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Friends or Foes?: Examining Social Capital of International NGOs and Food Security Programs

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Friends or Foes?:

Examining Social Capital of International NGOs and Food Security Programs

by

Mariah Ann Kraner

A dissertation submitted in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy
in
Public Affairs and Policy

Dissertation Committee:
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Abstract

Food insecurity and chronic hunger are devastating global problems currently facing more than a billion people. There are many actors involved in the response to stomp out world hunger, including International Non-Governmental Organizations (INGOs). These INGOs, however, work in tumultuous environments with limited resources. This dissertation examines the INGOs involved in the food security dilemma (N=51) to investigate how they use resources to reach hungry populations.

It is hypothesized INGOs use a mix of material resources and social capital to enhance their organizational performance. However, little is known about the impact these resources have on reaching communities in need. Social network analysis is used to examine the connections between and among INGOs to create a measure of organizational social capital. In addition, material resources, such as human resources, revenue and volunteers are used to examine an organization's material capacity. Material and social resources are examined through a moderated regression analysis to evaluate how they interact, and if the promotion of both types of resources is beneficial to the INGOs and the communities they serve. With data from over 1186 projects globally, results are presented regarding the effectiveness of social capital and material resources in reaching the world's "bottom billion."

This dissertation is dedicated to my family, for without their support, love and encouragement, this project would have not been possible. Thank you, Josh, Kennedy, Logan, Mom and Dad.

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This project also greatly benefited from input of interviewees from International NGOs, whom asked to remain anonymous. However, I would like to especially thank Cathy Bergman from Mercy Corps for her time and helpful insights. Her dedication and passion for food security programs, paired with her vast knowledge helped inform this project and build the case examples through a site visit to Mercy Corps Headquarters.

Finally, without my family and friends this program and project would have not been possible. I thank my husband for supporting me and always pushing me even during my weakest moments. I thank my children for being patient and spirited blessings. I will be forever grateful for their compassion and for sharing their childhood for the pursuit of my doctorate. Also, my mom and dad provided countless hours of childcare; energy and enthusiasm that helped me remain persistent. My friends, and especially those members of my cohort, provided great support and encouragement, for which I am grateful.

Table of Contents

<i>Abstract</i>	i
<i>Dedication</i>	ii
<i>Acknowledgments</i>	iii-iv
<i>List of Tables</i>	viii
<i>List of Figures</i>	ix
<i>Preface</i>	x-xiii
<i>Chapter 1: Introduction and Problem Statement</i>	1
A. A Tale of Two Organizations	1
B. Introduction: INGOs and Food Security	3
C. Why are an Organization's Resources Important	10
a. Importance of INGOs in World Politics	12
b. Organizational Resources and Challenges	17
c. Influence and Survival in the Food Security Network	24
d. Developing Material Capacity and Social Coordination	27
D. Conclusion	31
<i>Chapter 2: Resources and Reach: How INGOs Serve Hungry People</i>	33
A. Introduction	33
B. Food Security Overview	34
C. INGOs: From Preference to Outcome	39
D. Social Capital Resources in an INGO	43
a. Relationships with Donors	45
b. Relationships with Local Partners	49
c. Partnerships with Other INGOs	53
d. Private Business Partnerships	59
e. Mercy Corps Tajikistan Education Program	63
f. Program Engaging Partners Across Sectors: SUN	64
E. Social Networks and Social Capital	66
F. Material Resources	70
a. Private Funds	72
b. Grants	74
c. Human Resources	77
G. Organizational Outcomes	82
H. Social Capital and Material Resource Interactions	88
I. Resource Interaction Propositions	91
J. Chapter Summary	95
<i>Chapter 3: Social Capital: The Measurement Problem</i>	98
A. Introduction	98
B. Organizational Social Capital	99

a. Definitions of Social Capital	100
b. Conceptualization of Social Capital	104
c. Measurement and Empirical Studies	115
d. Outcomes and Benefits from Social Capital	124
C. Limitations to Current Measurement Strategies	127
<i>Chapter 4: Examining Social Relationships Among INGOs</i>	132
A. Introduction	132
a. Why Study INGOs as a Network?	134
B. Expected Relationships within the INGO Community	138
C. Data Collection	141
D. Operationalization of Concepts	144
a. Examining the Network: Social Network Links	145
b. Constructing the Network	150
E. Methods: Social Network Analysis Overview	153
a. Constructing and Choosing Network Measures	155
F. Social Network Analysis: Descriptive Results	159
G. Conclusion	172
<i>Chapter 5: The Interactive Effects of Material Resources and Social Capital</i>	176
A. Introduction: Material Resources and Social Capital	176
B. Hypotheses	177
C. Data Collection	179
D. Operationalization of Concepts	181
a. Material Resources	182
b. Social Capital	182
c. Examining Organizational Outcomes	186
E. Methods	191
a. Empirical Model Specifications	193
F. Analytic Results	196
a. Organizational Description	196
b. Regression Analysis	198
c. Model Summary Results	198
G. Conclusion: Making Sense of the Results	206
<i>Chapter 6: Mercy Corps Narrative</i>	212
A. Introduction	212
B. Mercy Corps Organizational Overview	214
C. Mercy Corps and Social Capital	215
D. Mercy Corps Collaboration with Other INGOs	215
E. Benefits of Collaborating with Other INGOs	222
F. Interactions Between Material and Social Resources	225
G. The Elephant in the Room: Local Partnerships	231

a. Afghanistan Poppy Production	231
b. Coffee and the Hope of Collaboration	233
c. Coffeelands Initiative	235
H. Business Partnerships	237
I. Summary and Conclusion	239
<i>Chapter 7: Implications and Future Research</i>	242
A. Introduction	242
B. Implications of Findings	242
a. INGO Resource Allocation Implications	243
b. Policy Implications	244
C. Limitations	246
D. Direction of Future Research	248
a. Case Study: African Regions	249
b. The Leadership Pipeline & Organizational Stressors	250
c. Test Hypotheses in Another Sector	251
E. Conclusion	251
<i>References</i>	253-271
<i>Appendix A: IRB Approval</i>	272
<i>Appendix B: Interview Consent Form</i>	274-276
<i>Appendix C: List of Interview Questions</i>	277
<i>Appendix D: Invitation to Interview</i>	278
<i>Appendix E: IRB Submission</i>	279
<i>Appendix F: Rank Order- Centrality</i>	280-281
<i>Appendix G: Rank Order- Reach</i>	282-283
<i>Appendix H: Rank Order- Revenue</i>	284-285

List of Tables

Table 1.1	Summary of Organizational Challenges, Pressures and Resources	24
Table 2.1	Organizational and Social Relationship Typology	57-58
Table 2.2	Propositions Regarding Resource Allocations	95
Table 3.1	Adler & Kwon's Summary of Social Capital Definitions	102-103
Table 3.2	Andrews' Survey Items	117
Table 3.3	Andrews' Results: Organizational Social Capital and Performance	118
Table 3.4	Ohanyan's Network Typology	122
Table 4.1	Example Affiliation Matrix	151
Table 4.2	Example Adjacency Matrix	152
Table 4.3	Correlation Coefficients: Material Resources and Social Capital	160
Table 4.4	Social Network Centrality Results	165-166
Table 4.5	Top 10 INGOs for Social Capital	171
Table 5.1	Summary of Data and Source	190
Table 5.2	Descriptive Statistics	197
Table 5.3	Regression Summary	201
Table 5.4	Correlations	202
Table 5.5	Standardized Simple Slopes Significance Test for Social Capital	202
Table 5.9	Standardized Simple Slopes Significance Test for Material Resources	206
Table 6.1	Mercy Corps Business and Foundation Partners in 2012	237-238

List of Figures

Figure 1.1	The WFP Global Hunger Map	6
Figure 1.2	Millennium Development Goal Chart	8
Figure 1.3	Survey Research Results Regarding INGO Resources	12
Figure 2.1	Social Capital Construct	44
Figure 2.2	Material Resource Construct	72
Figure 2.3	Conceptual Diagram	91
Figure 3.1	Adler and Kwon's Social Capital Construct	107
Figure 3.2	Woolcock and Narayan's Social Capital Model	113
Figure 3.3	Moore et al. Conceptual Model	120
Figure 4.1	Eigenvector Centrality & Degree Centrality	157
Figure 4.2	Network Sociogram	163
Figure 4.3	Degree Centrality Sociogram	166
Figure 4.4	Eigenvector Centrality: Shared Location	168
Figure 4.5	Network Sociogram: Eigenvector Centrality Scaling	169
Figure 4.6	Sociogram: Religious and Secular INGOs	174
Figure 5.1	Empirical Model	194
Figure 5.2	Results	201
Figure 5.3	Simple Standardized Slopes for Social Capital	204
Figure 5.4	Simple Standardized Slopes for Material Resources	206
Figure 6.1	Sample Mercy Corps Collaboration Map	240

Preface

In this dissertation, I examine the concept of organizational social capital and the interactive effects of social capital and material resources on achieving an outcome. Analyses were conducted using a network of International Non-Governmental Organizations working in the food security sector (n=51). Taking a sample of 1186 projects, I examined the social connectivity of these organizations. The social capital measure is then examined taking into account the interactive effects of material capabilities, such as revenue, human resources and volunteers. It was found that both material and social resources have a significant main effect and interactive effect when it comes to achieving organizational outcomes.

Chapter 1 opens with an example of two INGOs, illustrating upfront the role social resources can play in meeting organizational agendas. This chapter is intended to give the reader a background in the subject areas this research utilizes, including international politics, INGOs, food security and the current crisis organizations working in relief and developing are currently facing. This chapter introduced the research question and defined the problem, arguing the necessity of studying the topic of INGO connectivity and effectiveness in more detail.

After an introduction to the topics is presented, Chapter 2 hones the theoretical motivation and new conceptual model. The concepts of food security, material and social capital and organizational outcomes are examined. A large

contribution of this work is evident in the development of a new concept never before applied to a global sample.

Chapter 3 reviews the empirical work in the area of social capital. This chapter focuses exclusively on empirical studies (qualitative and quantitative) that provide insight into the current state of research regarding social capital in organizations. I explore the definitions, conceptualization and measurement of an abstract concept, providing evidence of the need for this research project.

Networks and Social Network Analysis (SNA) are introduced in Chapter 4. Using the 1186 global projects, I create a network, connecting INGOs (nodes). The 51 INGOs in this network are connected using a local level proxy, enabling examination of their social capital to be explored empirically. The design, data, concepts, methods and results are presented in Chapter 4. It is found that not all the organizations forming the core of the network are those organizations with high levels of material resources, warranting further examination into the interaction of material and social capabilities.

Chapter 5 uses the information gleaned from Chapter 4 to take the analysis a step further. Given the social mechanisms explored in Chapter 4, Chapter 5 introduces three inferential models, including a moderated regression analysis that examines the empirical relationship between material and social capital. The results indicate there is a significant predictive relationship between the variables of interest, and a non-linear relationship exists when material

resources are introduced as a moderator variable between social capital (x) and organizational reach (y).

In an attempt to bring the theory and empirical results to life, I use a case specific example in Chapter 6. I provide a narrative, illustrating what these mechanisms and relationships actually look like in real life. Mercy Corps was chosen as the organization of focus based on my personal knowledge and social connections. The information was gathered from published work, interviews with employees and a site visit to the organization.

Finally, I review my findings and offer a future research agenda in Chapter 7. My efforts to collect an original data set and develop a new theory were able to answer some of the important questions regarding INGOs and social capital. In Chapter 7, I explain how future research should proceed to answer these questions.

As a full disclosure, I would like to mention that I previously worked at Mercy Corps as a manager in the Learning and Organizational Effectiveness division. During that time, I conducted fieldwork, and liaised with field teams in 49 countries. This knowledge fuels my research interests and assists in providing illustrative examples of this work.

All of the work presented here was conducted while at Portland State University and is approved by the Human Subjects Review Committee (#122372). The data collection procedure, analysis and methods are utilized in

this dissertation in their original form and have not been used for previous publications.

As with any large academic product, this project would have not been possible without the assistance of my committee, family, colleagues and friends. I would like to reiterate my appreciation for my committee members and family for their time and energy in assisting me accomplish this goal.

Chapter 1: Introduction and Problem Statement

Hence, international co-operation and solidarity and the relentless search for consensus become an absolute imperative. They are the only possible alternative for all nations, whose interdependence is being made increasingly manifest by the rapid development of production technology, of transport and communications, as well as by the overhanging threat of deterioration of the environment and exhaustion of natural resources. And what is one to say of the frightful accumulation of means of destruction in a world facing the no less frightful problems of hunger, disease and ignorance?

