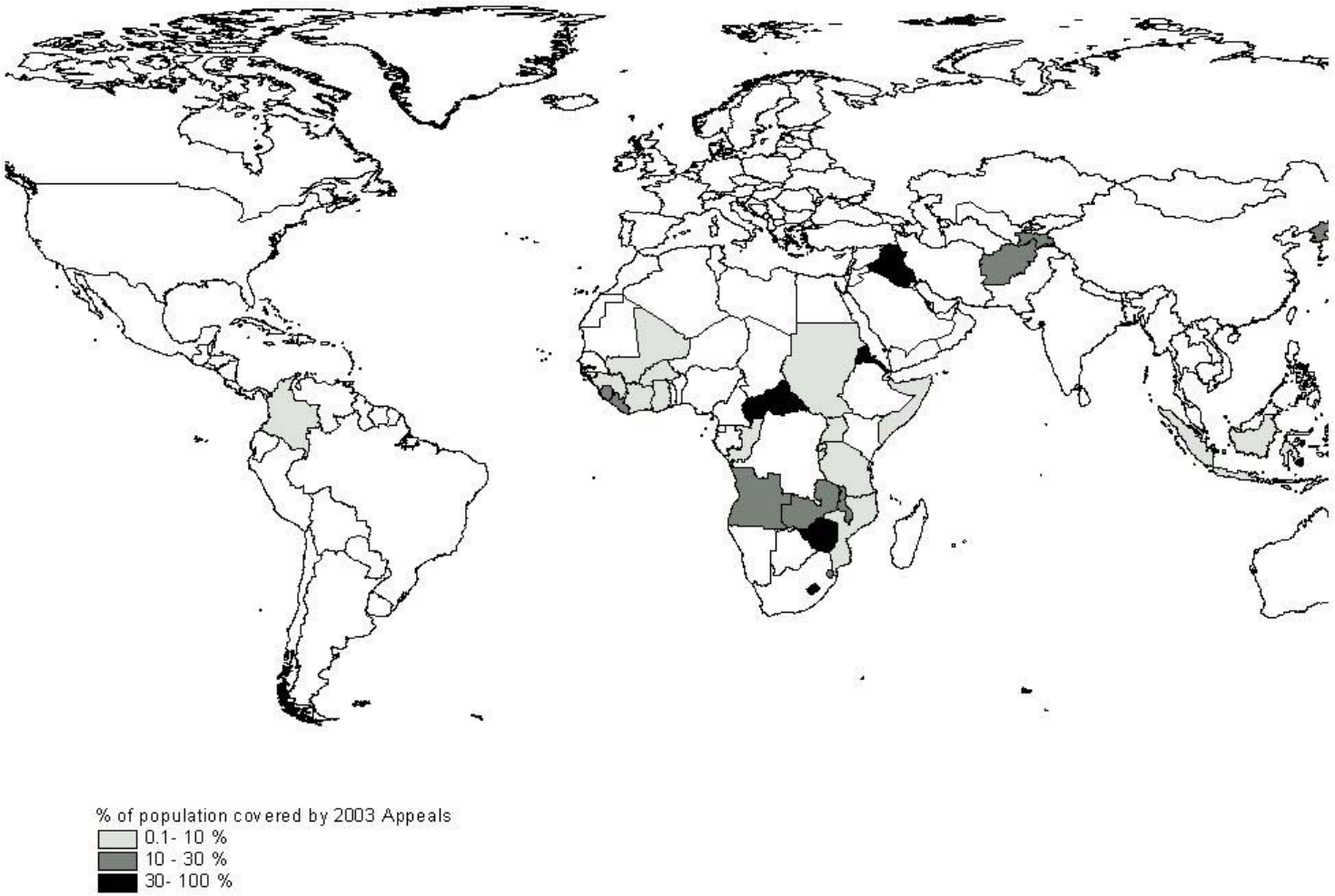
The simplest way to gauge the connection of globalization to food insecurity and conflict is to identify, classify, and count conflict countries, and then, for each, ascertain and describe the country's food-security status and openness to trade, and how these relate to conflict. If the simplified pro-trade position ("globalization/more liberalized trade is peace-promoting") is correct, then we would expect conflict countries not to be heavily involved in trade, which is supposed to create peace-promoting ties, and instead to be relatively isolated. An aggregate picture of the resulting conflict–food insecurity–globalization scenarios also offers a snapshot in time of how globalization is promoting peace or conflict in the initial years of the 21st century.

The results of this exercise, which we undertook in 2003, using 2002–03 as our year of record, describe 44 countries: 24 active conflict, 18 postconflict, and 2 refugee-recipient countries where war-related violence, economic and public-welfare disruptions, and refugee flows contributed to food insecurity.[1] Map 1 shows conflict countries and aggregate percentages of food-insecure people; Map 2 displays conflict countries and estimated needs for humanitarian assistance. Tables 1 and 2 characterize these countries, using standard world data sets, to show conflict status (Marshall and Gurr 2003; Eriksson, Wallensteen, and Sollenberg 2003; SIPRI 2003a), the food-insecure portion of the populace (FAO 2003), the population considered in need of humanitarian assistance by the United Nations (UN) system (OCHA 2003), major exports (CIA 2003), and openness to trade (defined by the U.S. government's State Failure Taskforce and the World Bank as imports and exports as a share of gross domestic product, or GDP) (Esty et al. 1995; World Bank 2003).

[1] We used the definitions of armed conflict of the Conflict Data Program at Uppsala University: an armed conflict is a contested incompatibility, which concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, result in at least 25 battle-related deaths. A minor armed conflict is one with 25 deaths but fewer than 1,000 during the course of the conflict. An intermediate conflict is one with over 1,000 deaths during the course of the conflict, but fewer than 1,000 in any given year. See http://www.pcr.uu.se/basicSearch/definitions_all.htm. In keeping with this definition, the current political situation in Zimbabwe is not considered "war," although it has many of the characteristics of a "food war."

Map 1

Target Beneficiaries of 2003 Humanitarian Assistance Appeals as a % of Total Population



