We examine how an unassuming domestic technology—the fuel-efficient stove—came to be construed as an effective tool for reducing sexual violence globally. Highlighting the process of problematization, the linking of problems with actionable solutions, we show how US-based humanitarian advocacy organizations drew upon spatial, gender, perpetrator, racial, and interventionist representations to advance the notion that “stoves reduce rape” in Darfur. Though their effectiveness in Darfur remains questionable, efficient stoves were consequently adopted as a universal technical panacea for sexual violence in any conflict or refugee camp context. By examining the emergence and global diffusion of the rape-stove problematization, our study documents an important example of the technologizing of humanitarian space. We postulate fuel-efficient stoves to be a technology of Othering able to simplify, combine, decontextualize, and transform problematizations from their originating contexts elsewhere. When humanitarian advocates construe immensely complex crises as “manageable problems,” the promotion of simple technical panaceas may inadvertently increase the burden of poverty for user-beneficiaries and silence the voices of those they claim to champion and serve.

Material things have magic powers only in the contexts of the narratives in which they are embedded. (Harré 2002:25)

On September 21, 2010, United States Secretary of State Hillary Clinton announced the launch of the Global Alliance for Clean Cookstoves. The initiative aims to foster a thriving global market for fuel-efficient stoves to mitigate
the health and environmental consequences of cooking and reduce personal security risks facing conflict-affected women and girls (U.S. Department of State 2010). The logic which posits stoves to be a panacea for these crises is relatively straightforward: requiring less fuelwood for cooking impedes deforestation, less exposure to smoke and fire limits the negative health consequences of cooking, and, finally, fewer fuelwood collection trips reduces exposure to sexual violence in areas of insecurity.

Though efficient stoves have long been considered in relation to deforestation and health,3 the rhetoric that establishes stoves as capable of reducing the risk of sexual violence emerged prominently with the Darfur humanitarian response.4 On the issue of Darfur, humanitarian advocacy organizations were known for political partiality and the ability to influence aid policy (ODI 2007). US-based Darfur advocacy organizations were particularly energized by instrumental, normative, moral, and religious motivations (Mamdani 2009; Hicks 2010). They were also motivated by potential access to donors and public fundraising.5 As our study will show, Darfur-focused advocacy organizations were influential in positioning the stove as a viable solution to sexual violence.

Within a few years of their initial promotion, humanitarian agencies working in Darfur realized that in practice efficient stoves did little to deter firewood collection and hence did not reduce the risk of sexual violence.6 Despite this recognition, advocacy organizations and non-governmental organizations (NGOs) continued to promote them as a viable protection tool. Subsequently, efficient stoves emerged as a definitive technological intervention for any conflict and refugee camp context. To investigate how an unassuming domestic technology was construed to be a universal panacea for reducing sexual violence, we sought to answer the following questions: How is sexual violence understood such that efficient stoves are thought to be a logical solution? How did fuel-efficient stoves emerge as a panacea for the risk of sexual violence globally? What are the implications of promoting universal technical panaceas for humanitarian thinking and practice?

This paper proceeds as follows. First, we discuss the role of advocacy in the discursive construction of problems and technological solutions. We then present an overview of our empirical method and discourse analysis, followed by the presentation of the case narrative. Our findings suggest that humanitarian (political) advocacy is integral in technologizing the humanitarian space. More specifically, we suggest that the “stoves reduce rape” rhetoric results in a subtle yet profound shift in humanitarian activity: the struggle to understand and prevent sexual violence is replaced by the quest to design, produce, promote, and deliver the most

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3Introduced to East Africa in the early 1900s by Indian laborers, fuel-efficient stoves have been promoted in global campaigns since the 1970s energy crisis as a means to mitigate deforestation and the negative health effects of cooking (Eckholm, Foley, Barnard, and Timberlake 1984; Hyman 1987; Bailis, Cowan, Berrueta, and Masera 2009). Responding to these concerns, governments, development agencies, researchers, engineers, and entrepreneurs have actively engaged in the design, dissemination, and marketing of various stove technologies. These campaigns brought efficient stoves to Sudan, where they have been promoted as a panacea for three major crises: energy, health, and sexual violence (Abdelnour 2011).

4The escalation of large-scale armed conflict in Darfur from 2003 onwards displaced over two million Darfuris, many of whom remain warehoused in camps in Darfur and Eastern Chad (Abdelnour, Badri, El Jack, Wheeler, McGrath, and Branzei 2008). By late 2004, an immense global response focused its political attention and humanitarian resources on Darfur. Between 2003 and 2011, the United States Agency for International Development (USAID) alone—one of the largest donors to the Darfur response—channeled more than $2.7 billion USD toward humanitarian efforts in Darfur (Stephens 2011).

5As indicated by several interviewees involved in the promotion of efficient stoves in Darfur.

6Common reasons reported include: ineffective usage or a complete disregard of efficient stoves by beneficiaries; poor construction of some stove models thus limiting potential fuel savings; continued collection of wood and grasses for non-cooking purposes such as construction or market sale; and the absence of appropriate monitoring and evaluation of stove usage or protection outcomes (Martin 2007; AED/USAID 2008; Stone, Cole, and Wroe-Street 2008).
We conclude with a discussion of the significant implications of our study and suggest directions for future research.

