## Coming Clean: How an Interorganizational Social Movement Network Creates National Clean Cookstove and Fuel Markets

Collective efforts to achieve the ambitions like the United Nations Sustainable Development Goals can be described as social movements, which are defined as "organized collective endeavors to solve social problems" (Rao, Morrill, and Zald, 2000). It is important to consider that a social movement is organized, since for its sustenance, it requires some form of organization that includes leadership, administrative structure, incentives for participation, and a means for acquiring resources and support (Zald and McCarthy, 1987). In the case of global causes, social movements are often led by coalitions, which are social movement organizations that have a presence in multiple countries and have members that are organizations (Smith, Pagnucco, and Romeril, 1994). Moreover, a goal of these social movement coalitions is the creation of new markets for technologies and services that address the SDGs. Among business managers and development practitioners, there has been an increase in the pragmatic, moral, and cognitive legitimacy for market-based approaches to address social problems (Dart, 2004; McMullen, 2011; Miller et al., 2010). Since "public funds will not be sufficient to meet the scale of financing required for sustainable development" (Thomson, 2016) and philanthropic contributions will also run out in time, markets are seen as a financially viable vehicle for addressing social problems. Hence, the primary research questions of this paper is: How does a transnational social movement coalition, or network of organizations with a leading member, create new markets?

Students of organizations have taken elements of social movement theory to study the dynamic political and cultural aspects of organizations that were previously ignored. These include the effects of public contestation around organizations (King and Soule, 2007) and the emergence and destruction of new organizational forms, markets, and industries due to the efforts of social movements (Sine and Lee, 2009; Hiatt, Sine, and Tolbert, 2009). Most of the research has examined the effect of one social movement organization, measuring the local movement's presence as the number of members there. In contrast to social movement organizations, interorganizational social movement networks have organizations, not individuals, as their members. These organizations can operate in multiple locations, creating network ties between different places. While these ties create network effects that can amplify a social movement's efforts in different areas, working with multiple cross-sector organizations requires immense coordination to change institutional environments and to mitigate power imbalances between actors.

This is where network weavers play a role. Network weavers provide a context for the continuing or regularly repeated relationships between network actors over time (Ingram and Torfason, 2010). Their role of "network weaving" consists of encouraging communication between actors, facilitating shared understandings and identity, and providing an institutional framework for maintaining ties (Krebs and Holley, 2006). In the management literature, intergovernmental organizations (IGOs) such as the International Monetary Fund and World Trade Organization, have been analyzed as network weavers that provide network relations for countries (Ingram and Torfason, 2010).

In this study, I examine the effect of a transnational social movement coalition/network on market creation by studying the impact of the Global Alliance for Clean Cookstoves (henceforth known as the GACC). Clean cookstoves and fuels are technologies that reduce the harmful effects of cooking on open fires, all while addressing 10 of the 17 SDGs (Global Alliance for Clean Cookstoves, 2016b). As a transnational social movement coalition, the GACC acts as a network weaver for its member organizations that are working to create markets for clean cookstoves and fuels in one, two, or many countries. Although efforts are implemented through the GACC's partner organizations, the GACC coordinates the efforts of these partner

organizations in "focus" countries – eight countries that the GACC has chosen for "deeper incountry engagement" (Global Alliance for Clean Cookstoves, 2016e). This coordination is done through a Market Manager who oversees the Alliance's in-country efforts.

Using a network approach, I theorize about the effect of the GACC on the creation of national clean cookstove and fuel markets, which is measured by the number of clean cookstove and fuel company foundings in a country. The GACC can be pictured as an interorganizational network consisting of two types of nodes: organizations and countries. An organization only has outgoing ties to countries, and a country only has incoming ties from organizations. Countries that are central in this network are those with more incoming ties.

When there are more coalition members operating in a particular country, coalition membership creates a shared identity (Buchan, Croson, and Dawes, 2002) and signals viable partnerships through the interorganizational network (Gulati, 1998). This leads to increased collaboration to change the institutional logics in a country (Friedland and Alford, 1991), since social movement organizations with more ties are more likely to engage in collective action (Larson and Soule, 2009) that involves changing the regulatory, normative, and culturalcognitive elements of society (Scott, 2001). Because of the new sector's increased legitimacy through organizations' collective action, central countries will have more clean cookstove and fuel company foundings (Hypothesis 1). Moreover, the effect of country centrality on clean cookstove and fuel company foundings will be greater in focus countries than in non-focus countries (Hypothesis 2), because the GACC acts as a network weaver in these countries to increase collaboration, coordination, and communication among partner organizations. Finally, because organizations conduct a "business scan" (Useem, 1984) in the countries where they work, they become exposed to otherwise unknown information, strategies, framings, tactics, and experiences. In GACC focus countries, there is "more" to scan. Organizations in focus countries, therefore, can transfer framings, tactics, and experiences learned in focus countries to the nonfocus countries where they work. Therefore, non-focus countries with more indirect ties to focus countries (that is, ties through an organization that works in both the non-focus and focus countries) will have more clean cookstove and fuel company foundings than non-focus countries with fewer indirect ties to focus countries (Hypothesis 3).

I use data on partner organizations from the GACC's online partner directory, which currently has over 1,700 partner organizations listed by type (e.g. non-governmental organization, small or medium enterprise, investor, etc.) and the countries where they operate. Organizational founding dates, which are not in this directory, will be estimated through website registration dates. This combined dataset will be used to create an interorganizational network and to count the foundings in each country.

The findings of this study contribute to the body of research that combines organization theories with social movement theory. First, this study demonstrates how social movement theory can be applied to organization theory in the context of a global interorganizational network. Moreover, it shows how organization theory – network approaches, in particular – can be applied to study global, cross-national social movements. This will be important to consider as global movements, as driven by technology but always backed-up by feet on the ground, continue to emerge. This study also highlights the role of a network weaver, which does not implement activities but rather coordinates them. Considering the role of a network weaver as a higher dimensional actor in network approaches would be an interesting venue for future research, as would understanding what is specifically required to support cross-sector, cross-national collaboration.