Federico Mayor, Address to the "Symposium 80" on International Cultural Relations: Bridges Across Frontiers, Bonn, 27 May 1980

A Tale of Two Organizations

Mirroring the quote from Federico Mayor above, International Organizations, much like nation states, can benefit from collaboration to fight against global problems like hunger and disease. Organizations thrive under a myriad of organizational and social environments. However, the power of social relationships is underestimated in organizational development (Cross and Parker 2004; Andrews 2010). In fact, some scholarship argues that developing social partnerships can harm an organization (Pennings 1998; Durlauf 1999). The strength of social relationships can be examined through the story of two International Non-Governmental Organizations (INGOs)- World Vision and Food for the Poor. These two organizations have much in common. They have

roughly the same material resources and each organization has a revenue equal to \$1.5 billion.¹ They are both religious Christian organizations with a mission to serve the poor and feed the hungry. These two organizations, when examined based on revenue and ideology, are equal.

Reaching hungry people is one organizational outcome established for food security programs. World Vision and Food for the Poor are, however, very different when it comes to feeding hungry populations. While World Vision ranks first for reaching people, Food for the Poor ranks twentieth. In more concrete terms, this means World Vision reaches 47 million more hungry people each year with the same material resources as Food for the Hungry. In addition, World Vision is able to offer programs in over 100 countries, where Food for the Poor operates in 17 countries, all in the Caribbean and Latin America². One might expect material resources equate to similar organizational outcomes. There must be something to account for the inequality.

Why do two organizations, both from the same sector, with analogous missions and values, both seeking to reduce world hunger, achieve such drastically divergent results with exactly the same resources? I examine this phenomenon, arguing we must pay closer attention to the direct connection between social resources (an organization's social capital) and its ability to serve its beneficiaries. Here, contrasting World Vision and Food for the Poor is

¹ Both organizations of in the top 5 of the 51 organizations examined in this study for revenue.

² In Figure 1.1, on page 6, you will see that the most needy areas in the world are not Latin America and the Caribbean.

enlightening. One area where these two organizations fall on complete opposite ends of the spectrum is their ability to form relations with other INGOs. World Vision ranks second in my social capital measure, which is discussed later in this chapter. They are at the top of the *'food chain'* in their ability to partner and reach vulnerable populations. Food for the Poor, on the other hand, is nearly last; they rank 45 out of 51 organizations. It is reasonable to assume, given the drastic difference in the number of people assisted (47 million hungry people) that social capital deserves attention to assist policymakers and INGO leaders in examining resources, both material and social. I examine the food security network, introduce methods for assessing social capital in organizations and seek to understand to what extent social capital in the INGO sector assists in achieving an important mission to stomp out world hunger.

Introduction: INGOs and Food Security

International non-governmental organizations (INGOs), like World Vision and Food for the Poor, are now one of the largest categories of international organizations in the world.³ The study of international organizations is well established. Current scholarship is growing within the international relations field. There are studies of organizational influence and interdependence (Keohane and Nye 2001; Rosecrance et al. 1977; Tarrow 2005) international organizational norms (Barrett and Finnemore 1999), and organizational

³ As of 2000, there were 45,674 international NGOs (see Ahmed and Potter 2006 and Boli and Thomas).

governance and decision-making (Alison 1972; O'Neal 1990). INGOs are important actors in global politics for three reasons. INGOs respond to global emergencies where states are unable or unwilling to act; they propel the emergence of new norms in an age of interdependence among states, challenging policy decisions; and they challenge the traditional power structure of international relations theory. Therefore, INGOs deserve further exploration in international relations scholarship.

There are, however, few studies of international organizations and the power they acquire from social interactions. Connections and social capital can be a powerful asset to organizations, especially those operating in isolated environments. When we narrow the focus further to non-governmental organizations, we find little literature focusing on social capital of these organizations. This is puzzling, as the INGO sector is based on global partnerships, community building and collaboration. Why then, have we seen so little in terms of the examination of the roles social resources play in the promotion of these organization's goals and missions in scholarly research?

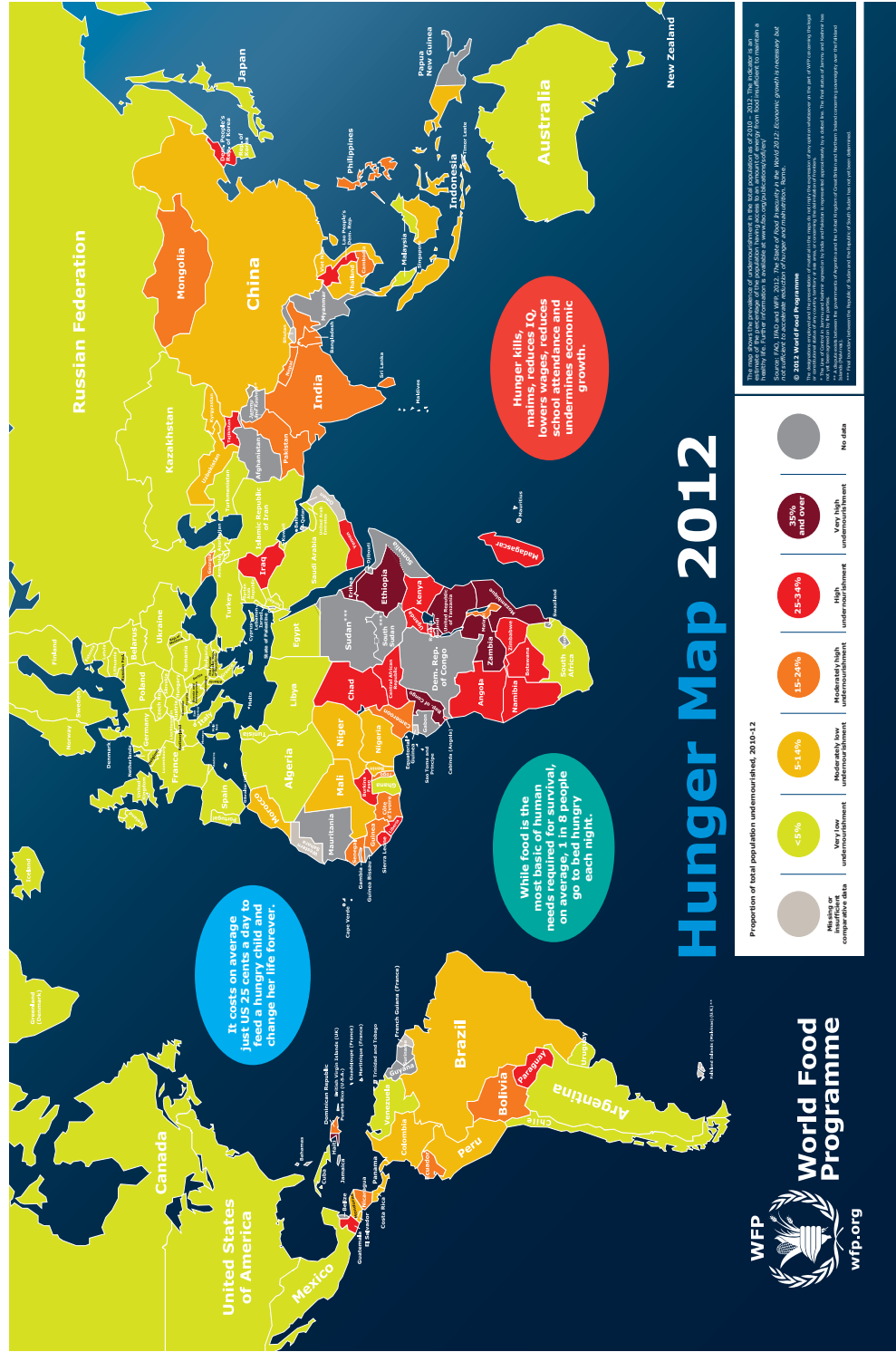
I create a new model for examining organizational capacity, taking into account material resources, such as revenue and human resources, as well as social resources, which are historically underrepresented. In order to build these new measures and test the affects of social capital, I have chosen a sector that is

extremely relevant with growing international food prices, drought and global crises – food security.

There are currently one billion hungry people in the world, 90 percent of which are chronically hungry and malnourished. This is more than the population of the United States, Canada, and the EU combined (The Hunger Project 2011). Currently, 35 million people live with HIV/AIDS worldwide – not even half the number affected by malnutrition. In addition, of the world's 1.4 billion poor, 75 percent live in rural areas and are dependent on agriculture and related activities (FAO Report 2010). Hunger remains among the world's top public health challenges. UNICEF estimates that 60 percent of child deaths in developing countries are from malnutrition. Those lucky enough to survive hunger in the early stages of life are at risk for irreparable physical and mental health issues as adults.

Food security is a global problem, although it effects certain regions more predominantly. Figure 1.1 below illustrates the main concentration of global food insecurity from the World Food Programme perspective (2012). An examination of this map illustrates that although food insecurity is a global problem, the most effected areas are primarily in Africa and South Asia

FIGURE 1.1: The WFP Global Hunger Map



Source: World Food Programme's Website, 2013

Food security has attracted attention in international policy forums. The United Nations (UN) established eight Millennium Development Goals (MDGs), ranging from decreasing extreme poverty rates to ending the spread of HIV/AIDS, to opening access to universal primary education. The MDGs were established as a roadmap for all countries and development leaders. They provided agreed upon goals, with a target completion date of 2015. To address growing food insecurity, MDG number one is to reduce global poverty and hunger, illustrating the prominence of the issue and the necessity of a structured response. However, the UN's data in Figure 1.2 below illustrates, despite efforts to increase programs to target hungry people, the 2015 targets are looking grim. The final measurements regarding MGD goals will likely disappoint policy makers. With results less than impressive, INGOs are inevitably going to face challenges in changing programs and organizational practices to achieve lasting results. Figure 1.2 below illustrates progress in Eastern Asia, South-Eastern Asia and Latin American countries is almost diminished when we consider the drastic setbacks in Africa and the Southern and Western regions of Asia over the last decade. With new programs implemented at the turn of the century, development experts expected more positive results. While declines in hunger were once trending in a positive direction prior to the global market collapse in the early part of the new millennium progress has now slowed drastically. Estimates suggest that if contexts in the poorest nations do not change by the

year 2020, we can expect the numbers of men, women and children fighting preventable water-borne diseases, malnutrition and even death, will rise.

FIGURE 1.2: Millennium Development Goal Chart
Setbacks on hunger nearly outweigh progress

Region	Change in number of people with insufficient food between 1990-2000 (millions)
Eastern Asia	-47
South-Eastern Asia	-12
Latin America & Caribbean	-7
North Africa	+1
Western Asia	+8
Southern Asia	+15
Sub-Saharan Africa	+34

Source: Millennium Development Goals Report, United Nations (2005, 8).

Figure 1.2 illustrates the lack of progress in an area desperate for improvement, as 3.5 million children continue to die each year from starvation (Action Against Hunger Website, October 2013). In fact, they estimate:

The number of undernourished people in developing countries using the old estimate was 824 million in 1990-92. In 2010-2012, the number had increased to 870 million people. So rather than being cut in half (to 420 million), the number has increased to 870 million (worldhunger.org October 2013).

These statistics demonstrate the current response is inadequate, however, little information exists that assists INGOs and policy-makers in building sustainable solutions to combat the challenge.

In order to reach the larger growing food insecure population, I argue INGO's require social and material resources. INGOs, such as OXFAM, Save the Children, Mercy Corps and Catholic Relief Services, currently provide an avenue

for reaching the world's "bottom billion"⁴ –those suffering from severe poverty, malnutrition and insecurity (Collier 2007). These organizations are pivotal in enabling a global response to stomp out hunger. They also provide related services such as creating access to clean water and administering vaccines against deadly diseases. Although INGOs work in many areas, I focus on food security programs these organizations developed and implemented. The programs I examine aim to provide access and means of producing enough of the right kinds of foods to provide healthy and nutritious choices for those facing daily hunger. There are 51 such INGOs focusing on food security as one of their major goals. I examine all 51 organizations to develop a complete global network. This examination will allow a bird's eye view of the organization's connections and resources, both within and outside the organization. Understanding both the social and material resources and their interaction is essential for INGO survival and achievement of their missions to alleviate the pain and suffering associated with chronic hunger.