Map 2

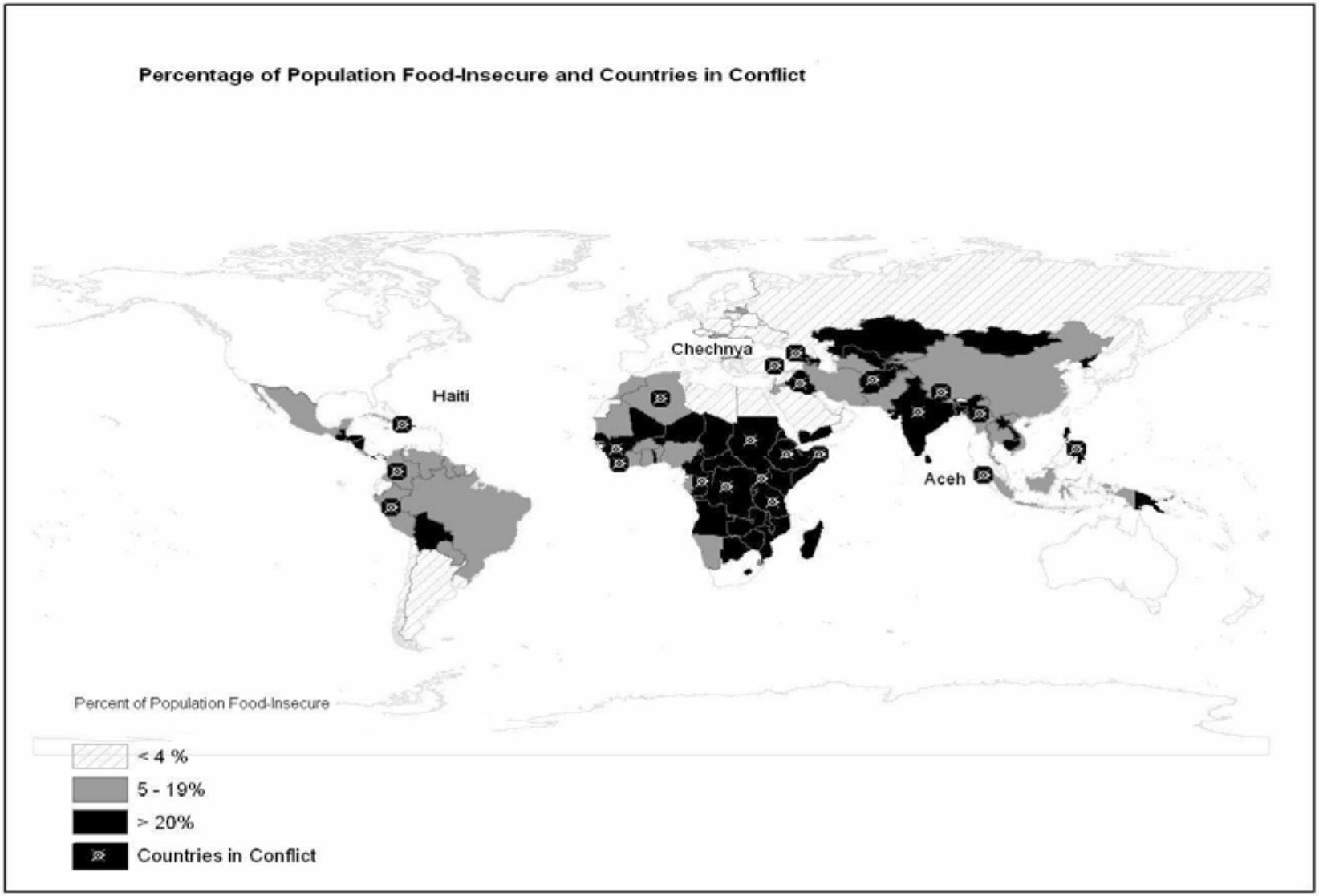

Percentage of Population Food-Insecure and Countries in Conflict
Chechnya
Haiti
Aceh
Percent of Population Food-Insecure
< 4 %
5 - 19%
> 20%
Countries in Conflict

Table 1—Countries in conflict and food insecurity in 2002-03

Region/country	Percent food insecure FAO	Population in need of humanitarian assistance (percent of total population)	Major exports	Imports + exports/GDP	Notes
	(percent)			(percent)	
Sub-Saharan Africa	33	16,636,000 (2.8%)		57	
Burundi	70	416,000 (6.8%)	Coffee, tea, sugar, cotton	29	Active, high-intensity
Congo, Republic of	30	174,000 (4.7%)	Oil, coffee, cocoa, sugar, timber, diamonds	105	Sporadic fighting. Active, medium-intensity
Congo, Democratic Republic of	75	2,600,000 (4.6%)	Diamonds, oil, coffee, copper, cobalt	15	"African World War"; 16 million food insecure people in country. Active, low-intensity
Côte d'Ivoire	15	3,000,000 (9.2%)	Cotton, coffee, cocoa, oil	76	
Ethiopia	42	4,200,000 (6.7%)	Coffee, qat, bauxite, alumina, gold, diamonds, fish	—	Ethnic rebellions ongoing in drought-affected regions; internal displacement from past wars. Active, low-intensity
Guinea	28	400,000 (6.4%)	Bauxite, alumina, gold, diamonds, coffee, fish, agricultural products	40	Refugees
Liberia	42	1,000,000 (23.6%)	Rubber, timber, iron, diamonds, cocoa, coffee	—	Active, low-intensity
Rwanda	41	40,000 (0.5%)	Coffee, tea, hides, tin ore	15	Low-intensity conflict continues. Active, medium-intensity
Somalia	71	750,000 (9.4%)	Livestock, bananas, hides, fish, charcoal, scrap metal	—	Active, low intensity
Sudan	25	2,800,000 (7.3%)	Oil, cotton, sugar, gum Arabic, livestock, sesame, peanuts	29	Active, high-intensity
Tanzania	43	506,000 (1.4%)	Gold, coffee, cashew nuts, manufactures, cotton	24	Refugees
Uganda	19	750,000 (3%)	Coffee, fish, tea, cotton, gold, flowers	33	Active, high-intensity
Asia	16[a]	7,100,000		East Asia: 66 South Asia: 24	
Afghanistan	70	4,100,000 (14.3%)	Opium poppies, heroin, cotton, carpets, gems	—	Active, medium intensity
Burma (Myanmar)	7		Heroin, wood products, rice, pulses, beans, fish	—	Rebellions in Shan and Karen States. Active, multiple medium-intensity conflicts
India	21		Textile goods, gems and jewelry, engineering goods, chemicals, leather manufactures	20	Border conflict with Pakistan over Kashmir (productive farming territory); localized rebellions. Active, multiple conflicts of intensities ranging from low to high (Kashmir)
Indonesia	6	3,000,000 (1.4%)	Oil and gas, electrical appliances, plywood, textiles, rubber	62	Separatist rebellion in Aceh, with 15 percent of Indonesia's oil and gas production at stake. Active, medium-intensity.

Region/country	Percent food insecure FAO	Population in need of humanitarian assistance (percent of total population)	Major exports	Imports + exports/GDP	Notes
	(percent)			(percent)	
Nepal	17		Carpets, clothing, leather goods, jute goods, grain	43	Active, high-intensity
The Philippines	22		Electronic equipment, machinery and transport equipment, garments, coconut products, chemicals	98	Communist and Muslim insurgencies, military mutiny. Active, multiple medium-intensity conflicts. (continued)
Sri Lanka	25		Clothing, tea, diamonds, coconut products, petroleum products	73	Cease-fire holding in most conflict zones. Active, low-intensity
Europe	—	1,200,000		Europe and Central Asia: 66%; Europe EMU: 56%	
Russia	4	1,200,000 (0.8%)	Petroleum and petroleum products, natural gas, wood and wood products, metals, chemicals, a wide variety of civilian and military manufactures	60	Separatist rebellion in oil-rich Chechnya. Active, medium-intensity
Latin America	10	3,000,000 (0.6%)		30	
Colombia	13	3,000,000 (6.6%)	Cocaine, coffee, cut flowers, coal, clothing	30	Active, high-intensity
Haiti	49		Manufactures, coffee, oils, cocoa	46	
Peru	11		Fish and fish products, gold, copper, zinc, crude petroleum and by-products, lead, coffee, sugar, cotton	33	
Near East/North Africa	10	28,500,000 (7.3%)		52	
Algeria	6		Oil	54	Active, medium-intensity
Iraq	27	27,000,000 (100%)	Oil	—	Active, high-to-medium intensity. United Nations appealing for food aid for entire populace.
Israel-Palestine	—	1,500,000	Fruit, vegetables, limestone (West Bank and Gaza)	63	Active, medium intensity
Turkey	3		Apparel, foodstuffs, textiles, metal manufactures, transport equipment	65	Active, medium intensity
Total countries in conflict		56,436,000			

Sources: OCHA (2003); Marshall and Gurr (2003); SIPRI (2000); Eriksson, Wallensteen, and Sollenberg (2003); CIA (2003); USCR (2000); FAO (2003); World Bank (2003).

[a] Excluding Afghanistan and Tajikistan.