Advocacy, Problematization, and Technology

Advocacy organizations and networks—political interest groups, domestic non-profit and social movement organizations, and international NGOs—form around political ideals, interests, and values; they do so with the purpose of mobilizing resources and their constituents to influence policy and public agendas (Keck and Sikkink 1998; Barker 2000; Andrews and Edwards 2004). Advocacy work is increasingly transnational, influencing issues of global significance through “intense domestic and international struggles over meaning and policy” (Keck and Sikkink 1998:211). Sexual violence is one significant issue around which advocacy coalitions mobilize to influence global policy and action (Jordan and van Tuijl 2000; Carpenter 2007a,b). Despite increasing interest in the work and influence of advocacy organizations and networks, little is known about the processes by which advocacy issues emerge, how they are defined, or in what ways they are adopted (Carpenter 2007a).

We advance the concept of problematization, the process of linking problems with actionable solutions, as significant for understanding issue emergence. By bridging problems with actionable solutions, advocates facilitate the mobilization of actors and resources into common interest networks (Callon 1986; Latour 1999). In this paper, we particularly emphasize the discursive aspects of problematization.7 Problematization is particularly relevant to humanitarianism; for example, Calhoun (2004) notes that increasing incidences of “complex humanitarian emergencies” are in part construed by rhetorical definition and organized intervention of crises. According to Calhoun, the global humanitarian order is enabled by “the underlying social and cultural dynamics that shape both the production of emergencies and the production of responses” (2004:375). Another example is provided by Holland (2009), who examines the discursive construction of “9–11” from an event initially void of meaning into a crisis demanding appropriate responses. Similarly, Escobar proposes that the power to influence “what is included as legitimate development issues may depend on specific relations established in the midst of the discourse; relations, for instance, between what experts say and what international politics allows as feasible” (1995:44). Escobar (1995) further suggests that the problematization of poverty constructs underdevelopment as a crisis. In turn, this governs poverty-alleviating policies and practices including Western-led technological interventions.

Our study suggests that problematization is central to the technologizing of humanitarian space.8 Technology can be understood as a means of truth-making (Heidegger 1977); technologies are thus able to construct and reinforce particular “regimes of truth” (Foucault 1977).9 Such “truths” are often reinforced by narratives which enable technology to serve as carriers of meanings,

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7Our approach is informed by Foucault (1988:257), who defines problematization as “the totality of discursive or non-discursive practices that introduces something into the play of true and false and constitutes it as an object for thought (whether in the form of moral reflection, scientific knowledge, political analysis, etc.).”

8Humanitarian space can be thought of as the totality of humanitarian actors, policies, and interventions. The humanitarian space is “expanding” to include new actors (that is, military) and intervention contexts (that is, conflict areas). Current debates are overwhelmingly dominated by Western agencies and actors (such as the UN, international NGOs, donor governments, and militaries), “global” technical standards, and issues such as “agency access.” These prioritize the needs of (mainly Western) humanitarian agencies over those of beneficiaries, especially conflict-affected peoples, and disregard the potential role of local actors in the humanitarian process (Collinson and Elhawary 2012).

9A “regime of truth is the institutional infrastructure for the production and circulation of truth claims” and is “constituted through a set of mechanisms and discursive practices that legitimises claims and is itself dependent on the legitimacy of those claims” (Introna 2003:237).
construe them as being important to particular contexts, provide them with practical roles that differ from their original specifications, allow them to change designated categories and impede social action (Harré 2002:25–26). Drawing on the work of Luhmann (1993), Kallinikos further suggests that through discursive means technology permits functional simplification, “the demarcation of an operational domain, within which the complexity of the world is reconstructed as a simplified set of causal or instrumental relations” (2005:189) and functional closure, “the construction of a protective cocoon that is placed around the selected causal sequences or processes to safeguard undesired interference and ensure their recurrent unfolding” (2005:190). In this way, technology is able to embody, retain, and renew associated problematizations; as a result, technology-oriented policies and interventions are favored while alternative options marginalized.

Discourse Analysis

To unpack the conditions that enable a relatively unassuming domestic technology to emerge as an extraordinarily simple protection tool, we question how the declaration “stoves reduce rape” is first sayable (Foucault 1991), then accepted as matter of fact (Latour 2004). We thus focus our investigation on the role of discourse in global processes, and in particular, the objectification of peoples, material artifacts, and events in ways that maintain systems of knowledge and power (Fairclough 1989, 2006). For example, representations of “Africa” and “Africans” in Western media are known to reflect taken-for-granted perceptions and practices reflective of global power asymmetries (van Dijk 1993; Andreasson 2005). Often appearing highly uniform and natural, such language is in fact part of a stable matter-of-fact discursive reality which masks alternative debates and local voices (Brookes 1995:448). Discourses are fundamental to advocacy work: infused with systems of belief they are invoked to shape the nature of organizing and action globally (Fairclough 1989; Said 1978; Fairclough 2006; Alcadipani and Hassard 2010). Just as Hasselbladh and Kallinikos note: “It is by means of discourses, and the elaborate systems of operations and techniques associated with them, that organisational goals and tasks are constructed, while organizational roles are shaped in ways that constitute distinct forms of actorhood that transcend local contexts” (2000:703).

Informing our discourse analysis are dozens of public documents and press releases produced by humanitarian advocacy organizations, NGOs, and donor agencies, which relate fuelwood and fuel-efficient stoves with sexual and gender-based violence. To ensure relevance in the collection of empirical material, we followed the corpus construction approach advanced by Bauer and Aarts (2000), a systematic method for selecting (and disregarding) qualitative empirical material along two thematically informed dimensions: known strata/functions and unknown varieties of representations. Following corpus construction

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10We collected empirical materials online via the ReliefWeb database <http://reliefweb.int/>, the International Network on Household Energy in Humanitarian Settings website <http://www.fuelnetwork.org/>, and through systematic Internet searches. Materials were also collected during visits to NGO offices in Khartoum, El-Fashir, and Nyala, Sudan.