The ability of INGOs to respond to global emergencies, including growing food insecurity, in any meaningful manner, is directly related to the resources they are able to secure in relation to their missions. Yet their ability to respond is constantly in jeopardy because these organizations, many of them working in isolation, lack organizational capacity. An INGO's effectiveness in targeting time

⁴ Paul Collier coined the term "bottom billion" in his 2007 book. Collier conceptualized the "bottom billion" as those people in the world who have and are expected to continue, living under conditions of extreme poverty, food insecurity, and limited access to development opportunities.

and money to developing relations is tied to its ability to build organizational capacity, drawing on both social capital and material resources. This dissertation examines INGOs from a material and social standpoint to answer the following research questions:

1. *What makes INGOs effective? How can social and material resources be differentiated to explain an INGO's ability to reach hungry people?*
2. *How are social and material factors related to each other in the promotion of global food security?*
3. *To what extent does an organization's social capital predict its humanitarian reach, when moderated by the organization's material resources?*

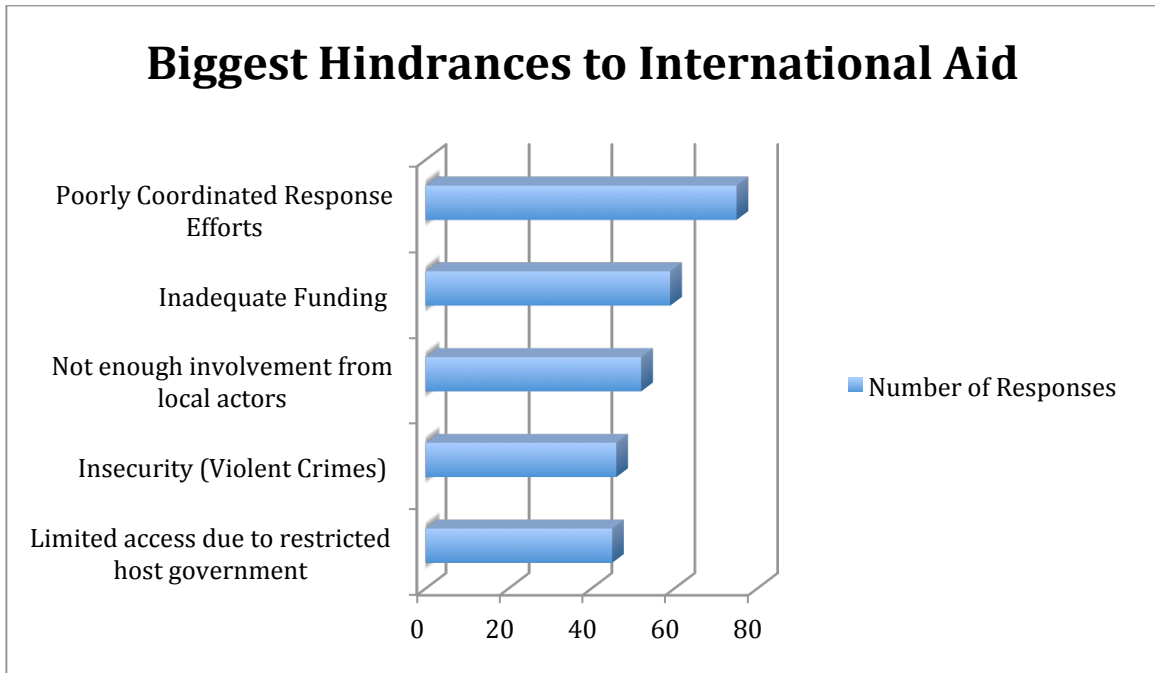
I propose that the organization's social capital provides an alternative avenue for reaching vulnerable populations. In order to examine these questions, I use quantitative data to evaluate the material resources and social capital in relation to reach, or the total number of people served by such organization's food security programs. In addition, a small sample of qualitative data gathered from interviews will be used to further bolster the theoretical elements I aim to develop for the use of organizational resources in Chapter 2.

Why Are an Organization's Resources Important?

An INGO's capacity to serve its constituency is dependent on its material organizational resources, including its financial and human capital. It is also dependent on social resources, such as its relationships with other actors

engaged in the same and related relief activities. In a survey of 631 INGO leaders (ALNAP 2012) from 183 organizations, this dilemma is highlighted. These leaders were asked what they view as the largest hindrances to their ability to deliver aid effectively. Seventy-five leaders agreed the biggest challenge is related to poorly coordinated response efforts between INGOs. In order to effectively respond, these organizations must coordinate. Ranking second, was lack of funding, followed closely by social relations with local actors. These results strongly suggest social relationships with local and INGO actors and material resources are partly responsible for inadequate programs. Yet, researchers have not taken this finding further to examine causal mechanisms or developed predictive models to help aid organizations and policy makers in combatting this challenge. The summary results of the survey can be found in Figure 1.3 below.

Figure 1.3: Survey Research Results Regarding INGO Resources



Source: *The State of the Humanitarian System, ALNAP, July 2012.*

Despite understanding these resources are important, the interplay between material and social capital capacities and the ability for INGOs to carry out their humanitarian missions is understudied in social science literature. The interaction of these two types of resources is important to understand. As nonprofit organizations, INGOs must find the right balance between devoting resources to networking and building relationships, on the one hand, and competing with other INGOs in an effort to secure scarce funding for their work and, ultimately, their organizational survival. To best assess the research questions posited here, this manuscript is organized as follows. In the remainder of Chapter 1, a brief overview of the concepts will be presented outlining key

terms, including the importance of INGOs in world politics. I begin to discuss the need for their material and social resources. Chapter 2 is devoted to an in-depth discussion of the conceptual model, further developing the concepts introduced here, as well as developing a theory of INGO resource interaction. Chapter 3 will provide a literature review, used to explain areas to generate new knowledge and build on existing research. Chapter 4 presents the design, data, methods and analysis relating to social resources. Descriptive network results will be presented to build the empirical social capital measure, using Social Network Analysis (SNA). Inferential results, including a measure from SNA results and moderated regression analysis will be presented in Chapter 5. In Chapter 6, I present a brief narrative of one organization in the sample- Mercy Corps, to illustrate my conceptual model in action. Finally, a discussion of the importance and implications of this research is addressed in Chapter 7, with an explanation of the goals of future research.

Importance of NGOs in World Politics

Nongovernmental organizations are important actors in global politics. As international actors, they challenge traditional conceptions of power in international relations theory. INGOs respond to global emergencies where states are unable or unwilling to act, sometimes changing the policy decisions of states. Together, they propel the emergence of new norms in an age of interdependence. Currently, INGOs are key actors responding to global crises

including climate change, poverty and hunger, the AIDS epidemic, and catastrophic natural disasters including multiple tsunamis and earthquakes. It is an understatement to say these organizations are essential to global governance. These organizations enhance the global society's capacity to respond to natural and human-made emergencies.

INGOs play many roles in international politics; they are policy activists, public educators, agenda-setters, monitors, project implementers and watchdogs (Spiro 1995). The variety of roles they play highlights their unique position in the governance system as catalyst of change. Understanding how and why INGOs matter means taking a nuanced view of the international system whereby INGOs are among the many players facing constraints and opportunities to effect change in countries suffering and recovering from conflict, catastrophes, and poverty.

The INGO sector has grown rapidly since the end of World War II, and exponentially after the end of the Cold War.⁵ Most of these organizations are located in America and Europe, although a few large INGOs are located in Africa⁶. There are rival hypotheses regarding why this increase has evolved. However, most scholars argue the transition is due to an international environment that is moving from a bi-polar to a multi-polar world (Willetts 2001; Lee 2006; Economist 1999; Mathews 1997; Risse-Kappen 1995). This means that

⁵ As of 2000, there were 45,674 international NGOs (see Ahmed and Potter 2006 and Boli and Thomas).

⁶ Africare is one example of a large Southern NGO (SNGO).

while the largest and most economically equipped nation states were the main actors internationally prior to the Cold War, we now see other means of international pressures, including actions from non-state actors and multinational corporations. Some argue the rise is partly due to globalization and our ability to communicate and travel across borders with ease (Singer 2002; Rosenau 1980). Others argue increased affluence is responsible. Through a correlation analysis between the rise in INGOs and status and credential variables, such as the number of people earning advanced degrees, Turner concludes that these elements co-vary (2010). Lester Salamon combines the above reasons stating that growth is due to three factors: the global communication revolution, the retreat of the nation-state, and economic growth or affluence (2006).

The less studied, but more powerful explanation, relates to the international institutional structures developed to support INGO participation. This argument is parallel to the argument that there are many players in world politics aside from just nation-states. However, the international institutionalization argument does not suggest that nation-states are losing as much prominence (see Willetts 2001). It is suggested that with the development of the League of Nations, non-governmental participation was encouraged, laying the stage for enhanced participation later. When the UN took over for the League, and after the 1945 San Francisco conference, INGOs found a permanent home in the intergovernmental (IGO) structure. During the drafting of the UN

charter, INGOs were invited to participate and were instrumental in formulating the preamble. Subsequently, the UN, through the Economic and Social Council (ECOSOC) created an INGO branch institutionalizing the partnership. The “NGO charter,” under Article 71, entitles NGOs to act as consultants to the UN on a variety of policy issues (Spiro 1995). Currently, over one thousand NGOs have consultative status, which is far greater than the ninety participating in 1949.

INGOs have gained momentum in the international system over the last forty years. Government support for INGOs also grew during the 1970s and 1980s. In 1973, the U.S. Congress mandated a “new direction” for development and switched to supporting INGOs directly, in addition to supporting these organizations through large bureaucratic aid agencies. INGOs, the Congress believed, were in a better position, compared to large donor agencies, to reach the poorest of the poor worldwide. The 1980s were coined the “development decade” and INGOs seemed to become a favored partner of governments. The transition was reflected in the levels of official development assistance (ODA) to INGOs, which grew from \$1 billion in 1970 to \$7 billion in 1990 (Ahmed and Potter 2006).⁷ Additional resources created opportunities for INGOs to participate more broadly and influence global culture.

The rise of INGOs and their partnerships with states and IGOs has created

⁷ “In 1992, NGOs provided \$8.3 billion in aid to developing countries, representing 13 percent of development assistance worldwide. Securing government action is no longer always necessary to the bottom line” (Spiro 1995, p. 4).

momentum for the expansion of a global civil society characterized by a variety of horizontal relationships alongside vertical power structures. Global civil society gave rise to collective action by groups whose activities are held together by common purposes. Global civil society is said to be located outside the state, but above individual non-state actors. Keck and Sikkink (1998) take the idea further and suggest that the linkages among these actors in world politics form networks. Their concept of transnational advocacy networks suggests that INGOs and their interactions fall somewhere between civil society, domestic governments, and international organization. Here, the interplay between communities, governments, and INGOs forms a unique organization structure. Actors work both in collaboration and competition with one another to address such issues as global hunger.

The INGOs studied here work with an organizational imperative to alleviate pain and suffering. As global food insecurity rises, the need to work to combat hunger and advance development increases dramatically. Emergency response efforts often include any combination of local, regional and international action. However, the state of the international non-profit relief organizations is under increased strain. The INGO sector is facing human capital shortages, increased needs for response efforts and competition for scarce programming resources and grant funding from donor organizations. Considering these challenges, INGOs are squeezed between the need to create programs and deliver necessary services and the need to develop material

capacity, including after-action reviews and data collection to improve future efforts. With natural disasters increasing in frequency and scale and food insecurities at an all-time high, there are two strains that limit INGOs ability to direct their own food security programming agendas, making them more vulnerable to resource dependency. The resource dilemma and donor dependency problems both play a role in INGO fieldwork and priority setting, moderating the reach to communities, which will be examined later in this research.

Organizational Resources and Challenges

All organizations face challenges, from vitality and relevance to stability and longevity. INGOs prove no exception. As such, INGOs expand capacity based on two divergent, yet related types of resource. I term these material resources and social capital. By material resources, I mean the staff (leadership teams, employees, volunteers) and total revenue (from contracts, grants and donations). Together, the staff and funds available to the organization shed light on the organization's ability to complete projects and reach vulnerable populations. These resources are examined to gauge an INGO's reach, or the number of food insecure people they serve. Studies in the INGO literature that discuss organizational capacity focus on what I call material resources. Based on the number of employees and size of the budget, material resources can be used as a measure of influence. Considering only material resources, especially given

the environmental context in which these organizations' work, explains little. Relationships with other organizations provide an enhanced ability to respond to emergencies and build programs based on each organization's comparative advantage, such as the case with World Vision and Food for the Poor introduced at the beginning of this chapter.

While material resources are important, an organization's capacity is also sensitive to its environment and social resources. By social resources, I am referring to the organization's collaboration with partners, former colleagues and other INGOs working in analogous communities, which forms the organization's *social capital*. In addition, INGO and donor relationships are relevant to an organization's social capital. Organizations with a proven track record, including long-term servicing of government grants, tend to be funded on multi-year and multi-award contracts. Given the diminishing development assistance funds, importance is placed on established relationships. Relationships with donors create a connection to funding opportunities, and therefore can increase material resources simultaneously. Therefore, INGOs' ability to develop such partnerships becomes imperative for organizational survival. Here, I am proposing that examining relations between and among INGOs and donors is an alternate way of examining an organization's resources – the organization's "social capital."

Organizational social capital is a complicated concept. I am using this term to refer to the relationships the organization secures, which can be thought of as their professional “friends” or “network.” The extent to which an INGO networks, creates lasting relationships and communicates with other organizations, can be seen as an asset. I propose that the organization’s social capital provides an alternative avenue for reaching vulnerable populations. It provides a resource outside material resources, including the ability to raise money and hire highly qualified people. Within the challenging environment that these organizations work, developing high levels of social capital may be beneficial, but this hypothesis has yet to be tested. Within the INGO community, anecdotal remarks suggest that social capital of these organizations helps improve programming decisions, funding coordination and reach. Empirically, however, no current measure or test of the impact of social capital exists in this sector.