Table 2—Postconflict countries and food insecurity in 2002-03

Region/country	Percent food insecure FAO	Population in need of humanitarian assistance (percent of total population)	Major exports	Imports + exports/GDP	Notes
	(percent)			(percent)	
Sub-Saharan Africa	33	10,090,000		57	
Angola	49	3,700,000 (28.2%)	Crude oil, diamonds, refined petroleum products, gas, coffee, sisal, fish and fish products, timber, cotton	127	Returnees in need of assistance
Central African Republic	44	2,200,000 (59.5%)	Diamonds, timber, cotton, coffee, tobacco	29	
Eritrea	61	2,300,000 (52.3%)	Livestock, sorghum, textiles, food	97	IPDs, returnees in need of assistance
Mozambique	53	590,000 (3.4%)	Aluminum, prawns, cashews, cotton, sugar, citrus, timber, bulk electricity	66	Landmines, damage to human and physical capital
Sierra Leone	50	1,300,000 (22.8%)	Diamonds, cocoa, coffee	25	Returnees, refugees in need of assistance
South Africa			Gold, diamonds, platinum, other metals and minerals, machinery and equipment	53	
Togo	25		Re-exports, cotton, phosphates, coffee, cocoa	82	
Asia	16[a]	1,000,000		East Asia: 66% South Asia: 24%	
Cambodia			Timber, garments, rubber, rice, fish	115	Landmines
Tajikistan	71	1,000,000 (15.2%)	Cotton, textiles, electricity	147	Large population remains internally displaced
Europe					
Armenia	51		Diamonds, mineral products, foodstuffs, energy	72	
Azerbaijan	21		Oil and gas (90%), machinery, cotton, foodstuffs	81	
Bosnia	8		Metals, clothing, wood products	85 (2000)	
Georgia	26		Scrap metal, machinery, chemicals, fuel re-exports, citrus fruits, tea, wine	60	
Serbia	9		Manufactured goods, food and live animals, raw materials	—	
Latin America	10	403,000		37	Landmines remain a problem in Central America
El Salvador	14	143,000	Coffee, sugar, textiles, electricity, light manufacturers	59	
Guatemala	25	260,000	Coffee, sugar, bananas, other fruits, vegetables, meat, electricity, oil, clothing	39	
Nicaragua	29		Coffee, shrimp and lobster, cotton, tobacco, bananas, beef, sugar, gold	—	
Total countries postconflict		11,493,000			

Sources: OCHA (2003); Marshall and Gurr (2003); SIPRI (2000); Eriksson, Wallensteen, and Sollenberg (2003); CIA (2003); USCR (2000); FAO (2003); World Bank (2003).

[a] Excluding Afghanistan and Tajikistan.

The maps and tables indicate, not surprisingly, that conflict and post-conflict countries tend to be food insecure, with greater than 20 percent of the population and in many cases far more, lacking access to adequate food, although not all highly food-insecure populations are in conflict countries. Comparison of columns 1 and 2 in Tables 1 and 2 show that the food-insecure percent of the populace usually far exceeds the percent of the population judged to be in need of humanitarian assistance. The wide ranges in these numbers also suggest that judgments of food insecurity and humanitarian need may require additional country-by-country scrutiny in a careful comparison. We see, furthermore, that a number of active conflicts did not generate UN appeals for humanitarian assistance, although the conflict countries in question (Nepal, the Philippines, and Sri Lanka) had a substantial incidence of food insecurity overall, and the actual conflict situations constituted "food wars."[2] It is also true that there are a number of countries with very high levels of food insecurity and no conflict, such as India and Niger.

Regarding the assertions that globalization promotes peace or that openness to trade lowers conflict potential, we observe that a simple measure of "openness to trade" at one point in time appears not to be a good indicator of conflict potential or food security status. These wide-ranging numbers do not support the proposition that openness to trade is peace promoting.[3]

The evidence presented in the tables also appears to refute the notion that, after 10-plus years of globalization, the 2000s are becoming more peaceful than the previous decade, as some analysts assert (Gleditsch et al. 2002, 616; Marshall and Gurr 2003, 1; Human Security Centre 2005). What they classify as "interstate" wars of the 1980s and 1990s may be fewer and less intense, but internal conflicts multiplied during the 1990s, elevating the total number of wars at least to prior levels (Smith 1997), and significant

[2] We do not consider here appeals for humanitarian assistance based on natural disaster (unless the disaster is coupled with a conflict or postconflict situation) or economic collapse in which significant violence is absent (for example, the Democratic People's Republic of Korea).

[3] Future research should try to capture, via time series data, the likely lagged effects of openness to trade on conflict.

interstate (really, transnational) wars erupted in the 2000s in Afghanistan and Iraq, as many of the civil wars of the previous decade wound down.[4] Also, continuing food insecurity in former war zones potentiates renewed conflict in the future.

Peace appears to be breaking out only if analysts intent on counting negotiated settlements as "peace" subtract the high-intensity and prolonged conflicts in Angola and Mozambique, Ethiopia, Sri Lanka, and Sudan, as well as all Latin American conflicts except Colombia (Marshall and Gurr 2003, 47 and *passim*). However, conflicts continue in some of these locales (in parts of Angola and Ethiopia, for example) at varying degrees of intensity, promising negotiations in Sri Lanka and Sudan may well break down, cease-fires in places such as the Democratic Republic of the Congo and Liberia exist only on paper, and whether peace can be sustained in Angola or Sierra Leone remains an open question. If U.S.-led military involvement in Afghanistan and Iraq is included in the equation, then it seems premature at best to declare that the 2000s will be more peaceful or have fewer interstate wars than the 1990s, as proponents of the pacific qualities of globalization frequently claim.

Taxonomies of conflict, moreover, do little to elucidate the impact of the fighting on food security and other livelihood considerations. There is, for example, considerable debate over whether women and children account for a disproportionate share of those

[4] In any event, distinctions between internal and interstate warfare have blurred (Collins and Weiss 1997). Twenty-four years of civil war in Afghanistan have featured significant Pakistani, Soviet, Tajik, Uzbek, United States, and now, European intervention (SIPRI 2003a). The nominally internal conflict in the Democratic Republic of the Congo (DRC), often characterized as "Africa's World War," has involved military forces from Angola, Namibia, Rwanda, Uganda, and Zimbabwe, and natural resources plundered to pay for this conflict have passed through Angola, Burundi, the Central African Republic, the Congo, Kenya, Mozambique, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe, on their way to market (Global Policy Forum 2005; UN Security Council 2003). Hostilities in the former Yugoslavia in the 1990s and early 2000s involved not only opposing Bosnian, Croatian, Kosovar, Serbian, and other troops, but also international forces for peacemaking, peacekeeping, and emergency relief, as well as Muslim volunteers from around the world (SIPRI 2003a). Many or most of the "internal" wars that occurred during the Cold War period were similarly transnational. For example, during the 1975–92 conflict in Mozambique, the government received substantial Soviet aid, while Rhodesia and South Africa backed the rebels (Nordstrom 1999).

affected.[5] Nor do the taxonomies shed much light on the role of globalization in fomenting or resolving conflict. In the countries we have characterized as postconflict, such as Cambodia, El Salvador, Mozambique, and Nicaragua, the consequences of previous wars continue to exact a toll on food security and economic development. These countries continue to suffer the consequences of food wars, which deliberately destroyed agricultural production capacity, markets, and health infrastructure (see Simler et al. 2004 on Mozambique, for example), while landmines and unexploded ordnance continue to kill, maim, and make farming hazardous.

In sum, we agree with Marshall and Gurr (2003, 2), who note that "The globalization of the economy, of communications, and of governance by their very nature creates new threats and challenges, as well as opportunities." Conflict scenarios, which usually involve food insecurity, also involve international flows in arms and other commodities as aspects of globalization. It is therefore necessary to probe the steps by which globalization contributes to conflict or peaceful outcomes in particular cases.

3. Conflict Scenarios

Over the past decade, analysts have proposed a number of scenarios and correlations connecting globalization, conflict, and, less consistently, food insecurity. We summarize the views of the key analysts in Table 3 and provide a more detailed discussion of their findings below.