11The first step in corpus construction is to decide on the topic area and consider the following rules: proceed stepwise (select, analyze, select); strata/function variety should precede the variety of representations; characterizing the variety of representations should have priority over existing categories; and maximize representations by extending strata/functions. The second step is to consider the two dimensions of strata/functions and representations of the topic and list as many strata/functions as possible. The third step is to explore representations of the topic starting with one or two strata/functions. The fourth step is to consider adding additional strata, if needed, so as to maximize the variety of representations. The fifth step is to extend the corpus accordingly until the variety of representations is saturated. Next is the analysis and reporting of findings and, if necessary, a return to the fourth step to select more empirical material. In some cases, a revision of the strata/function and variety of representations may also be necessary (Bauer and Aarts 2000).
procedures, we undertook an iterative re-examination of empirical materials, investigating relevant problematizations and their related contexts (unknown strata), as well as discursive presentations of fuelwood, stove technologies, and sexual violence (known representations within each strata). To ensure consistency of materials for the discourse analysis, interviews with people intimately involved with stove interventions in Darfur guided our investigation but were excluded from the corpus.12

Our analysis reveals three significant and nested discursive cases: Dadaab, Darfur, and Global. The first attributes the activity of fuelwood collection as the definitive setting of rape rather than only one context for its occurrence. The second presents the Darfur conflict as a crisis in which Arabs engage in the “genocidal rape” of displaced Africans. When Darfuri women and girls are construed as vulnerable to violence during firewood collection, efficient stoves are consequently promoted as the logical solution. The third case examines the globalizing of the “stoves reduce rape” problematization and the emergence of a generalized efficient stove panacea. We present these three cases in the following section along with some intricacies that tie them together.

Constructing “Stoves Reduce Rape”: Dadaab, Darfur, and Global

Violence and Firewood at Dadaab Refugee Camps, Kenya

In 1991, three refugee camps were established at Dadaab, Kenya, to accommodate the influx of refugees from Somalia, Uganda, Sudan, and Ethiopia (UNHCR 2012). In response to reports of high levels of sexual violence at Dadaab, the United Nations High Commissioner for Refugees (UNHCR) launched the Women Victims of Violence Project; a series of anti-violence activities consisting of social services, gender-sensitive training, and community mobilizing. The aim of the project was to address sexual violence both inside and outside the camps. After a 1997 UNHCR assessment of the project, the US funded a $1.5 million initiative focused on the provision of firewood to vulnerable groups in the Dadaab camps, environmental solutions to reduce resource conflicts between local communities and refugees, and ways to rehabilitate foliage surrounding the camps. The implementing NGO for the project was selected for its experience with energy-related initiatives in Dadaab, including fuel-efficient stoves (CASA Consulting 2001).

In January 1998, Mary Anne Fitzgerald, a senior member of Washington-based Refugees International (RI), wrote an article titled Firewood, Violence Against Women and Hard Choices in Kenya. The magnitude of violence facing refugee women and girls at the Dadaab camps is recognized in the article when Fitzgerald quotes Saynab Haleys Bu-ul, chairwoman of the Anti-Rape Committee in Ifo camp, as stating:

If you go out of the camp very near, there is a man standing there with a gun. If you go to run, he shoots you. If you stay, he rapes you. Some of us are taken from our houses at night. Some of us are taken in the bush when we look for firewood. We are not safe, night or day. If we don’t get security, we won’t survive.

(Fitzgerald 1998:2)

Bu-ul emphasizes a pervasive crisis of sexual violence. In her view, the endemic problem of violence demands a comprehensive security solution. However,

12Interviews were conducted by the lead author during multiple trips to Khartoum, El-Fashir, and Nyala, Sudan between 2006 and 2009, and New Delhi, India, in 2008.
Fitzgerald marginalizes Bu-ul’s violence-security problematization by emphasizing the high number of attacks that occur during firewood collection:

Refugees International disagrees with the proposed policy of providing only “vulnerables” with firewood. All women and young girls in the refugee camps are equally vulnerable and should receive firewood. All share the same risk of being brutally attacked if they must gather firewood. (Fitzgerald 1998:3, italics and bold original)

A second article written by Fitzgerald and RI colleague Shep Lowman, titled Protect Refugee Women as They Gather Firewood, was published in the International Herald Tribune in August 1998. In it, Fitzgerald and Lowman advance the violence-firewood problematization as a global moral imperative:

One is left with the sense that international agencies still do not really know how to deal with the relationship between firewood and rape. Women are 58 percent of the world’s adult refugee population. They do not shirk from their responsibility to gather firewood for their families. The international community should protect them. (Fitzgerald and Lowman 1998:2)

Through the Dadaab camps experience, RI relegates sexual violence to one space and activity; once the risk of rape is presented as a problem of fuelwood collection, firewood is construed as the logical solution. One assessment of firewood interventions in Kenya points to the selective-reductionist tendencies of humanitarian advocacy:

Banditry and acts of sexual violence, especially rape, were known to occur frequently in the camps. Considerable publicity highlighted the rape of women while collecting firewood outside the camps. (WCWRC 2002:73)

Another indicates the consequences of selective attention pertaining to sexual violence, enhanced by the tendency of humanitarian agencies to focus on technical solutions:

While the project has reduced the incidence of rape during periods when households are fully stocked with firewood, we see a concomitant increase in non-firewood related rape during the same period. This implies a strategy that focuses on the broader context of rape, violence, and insecurity of women and girls, rather than simply addressing one location and opportunity for rape. . . . UNHCR staff, in various documents and discussions, shy away from this problem giving priority to ‘technical fixes’ and dismissing social/cultural change as impracticable because it is a ‘long-term’ solution. (CASA Consulting 2001:7)

Further complicating the humanitarian response at Dadaab was the complex notion of “bandit,” a theme highly relevant for Darfur. Already vested in the firewood-rape problematization, organizations working with Dadaab residents came to characterize bandits as criminals operating outside the camps. Upon deeper investigation, however, bandits who committed sexual crimes included unknown and known locals, armed and unarmed men, as well as camp residents. In one recorded instance, the label of bandit was applied to a victim’s neighbor only after he had assaulted her (CASA Consulting 2001:95).