Moreover, INGOs face a range of pressures related to the work they do and the material and social contexts in which they must operate. First, they face a plethora of material challenges. To carry out their work, they need strong leadership teams, knowledgeable staff, and support personnel with a proven ability to reply to and receive funding.⁸ Capacity is built through surmounting the challenge of recruiting and retaining staff in a highly competitive

⁸ In most large INGOs, over 50% of their funding comes from government grants, and therefore requires a strong ability to respond to requests for assistance (RFAs) from organizations like USAID and DFID.

environment, with limited monetary resources at their disposal. For example, in 2004, after the Indian Ocean Tsunami, INGOs including the largest such as CARE, World Vision, Mercy Corps and Save the Children, all required highly skilled water engineers to quickly protect the water tables after the flooding to avoid contamination, with resulting threat of diarrhea, cholera, and typhoid imminent. During a time of global catastrophe, these organizations were facing a massive challenge to find, hire, orient, and deploy qualified professionals from a very limited recruitment pool. Each organization, if competing with other INGOs, would have to secure the necessary personnel to achieve their programmatic goals and, inevitably reach affected communities alone. This isolated agenda, however, is rarely successful. To be sure, INGOs needed a good reputation to attract the best talent. Additionally, they need to offer the best living arrangements, rest and relaxation packages, and compensation. Overcoming the internal recruitment challenge means offering employee support, training, and opportunities for advancement, whilst being compared to the other organizations vying for the same personnel. Therefore, material challenges and social pressures do not operate in a vacuum. They are sensitive to the social challenges each organization faces.

As with material challenges, there are several social challenges INGOs face. First and foremost, they must build relationships with other INGOs who are often their rivals. These organizations compete to recruit employees and gain access to scarce grant funds. With limited capacities, the ability to reach

vulnerable populations depends on leveraged resources. INGO interaction takes different forms. For example, INGOs collaborate on funding proposals, establish best practices, and assist each other in providing housing and protection in the field. When INGOs work in the same country and cooperate with the same donors, they are *connected* intimately in the field. Considering food security, the projects are themselves co-dependent (Pinstrup-Andersen 1999). The response to food security issues requires collaborated efforts, such as simultaneously addressing food insecurity alongside treating HIV/AIDS, access to clean water, the development of sanitation infrastructure, and educating the community on all of the aforementioned. As such, INGOs in the field tend to collaborate based on their collective comparative advantage. Their interventions, then, tend to be connected. Therefore, the social environments in which INGOs operate suggests organizations working in the same location have programmatic connections.

Industry best practices suggest that when relationships are forged; the opportunity for improved responses grows dramatically. For example, if Mercy Corps and CARE propose a response to food insecurity in the Horn of Africa in isolation, services can, and often are, duplicated; limiting the impact of scarce resources. In order to develop collaborative responses, however, INGOs must communicate, work together and be willing to establish partnerships, both official and unofficial, to help the neediest populations. Without such collaboration, the “NGO swarm,” is inevitable and the organization’s mission is in danger (Cooley and Ron 2002). By NGO swarm, Cooley and Ron are

explaining the effect of multiple INGOs working in the same location, without collaboration, which evidence suggests is ineffective (Duffield 1993).

Partnerships are important, but funding is also essential to survive. In most sectors, including those pertinent to food security, resources are scarce. The dual imperative to secure funding and build partnerships can also create organizational pressure. Most INGOs attempt to build diverse funding portfolios, including a mix of government contracts, foundation grants and private donations to alleviate fiscal pressures. However, the majority of INGOs both currently and historically have strong government contract portfolios. Servicing primarily government grants creates a tension between the organization's mission to remain apolitical and the public's impression of these organizations as servicers of government grants. The challenge arises when INGOs are publicly aligned with political ideologies, especially in situations where the alignment with a government entity can inhibit their ability to work effectively in another state. For example, Mercy Corps is attempting to work in the Afghan communities to limit opium production. However, they do not want to take government grants to achieve the program goals because they could lose the support of the Afghan communities, who have a high level of distrust of the government. Here, Mercy Corps must forge a relationship with another INGO who can work directly with the government, whilst Mercy Corps continues to work at the community level. Understanding this organizational challenge elucidates why we should focus on material and social challenges in tandem, as

the mission and goals of the employees and organizations they serve are sensitive to the social environments in which they operate. Table 1.1 below summarizes the concepts that will be used in this dissertation regarding material and social challenges, pressures and resources.

TABLE 1.1: Summary of Organizational Challenges, Pressures and Resources

	Material	Social
Resources	<ul style="list-style-type: none"> -Employees (leadership teams, lobbying teams, paid staff) -Volunteers -Operating revenue (grants and contracts) 	<ul style="list-style-type: none"> -Collaboration with other INGOs and consortiums -Partnerships with local NGOs -Established relationships and track records with donors -Partnerships with businesses
Challenges and Pressures	<ul style="list-style-type: none"> -Recruitment and retention -Lack of funding -Other NGO competition -Working in insecure environments -Providing employee support, training and opportunities for advancement -Building diverse funding base, including both government and private donors 	<ul style="list-style-type: none"> -Building relationships with other NGOs (whom are also competitors) -Operating in and across niches -Building trust with local populations -Including local partners in the response efforts -Operating as apolitical organizations in political environments

Influence and Survival in the Food Security Network

The unique challenge of operating in tumultuous environments with limited resources drives a cultural adaptation of a network structure. Across all sectors, INGOs have formed partnerships, such as LINGOS (Learning in INGOs) and InterAction, which encourage inter-organizational collaboration and information sharing. In the twenty-first century, a transition to seeing multiple

actors in the governance system can be examined, which includes non-governmental actors. This adaptation of the international system lends itself to a network form of organization, rather than a bureaucratic or market-driven system. Van Tatenhove, Arts and Leroy (2000, 48) identified the following major evolutions in the government network system: (a) the traditional divides between state, market and civil society are disappearing, while (b) the interrelations between these spheres increasingly exceed the nation state, (c) resulting in new coalitions between state agencies, market actors and civic parties both on local and global levels (see also Abbott and Snidal, 2009; Marx 2011). Hence, interactions between and among actors are best conceptualized as a network.

When INGOs operate as a network, they communicate frequently in the field and through national headquarters, share human and other material resources, and initiate programs based on comparative advantage. While large INGOs operate programs in multiple sectors, most INGOs in fact have particular operational niches, (Stoddard 2003). For example, CARE (food security), Médecins Sans Frontières (health), and Oxfam (sanitation) and, Save the Children, direct their programs at particular classes of beneficiaries. Therefore, isolating and examining specific sectors within the INGO community may yield insights about prominent actors and their relationships, the composition of which is likely to vary. In sum, INGOs often become mutually dependent.

To be a powerful force in the food security network means more than the

possession of financial resources and personnel. To be sure, such resources are important to INGOs. For example, CARE is one of the largest INGOs in the United States, operating with budget and staff numbers that far exceed many other organizations, such as Africare, Concern Worldwide, and Food for the Hungry. Nevertheless, some INGOs that lack these material resources have managed to become prominent in the food security network, and effective in carrying out their missions, by virtue of the relationships they develop with other INGOs at both the international and local levels. The example regarding World Vision and Food for the Poor at the beginning of this chapter illustrates that similar material resource does not always mean analogous outcomes.

Catholic Relief Services (CRS), for example, has built strategic partnerships with Mercy Corps, World Vision, and CARE to expand their reach and deliver food packages to insecure environments they might not otherwise be able to reach. CRS, therefore, is not solely reliant on short-term contracts from state donors. Moreover, due to their religious affiliation, they are able to diversify funds by reaching out to Catholic dioceses in the United States and Europe.

Material resources do, to some extent, go hand-in-hand with the development of ties among INGOs and donors, and these relationships in turn, generate opportunities for accessing additional resources. However, there is also reason to believe some organization that are poor in material resources, are able to mitigate the disadvantages in carrying out their missions by relying more heavily on relationships they have built over time with other actors in the food

security network – that is, their social capital (Boli and Thomas 1999; Putnam 2000; Florini 2000; Salamon 2000). “NGOs live in a world where financial capital is highly dependent on social capital – the reputation of an organization is directly related to its ability to raise funds from governments and individuals” (Salm 1999, 95).

Both material resources such as financing, staff, and volunteers and social capital collaborations with other NGOs, local partners, and donors are essential to an INGO’s effectiveness and longevity in the food security sector. INGOs need to balance cooperation and coordination with the material imperatives of organizational survival and growth. INGOs have developed strategies for both organizational capacity building and the development of social relations. In Chapter 6, a case example for Mercy Corps illustrates the types of collaborative programs that depend on both material and social capital. To this end, INGOs also need to diversify funds.

Because INGOs deal with constant human resource shortages, they are engaged in recruiting and retaining a highly skilled workforce. Directing resources to fundraising activities comes at some cost to assets available to implement their assistance programs and carry out their mission. Socially, they need to collaborate with other INGOs while at the same time competing with them to secure scarce funding. INGOs also strive to maintain their autonomy, balancing demands from donors against their own philosophies and experiences concerning what works best in the field and what promotes the health of the

organization itself. Managing both material resources and social relations can lead to competing initiatives to scale up and scale out; they must decide when to use resources to build up material capacity and when to collaborate and build social network capacity. A thriving organization strikes a balance between social capital and material capacity building.

Developing Material Capacity and Social Coordination

As previously discussed, the challenges of staff recruitment and retention, and the consequent push to build material capacity compete with the organization's imperative to dedicate resources to fundraising and programming. These, and other demands on INGO resources, lead to more donor dependency and encourages increased partnerships within the INGO community in the global community – international and local – in an effort to pool and leverage limited capacities. The food security network has become more complex as a result, and navigating this terrain requires more staff and other resources be dedicated to coordination and relationship building. When successful, the INGO's ability to reach its constituents is improved. When not, the effort can further diminish the organizations material capability and undermine its humanitarian mission.

Developing social capacity means building effective donor relationships and creating working relationships with other INGOs. Evidence suggests tightly run capital campaigns and collaborative INGO networks have a greater impact on both funding and effective advocacy. The anti-landmine campaign is an

example of INGOs forming a purposive international network and ultimately influencing the policy agenda of a majority of states and key IGOs. This network developed as a result of strategic relationships between and among international and local NGOs.

There are many factors needed to develop social capital and relationships with other competing agencies. As Yanacopulos (2005) argues, resource dependent INGOs develop preferences for three strategies: coalition building, tactical lobbying, and coordinated campaigning. Nelson (1996) supports this argument and adds that coalitions form the basis for exerting influence over donors. INGOs face a greater push to use partnerships, as the less developed countries fight for a voice in their own development (Salm 1999). However, where more coordinated effort and partnerships can lead to pooled resources and greater reach, it can also lead to irrelevance or loss of autonomy, whereby INGOs begin to experience countervailing imperatives, resist cooperation, and strike more competitive postures. In different situational contexts, INGOs must balance the need to cooperate with the need to maintain material capacity and remain relevant within the food security network.

INGO success also depends on relationships with donors in the network. Since the end of the Second World War, and especially since the INGO growth of the 1980s, there has been an increase in the number of dollars distributed for international development. The purpose of these funds is to develop better standards of living in the third-world, reducing poverty and alleviating human

suffering. INGOs, however, are often seen as agents and not partners with the donors. INGOs have the clearest picture of what happens in the field and are in a position to direct donor priorities. This rarely happens, however. Donors tend to set the priorities and INGOs adjust to be competitive bidders for grants and other aid allocations. As Ohanian (2009, 476) states, “the inherent richness of the interplay between NGOs and their donors mediates the linkage between power differentials and policy outcomes.”

Studies have pointed to the frequency of complicated, often paternalistic relationships between donors and INGOs (Keck and Sikkink 1998; Edwards 1999; Mendelson and Glenn 2002; Nelson 1997). As INGOs face material resource scarcity, they are vulnerable to donor demands and priorities. Even when they operate under a collaborative relationship, the INGO represents the interests of the donor through acceptance of funds. Currently, CARE and Save the Children have budgets with over 50 percent government short-term contracts. INGOs who operate to service government grants risk losing sight of their humanitarian missions.