Conflict as a Cause of Food Insecurity, Reducing Availability, Access, and Utilization

Food-(in)security studies, including our own, document an unsurprising overlap between conflict and food insecurity. Elsewhere we have quantified the impact of conflict

[5] It is common to find claims such as "80 percent. . . of refugees are women and children" (Women's Commission for Refugee Women and Children 2002). However, a 2000 study by the office of the UN High Commissioner for Refugees casts serious doubt on claims of statistically significant gender disparities in refugee populations (USCR 2000).

on food availability: cumulative declines in mean food production and growth rates of food production in 13 of 14 African conflict countries during 1970–94 (Messer, Cohen, and D'Costa 1998; Messer, Cohen, and Marchione 2001).[6] Using the same methodology and extending the analysis through 1997 and across regions, the Food and Agriculture Organization of the United Nations (FAO) found that, during 1970–97, the developing world experienced conflict-induced losses of agricultural output of $121 billion in real terms. In Sub-Saharan Africa, the losses in the 1980s and 1990s accounted for more than 50 percent of all aid received and far exceeded foreign investment inflows (FAO 2000).

Table 3—Contending schools of thought on conflict, globalization, and food security

Analyst	Main cause(s) of conflict	Role of globalization	Role of food insecurity
State Failure Taskforce	Nondemocratic governance	Lack of openness to trade contributes to conflict.	High infant mortality contributes to conflict.
Environmental security	Intergroup competition over scarce resources	None specified	Food insecurity is a manifestation of resource scarcity.
Ethnic conflict	Intergroup competition over wealth and power	None	None
UN University	Poverty, inequality, slow growth, militarism	None	Slow growth in food production contributes to conflict
International Development Organization	None specified	Humanitarian assistance can fuel conflict	Sustainable livelihoods critical to peace
World Bank	Poverty, economic decline, dependence on primary product exports	Dependence on primary product exports a key factor in conflict	Poverty, inequality, declining per capita incomes all contribute to conflict
International Peace Research Institute (PRIO)	Economic, political, and social factors, not environmental scarcities	Openness to trade has indirect pacifying effects, but reliance on primary product exports contributes to conflict	None specified

Sources: State Failure Task Force: Esty et al. 1995, 1998; Goldstone et al. 2003; Marshall and Gurr 2003. Environmental security: Homer-Dixon 1999. Ethnic conflict: Paarlberg 2000; Gurr and Harff 2000; Marshall and Gurr 2003. UN University: Nafziger and Auvinen 2000. International Development Organization: Schafer 2002. World Bank: Collier 2003. PRIO: de Soysa 2000, 2002; Hegre, Gissinger, and Gleditsch 2003.

[6] The conflict countries in question were Angola, Burundi, Chad, Ethiopia, Ghana, Kenya, Liberia, Mozambique, Nigeria, Somalia, Sudan, Uganda, Zambia, and Zimbabwe. All but Chad experienced decline in food production growth rates.

In almost all of the affected countries, where the majority of the workforce depended on agricultural livelihoods (World Bank 2003), civil war lowered per capita GDP by an estimated 2.2 percentage points per year (World Bank 2000, 57). UNICEF statistics also documented little improvement in child malnutrition and mortality rates in conflict countries, which are unlikely to design and implement plans for child survival, even if they have ratified the Convention on the Rights of the Child (Mason, Csete, and Jonsson 1996). In national budgets, military spending far exceeded peaceful social and economic expenditures for agriculture and rural development, including health, primary education, and food and nutrition programs (Sivard 1996; SIPRI 2003b). Although this is largely true across countries, in the late 1990s and early 2000s, low- and middle-income countries devoted nearly 13 percent of government budgets to defense (World Bank 2003). In sum, to borrow the entitlement language of Amartya Sen (1981; 1999), conflict causes food insecurity by reducing food production, access to food, and human welfare and capabilities, through the destruction of the environment, health and health care, education, and other social infrastructure.

Food Insecurity as a Cause or Correlate of Conflict

Studies of the political economy of war seldom look directly at food insecurity as either a cause or a consequence of conflict. This is due both to the complexity of the evidence of causation and also to the changing conceptualization of conflict.

During the Cold War, scholars and politicians focused on the struggles for land and access to subsistence underlying peasant wars of the 20th century (Wolf 1969). U.S. food aid helped friendly governments maintain food security and political power (Wallerstein 1980; Cohen 1984). Agricultural modernization efforts, notably the Green Revolution in parts of Asia and the U.S. government's Alliance for Progress in Latin America, were framed and presented as alternatives to the "Red Revolution" of peasant uprisings (Wallerstein 1980).

After the Cold War, concern shifted from "war studies" to "peace studies," which analyze the causes of conflict and its prevention, management, and transformation. Some focused on perceived environmental scarcities and their consequences, including food insecurity, as either underlying or trigger causes (Homer-Dixon 1999), whereas others stressed political–cultural identities (Rupesinghe 1996; Paarlberg 2000; Gurr and Harff 2000).

In yet another reframing, modelers associated with the World Bank's project on the Economics of Civil Wars, Crimes, and Violence (P. Collier and Hoeffler 1998, 2000; P. Collier 1999, 2000, 2001, 2003) considered the economic motivations for war, arguing that conflict was precipitated in some cases by "greed" (the desire to control resources), and in others by "grievance" (the perception of unfairness by those receiving the short end of contested resources). They concluded that in most active conflict cases, greed trumps grievance (P. Collier 2000). Their studies looked at contexts that take into account levels and sources of national and household income, ethno-linguistic fractionalization, natural resource endowments, and population size. But they do not focus on the root causes of conflicts, only at how warring parties pay for them (P. Collier 2003).

Scholars at the International Peace Research Institute in Oslo (PRIO) likewise found that natural resource abundance tends to fuel civil war. They do not find a link between resource scarcity and internal conflict (de Soysa 2000, 2002). None of these authors, however, attempt to put multiple factors and frameworks together, to see where food insecurity and globalization, taken together, affect conflict potential.

Political studies of the economic correlates of war—or of motives and opportunities of the combatants—have also found conflict associated with factors closely related to food insecurity, such as high infant mortality (Esty et al. 1995, 1998); extreme poverty, inequality, and declining per capita incomes (P. Collier 2003); and intergroup competition over land and water (Markakis 1998; Homer-Dixon 1999). However, most such studies do not deal with food insecurity or agricultural trade as a direct causative or correlative factor in conflict. A partial exception is the work of Nafziger and Auvinen

(2000), which found that, between 1980 and 1995, poverty, low growth in incomes and food production, high inequality, and inflation, combined with high military spending and a tradition of military conflict, heightened countries' vulnerability to humanitarian emergencies. But this study did not specify the precise pathways through which these factors might combine and lead to conflict.

Our own review of country case studies indicates that both greed and grievance are implicated in intergroup competitions over resources, including access to cash crops and resources to produce and profit from them, but also development and emergency aid (Messer, Cohen, and Marchione 2001). The trigger conditions for violence may be *natural*, such as a prolonged drought (as in Ethiopia in 1973–74) (Shepherd 1975); *economic*, such as a change in price of the principal food (rice in Indonesia) (Fuller and Falcon 1999) or cash crop (coffee in Rwanda) (Uvin 1996), which deprives the affected population of its perceived just standard of living; or *political*, such as the denial of access to land or social welfare programs in Chiapas, Mexico (G. Collier and Quaratiello 1999). Along these lines, Ohlsson (2000) recognizes that the conflict potential is especially high when inequalities or environmental degradation or both lead to extreme marginalization of large segments of populations, who suffer loss of livelihoods and face the prospect that new generations will never be able to attain them (see, for example, Ohlsson 2000).

Historically, most individuals, households, communities, and peoples denied access to resources adequate to feed themselves and to live their lives with dignity have failed to rebel because they are (1) insufficiently organized and (2) overly terrorized and repressed. These conditions of unchanneled frustration and hopelessness can lead to violence and conflict once there emerges political leadership that can successfully

mobilize this discontent in ways that serve a leader's or group's particular political ends, usually articulated as a struggle for social justice or political identity.[7]

Trade as a Cause or Correlate of Conflict

Studies of the possible relationship between globalization and conflict have similarly underplayed the possible food factor, along with the steps through which trade and either war or peace are related. The U.S. government-funded State Failure Taskforce found "openness to trade" (the share of imports and exports in GDP) to be a weak correlate of civil war avoidance (Esty et al. 1995, 1998).[8] But the methodology employed was not designed to describe the underlying peace-protecting mechanisms, so it does not offer much guidance to policymakers.