Similarly, understandings of “rape,” “rape risk,” “sexual violence,” and “gender-based violence” are in no way standardized in humanitarian programming and literatures. This lack of agreement in definitions and measures has significant consequences for humanitarian work, including indiscriminate categorizations, multiple counting, and misrepresentations of security risks (Baker 2007). Humanitarian agencies will often present a wide variety of abuses—including
rape, domestic abuse, forced marriage, and harassment—under the umbrella term "sexual and gender-based violence" or SGBV.\textsuperscript{13}

The Dadaab case demonstrates the role of humanitarian advocacy in construing pervasive violence as a problem manageable with a technical solution. Consequently, the rape-firewood problematization that emerges at Dadaab limits a more comprehensive understanding of the pervasive reality of gender-based violence elsewhere, including Darfur.

\textit{US Darfur Advocacy}

Though US news outlets were significantly late in providing substantial coverage of Darfur compared with global media (Mody and Hofschire 2010:341), a coalition of powerful lobbyists eventually formed to engage in Darfur-related advocacy. By April 2004, the Washington-based US Holocaust Memorial Museum issued their first ever “genocide alert” to motivate action on Darfur. On July 14 of that same year, the American Jewish World Service and the US Holocaust Memorial Museum convened the “Darfur Emergency Summit in New York City.” From this event, the Save Darfur Coalition (SDC) was established to raise awareness of the Darfur conflict and influence policy by lobbying the US government and United Nations (Aidi 2005). The SDC became a hub for a major US Darfur advocacy network, one with little or no Darfur experience (Mamdani 2009). This is similar, by and large, to “experts” who write about the Orient without ever having travelled there themselves (Said 1978). Enabled by imagination, the SDC demonstrated an incredible ability to mobilize the media, Hollywood personalities, constituents of religious and community organizations, student groups, politicians, academics, advocacy groups, and development agencies. In the United States, the work of SDC helped to translate “Darfur” from a distant conflict into an intense domestic US political issue.

Discursive representations of Darfur in the US political imagination were intertwined with prior depictions of the Sudanese civil war, orientalist notions of “Arabs” and “Muslims,” and rhetoric associated with the “War on Terror” (Said 2008; Mamdani 2009). According to Hicks (2010), US advocates interpreted Darfur’s discourses along dichotomous racial, perpetrator, gender, spatial, and interventionist themes. The racial dichotomy construes Darfur along two distinct and homogeneous ethnic categories: “Arab” and “African.” Embedded within this binary construction are clear perpetrator roles, leaving Arabs the victimizers of innocent Africans (Mamdani 2009). Taken together, racial and perpetrator presumptions make clear the case for genocide: Arab government and affiliated janjaweed militias are committing crimes against helpless African victims in Darfur (Reeves 2005). Such an understanding disregards the diversity and complexities of culture, ethnicity, and violence in Darfur; it also constructs a scenario where “Arabs” are never victims nor displaced and “Africans” do not participate in violence. This scenario, when combined with interventionist inclinations, presents a clear moral imperative to “save Darfur.” Consequently, actionable solutions are advocated, including: calls for military intervention, international sanctions, and the charge of war crimes against Sudanese President Omar El-Bashir (Mamdani 2007; Hicks 2010). The intensity of US advocacy on the issue of Darfur enabled the formation of broad coalitions capable of spawning transnational action through decontextualized and de-historicized meanings:

\textsuperscript{13}We suggest that the act of aggregating so many crimes under one term may serve to mask the realities of sexual violence; this is especially true for domestic violence, which often remains outside the scope of humanitarian programming.
For the Save Darfur Coalition, advocacy has turned into a series of advertisements. The campaign was organized by a full-time ad agency. The more advocacy turned into a sales pitch, the less the ads corresponded to the reality on the ground. Yet the mobilization continued with increasing success. Save Darfur seemed to have no reality check, either from its board or from the consumers of its product. (Mamdani 2009:51)

Specific racial and ethnic distinctions were in part initiated through the “genocide alert” and reproduced for Darfur advocates, the US public, and policy circles. Hicks (2010) reveals how RI, together with (and at times on behalf of) SDC, brought gendered, racial, and religious assumptions into their advocacy campaigns:

SDC and Refugees International relied on multiple interwoven constructs of religion and race and a series of overlapping binaries that specified gendered norms of citizenship, simplified dynamics in Darfur into genocidal rape, and defined American pluralist practice in terms of human rights. (Hicks 2010:267)

The generalized criminality of “Arabs” and “Muslims” are made clear in RI’s August 2004 report, titled Rape, Islam, and Darfur’s Women Refugees and War-Displaced, wherein RI advocate Fidele Lumeya writes:

The fate of a raped woman in an Islamic fundamentalist society such as that in Sudan is already sealed. . . . The women of Darfur report feeling betrayed by their Islamic government, which has formed an alliance with Muslim and Arab rapists rather than protecting its own civilians. (Lumeya 2004)

As Hicks (2010) notes, these perspectives deeply informed the ways SDC and RI reproduced the Darfur crisis for their constituents. Ethnic rape became a central lens through which to understand violence in Darfur. Advocate Eric Reeves succinctly presents the emerging narrative during a congressional briefing held on July 21, 2005:

Rape does not simply occur in Darfur; it is used as a weapon. And it is used not on a random basis, but systematically. And it is not a phenomenon of the past; . . . systematic rape is being deployed today, in ongoing genocidal war against the non-Arab or African tribal populations of Darfur. (Reeves 2005)

Discourses associated with Darfur point to a substantial advocacy network mediating the interdependent relationships, patterns of understanding, and activities of donors and humanitarian industry actors. RI and SDC chose to base their advocacy on the simple “Arab genocidal rape” scenario despite the wealth of available expertise pointing to the complex history and multiple layers of violence in Darfur, and in disregard of any debate concerning the case for genocide.14 Void of genuine analysis, Darfur advocates drew from gendered cultural myths surrounding incidences of rape and stereotypes of the Arab-Muslim Other (Burt 1980; Ahmed 1982). We do not wish to belittle the nature of these representations and why they emerge as they do. They are built in part by communities with complex identities and struggles for redemption, using prejudiced domestic discourses that imagine life and violence in Darfur (Eichler-Levine and Hicks 2007). As Said (1978) aptly shows, taken-for-granted discursive arrangements constitute “facts” that construct the Other regardless of available (or lack of) evidence. The reproduction of simple and actionable reductions may reflect wider trends in US-based humanitarian (political) advocacy.15 As Willems (2004)

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14See the writings of Martin W. Daly, Alex de Waal, Mahmood Mamdani, Rex Sean O’Fahey, Gérard Prunier, and others.

15A similar case in point is the hysteria, controversy, and suggested irresponsibility of the Kony 2012 advocacy campaign launched by San Diego-based Invisible Children (Branch 2012).
notes, polarized representations prevent sophisticated explorations of significant political issues.

Feminist scholars have long understood that local political dynamics fuel cultural constructions of the female Other as having distinct and static disparities (Nader 1989). This is particularly true of women who face oppression by their very nature of being from the “uncivilized” Arab-Islamic world (Ahmed 1982). Binary constructions, like those influencing the imagining of Darfur, facilitate the representation of Westerners as being “liberated” when contrasted with victims of sexual violence (Wade 2009). Moreover, and as Butler notes, “the category of ‘women’ . . . is produced and restrained by the very structures of power through which emancipation is sought” (1990:2). Ironically, for Darfuri women and girls, rescue was to come in the form of a simple domestic technology.

_The “Call to Stoves” for Darfur, Sudan_

In a widely publicized call to action, RI brought the firewood theme from Dadaab to the crisis of rape in Darfur. However, rather than advocate the provision of firewood, RI presented a modified problematization. This is indicated by the title of the RI Bulletin—_Rapidly Expand the Use of Fuel-Efficient Stoves in Darfur:_

By reducing the need for wood and emission of smoke, a switch to simple, more fuel-efficient stoves could reduce the time women spend collecting wood, a task that exposes them to the risk of rape and other forms of gender-based violence. (Wolf 2005:1)

An examination of situation reports suggests that humanitarian agencies initially hesitated to elucidate a clear relationship between fuelwood and violence in Darfur. However, once stabilized, the rape-stove problematization justified large-scale efficient stove programming. In October 2004, a number of US-based NGOs began to launch humanitarian initiatives to serve the millions of displaced Darfuris warehoused in large urban camps. At the time, fuel-efficient stove interventions were already present in Sudan to address environmental and health crises; yet, with the crisis of rape looming, humanitarian advocates and NGOs had a more concise and urgent purpose for disseminating stoves (Abdelnour 2011). The US-based Darfur advocacy network adopted the primary message of the call and aligned their constituents to serve it. As a result, varying stove technologies came to be promoted in Darfur and Chad with questionable results in terms of technological suitability, implementation effectiveness, and impact (AED/USAID 2008; Stone et al. 2008).

Once construed as a means to protect Darfuri women and girls, fuel-efficient stove interventions mustered significant interest from donors, agencies of the United Nations, and international NGOs responding to the Darfur crisis. In Sudan, NGOs competed with different technologies, claiming superiority for their respective stoves in terms of fuel efficiency, cultural appropriateness, and cost. The ensuing competition was so intense some referred to it as Darfur’s “stove wars.” Signifying the importance of stoves to US humanitarian efforts, on July 21, 2005—the same day as the mentioned congressional briefing—then

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16USAID was a key donor to the Darfur response and stove interventions. NGOs such as CHF International and International Lifeline Fund, as well as research institutes such as Lawrence Berkeley National Laboratory—founders of the Darfur Stoves Project, now Potential Energy—were key players in developing and promoting efficient stove technologies to address the humanitarian crisis in Darfur. Jewish World Watch also entered into the stoves market through solar initiatives targeting Darfuri refugees in Chad along with Sacramento-based Solar Cookers International and others. Women’s Refugee Commission, formerly known as the Women’s Commission for Refugee Women and Children, was also actively engaged in promoting stoves as part of a broader protection agenda in Darfur (Abdelnour and Branzei 2010).

17As described by an international fuel-efficient stoves expert.
US Secretary of State Condoleezza Rice visited a stove project in Darfur (CHF International 2005).

Reminiscent of the Dadaab camps, RI, and other US Darfur advocates promoted a selective and actionable understanding of the crisis of sexual violence in Darfur. The call to widely disseminate fuel-efficient stoves served to colocate fuelwood collection with “Arab genocidal rape.” Such a conjecture suggests perpetrators and associated risks of violence to be “out there,” rendering the stove a feasible solution to violence. Jewish World Watch (JWW)—created specifically to advocate on the issue of genocide in Darfur—conveys the narrative in a factsheet titled Help the Women of Darfur.