There are costs to INGOs behaving like “public service” contractors in their effort to adopt the proper mixture of assets in the service of both humanitarianism and pragmatism (Madon 1999). INGOs have expanded organizational capacities to make the best of their relationships with donors, although their humanitarian missions may not be well served. As INGOs begin servicing state needs and developing an uneven balance of ODA and private

funds, they weaken their ability to assess situations on the ground and make need-based decisions to allocate resources. INGOs like Mercy Corps, which operate in food insecure environments such as Somalia, are at risk of becoming enslaved to donor agencies. Most donor agencies have allocated limited resources to Somalia despite the growing levels of malnutrition and starvation, leaving the INGOs who operate there little room to develop programs to address the documented needs. Instead, INGOs that are highly dependent on donor agency funds may choose to service the perceived needs of the bureaucrats rather than the perceived needs of the food insecure.

Moreover, INGOs acting as public service contractors become open to scrutiny. The purpose of INGO activity was initially to act where governments could not or would not. Servicing government grants, however, leads INGOs back to becoming more political and less able to challenge states on areas of food security programming. Cooley and Ron (2002, 13) state:

When an organization's survival depends on making strategic choices in a market environment characterized by uncertainty, its interests will be shaped, often unintentionally, by material incentives.

Thus, when INGOs become public service contractors they are likely to accept perverse incentives to secure survival. I posit, developing a diverse social network can assist in combating this challenge.

Conclusion

As modern emergencies increase and the scale of demands rise, INGOs must coordinate their limited capacities to effectively respond. Despite the

MDGs effort to place importance on basic needs such as food and clean water, the global community is still plagued with chronic hunger and food related illness. Understanding the importance of material resources and social capital can serve as a first step in identifying what an INGO needs to successfully carry out its mission to alleviate pain and suffering of the world's "bottom billion." Generally, INGOs lack the breadth or technical expertise and material resources to launch responses in isolation. In sum, considering the co-dependence between and among INGOs, an examination into their work without considering the network structure within which they operate provides only a partial picture.

I examine the social and material capacities in tandem, illustrating how organizations can use divergent sources of power to achieve their missions. In Chapter 4, using 1186 projects delivered by INGOs, I examine social relationships through Social Network Analysis (SNA). In Chapter 5, I examine the interactive nature of these divergent resources through a moderated regression analysis. The results indicated that social and material resources are important aspects in reaching hungry people, although social resources can also harm an organization, if material resources are not sufficient to withstand business demands, which was contrary to my expectations. In the next chapter, the concepts introduced here will be fleshed out, building a theoretical model for which the rest of this research is based, including the concepts of social capital, material resources and organizational outcomes.

Chapter 2: Resources and Reach: How INGOs Serve Hungry People

Introduction

In this chapter, I utilize multiple concepts to develop a model to measure INGO performance, which encompasses different resource interactions. It is posited that INGOs use a mix of resources to achieve their missions. Some of those resources are material, such as human capital and revenue. Other resources are social, gained through collaboration and fostering relationships with other organizations, donors and public entities. The social resources form the organization's social capital. A theoretical representation of these resources and their interactions is discussed, outlining the concepts and challenges related to the following constructs: social capital, material resources, and organizational outcomes. Information was gathered largely from the academic literature and INGO reports. In an effort to build a thorough model, I also conducted interviews with representatives from INGOs between December 2012 and March 2013. I conducted both in person and telephone interviews with influential members, using a brief interview guide found in the appendix.

Prior to discussing the components of the theorized relationships between social and material resources, the concept of food security is introduced. Next, a brief explanation of INGO decision-making is discussed. Finally, the importance of an INGO network is discussed. This chapter concludes with a complete

overview of the theoretical model. I will then operationalize many of the concepts developed here, when I present empirical models later in Chapters 4 and 5.

Food Security Overview

Food security can be a difficult concept to explain (Borton and Shoham 1998; Jaspers and Shohan 1999; Campbell 1991; Rosegrant and Cline 2003; Pinstrup-Anderson 2009). INGOs are working to combat the world's food insecurity problem, addressing the millions of people who live each day without enough to eat or the correct balance of nutrients to live active, healthy lives. Therefore, INGOs are working to create a culture of food security. The word "security" implies a sense of food safety, and that is not what we mean when we examine food security. During the World Food Summit in 1996, the following food security definition emerged, stating food security exists: "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life." Food security is a multifaceted concept, which includes both physical and economic access to food. To meet the definition of food security, programs must meet both a person's dietary needs as well as their preferences (Schanbacher 2010; WHO Website 2013). Across the globe, health problems related to dietary excess and lack of access to food are an ever-increasing threat (Barrett 2002). Moreover, malnutrition and food related illness coincide to create additional risks to already vulnerable populations living in extreme poverty

(WHO website 2013). According to the World Health Organization (WHO), food security has three main pillars (2013):

- **Food availability:** appropriate quantities of food available regularly.
- **Food access:** sustaining sufficient resources to procure appropriate foods a well-rounded and healthy diet.
- **Food use:** appropriate use adhering to basic nutrition and care, including appropriate use of water and sanitation practices.

Tackling the global food security dilemma is a complex sustainable development issue, linked to personal health through malnutrition, but also to sustainable economic development, environmental degradation, and fair trade (Von Braun 1992; Pinstруп-Anderson 2009; Godfray 2010). Although there are currently over 1 billion people in the world who are chronically food insecure, there is debate around food security and the viability of action. According to the WHO website (2013), some critics suggest that food insecurity is not as damaging as international organizations suggest. Critics argue:

- There is enough food in the world to feed everyone adequately; the problem is distribution.
- Future food needs can be met by current international production.
- National food security is unnecessary due to global trade.
- Globalization may lead to the persistence of food insecurity and poverty in rural communities.

Regardless of the debate and criticism, we have enough information to show that food security is clearly linked to health and other outcomes such as lower educational achievement and growth (Rosegrant 2001; Barrett 2002; Tweeten 2008; McDonald 2010). Food security is also related to local economic development efforts and poverty traps (Messer, Cohen and D'Costa 1998; Tweeten 2008). Development experts argue with agriculture remaining the largest employment sector in most developing countries, international agriculture agreements are crucial to a country's food security and enabling community's access to employment (FAO Website 2013). Critics argue that trade liberalization may reduce a country's food security by reducing agricultural employment levels (Von Braun 1992; Godfray et al. 2010). However, critics of the World Trade Organization (WTO) posit trade agreements pushing for agricultural market liberalization threaten the food security of entire communities, especially in the developing world (Dore 1983; Davis et al. 2001).

Food security is, and will remain, an important health and policy issue throughout the 21st century (Brown 2011). Despite over fifteen years of efforts, global food insecurity trends have worsened. Addressing food insecurity, as well as the linked issue of poverty, remains at the top of the United Nation's development goals as a prominent area for international coordination and attention (Barrett 2002; Schanbacher 2010). With the Millennium Development

Goals (MGD) target completion date approaching⁹, much attention is being directed at the cause and solutions to mounting food insecurity. INGOs are leading the practical programming and policy debates surrounding food security. This project explores the ways by which INGOs reach food insecure populations, with an aim at shedding light on possible resource allocations and policy prescriptions that might help increase an INGOs ability to provide services to needy populations and create a more food “secure” world.

The trends in food security programs are traced to highlight why an interconnected network approach to addressing food security is most appropriate to combat the challenges programs have faced historically. Many scholars outline the major developments in food security, from a change in looking at food supply to examining the cycle of malnutrition and the link to household security (Davis, Thomas and Amponsah 2001; Duffield 1993; Godfray 2010; Tweeten 2008). In order to create a system of sustainable solutions and move away from the dependence on imports and foreign aid, scholars argue we must develop solutions that promote knowledge transfers, aid reductions, and respect the cultural elements of food production and farming in the developing world. Each of these solutions can benefit from a network form of communication and collaboration among the actors involved in food security efforts. Von Braun states, “food security requires economic development and

⁹ MDGs should be reached by 2015. We are in an interesting time for research and policy, as we now have a good part of the MDG achievements behind us and we are able to assess the need for changes in the future to address drastically unmet needs related to food access, health and nutritional variety.

large-scale public commitment and is not achievable with a few cheap interventions” and “nongovernmental organizations are important for overcoming institutional deficiencies, but capital constraints are more difficult to overcome” (Von Braun 1992, 4-3). As such, INGOs are the primary implementers of food security projects, which can encompass a myriad of elements, including water, sanitation, agriculture, livestock development and microfinance. INGOs have limited material resources (Von Braun 1992). Alternative avenues are necessary to provide the interconnected response called on by experts in the food security field. INGO literature argues non-profits are closest to the populations they serve. With growing policy failures paired with the need to engage local partners, investigating the INGO response from a network approach warrants examination (Boli and Thomas 1999; Edwards and Fowler 2002; Madon 1999).

Overall, the need to evaluate future programs, and program specific objectives, is an area ripe for research, and INGOs provide a great population for investigation. Prominent food security author, Barrett, argues:

Where food aid was primarily seen as a lever to be used for diplomatic ends, as a vent for farm surpluses, and as a trade promotion tool, the dominant view of food aid since the early 1990s has been that of a safety net used to guarantee access to food to the poorest population countries (Barrett 2002, 49).

Barrett also points out many problems with targeting the right population for the right reasons, other than over production or political ideology and providing the right mixes of resources is problematic. In addition, the study of such

phenomena is complicated by endogenous variables, a mix of indicators and difficulty of identifying control variables that are observable. Regardless, the argument that a mix of programming is necessary, as argued earlier, suggests we need to examine the current food security sector response from an interconnected approach, taking into account programs aimed at the primary goals of food security and nutrition as well as secondary goals that include gender equality, market integration, and irrigation systems. Projects linked to both the primary and secondary goals are included in this project to assess the sector systematically and identify gaps in the programs diversity and coverage. An analysis covering the linked sectors and connections between actors can illuminate areas for improvement in the development of food security programs.

INGOs: From Preference to Outcome

INGOs form the largest body of international organizations (IOs). They work across humanitarian and emergency response sectors to combat global crises, respond to natural disasters, and intervene during man-made emergencies. The INGO sector has grown dramatically since the 1980s. Sociologist Johann Galtung introduced an idea about governance relationships that suggested the two prominent players – government and business – rely on civil society and non-governmental agencies for stability. The non-governmental sector, forming the base of a triangle was coined the “third force,” alongside governments and business (Florini 2000). Today, there is mounting evidence of

INGO's "third-force" ability to pressure governments, change policy directions and encourage international cooperation (Rosenau 1980; Barrett and Finnemore 1999; Sikkink 1993; Risse-Kappan 1995; Keck and Sikkink 1998; Tarrow 2005). From the landmine ban to human rights pressure in Argentina in the 1970s and 1980s, there are case specific examples of INGOs' ability to put pressure on governments and act as key players in changing the policy direction. Regardless, there is limited literature that examines how global INGOs reach vulnerable populations, and put pressure on decision-makers to motivate change, with limited social and material resources.

INGOs tend to focus on issue areas directed at their organizational niche (Spiro 1995; Ahmed and Potter 2006). For example, Mercy Corps focuses on transitional programs between war or disaster and community development. When we understand that INGOs are strategic decision-makers, we can examine other motivations in project choice (Edwards 1999). In some instances, INGOs choose projects due to their mission statements, feeling an obligation to respond to alleviate pain, suffering, or mistreatment. For example, after a natural disaster organizations such as the Red Cross, Save the Children, and Doctors without Borders will respond because it is their organizational mission. The decision to respond in these cases is not based on finances, professional networks, or other issues. Therefore, understanding there are sets of organizational factors that make-up the INGO portfolio helps to lay the groundwork for further exploring

their actions at the sector level (Nelson 1996; Boli and Thomas 1999; Salamon 2000).

Almost all organizations operate across and between sectors. For example, some operate programs in both healthcare and agriculture (Madon 1999; Jordan 2000). The extent to which they broaden their scope often depends on resources and capacity. Bread for the World, a small organization, focuses on one sector, Food Security; while larger ones like CARE or World Vision have over twenty sectors in which they simultaneously operate. Sector diversity can be seen as an asset, operating in myriad sectors may also act as a strain on the organization, requiring additional funding, employee expertise and financial assets. Regardless, the organizational mission and sector specialties provide guidance of an organization's preferences, whether pursuing donor funds, recruiting employees with different specialties, or partnering with a like-minded organization or agency.

In addition to domestic and international development, organizational policies also provide insight into an INGO's programming preferences and strategic choices (Spiro 1995; Moss 2006; Ohanyan 2009). Development policies over the last several decades tend to operate on a pendulum, with constantly shifting priorities (Hirshman 1970; Risse-Kappen 1995; Yanow 1996). Goals switch from global community development to local sustainability and from local subsistence farming to large imported subsidies. The different policy

directions can be either aligned or disconnected at the domestic locale, say the United States or the United Kingdom, or in the international realm with perhaps the United Nations or the World Health Organization (Lee 2006; Koo 2011; Jung 2010). Depending on policy priorities, organizations such as development INGOs, may tend to shift organizational programming to meet the policy direction. This, however, can cause issues for the insecure populations being served, as their needs tend to be more static. If policy decisions change rapidly, perhaps based on a global emergency or civil conflict, an INGO may refocus precious resources to deal with the current tragedy. Meanwhile, child morbidity, mortality, public health crises and local economic development activities are still in need of much attention and resources. When attention is diverted, either through policy or donor direction, often the people in need suffer most. The organizations can survive fluctuations, as funding and capacity are still maintained, albeit redirected (Mendelson and Glenn 2002).