The World Bank's civil war study came to a rather contrary conclusion, finding a high risk of internal conflict in contexts combining low per capita income, economic decline, high inequality, and *dependence on primary commodity exports*, which can fund war economies (P. Collier 2003). But their examples of high-value "blood" commodities (gems, minerals, timber, drugs, and petroleum) generally did not include cash crops like

[7] Wolf (1969) reviewed such revolutionary contexts with studies that suggested these earlier colonial to postcolonial era wars were struggles for subsistence, control over resources, and social justice. More recent studies scrutinizing the predisposing contexts of civil wars in Sri Lanka in the 1980s (Little 1994) and Rwanda in the 1990s (Uvin 1996) find much more evidence of social inequities fueled by rhetoric and violence of identity politics (see Heyes 2002 on the concept of "identity politics") further manipulated by demagogues.

[8] The Taskforce, now known as the Political Instability Taskforce, is made up of academic conflict experts. Their work was initially funded by the U.S. Central Intelligence Agency (see the Taskforce's website at http://globalpolicy.gmu.edu/pitf/ for more information). The first two phases of its studies also found democracy to be correlated with peaceful outcomes. These studies support the Kantian peace-promoting tripod of economic interdependence, democracy, and membership in international organizations (O'Neal and Russet 2001). They also, intentionally or unintentionally, support the Clinton Administration's promotion of democracy and trade liberalization as mechanisms to foster peaceful development and prevent terrorism and "future Somalias and Rwandas" (USAID 1994). Clinton was variously cited on Internet sources as having used the phrase, "the dark side of globalization," to denote terrorism or the increasing gap between rich and poor, which can also lead to war. See his talking points in the PBS program posted by Daniel Yergin (2003): "Globalization and Trade—The New Rules of the Game, Video Episode 3 (accessed 23 December 2003, http://www.global-trade-law.com/ video.summary.commanding%20heights.doc).

coffee (P. Collier and Hoeffler 1998; however, P. Collier 2000 makes passing reference to coffee).

PRIO scholars bridged the gap between these two studies, determining that the empirical evidence supports both the view that in general, trade openness considerably reduces the likelihood of civil war (de Soysa 2002) but also that natural resource abundance tends to fuel civil war (de Soysa 2000), *particularly where primary products are the **only** exports* (Hegre, Gissinger, and Gleditsch 2003). Thus trade can contribute to peace, albeit indirectly, by contributing to growth. However, across Sub-Saharan Africa, where cash crop production tends to increase inequalities, civil war is a more likely outcome, although poverty, poor governance, and violence may also result from "too little globalization rather than too much" (Hegre, Gissinger, and Gleditsch 2003, 272).

Consistent with these ambiguous findings, Tables 1 and 2 indicate no clear pattern of trade openness among the conflict and postconflict countries. For some, the trade openness score exceeds the 2001 global average of 40 percent, the low- and middle-income country average of 49 percent, and the high-income-country average of 38 percent (World Bank 2003). But quite a few of the war-prone nations have much lower scores. The ambiguous results contribute to the strong disagreement in the literature over the relationship between global economic links and conflict. They may also indicate that not enough attention has been paid to financial factors in globalization; for example, Addison (2005), citing the cases of Afghanistan, Angola, and Sierra Leone, demonstrates that international and national financial policies and farmer-unfriendly terms of trade, particularly for key cash crops, can precipitate or fuel conflict in new or postconflict situations.

Arms and "Blood Commodities" Foster War, Not Peace

Clearly, the nature of the commodities and the terms on which they are traded have considerable bearing on whether global trade is peace or war promoting. Globalization's integration of markets includes a $17 billion (in constant 1990 dollars)

market in arms, which conflict-prone governments buy with income from minerals, drugs, petroleum, and other licit and illicit commodities. Between 1998 and 2002, legal arms suppliers sold $5.1 billion worth of weapons to Africa. Globally, the black market in small arms is valued at $2–$10 billion, and it supports lesser crime, corruption, and thuggery at multiple social levels as well as full-scale war (SIPRI 2003b; O'Grady 1999; Mtonga 2003; Shah 2003).[9]

In Africa, military purchases are often financed through international transfers, including private sales of, and concessionary access to, primary commodities. Petroleum and natural gas resources and their control figure prominently in many of the late 20th century conflicts and in geopolitics generally, from Azerbaijan to Sudan (Tables 1 and 2). Trade in gems, minerals, and timber finances arms and mercenaries for many current African and Asian hostilities. Sales of diamonds support hostilities in West Africa and the DRC, which also concedes cobalt, coltan, gold, copper, and timber to its military supporters. Countries that trade in these primary commodities show higher rates of poverty and child mortality than nations that do not, and they also have a higher propensity to conflict (Ross 2001; P. Collier 2003; SIPRI 2000; Kaldor 1999).

On the opposite track, globalization also includes efforts to stem trade in illicit conflict-funding commodities. The Kimberly process, which certifies diamonds as not financing hostilities in Africa, and a timber certification process, intended to restrict funds to the military in Burma, are examples of such efforts.

In the next section, we consider the extent to which agricultural export commodities, particularly sugarcane, cotton, and coffee, are linked to conflict and food insecurity.

[9] Peace advocates, such as the International Action Network on Small Arms, would like to see the implementation of an International Code of Conduct that would "stem the supply and mop up the surplus" of arms to countries that violate human rights standards and humanitarian norms (O'Grady 1999, 5,10). But this would only provide a first step to stemming the spillage of arms across borders.

4. Agricultural Trade, Conflict, and Food Insecurity: Evidence from Case Studies

Export cropping can have peace-promoting and positive food security impacts. But the "peace dividend" depends on the types of commodities, the scale and breadth of trade, the structural conditions of production and distribution of benefits, financial terms of trade, and a particular leader's calculation about the costs of warfare versus the benefits of peace, assuming her or his side will win (Dorussen 2002). Nutritional consequences depend on who controls how much of the resulting income and also the relative costs of basic foods. Research suggests that trade reduces conflict incentives only when other internal political stressors are absent, and where trading-partner countries enjoy relatively symmetric economic and military relations (Schneider, Barbieri, and Gleditsch 2003). Otherwise, the revenues from food or cash crop production may qualify as one of the sources of "greed" or "grievance" in the inception, transformation, and postwar prevention of conflict. Given all these qualifications, it is probably more instructive to examine particular case studies of cash crops, food insecurity, and conflict under particular political–economic conditions.

For example, small farmers have succeeded in entering markets for high value-added fruit and vegetable exports in such countries as Vietnam and Uganda, where an increase in staples output accompanied the growth in small farmers' export production. Case studies also show that export cropping contributes to poverty reduction and food security where policies, practices, and institutions assure that small farmers, especially women, have access to land, capital, information, education, and health infrastructure (Watkins and von Braun 2003; Kherallah et al. 2002; von Braun and Kennedy 1994). But international marketing of cash crops such as French beans, grown for export in Burkina Faso and Zambia, involves multiple layers of middlemen and many cultural, health, and environmental considerations for both growers and consumers. As a result, market conditions can shift very rapidly, reducing cash crop incomes relative to food

crops (Freidberg 2004). Power relations are not "symmetrical," and the "playing field" is bumpy, not level.