Women and girls who have fled the genocide in Darfur, Sudan, are particularly vulnerable to rape while performing the critical task of collecting firewood for cooking. **The Solar Cooker Project’s mission is to reduce the frequency of these crimes by providing refugee women with an alternative cooking option: the solar cooker.** Solar cookers enable women to reduce their dependency on wood and remain within the safety of the camp. The Solar Cooker Project not only protects women, but provides them with income opportunities through manufacturing cookers and training others to use the cookers. (JWW 2011:1, bold original)

In the same factsheet, the tragedy of genocide, a discursive enabler for the emergence of the rape-stove problematization, is emphasized by the heading “The Genocide in Darfur” and an emotive representation of violence:

Black Africans have been terrorized, driven out of their villages, and decimated by Arab militias, the *Janjaweed* and the Sudan government since 2003. (JWW 2011:1, italics original)

Advocacy organizations and stove promoters marketed a misleading representation of the lives and pervasive insecurity facing Darfuri women and girls. Displaced peoples in Darfur engage in a diversity of activities and livelihood options. Travel outside of camps may be required for work as domestic servants in urban centers, for trade and market activity, or for collection of water and grasses. Moreover, it is widely known that wood is regularly collected for purposes other than cooking (Abdelnour et al. 2008). To promote efficient stoves as a panacea for rape risk is to relegate the lives of Darfuri women to two domestic activities: firewood collection and cooking.

Several reports illustrate these reductive tendencies. One is the *Inter-Agency Evaluation of the Humanitarian Response to the Darfur Crisis* (Broughton et al. 2006), which reaffirms the pervasive nature of sexual violence facing internally displaced peoples (IDPs) in Darfur; the report recognizes “rape of women in and around IDP camps” (2006:33–34, 86), that “IDPs are not necessarily safe in camps” (2006:58), and that sexual violence “including the rape of women and children—continue[s] on a widespread and systematic scale with impunity” (2006:58). In an apparent disregard of noted violence in and around camps, the report repeatedly indicates support for the local production of stoves on a “massive scale” (Broughton et al. 2006). This conclusion provided strong support for RI’s call to promote the widespread use of efficient stoves. A 2009 report by Amnesty International, titled *‘No Place for Us Here’: Violence Against Refugee Women in Eastern Chad*, is much more explicit in presenting the pervasiveness of sexual violence in the camps:

Amnesty International’s recent research demonstrates that refugee women and girls in Eastern Chad continue to be raped and attacked when they venture outside refugee camps. The attacks are carried out by organized groups, bandits and even by members of the Chadian National Army. Refugee camps are not always safer. Amnesty International has also documented cases of personnel working
The complexity of risks facing internally displaced peoples in Darfur may be more serious than for Darfuri refugees in Chad, given the international conventions that govern obligations to persons classified as refugees. Further, large numbers of Darfur’s displaced live in rural areas where NGOs have little or no programming; some NGOs have also faced political pressures which impeded their work and in some cases led to expulsion from Sudan.

Sustaining “Stoves Reduce Rape”

In 2007, just 2 years after the initial “call to stoves,” RI retracted the claim that stoves are able to prevent sexual violence in Darfur in a report titled *Ending Sexual Violence in Darfur: An Advocacy Agenda*. Accompanying the retraction was a reaffirmation of the importance of stove interventions:

> While there is little evidence that producing fuel-efficient stoves reduces violence against women … the international community should continue to promote them but not solely or even principally as a protection measure against sexual violence but as a vital part of a holistic response to the urgent environmental and humanitarian issues confronting the conflict-affected peoples of Darfur. (Martin 2007:18)

For humanitarian organizations, the above statement contains a subtle continuation of purpose permitting efficient stove commitments to remain intact. At the same time, it threatens Darfur advocates who depend on the strength of the rape-stove problematization. A clear conflict emerges when the reality of sexual violence in Darfur is recognized to be far too pervasive for a simple stove solution. Rather than address this contradiction, the reality facing Darfuris was marginalized in favor of the highly marketable “stoves reduce rape.” Even more, some NGOs began to subtly expand the imagined lives of Darfuri women in ways that rendered efficient stoves even more indispensable. A case in point is the Darfur Stoves Project 2011 Mother’s Day fundraising campaign, titled *Honor Your Mother by Supporting a Woman in Darfur*:

> For the women in Darfur, cooking on simple stoves in crowded camps for displaced people can bring untold hardship. The daily searches for firewood expose them to attacks and sexual assault, and looking for work to earn money for fuel takes up much of their time and energy. (Neichin 2011)

Such questionable generalizations reveal the extent to which Darfur advocates and stove promoters are dependent on the rape-stove problematization; challenges to it are resolved by sidelining alternative understandings that might jeopardize “stoves reduce rape.” Jordan and Van Tuijl (2000) suggest that members of transnational advocacy networks negotiate conflicting notions and values. In the case of Darfur, new meanings are incorporated into the rape-stove problematization. These further simplify the complex reality of victimization and preclude an honest assessment of stove interventions. Efforts to stabilize the rape-stove problematization hastened its adoption by a global stoves network.

A Global Panacea

Past campaigns to address the crises of deforestation and health foreshadowed the globalizing of the rape-stove problematization. Priming the emergence of
“stoves reduce rape” globally, Erin Patrick of the Women’s Refugee Commission opens her article, titled *Sexual Violence and Firewood Collection in Darfur*, with the following:

> In hundreds of refugee and IDP settings throughout the world, women and girls are made more vulnerable to sexual violence because of the almost daily need to leave camps in search of firewood. More can and must be done to reduce the risk. (Patrick 2007:40)

Patrick, in addition to raising awareness about sexual violence in Darfur, was a key coordinator for the international conference, *Beyond Firewood: Exploring Alternative Fuels and Technologies in Humanitarian Settings*, held December 11-12, 2008 in New Delhi, India.18 Organized by the Women’s Refugee Commission, the conference was supported by USAID and the American Jewish World Service, a founding partner of the SDC, and intended to facilitate the global dissemination of efficient stoves for humanitarian purposes.