Although understanding organizational motivations and preferences is an important launching point for understanding why resources get to needy populations, it tells us very little about the mechanisms by which these resources become available, nor does it explain their allocation. In the next section, I describe the two types of resources an organization may obtain. Moreover, the model developed in the coming sections helps us understand the conceptual and causal mechanisms at work in getting from an organization's mission to serve needy people to actually reaching those populations effectively.

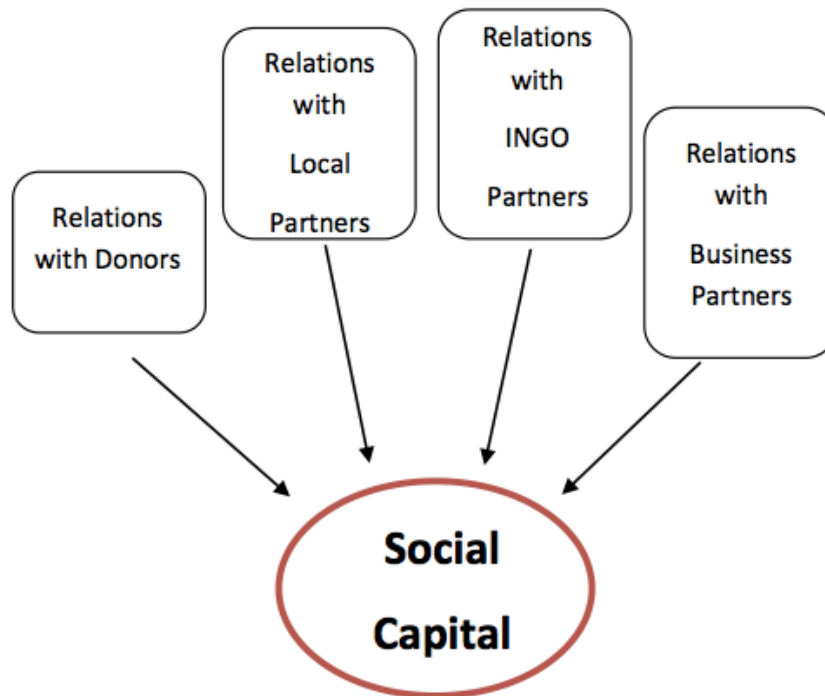
Social Capital Resources in an INGO

While INGOs have objectively measured the material resources at their disposal, including revenue and human capital, there are other mechanisms at play that aid an organization in reaching its mission. This mechanism I refer to as social resources is more abstract and much harder to measure (Nahapiet and Ghoshal 1998; Adler and Kwon 2002). C. Wright Mills, however, eloquently argued “we cannot allow the impossibility of rigorous proof keep us from studying whatever we believe to be important” (1956, 363). We cannot, in every instance, measure the mechanism for reaching hungry populations directly. We can, however, measure social resources through a developed proxy. The difficulty arises when developing social connections and providing measurements for those relationships. How does one measure the capital gained from social connectivity? This pursuit begins with a well-defined concept.

Nahapiet and Ghoshal’s definition of social capital is adopted for this project. Social capital is the “sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (Nahapiet and Ghoshal 1998, 243). The social unit is defined as the organization—the INGO. Social capital of INGOs, in its entirety, encompasses the sum of resources embedded in the organization’s relationships with donors, relationships with local partners, partnerships with other INGOs, and private business partnerships. Each of these relationships are explained, revealing how they add value and resources to an

INGO. Figure 2.1 below displays the elements that make-up and INGO's social capital.

Figure 2.1: Social Capital Construct



While international development practices are making progress in establishing a norm of collaboration, studying the impact of social capital is a research imperative. These realizations led to the Paris Declaration (2005) and the Accra Agenda for Action (AAA) (2008). In these declarations, the policy-makers focus on:

...ownership, alignment of donors with country strategies and systems, including making financial assistance more predictable and sustainable; harmonization of external assistance, including pooled funding, joint analysis and missions, reduction in fragmentation, division of labour,

management for results, and mutual accountability. These principles are integral parts of achieving sustainable improvements (SUN Policy Brief 2010, 184).

I also posit these relational resources and coordinated efforts are essential, and, therefore, need to be established as part of the social science research agenda.

Relationships with Donors

All non-profit organizations must depend, to some extent, on relationships with donors to survive and fund their endeavors (Nelson 1996; Edwards 1999; Mendelson and Glenn 2002; Ohanyan 2009). INGOs prove no exception, and in fact, may be even more dependent on donor funding than other types of organizations who operate locally. Due to the geographically dispersed INGO constituencies, donors become even more important. There are multiple types of donors who fund INGO work including: government agencies, foundations, businesses, and churches. Each type of donor has guidelines for funding, sets of criteria, and measures of success. In the INGO sector, a large majority of funding comes directly from government agencies such as the Department for International Development (DFID), the European Commission Humanitarian Office (ECHO), the United States Agency for International Development, (USAID) and others. Moreover, foundations also fund a substantial portion of projects, such as Helen Keller or the Bill and Melinda Gates Foundation. Regardless of the type of donor agency, one thing is clear – INGOs need donors to survive. Understanding this point, and relating to the policy

discussion in the previous section, it is argued that relationships with and among donors are an important social resource for INGOs. Relationships with donors are both relational and financial. Here, the relationship, while still paternalistic, is critically important to the social capital of INGOs.

Donors tend to work with organizations that are familiar, have a great reputation and deliver results. The best ways for INGOs to illustrate they offer a strategy donor's favor, is to secure a project with a donor and achieve the intended objectives, forming a positive reputation. These donors, while perhaps fair and objective in the bidding process, favor organizations with which they have a developed and lasting relationship. It is not by accident, nor coincidence that large INGOs place policy and fundraising headquarters near a large metropolitan hub where government agencies also reside, say Washington, DC, London, England or Geneva, Switzerland, because social relationships can be forged and sustained through frequent and consistent communication. The choice is strategic and aimed at asset acquisition through developed and nurtured relationships with donor agencies. These relationships are assets in the sense that information is shared about upcoming Request for Assistance (RFAs) release dates. In fact, INGOs with close ties to donors often hear bits of privileged information before it is released to the general bidding community, giving them a boost when a tight deadline for submitting project proposals is released. Additionally, organizations funded by a donor, who successfully complete projects are often afforded multiple awards and continued assistance,

which puts those INGOs with less developed or non-existent relationships at a disadvantage whilst vying for scarce funds.

Moreover, relationships with donors aid in strategic planning (Sikkink 1993). In the beginning of this chapter, I suggested that policy helps direct INGOs' preferences and programmatic decisions. In addition to awarding funding, donors facilitate agenda setting and often set the direction of future programs (Ahmed & Potter 2009). In developing and maintaining relationships with donors, INGOs have a strategic position by which they can engage in dialogue with donors and develop a forward thinking agenda for programs, mirroring the policy direction. This allows INGOs the ability to set out on multi-year programs and decide on long-term organizational goals that might be able to secure future funding, if organizational goals emulate donor and policy directions.

There are, however, instances where relationships with donors are more natural, for example the World Food Programme is directly related to and funded by the United Nations. The more obvious example of a natural, or value-laden, connection is centered on INGOs and donors with a religious affiliation. World Vision, for example, is a Christian organization and its mission is simultaneously religious. As such, funding for the organization largely comes from churches as well as private donations from fellow members of the Church. Other examples include Catholic Relief Services, where the Catholic dioceses

fund large portions of the work. In these cases, the relationship transcends from a natural commitment to deeply rooted belief systems. Those connections are likely, due to their ideological nature, to be less fluid than government agency connectivity, but also less-objective in the fact that shared belief systems is generally a prerequisite to funding.

The relationships INGOs develop with donors may also provide an area for concern. One of the biggest challenges INGOs face is the ability to operate independently of donor demands. This challenge is consistently cited as problematic in the literature (Ahmed and Potter 2006; Ohanyan 2009; Mendelson and Glenn 2002; Duffield 1993). Ahmed and Potter (2006) trace the conditions that encourage cooperation and also examine the problems with INGOs acting as vehicles for foreign aid. INGO's can become dependent on aid and their programs become interdependent with funding agencies. Ohanyan (2009) argues:

The inherent richness of the interplay between INGOs and their donors mediates the linkage between power differentials and policy outcomes. Indeed, the network-based model of INGO behavior presented here yields certain network types in which dominant financial or political power does not inevitably translate into an ability to control the policy process. Network structures can heighten, as well as undermine, the positions of international organizations and INGOs in global policy processes. In this respect, networks are far from being passive transmitters of diverse organizational goals and preferences, as many pluralist interpretations of international organizations would suggest (476).

Here, Ohanyan suggests examining how network forms of organization can change the INGO environment, regardless of financial capacities – material

resources-- of such organizations. There are myriad arguments about the adverse effects of foreign aid and INGO involvement, illustrating that organizational and environment factors affect INGO capabilities. Regardless, relationships with donors make up a portion of the social capital available to INGOs through connections. However, these relationships may carry adverse effects for an organization.

The social benefit of networking with donors is only a partial picture. Sometimes the resources are easy to quantify, such as grants. In other situations the resources are abstract, and difficult to quantify, as they come purely from conversing, sharing information and building professional networks between the donors and the INGOs that service their grants. In sum, relationships with donors, while social, are also connected to material power, which will be explored later.

Relationships with Local Partners

Local partnerships are also gaining attention in international development. Where grass roots organizations have tended to opt for “ground-up”¹⁰ development efforts, not all INGOs operated a model emphasizing local partnerships and empowerment. In fact, much of the 1980s development work was plagued with paternalistic and negative connotations of expatriates and their impact on local community development. Expatriates, those employees of

¹⁰ This means that organizations allow for development projects to emerge at the local level, in an organic manner, rather than through top-down management decisions.

an INGO working outside their home country, had a reputation of exhibiting negative attitudes and a sense of superiority towards local communities. The INGO culture and norms was lacking a focus on local development. Local community members were rarely involved in the project evaluations or development, exhibiting evidence that INGOs did not view local communities as part of the solution. Communities were less likely to be viewed as a partner, actively taking a role in development projects.

In the twenty-first century, local organizations have become partners of choice among INGOs. In an interview with one President of a large INGO in this network, the dependence on local partnerships was apparent. He stated that they really depend on local partners and local government when starting new programs and see these as key actors. He said they rely on these partners to save costs on program materials and design, stating: "Someone has already paid for it, it's just sitting in the district office. Setting up parallel structures undermines the local government and creates dependency" (Interview, December 2013). From civic organizations to local government organizations and local grassroots NGOs, there is a paradigmatic shift in the way food insecure populations are viewed. Local NGOs push other actors, such as INGOs, away from viewing local people who are served through their programs as "beneficiaries" to "partners."¹¹

¹¹ This connotation was also evident in my interviews with INGO leaders, who are hesitant to even use the word "beneficiary" to describe the community members they reach, as the relationship has transitioned to focus on an empowerment approach.

This shift has spurred an environment dedicated to achieving community support, empowerment, and sustainable solutions.

Early critics of INGO fieldwork argued that by bringing in experts that were non-native workers, and maintaining internal rather than local experts, the solutions developed were likely to be unsustainable (Duffield 1993). Abandoned clinics and schools that were built during the 1980s international aid boom, which ended in minimal transfer of knowledge, now evidence this. Luckily, INGOs learned and adapted. While they often start programs with a set of experts, training local staff and community partners to sustain the project long-term is the overall program objective. Of course, local government support, funding and the level of institutionalization and corruption are also factors in the success of such endeavors. Program planning and national staff development programs evidence the fact that local partnerships have become an asset and a resource needed and sought by INGOs (Interviews, December 2012 and January 2013). While, previous skepticism still exists, current partnerships and demonstrated program success suggests local partnerships add value to programs.

Today, local partners range from small neighborhood associations, to municipal government leaders, to influential community leaders and champions for change (see Moore, Eng and Daniel 2003). Local civil society organizations and community organizations form a rich basis for gaining support, reaching

local communities and developing the cultural knowledge needed to build sustainable programs (Florini 2000). INGOs can lean on local civic partners to help with needs assessments, gaining access to community gatherings and developing rapport with influential members of the village. One organization sets criteria each location must meet before engaging in programs, including evidence of endemic rural poverty, stable enough government to enlist a bottom-up approach, and no evidence of corruption. If those criteria are not met, they will not begin a project in a new location. I asked how they evaluate this criterion, and the response was similar to the local partnership approach, rooted in social capital concepts. They use a local leader with good social connections to provide an assessment of the population that can in-turn help build social capital locally. For example, in Senegal, a program currently being operated in over 200 villages, utilizes a parent led strategy. The parental groups network with other NGOs for the purpose of building a stronger civil society and advocacy network. INGOs, such as Food for the Hungry and The Hunger Project, use this model more than others. However, shifting cultural norms to value local partners is seen as an asset across INGOs. In addition, donors frequently require evidence of local partnerships as part of proposal process, illustrating the marrying of donor and INGO policy preferences. Therefore, local partnerships form one aspect of social capital.