The social relations of production also exert considerable influence over the relationship between legal export crop production and conflict. Transnational corporations (TNCs), such as United Fruit Company, have invested heavily in tropical agriculture, and produce fruits, coffee, and chocolate, which have large markets in temperate zones where they cannot be produced. Historically, these TNCs have allied with national elites to control land, dominate markets and transportation, limit wages, and create tariff conditions favorable to their accumulation of wealth, sometimes at the expense of land-poor or landless workers. They also lobby governments and international trade organizations to protect their investments through favorable financial and economic policies and sometimes through military assistance and intervention (Lafeber 2002; Schlesinger and Kinzer 1999).[10]

Whether cases of market shifts and income reversals push farming populations toward conflict also depends on what other crops and sources of incomes are possible substitutes, how farmers understand and respond to structural conditions of production and commerce, and what additional political forces drive them toward arms. Although in 2003 U.S. Agency for International Development administrator Andrew Natsios envisioned peaceful farmers in Afghanistan producing fruits, nuts, and other agricultural commodities such as cotton for international markets, contraband opium poppies proved to be a more lucrative and under-policed scenario, and their sales helped fuel continuing armed violence in that country (Constable 2003). In Colombia, a sharp decline in the price of coffee in 2002 pushed farmers into coca production, dominated by cartels, and intimately linked to the country's continuing political violence (EIU 2003).

[10] In view of this history, it is instructive that Hamid Karzai, elected Afghan president in June 2002, stated emphatically that Afghanistan is no "banana republic," and that he intended to put millions of dollars of external aid into "stability, security, peace, economic well-being of the Afghan people, reconstruction" (Dao 2002). The reality is that post-Taliban Afghanistan is something of an "opium poppy republic," in which contending warlords vie for control of turf and profits (Constable 2003).

Perhaps the most important way in which trade in some primary agricultural commodities has proved income destabilizing and contributed to food insecurity and conflict, however, is through rapid changes in global markets and prices. In the case of sugarcane, for example, a sudden dip in global demand based on unprecedented competition from artificial sweeteners and high-fructose syrups, in addition to U.S. and European market quotas, destabilized economies. In the cases of coffee and cotton, overexpansion of production, leading to gluts in supply, with resulting price declines exacerbated by selective barriers to trade, were the culprits. These changes jeopardize livelihoods and living standards of those who depend on income from the particular cash crops, and in the absence of opportunities for rapid crop substitutions or possibilities of other livelihood diversification, they can contribute to violence of various kinds (Revathi 1998; Oxfam International 2002). For example, loss of livelihoods due to the plunge in coffee prices contributed to social and political instability and ultimately to genocidal violence in Rwanda in 1994 (Uvin 1996).

But other structural and cultural factors are also involved: not all affected farmers rebel, and some continue to produce the commodity, while seeking and finding alternative sources of income. In El Salvador in the late 1990s, the combination of the global coffee price collapse and the devastation of Hurricane Mitch, which also unearthed deadly landmines from the prior civil war, left poor coffee farmers destitute (Equal Exchange 1998). However, farmers held out for the land reforms they had been promised and also benefited from emigrant remittances; they did not renew conflict. As far as we know, Vietnam, whose soaring production of coffee has contributed to the world glut, has not experienced politically destabilizing effects (Oxfam International 2002); inequality is relatively low in the country (Minot, Baulch, and Epprecht 2003). In Brazil, falling coffee revenues were one of many factors behind growing discontent in the early part of the 2000s. But Brazilians achieved political change through the ballot box in 2002, electing a president who campaigned on a freedom-from-hunger platform (Jones 2003).

Historically, conflict potential is also tied to demands for secure access to land and water; the original and 1990s Mexican Zapatista rebellions, for example, involved

demands for land—and subsistence over and against sugarcane and cattle interests—both domestic and trade commodities. Twentieth century revolutions in El Salvador and Nicaragua were not only ideological conflicts; they were also struggles for land and justice, subsistence, and control over coffee holdings and income. Solutions feature "peace" (fair-trade) coffee, not just peace agreements.

Sugarcane, Cotton, and Coffee

Sugarcane, cotton, and coffee, which account for a substantial share of export earnings (see Tables 4 and 5), provide possible sources of both "greed" and "grievance" in the food-wars countries. Incomes from these crops provide a major proportion of foreign exchange for governments and their opponents, who can use cash-crop revenues to buy arms; also, reports indicate that locals fight over access to land and water to grow them and then over the crops themselves. In 2000, coffee alone generated over 50 percent of Ethiopia's foreign exchange earnings. In Burundi, the figure exceeds 60 percent. Sugar and cotton, both important cash crops for domestic and international markets, are also important crops in many of the conflict countries considered here, although their position in international trade is weakened by crop subsidy policies and import quota limits in the United States, the European Union, and elsewhere.

Historically sugarcane is the crop most immediately associated with peasant revolution and demands for land reform, as in the Mexican Revolution of 1910, and is also widely associated with immiserating labor conditions, especially in the Caribbean and the Philippines. Periodically, falling prices have led to sometimes-violent struggles over land, as landowners have sought to prevent workers from taking over idle parcels (Karnow 1989; Bale 1998). More recently, owners of Philippine sugar estates in the state of Negros refused to redistribute land for food crop cultivation, as workers demanded. But rather than engage in armed rebellion, former sugarcane workers have collaborated with NGOs to develop other sources of income and attracted international attention by mobilizing around the right to food (FIAN 2002). There is also an incipient organic and

Table 4—Countries in conflict and coffee, cotton, and sugar export value as percent of total export value

Region/country	Coffee	Cotton	Sugar
		(percent)	
Sub-Saharan Africa			
Burundi	61.9	*	4.1
Congo, Republic of	*	*	0.63
Congo, Democratic Republic of	5.1	*	*
Ethiopia	50.7	1.1	2.0
Guinea	0.9	0.9	*
Liberia	*	*	*
Rwanda	32.8	*	*
Somalia	*	*	*
Sudan	*	1.4	1.1
Tanzania	10.9	6.8	1.4
Uganda	27.2	4.9	*
Asia			
Afghanistan	*	*	*
Burma	*	*	*
India	*	*	*
Indonesia	*	*	*
Nepal	*	*	*
The Philippines	*	*	*
Sri Lanka	*	*	*
Europe			
Russia	*	*	*
Croatia	*	*	*
Latin America			
Colombia	8.2	*	1.5
Peru	3.2	0.2	0.2
Near East/North Africa			
Algeria	*	*	*
Iraq	*	*	*
Israel-Palestine	*	*	*
Turkey	*	*	*

Sources: FAOSTAT 2003; FAO 2000, 2002.
* Data not available or not applicable.

fair-trade market in cane sugar (World Shops 2003; Equal Exchange 2005). This is an example of how "alternative globalization" attempts to fill food-security gaps and offer new markets, averting the hopelessness and violence associated with underemployment when sugarcane, as a principal cash crops, fails.

Cotton economies historically have also been associated with immiserating labor conditions and violent conflict (Moore 1966) and disastrous income fluctuations for small farmers. World prices for cotton, like those of other agricultural export commodities, are

Table 5—Postconflict countries and coffee, cotton, and sugar export value as percent of total export value

Region/country	Coffee	Cotton	Sugar
		(percent)	
Sub-Saharan Africa			
Angola	0.05	*	*
Central African Republic	2.75	6.2	0.03
Côte d'Ivoire	6.5	3.8	0.64
Eritrea	*	*	*
Mozambique	0.85	3.2	9.29
Sierra Leone	*	*	*
South Africa	*	*	*
Togo	3	12	0.22
Asia			
Cambodia	*	*	*
Tajikistan	*	*	*
Europe			
Armenia	*	*	*
Azerbaijan	*	*	*
Bosnia	*	*	*
Georgia	*	*	*
Serbia	*	*	*
Latin America			
El Salvador	11.5	*	1.5
Haiti	5.9	*	*
Guatemala	21.3	*	7.1
Nicaragua	27	*	5.7

Sources: FAOSTAT 2003; FAO 2002.
* Data not available or not applicable.

subject to sharp fluctuations, and in recent years, cotton prices have fallen precipitously, at least in the short term, due to U.S., Chinese, and other producer-country export subsidies totaling $5.8 billion annually (Watkins and von Braun 2003). Because cotton is a thirsty crop, some analysts anticipate there will be an increase in interpersonal and intergroup violence as farmers and, in some cases, (former) pastoralists struggle over access to water and improved irrigated land to grow cotton, which some call "white gold." This has been reported among Afar pastoralists, fighting with government farm managers in the Awash Valley in Ethiopia (Nicol 2000), although again, structural conditions present additional motivations for conflict. In 2003, livelihood-security experts observed fields that were uncultivated, unsown, and in ruins, although production of irrigated forage crops might revive mixed pastoralism in the region (Lautze et al. 2003). Anticipated income from irrigated cotton may be an added factor in longstanding

struggles between pastoralists and farmers for control over land and water, further complicated by the state's attempt to impose its will and determine land use. Which crops receive priority is a large part of the land-value/income/conflict equation, along with social and political conditions governing outcomes in landholding, access to water, and labor conditions.