The US-initiated Global Alliance for Clean Cookstoves has garnered tremendous attention for the development of fuel-efficient stove markets and initiatives globally. Alliance affiliates include multinational corporations, representative agencies of the United Nations and governments from around the world, humanitarian advocacy groups, and international NGOs. Organizations involved with stove interventions in Darfur are also involved in organizations such as Solar Cookers International, USAID, Women’s Refugee Commission, and the Darfur Stoves Project/Potential Energy. US Secretary of State Hillary Clinton’s participation in the global alliance reflects how significant US political morality and instrumentality are in shaping humanitarian meaning and action. Joining Clinton as ambassador of the initiative is actor Julia Roberts; as politically powerful and recognized women, Clinton and Roberts have a tremendous capacity to elevate global awareness of the stove panacea.

The adoption of the rape-stove problematization by the emergent global network demonstrates the incredible resilience of discourse-infused technologies; questionable at best with regards to preventing rape in Darfur, stoves are nevertheless promoted as a global protection tool:

> Women and girls face severe personal security risks as they collect fuel, especially those living in communities of instability, including refugee camps and conflict zones. (U.S. Department of State 2010)

Responding to global opportunity, the Darfur Stoves Project was rebranded “Potential Energy.” To assure suitability of their stoves for any refugee context, Potential Energy illustrates a simple, generalized (and disingenuous) narrative:

> Women and girls must walk many hours, several times a week, just to find a single tree with usable wood to fuel their fires. Outside the relative safety of refugee camps, they are vulnerable to acts of violence. (Potential Energy 2012)

This detachment of the rape-stove problematization from the originating Darfur context renders it usable elsewhere. During a visit to the Democratic Republic of Congo, UK Foreign Secretary William Hague, alongside UNHCR special envoy and actor Angelina Jolie, highlighted the crisis of sexual violence as a key theme for the UK 2013 Presidency of the G8. An article capturing their visit to a camp serviced by the International Rescue Committee reveals both the global pervasiveness of the sexual violence problem and the resilience and adaptability of rape-related problematizations; advanced alongside the notion “stoves reduce rape” is a new problematization: “clothes reduce rape.” The logic underpinning

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18The lead author attended the conference as a sponsored participant.
the clothes-rape problematization reaffirms domestic and spatial associations of sexual violence and again abridges the lives and livelihoods of victims:

> The women here are forced to venture out of the camp to collect firewood or water. Both make them vulnerable to rape and many of the women and girls have been assaulted. All the International Rescue Committee, which runs the camp, can offer to mitigate the threat are ‘dignity kits’ that contain efficient stoves that require less firewood and extra clothes so the women have to look for washing water less often. (Borger 2013)

In addition to highlighting the visit of Hague and Jolie, who was coincidentally photographed holding a fuel-efficient stove, the International Rescue Committee press release reports the pervasive violence women face in the camps:

> Women reported to the IRC rape, physical assault, forced marriage and other forms of abuse. The teams discovered that while there was an increase in cases perpetrated by a stranger, in 45 percent of the cases the perpetrator was someone known to the woman, typically a family member, partner or someone from the local community. (International Rescue Committee 2013)

The contradictions inherent in the above quotes point to the ability of problematizations and technological panaceas to blind humanitarian practice. Sexual violence is known to be prevalent inside camps, yet NGOs continue to promote technical interventions to reduce the time women spend outside of them. We discuss the potential sources of such discrepancies and the wider implications of our study below.

**Technologizing Humanitarian Space**

Humanitarian advocates, by construing complex socio-political challenges as “manageable problems,” play a fundamental role in shaping humanitarian policy and practice. While the problematizations that advocates promote do enable effective action, they also entail significant opportunity costs for humanitarian intervention. Simple problematizations preclude comprehensive context-specific understandings of the sheer violence conflict-affected women and girls may face inside camps or elsewhere. Rather than engage with complex reality, technical panaceas legitimate the delivery of universal “solutions.” As our study demonstrates, this amounts to a subtle yet profound shift in humanitarian agendas and the technologizing of humanitarian space: the struggle to understand and prevent sexual violence is replaced by the quest to design, produce, promote, and deliver the most fuel-efficient stoves.

**Technologies of Othering**

Like Smirl (2008), our case implies humanitarianism to be both a reflection of “us” and a spatial-material construction of “them.” Yet our case differs in that the globalizing of the rape-stove problematization renders efficient stoves increasingly distant from local experiences; in fact, stove narratives were construed by political advocates and a humanitarian industry with little knowledge of the actual lives of intended beneficiaries. Moreover, stove interventions silence local voices, eliminating possibilities for a serious understanding of, and dialogue with, the Other (Said 1978). We thus theorize fuel-efficient stoves to be a technology of Othering able to simplify, combine, decontextualize, and transfer problematizations from their originating contexts elsewhere. Although it became evident that the complexity of sexual violence in Darfur rendered efficient stoves an imprudent solution, the process of Othering served to generalize
the problematization for wider dissemination. As a technology of Othering, efficient stoves are an inherent part of a system of exclusion, wherein the voices of local women and girls are silenced by those who claim to know, speak, and act on their behalf (Butler 1990). Seen from this perspective, the discursive constructing of “stoves reduce rape” is a reductive and violent process. It is perhaps for this very reason that alternative narratives of rape in conflict zones remain relatively invisible in the work of US-based advocates and the consciousness of their constituents.19