Although collecting information about local partners may be one of the most important elements in explaining INGO social capital, it may also prove to

be the least generalizable. It is my hunch that local partnerships will change drastically depending on the social and institutional conditions at the local level. Therefore, where we may see a high degree of social connection in one state with a more inclusive governance structure. In contrast, we may examine fewer social connections when organizations are working in hierarchical communities, such as Syria or Tunisia. Additionally, we may see less partnerships and local interactions between INGOs and local partners when there is a high level of corruption, or perhaps a low degree of community activism within the governance structure. In summary, each of these food security projects is delivered in a different community. Each community has a divergent set of barriers, including lack of civic engagement, government corruption, authoritarian regimes, or other regionally specific challenges. Therefore, the ability for an INGO to partner with a local NGO or other local organization may be limited due to existing political and social structures. Given these constraints, and likely the different types of connections, these relationships may be best explored, at least as a cursory analysis, through a case study approach.

Partnerships with Other International Non-Governmental Organizations

One of the most interesting components of the social capital construct is the connection between INGOs. This notion encompasses a switch from viewing INGOs as strategic competitors to partners. While funds are scarce, and INGOs need to have a strategic organizational plan to remain relevant, they also need to

develop partnerships with other INGOs to play to their comparative advantage and avoid duplication of services.

Three of the four representatives interviewed agreed that building partnerships with other INGOs was extremely important to the success of their programs. One organization reported that these partnerships help form the “heart of their organization” (Interview February 2013). They reported that some programs, such as nutrition, are easier to do with fewer partners, but all projects can benefit from the right type of collaboration. When asked why they chose to partner, there were some interesting responses. One respondent said that INGOs do not tend to trip over each other in the field. This respondent said that if INGOs did not partner and build collaborative programs, they would be tripping over each other. Although all agreed that field level strategic coordination would be ideal, in reality, these partnerships form due to proximity and are mostly *ad-hoc*, they report. The interviewees agreed that *location* is key in determining partners, as the work is long, hard and performed in isolated environments. Therefore, only those groups working in closer proximity have a full grasp on the other programs and partnerships in the area. At the country level, it was reported that more strategic cooperation on food security and nutrition is needed, as well as at the local level. However, the ability to execute programs effectively when working in the same locale requires INGOs coordinate.

As discussed, INGOs were primarily agents of donors in the 1980s. However, the environment changed in the 1990s and into the twenty-first century. There are now programs conducted where an INGO acts as principal, securing other INGOs as agents on projects or programs. Fieldwork is now completed alongside other INGOs, sometimes working on the same projects, but often sharing responsibilities and resources across projects. This shift is interesting and also helping to build collaborative relationships, which may lead to years of partnership and a trend toward enhanced development outcomes.

The choice to partner with another organization is motivated by different perspectives, given the diversity of projects and INGO backgrounds. INGOs often choose to partner with another organization based on ideals (Madon 1999). For instance, where one INGO believes in holistic development and tackling multiple problems in one area, another may prefer to focus on the highest level need, like food security or AIDS. In this example, we may find that one organization provides an AIDS prevention program across multiple regions, attempting to eradicate a spreading disease. The other organization may work in only one or two regions, focusing on food insecurity, which may lead to things like eradicating prostitution. Prostitution is a common profession in areas with high prevalence of food insecurity, to feeding hungry children at home. They may need to develop a program focused on developing employment opportunities to stop prostitution, which in turn leads to a program focused on HIV/AIDS. This list can get quite long when attempting to dig into root causes

in a community. Some INGOs, therefore, may find they work in fewer communities, while cutting across multiple sectors. Others may work in many communities, focused on one program, for example launching a breast-feeding campaign. Considering this scenario, we may find that INGOs collaborate on a specific issue, but generally, organizations with analogous visions collaborate and the depth and scope of programs is one such area where organizations tend to clash. Some organizations focus on crosscutting sectors, such as World Vision, Mercy Corps and Oxfam. Many organizations, such as Food for the Hungry, The Hunger Project, and Bread for the World, focus on only one issue and they tend to coordinate with other 'small scope, great depth' organizations. In Table 2.1 below, a typology is presented that describes the type of partnerships that emerge, and under what conditions partnerships are expected between different types of INGOs and international governmental bodies, as discussed in the previous sections. In Table 2.1, the rows refer to the different types of organizations: governmental, religious, and secular. The columns refer to the different types of relationships that form, either ideological or pragmatic.

Table 2.1: Organizational and Social Relationship Typology

<u>Organizational Type</u>	<u>Social Relationships</u>	
	<i>Ideological</i>	<i>Pragmatic</i>
<i>Governmental</i>	Partnerships are likely to form with other governments that share similar governance structures, such as between democracies. An example of this partnership would be the United States and Europe 's shared food program goals.	Partnerships emerge to reach key personnel or populations that cannot be reached without social resources from both actors. An example is the USAID programs funding a program with the Afghanistan government to reduce opium production from poppy crops.
<i>Religious</i>	Interactions between organizations emerge based on shared religious preferences, rather than organizational preferences. For example, CRS and World Vision may partner on a food security program, although they have different organizational goals (CRS focuses on emergency relief, World Vision on sustainable development).	Two organizations may align, even cross-sector partnerships between religious and secular organizations to reach populations or share resources. The Mercy Corps and CRS on-going partnership offers a good example of this type of collaboration.
<i>Secular</i>	Partnership will emerge with like-minded INGOs, such as those organizations focused on community building or	Partnerships form across sectors (religious, governmental and secular) to meet a development goal. This is evidenced by

	gender-based programs. Organizations will also likely only partner with other similar apolitical organizations.	the response to the Horn of Africa drought response, where global response was necessary to respond to the level of emergency.
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Despite strategic shifts, where many INGOs align, there is still a balance to be struck between competition and cooperation (Ohanyan 2009). There are many INGOs operating globally (Turner 2010). In the INGO food security sector alone, there are over 50 such organizations. When we include local NGOs, the number is even larger. Each of these organizations competes for funding in two ways: competition for 1) private donations and 2) for donor agency grants. Here, they balance the need for collaboration with the need to compete for funding. INGOs, then, are both partners and competitors. The push to partner with other INGOs is favored by donor agencies, as they want to see less competition in the field and more sustainable and long-term solutions developed by INGOs.

Even when a direct partnership is not evident, INGOs working in the same location collaborate to some extent. For instance, they may connect at local community gatherings, share housing, organize transportation, and collaborate on new funding proposals through research (Mitlen, Hickey and Bebbington 2006). INGOs in the same locale are acutely aware of other INGOs actions and programs. INGOs need to, when it comes time to renew funding, articulate why they are still an important resource for the region's vitality and development.

Hence, there is a fine line between partners and competitors when work begins on a new project. INGOs working in the same location during the present day must stay connected and this connection becomes a valuable resource for program success and continued funding. I will further explore these relationships and develop a measure for examining local connections between INGOs in the field in Chapter 4.

Private Business Partnerships

The final category of INGO social capital is found in their relationships with private business partners (Strange 1966). From a local distributing and refrigeration company, to global information technology sharing, INGOs develop ties with for-profit organizations to improve programming and offer services where it would be too expensive or impossible when operating in isolation. In the food security sector, one such example is Mercy Corps' partnership with a local logistics company in Africa. They partner with the logistics company to transport commodities, including food. In their analysis, Mercy Corps found it was a less expensive option to develop a business relationship with the local logistics company when compared to securing a logistics manager, procuring trucks and gasoline needed for transportation (Interview, December 2012). Other organizations in the food security sector use local business partners to: procure seeds, educate local partners, and refrigerate food, to name a few examples.

With limited funds, and the need to collaborate and build efficient models, there may be more INGO-business partnerships emerging in the future. I posit relationships and business partnerships between INGOs and for-profit companies are a social resource. Through the development and nurturing of relationships, long-term working practices and procedures can be developed, aiding in efficiencies and best practices over time. Moreover, through an established relationship, the advantage for future funding endeavors may be enhanced, creating a network of preferred vendors.

Another great example of corporate partnerships is demonstrated by the work of the Green Mountain Coffee Roasters (GMCR), a global corporation. They partner with INGOs to develop sustainable solutions for farmers in Latin American and Indonesia. GMCR is currently partnering with Mercy Corps, as well as others, in Indonesian, Guatemala, Colombia, and Nicaragua. As part of their corporate responsibility, GMCR has a commitment to prevent hunger and poverty in coffee growing regions throughout the world. The company attempts to understand the problems facing their workforce and builds programs that help address the challenges of food insecurity, including seasonal hunger due to underemployment.

In their partnership with Mercy Corps in Aceh, Indonesia, their programs are serving more than 3,000 coffee-producing families. Collectively, they are working to provide access to financial planning workshops to teach families how to increase and manage their income. In addition, mothers are going to support

groups that teach the benefits of breastfeeding and that helps them better address their children's health and nutrition needs. Mercy Corps reports that “decreased medical expenses and increased financial literacy are helping these families build a safety net of resources that can be tapped throughout the year, leading to greater resilience” (Mercy Corps Website 2012).

GMCR has also played an important advocacy role while partnering with INGOs. They have taken on a leading role in convening coffee industry leaders around the issue of food insecurity. They built a coalition of five companies – Counter Culture Coffee, Farmer Brothers, GMCR, Starbucks Coffee Company, and Sustainable Harvest Coffee Importers to established the Coffeelands Food Security Coalition (CFSC) in 2012.

The new CFSC’s will soon begin work on a three-year program "Empowering Food Secure Communities" in Nicaragua. Mercy Corps reports that they will partner with CFSC and a local partner Asociación “Aldea Global” Jinotega, to reach 150 women and their families to advance farming and business techniques, develop additional sources of income through home gardens, and diversified crop production (Mercy Corps Interview 2012). They plan to add a policy element to the programs through engaging local governments to provide assistance to people suffering from food insecurity in the region. Mercy Corps reports:

The engagement and dedication of the CFSC and of GMCR and other key industry players will pave the way for a future generation of coffee farmers who are well-equipped with the resources and tools they need for

success, food security and well-being for themselves, their families and their communities (Mercy Corps Website 2013).

Other programs can learn from this partnership of local government, business, and INGOs to build collaborative projects designed to positively impact food security in other communities. The GMCR example illustrates how business partners can enhance a project, add funding to existing programs, and provide mutually beneficial outcomes for farmers and businesses.

In 2012, Mercy Corps also proposed a project in response to the Horn of Africa drought. The drought caused severe hunger and limited access to fresh water for drinking and irrigating crops. Mercy Corps needed to get food and water into the region in addition to developing a solution that would offer long-term sustainable results. With severe drought, the crops were unlikely to rebound for the following year's harvest, which means the solutions had to offer more than short-term food aid. In order to leverage resources, Mercy Corps developed an integrated program, partnering with local community members to disperse supplies, a local business to provide logistical support, and a local NGO to provide local refrigeration of goods. Rather than develop a Mercy Corps specific logistic, refrigeration and distribution base, the organization relied on many local partners and social connections to get food distributed to the communities in need (Interview, December 2012).

Social capital, garnered through partnerships, can enhance program outcomes. Moreover, these partnerships also prove important in the program development phase. In order to bring these concepts to life, I chose a couple brief examples of food security programs that encourage participation of partners in business, the community and with other INGOs: Mercy Corps' Tajikistan Program and the "Scaling Up Nutrition" program referred to as the SUN Movement.

Mercy Corps' Tajikistan Education Program

Beginning in 2005, Mercy Corps implemented a program to reduce household food insecurity and vulnerability in Rasht, Tajikistan, with funding from USAID. The program targets pregnant women and mothers with children aged 24 months and younger as beneficiaries. Mercy Corps developed several partnerships to conduct the program, including acting as a member of the Food Aid Consortium for Tajikistan (FACT). The program covers nearly 100 villages in the six counties: Kalai Surgh, Askalon, Hoit, Boqi Rahimzoda, Obi Mehnat, and Yasman.

The program focused on two strategic objectives. First, to increase utilization of food through the adoption of important health and nutrition practices. The second objective was to improve the availability of nutritious foods in communities. Together, the objectives meet two of the three WHO pillars in food security, showing the program's integrated approach. To meet these two objectives, the program combined biannual food distribution with

educational seminars that focus on improved health and agriculture practices. Program recipients agree to attend weekly educational seminars in exchange for flour, oil, and lentils. In total, 297 Mercy Corps volunteers, half of whom were women, conducted nearly 11,500 seminars on health- and agricultural-related topics throughout the program.