Also, in Chad, where cotton has been the principal export since independence, revenues have played an important financial role in the country's frequent bouts of civil war. In the past decade, violence has flared as northern herders have shot southern farmers who object to animals grazing in their cotton fields (Azam and Djimtoingar 2002).

In Central Asia, where cotton export promotion has long undermined local natural resources and productive capacity around the Aral Sea, some also fear cotton could prompt conflict. Downstream republics of Kazakhstan, Turkmenistan, and Uzbekistan want water to grow cotton, while the upstream nations of Kyrgyzstan and Tajikistan (a bloody civil war zone in the 1990s), want more water for food crops and electricity (Postel 1999; Babu and Tashmatov 2000).

Even where cotton production is not a source of conflict over land, water, or control of the crop, cotton promoters, including many African leaders, likely exaggerate its potential contributions to peace, prosperity, and sustainable development (see Toumani Toure and Compaore 2003; Tefft 2000).[11] Cotton in 2003 accounted for up to 40 percent of export revenues and 10 percent of GDP in Benin and Chad (Watkins and von Braun 2003). West African leaders frequently protest that other producer nations' subsidies contribute to worldwide overproduction, falling prices, and income losses for millions of small-scale African cotton farmers. But if all producer countries scale up

[11] Unquestionably, an end to U.S. cotton subsidies would terminate the illogical, countermarket trade and aid policies of the U.S. government, which pays U.S. cotton growers $3.4 billion a year, more than the annual income of Burkina Faso and Niger combined. The resulting glut drives global prices down 25 percent, causing West Africa to lose $190 million in revenues and rendering an additional 250,000 people destitute in Benin (Watkins and von Braun 2003). At the same time, the United States provides Benin with $4 million a year in food aid (USAID 2003). This puts a double burden on U.S. taxpayers.

production in response to a freer market, other developing-country producers might well produce another market glut, with West Africa remaining at a disadvantage. This would be comparable to the coffee-price crash experienced in the 1980s and 1990s after Vietnam rapidly expanded production (Oxfam International 2002, 2005). Nor would a liberalized global cotton market solve conflict-potentiating competition for water and land and indeed, it might exacerbate the tensions.

It is unclear whether the benefits from a liberalized global cotton market will really trickle down to poor African farmers, as African leaders (Toumani Toure and Compaore 2003), economists (Tefft 2000), and some NGOs (Oxfam America 2004; IATP 2005) assert. Unfortunately, these scenarios leave out critical factors, such as worldwide production, exchange rates, relative crop and factor prices, and farmer landholding and marketing arrangements that together determine how much crop income actually reaches the farmer and the value of this income relative to the price of basic foods. Another factor to be considered is whether the farmer's land tenure and agricultural investment are secure and stable or subject to competition or violent seizure by competing individuals or groups. The history of coffee production, as a contrary case in point, suggests that all these latter factors are very important: in the absence (and sometimes even the presence) of commodity trade groups, agreements, and regulations (such as the International Coffee Agreement), commodity production can soar, glut the market, and drive prices downward, engendering sharp income losses at both national and household levels.

Coffee is the agricultural commodity that has the closest recent interconnections with violent conflict. In 2000, it was the developing world's second largest earner of export revenues after petroleum. Huge price fluctuations surrounding the "bitter brew" are part of the complex forces of causation that contributed to the 1994 genocide in Rwanda, periodic regional and community violence in Mexico and Colombia, the unstable legacies of civil strife in Central America, and the potential for conflict elsewhere (Paige 1998; Oxfam International 2002). The impact of the falling price of coffee on war dynamics and narco-cropping in Colombia has received substantial attention

in the past few years (EIU 2003; P. Collier 2003). Coffee incomes can also influence development outlooks and conflict dynamics when prices are high, as where farmers identified with different ethnic groups or class interests compete for access to coffee lands, bushes, technical and marketing assistance, and product, as in Central America (Paige 1998). Independent of prices, coffee profits historically underwrote military force in Idi Amin's bloody dictatorship in Uganda (Melady 2003),[12] a brutal rebel army in Sierra Leone (Kamara n.d.), and Ethiopia's changing spectrum of political leadership (Ofcansky and Berry 1991; U.S. Department of State 2005).

In addition to price, land tenure patterns, labor relationships, control of processing, transport, and the commercial system governing coffee from cultivation to consumption, and finally, the country's financial system all influence whether coffee cultivation is more likely to contribute to prosperity and peace or inequity and violence.

Central American national political economies historically provide the backdrop either for labor oppression and underdevelopment, as in Guatemala and El Salvador, or rising standards of living based on smallholder production and expansive social-welfare policies, as in Costa Rica (Paige 1998). In El Salvador, expansion of coffee production, and also of cotton and sugar for export, drove smallholders off the land and into peonage. Mechanization after World War II then reduced employment, forcing excess labor into urban areas, where jobs were scarce. These socioeconomic conditions, but especially coffee, polarized class relations and were root causes of civil war (Paige 1998, 105). During the 1980s, the government used scorched-earth tactics against the rebels, guaranteeing hunger and starvation for affected civilian populations (North 1985, especially p.112). Subsequently, the 1990s peace process promised land reform, but progress in implementing it has been very slow (Power 2004; Creelman 2000). It is not yet clear what role coffee will play in economic rebuilding, or if fair trade—that is, alternative marketing efforts that seek to assure small producers a fair return—will

[12] In a recent letter to the editor of *The Washington Post*, Thomas Melady, U.S. Ambassador to Uganda during Amin's rule, reflected on U.S. legislation banning imports of Ugandan coffee, given the importance of coffee revenues in supporting "Amin's death squads" (Melady 2003).

account for a rapidly increasing share of coffee revenues. So far, coffee is by far the largest fair-trade product, but it still accounts for only a fraction of coffee sales worldwide.

5. The Peace Business: Global Norms and Institutions

Globalization is not just about markets or flows of labor and capital. It also includes global norms and institutions promoting humanitarianism, human rights, social justice, and fair trade, as well as international efforts to regulate trade in "blood" commodities and arms, as already mentioned above. The challenge is to make transnational processes favor the peace, not war, business.

Humanitarianism

Peace-promoting efforts such as the convention banning land mines, the new International Criminal Court, and the voluntary guidelines on the right to adequate food developed under FAO auspices, play an active but not yet sufficient role in reducing the destructive forces that produce conflict and food insecurity. Improvements in famine early warning systems and emergency nutrition interventions, building on global integration of information and communications technology and transportation, enhance the international community's ability to detect and respond to food crises. Such efforts are guided by global humanitarian norms that assert the right to assist in zones of armed conflict and the right of noncombatants to be free from hunger (SPHERE 2003). Such principles help break the links between conflict and hunger, as shown in UN-authorized military–humanitarian interventions in Iraqi Kurdistan, Somalia, and the former Yugoslavia in the 1990s.