How does a technology “Other”? When a technology is associated with a particular problematization, explicit acceptance of that technology involves an implicit (unquestioned) acceptance of underlying (taken-for-granted) discourses. While “fixed” to the technology, the problematization is somewhat vulnerable to discursive flexibility, as indicated by the transformation of the rape-stove problematization from Darfur to the global stage. Through the dual processes of functional simplification and closure (Kallinikos 2005), meaning-infused technologies move more easily from one context to another (Bapuji, Hora, and Saeed 2012). Advocates are thus able to advance an increasingly generalized stove “solution” suitable for wider (and eventually global) consumption. Freed from the discursive restraints of “Darfur,” stove legitimacy now draws from the simple myth: “stoves reduce rape.” Consequently, as the rape-stove problematization is distanced from its originating context, efficient stoves become a solution independent of any problem (Cohen, March, and Olsen 1972).

The Panacea Effect

The stove panacea is a myth: fuel-efficient stoves are deemed effective not because of empirical evidence, but from the powerful narratives that promote claims of what stoves are able to accomplish (that is, “stoves reduce rape”). As stove promoters become increasingly dependent on the legitimacy of these claims, the actual effectiveness (or ineffectiveness) of stove interventions becomes inconsequential. Regimes of truth are thus construed in ways that render them increasingly unquestionable (Introna 2003). The myth of the technical panacea enables its diffusion from an originating context to “everywhere” or, more accurately, to “no-where.” We define this panacea effect as the propensity for a technical intervention to transform from a context-dependent response into a universal solution.

The consequence of the panacea effect is an increase in the burden of poverty whenever user-beneficiaries are thought to self-emancipate through participation. According to stove advocates, through the simple act of cooking, the global poor will decelerate deforestation, impede global warming, reduce sexual violence, improve family health, develop “sustainable” markets, and produce an enduring stream of carbon offsets. On this latter point, through the intermediating efforts of carbon-certified stove initiatives, women across the developing world may soon—unknowingly and through utter necessity—subsidize the polluting activities of global industry. From a neoliberal perspective, technical panaceas justify the expansion of global industry and the conversion of poor beneficiaries into mass consumers of rescuing (Western) technologies, techniques, and business models. This too is a gendered process: inherent in the global concern for women’s welfare is the belief that poor women will progress through the technologies of the liberated and developed west (Nader 1989; 158 Technologizing Humanitarian Space

19We remember the premeditated rape and murder of 14-year-old Abeer Qassim Hamza al-Janabi by US soldiers in Iraq (Knickmeyer 2006), as well as the widespread rape of US servicewomen and -men by their fellow soldiers (Broadbent 2011; Twine 2013). The underlying narratives purporting that stoves reduce sexual violence in conflict zones cannot accommodate these and many other realities of conflict-related violence.
Wade 2009). The stove panacea inadvertently (and very subtly) transfers the world’s most serious problems into the private lives of the most vulnerable.

Concluding Remarks

Our study leaves much to be explored. Network analysis may reveal interesting dynamics for understanding problematization diffusion, particularly among transnational advocacy networks and their affiliated organizations, donors, and NGOs. Multi-sited field studies may also reveal how problematizations influence movements of humanitarian resources and attention. Though our case focuses on the Dadaab, Darfur and global accounts, there may be other spaces where “stoves reduce rape” influenced humanitarian thinking and practice. For instance, we are aware that stoves were promoted as a protection tool in a number of countries before the official launch of Global Alliance for Clean Cookstoves. Non-technological factors may also influence the discursive construction and manipulation of problematizations. Moreover, we suspect problematization is a significant antecedent of policy-practice decoupling. Global industrial and market mechanisms underpinning the production and allocation of efficient stoves may also reveal the political, financial, and mobilizing power of the rape-stove problematization. Fuel-efficient stove fundraising campaigns may serve to explicate links between access to resources and the spread of political worldviews (that is, “donate the cost of a stove and prevent genocidal rape in Darfur”). Similarly, and though we allude to the intensity of US Darfur advocacy, we do not consider how the worldviews of constituents shape the resilience and diffusion of a given problematization. Finally, and because marketing materials produced by humanitarian and advocacy organizations often represent beneficiaries as needy victims or grateful recipients, field studies may better capture expressions of beneficiary agency in the intervention process (Smirl 2008).

By advancing the notion of problematization, we respond to calls for better theories on the emergence of issues and action in advocacy work (Calhoun 2004; Carpenter 2007a; Holland 2009). As our study shows, “stoves reduce rape” brings conceptual order to complex tragedies; however, by masking the lived experiences of intended beneficiaries simple problematizations inevitably make their realities more chaotic (Law 2004). We do not deny that conceptual boundaries are important for enacting an effective response; these must be conceived with due consideration to beneficiary voices over humanitarian-industrial agendas. We belabor the critique of Escobar, who suggests: “instead of searching for grand alternative models or strategies, what is needed is the investigation of alternative representations and practices in concrete local settings” (1995:19). Dialogic spaces may be better suited for representing concerned voices and negotiating paths to understanding complex problems (Saeed 2010). Importantly, humanitarian advocates must recognize that many intolerable problems have no simple solution (French 1986), lest they continue to blindly foster the crises they claim to avert (Duffield 1996).

We have shown advocacy and problematization to be fundamental to the technologizing of humanitarian space. The themes we explore in this paper have important implications for humanitarian policy, practice, and scholarship. We conclude with a call for more research into humanitarian advocacy, the construction and diffusion of problematizations, the emergence of global panaceas, and technologies of Othering.
References