Humanitarians, citing a global mandate and coming from all over the world, have also become important players, introducing a new, global ethic and set of principles for distributing additional global sources of relief food and other aid in conflict or postconflict zones. Their "livelihood security" framing builds on household strategies for

managing risk and vulnerability, taking into account household assets, entitlements, and possible sources of income and food (Lautze et al. 2003, compare Drèze and Sen 1989). Their closely related "rights-based" approach furthermore pays particular attention to gender, age, and other social divisions of labor in production, and differences in distribution of food and other resources, to understand who gets what and who is left out, while also attempting to build a framework for participation, by individuals, in rebuilding processes. In contrast to the national and global analyses treated in the rest of this paper, both livelihood and rights-based strategies usually involve analysis and program implementation in smaller-scale social units, not whole countries or regions (Schafer 2002).

From this household or small-group perspective, practitioners indicate how relief agencies and peacekeepers often contribute to the "war economy." For example, programs established and implemented under humanitarian principles move food to those in need and save lives, but in the process introduce food, vehicles, weapons, and personnel, whose upkeep can also fuel conflict. Or, as in the case of Somalia in 1992, they destroy local food production and markets because international NGO relief operations entered and would not leave. International humanitarian operations then created demand for provisioning and armed protection that favored militarized over peaceful economic interests. Food aid introduced a new primary resource available for looting and manipulation. All these developments advantaged agents with arms, who were able to shake down peace negotiators for resources, including land (Collins and Weiss 1997).

Humanitarian interventions and peacekeeping operations often involve external military forces in the delivery of humanitarian assistance and reconstruction activities. In so doing, these operations may usurp the roles of civil society in seeking to negotiate sustainable public services and stable relationships with government authorities (Messer 1996b; De Waal 1997). Military activities, as in the cases of Guatemala's "beans and guns" strategy to pacify highland Maya and Mexico's military-controlled food relief to Zapatista rebel areas, remind recipients who is the dominant power and may serve

directly as sources of oppression (G. Collier and Quaratiello 1999). The question of how U.S. plans for reconstruction in Afghanistan and Iraq will avoid such dilemmas remains unanswered.

International humanitarians, intending to assist, may incidentally contribute to ongoing hostilities and distrust by allowing village committees, for example, to continue to discriminate against intended beneficiaries of agricultural rehabilitation programs, thereby heightening the potential for renewed or continued conflict (Archibald and Richards 2002). In contrast, rights-based approaches analyze existing social-structural, ethnic, and power relations, in order to deliver services and meet basic needs in ways that include all social agents. A rights-based approach begins with a deep respect for the inherent dignity of all, and requires aid workers to work closely with communities, to help people understand their rights and find ways to articulate rights demands through program participation (ODI 1999).

Humanitarian and human rights advocates also make use of global communications technologies such as the Internet, disseminating information about the plight and oppression of people otherwise isolated from global scrutiny. They draw attention to human rights violations and food insecurity. The Zapatista indigenous conflict with the government of Mexico thus received international attention, which arguably prevented a crackdown by Mexican authorities, at least in the short run (G. Collier and Quaratiello 1999).

But information and communications technology can serve war as well as peace. Sierra Leone's Revolutionary United Front coordinated military operations, diamond sales, and arms purchases via satellite phone from bases in the country's hinterland, while ruthlessly keeping the local civilian populace under its control (Rupert 2000). Indeed, contemporary wars seem to have moved beyond the interstate–intrastate dichotomy to a "trans-state" category, as they rely on international communications, transport, trade, and aid (Collins and Weiss 1997).

6. Reconnoitering Peace and Food Security

Our findings suggest four points for policymakers to consider in furthering this global "peace and food-security business." Developing countries require peace in order to achieve more food-secure outlooks and reap potential benefits of globalization. Development assistance, including aid to agriculture and rural development, can deter conflict if it is integrated into the construction of social contexts that promote equity.

First, conflict and food emergency countries overlap considerably. These countries are often the ones that cannot make good use of the "bright side" of free-market globalization—the transnational capitalist outlook of prosperity based on economic growth, liberalized markets, and democratization. However, these countries frequently do make good use of global networking, which sustains civil society agents working for peace. Unfortunately, such networking also sustains powerbrokers associated with what pro-globalizers view as globalization's "dark side"—international terrorism, financed by trade in arms, minerals and other nonrenewable resources, and drugs, and also the increasing gap between rich and poor that threatens peaceful development in poor countries. Donors need to find ways to distribute food and agricultural assistance that will be equitable and not reinforce the local and regional power structures that promise more conflict. The experience of long-term humanitarian and development aid field-workers in postconflict countries, such as Sierra Leone, can help in this regard (Archibald and Richards 2002).

Second, it is not export cropping per se, but rather the structures of production and markets and the food and financial policy context that determine local household incomes and peaceful or belligerent outcomes. Contrasting Central American experiences with coffee production suggest the important role of national government policies in assuring peaceful and equitable results. When the prices of key export crops collapsed in Latin America and Southeast Asia, conflict due to discontent was avoided because alternative livelihood sources and peaceful outlets (such as electoral politics in Brazil) were available. These experiences offer lessons that should be followed up in Africa.

Third, it is essential to monitor the impacts of global prices of developing countries' key agricultural exports, such as coffee and cotton. The idea, articulated recently by P. Collier and his team at the World Bank, of a compensatory fund (P. Collier 2003; see also Adams 1983; Hazell, Pomareda, and Valdés 1986), merits further development. This would help the "losers" from globalization to adjust and diversify their sources of income, so that they can get back on their feet. It remains unclear what institution would run such a fund, however. Also, as Addison and others at the UN University's World Institute on Development Economics have shown, it will be important to factor in monetary policies, exchange rates, and the actions of export marketing boards, all of which can compromise small-farmer incomes and skew production (Addison 2005).

Fourth, the "livelihood-security" (Adato and Meinzen-Dick 2003) and "rights-based development" (Lungman 2004) frameworks offer positive ways to approach conflict prevention at the local level, but these need to be linked more effectively to political and economic programs at the national level. Some development agencies have begun to think about integrating these approaches into their development activities, as have some bilateral aid donor agencies and development NGOs. At the macro level, aid donors can pressure government leaders to make sure that revenues from trade go into human resource development, such as education and health care, and not into an individual leader's bank account. Presumably, food-security-related investments would also be a productive place to put public resources, although the World Bank studies do not address this explicitly. They do call for international sanctions to help make it less lucrative for rebels to exploit primary resources (P. Collier 2003).

Globalization can help mitigate or even prevent violence, but activities must be undertaken with an eye to conflict prevention and justice promotion. Examining the specifics of trade in particular agricultural commodities such as coffee, cotton, and sugarcane allows one to see both the "root causes" of hunger and conflict and their interconnections and also the trigger causes. Historically, more localized struggles for control over high-value agricultural commodities, and for control over the land, water,

and labor resources to grow them, are part of many conflict pictures, which have included "blood coffee" as well as "blood diamonds," and white, snowy cotton, not just "snow" processed from coca leaves. Even basic foods, including humanitarian rations and other forms of food aid, can foster competition to control the distribution. These comprise important dimensions of the political economies sustaining prolonged civil wars and civil strife in the early 21st century, as leaders seek to feed their armies and supporters, and deny their enemies nutrition.

Assuring fair and equitable access to scarce water and land resources are important considerations in postconflict reconstruction, which can deter the likelihood of renewed war. The trade regulations and market structure for particular agricultural commodities may also prove important where countries depend heavily on a single export crop that is subject to sudden price declines. These factors also have a bearing on more widespread human-rights violations and livelihood disruptions. They need greater emphasis in development agency assessments.

We remain convinced that globalization offers positive norms and values to guide an increasingly interconnected world. However, it will require institutions dedicated to peace, social justice, and sustainable food security for all, linked to development processes at both the grassroots and the summit, to make this bright side of globalization an intentional reality.

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