While Mercy Corps' intended education to increase and food security to decrease, the program had unintended outcomes as well related to empowerment and growth in social capital. Throughout the duration of the program, Mercy Corps staff learned that the woman's mother-in-law acted as the head of household and directed much of the young woman's life activities, including how to care for and feed children. Building a network for young mothers to leave the house and engage in activities with other community members around health, nutrition and education led to greater sense of empowerment as well as a greater sense of social support and personal social capital. In interviews, women involved in the program reported emotional and cognitive growth, which was shown to increase health, overall (Mercy Corps 2013). In this program, Mercy Corps relied on local partners and the collaboration with civic groups to achieve their intended outcomes.

Program Engaging Partners Across Sectors: SUN Movement

A final example of a program that highlights collaboration and partnership, across sectors is the "Scaling Up Nutrition" (SUN) movement. This

movement incorporates existing INGOs, NGOs, governments and corporations into a total health program that focuses on the first 1000 days of a child's life, which includes pregnancy. The movement secured funding to create a SUN movement secretariat. Programs evolve at the local level, where involved countries need a focal point. The programs are developed on a country-to-country basis. Country leadership, local government officials, policy analysts, NGOs, community organizations and health care professionals all need to be involved in the program to strengthen child nutrition and health. Currently, there are 8-9 countries involved in the program. Results are not yet analyzed to examine the difference in a collaborative versus ad-hoc response to child and maternal health. Regardless, donors are very fond of this program and see it as an easy funding focal point, as it is an initiative that can be replicated across geographic regions.

This program is one of the first to establish partnership requirements across all sectors, as identified in my social capital construct. The research brief published by the SUN advisory board suggests, "There are two complementary approaches to reducing under nutrition – direct nutrition specific interventions and a broader multi-sectoral approach. Action on both is urgent" (2010, 180). Here, the SUN policy experts argue that multiple actors must engage in the solution in a collaborative fashion to experience results. They state:

There is also widespread agreement on a broad framework for action to counter this neglect and a growing partnership for collective action among

key stakeholders – United Nations (UN), multilateral and bilateral development agencies, foundations, developing countries, nongovernmental organizations and other civil society organizations, researchers, and the private sector (2010, 178).

Currently, over sixty agencies have signed a declaration of support for this project.¹² As SUN evolves, it could be a very interesting case study regarding INGO social capital in the food security sector, given its focus on multi-sector, multi-partner collaborations.

Despite the anecdotal evidence provided here, there is a shortage of empirical studies that examine INGO and for-profit collaborations. Therefore, INGO relationships are not adequately examined in scholarship, possibly due to the relatively new phenomena. However, it is evident that these relationships, based on the examples provided, aid organizations in reaching populations through a developed social connection with local vendors and products. INGOs can stretch funding and build support networks with other similar organizations. Finally, through connecting all the actors, similar to the SUN movement, I posit INGO program results are enhanced.

¹² "Scaling up Nutrition: A Framework for Action" is based on a collaborative effort of a wide range of developing country partners, community service organizations, UN, multilateral and bilateral agencies. An extensive consultation process conducted over a number of months included a series of face to face meetings hosted by the Center for Global Development, the European Commission and the International Conference on Nutrition (ICN), the United Nations Standing Committee on Nutrition (SCN), USAID, UNICEF, WHO and the World Bank. Financial support was provided by the Bill and Melinda Gates Foundation, the Government of Japan, UNICEF, the Department for International Development (DFID) and the World Bank" (International Nutrition Foundation 2013). More information can be found at: <http://www.inffoundation.org/publications/policy-brief.htm>

Social Networks and Social Capital

Scholars argue that networks are important and can aid organizations in meeting outcomes, such as increased learning or program effectiveness (Powell 1990; Andrews 2010; Woolcock and Narayan 2000). Before discussing the need for material resources, this section will discuss how social networks emerge, why they are important and what can be gained from conceptualizing the relationships described above. More importantly, this section will examine why networks offer the best conceptual mechanism for establishing social capital within an organization.

Network forms of organization emerge when coordination is necessary, environments are unstable and resources are limited (Powell 1990). Social networks can be defined “as a set of nodes or actors (persons or organizations) linked by social relationships or ties of a specified type. A tie or relation between two actors has both strength and content” (Castilla 2000, 219). Networks are based on non-hierarchical coordination and horizontal embedded relations between actors (here, organizations). Some authors consider networks as distinct type of governance outside the hierarchical structure of governmental organizations and bureaucracies and markets (Borzel 2011; see also Williamson 1979; Powell 1990; Torfing 2012). Because a plethora of organizational forms from both the public and private sector now engage in policy discussions, “the notion of ‘policy networks’ does not so much represent a new analytical

perspective but rather signals a real change in the structure of the polity (Mayntz 1993, 5; quoted in Borzel 2011, 52). This means there is a transition to seeing many actors involved in the decision-making and policy process. The process, once reserved for elected officials and governmental actors, now encompasses outside actors who place pressure on the state governance system. INGOs are one such actor, now more heavily involved in the policy process, which has changed the polity view from its state-centric origins. When considering INGOs, the different techniques to address food insecurity are also influenced by network interactions, similar to the changes in the governance structure.

The importance of social networks, and the social capital which emerges out of networks, is discussed in policy studies and academic literature across disciplines (Ostrom 1990, Woolcock 1998; Bourdieu 1984, 1988; Coleman 1990; Podolny and Rauch 2007; Putnam 2000; Barabassi 2002; Buchanan 2002; Sabel and Zeitling 2012; Torfing 2012; Lobel 2012; Rhodes 2012; Gilardi and Radaelli 2012; Uzzi 1997). Social interactions can provide opportunities for organizations to grow, through knowledge sharing, resources pooling and offering a level of social support between and among employees. These interactions form a network, which can enhance performance. Networks assist with policy outcomes related to learning, reduction of uncertainty, increased quality of decisions and performance. Networks have also proven to be important in understanding international cooperation and world order. Slaughter (2004) and Martínez- Diaz and Woods (2009) focused on networks as a key concept in order

to understand current development processes in a global order. Martinez-Diaz and Woods (2009) identify five functions of networks, namely agenda-setting, consensus building, policy coordination, knowledge production and exchange, and norm setting and diffusion. These five functions have the capability to enhance organizational outcomes because INGOs operate in a collaborative environment to achieve outcomes, such as to diffuse policies, share knowledge and challenge traditional international norms.

Finally, the conceptualization of social networks (the linking of actors in diverse settings) provides the ability to model social connections in the INGO sector. Considering food security programs, there are INGOs working in many countries on inter-related programs. As social networks account for connections to other actors, using the network concept, researching the content of these relationships is possible. The strength of the relationship can also be modeled through network theory. The analytic tool for modeling networks will be introduced in Chapter 4. Regardless, the network conceptualization assists in connecting the abstract concept of social capital to a set of theoretical and analytic tools designed to account for inter-organizational relationships.

In Chapter 3, the social capital literature is examined to illustrate how other scholars have used the concept, and how it can be measured empirically. Also, Chapter 4 will review the design methods and results exploring social capital of INGOs. However, it is important to note while developing this theory,

that INGOs work in an environmental context, where information is shared both formally and informally. Interactions are based on comparative advantage and sustained partnerships, overtime, enable organizations to achieve outcomes that monetary resources cannot accomplish in isolation. In the next section, the types of material resources INGOs use will be explored, highlighting alternative mechanisms used to sustain the organization, before proceeding to a discussion about the interaction of the two types of resources.

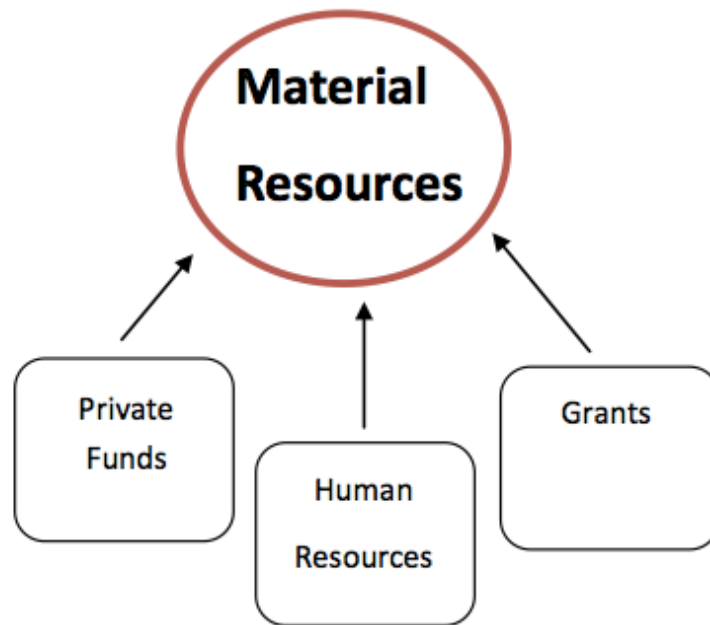
Material Resources

Social capital, no doubt, plays an important role in getting information, resources and services to vulnerable populations, especially in food insecure regions. In fact, one interviewee in this project argued that you can have all the money and staff in the world, but without social connections and a solid reputation, between INGOs and the community members, not much would get accomplished in this business. Moreover, I propose social capital is not enough, on its own. During an interview, one INGO CEO said, “you need money, but not all that much money. What you need is a social structure and connections” (Interview, November 2012). Therefore, the direct relationship is not just between material resources and reaching vulnerable populations, as indicated in the introduction of this dissertation with “A Tale of Two Organizations.” The relationship between social capital and reaching vulnerable populations is moderated by an organization’s *material capabilities*. Material capabilities can also

serve as a direct link to the hungry populations, but this is speculated to be less effective. Intuitively, it makes sense, that an organization with limited resources would be less likely to reach those in need, regardless of the social relationships acquired.

Currently, far more literature and research is dedicated to the concepts of social capital and organizational survival in isolation, rather than in tandem. Scholarship is lacking information on the affects social capital and material resources have on one another within the organizational setting. The conceptual framework surrounding *material resources* is presented here, which includes: private funds, grants and human resources. These resources taken together may change the relationship social capital has regarding an organization's ability to reach hungry populations. In the next sections, I describe this construct, its components and how they interact with social capital. Figure 2.2 below illustrates the concepts included in the material resources construct.

Figure 2.2: Material Resource Construct



Private Funds

International NGOs seek donations from private parties to develop programs, conduct research and support administrative personnel. Moreover, INGOs also rely on fundraising departments to increase private revenue flows. An example of an effort to elicit private funds can be seen in Save the Children and World Vision’s public awareness campaigns asking for donors to sponsor a child in need for just pennies a day. We also see local news media, generally around the end of the tax year, encouraging people to donate to a charity for a good cause. In the INGO sector, donations, either of cash or of material goods by

a private party are considered private funds, and are categorized and competed for differently than grant funding.

INGOs compete for private funds, even more so than grants. Often pleas for generous donation are accompanied by a claim that 90% of all proceeds raised go directly to those in need. Private funds are raised by INGOs as a means to support parts of the organization that are under served by grants or other capital in the organization. Private funds, unless the donor places stipulations on their use, are available to be allocated as the organization sees fit. These donations are a “no strings attached” gift from the private donor and they are highly sought after by INGOs. While private fund influx generally ebbs and flows depending on the time of the year and the current economic forecast¹³, large donations generally accompany emergency situations. For example, although people are starving everyday in Africa, during the 2010 Horn of Africa drought, there was a spike in private donations, as pictures of starving children pull at the heartstrings of humans across the globe. Similarly, during the Iranian Earthquakes in 2002, the Indian Ocean Tsunami in 2004 or the more recent Haitian and Japanese earthquakes, private donations dramatically increased in the immediate aftermath and then trickled off as media attention was diverted.

INGOs compete for funds through campaigns, advertisements and social media. Some campaigns argue INGO “A” is using 90% of their funding on

¹³ During recessions and depressions, with less disposable income available for charity, INGOs, like other not for profit organizations struggle to seek funding from private parties.

programs, while organization “B” uses a whopping 18% on programs and the other 82% on administration. While this example is just for illustration, we can see how INGOs compete for private funds, by advertising and appealing to the public interest in order to secure material resources that support the organization, including overhead operating costs. Operating costs include such things as lights and computers to adding needed components to programs that were not covered under a grant award. Private funds are used in very diverse ways, but regardless, they create an additional resource accounting for a portion of an INGO’s wealth. Private funds are unstable, nevertheless they are needed to bolster funding on many underfunded projects and under-staffed project teams.

Grants

International NGOs seek private funds as much as possible, but there is not a single INGO in this network that currently survives solely on such donations. In fact, grants generally account for 50-60% or more of an INGO’s revenue, with over 50% of grant funds stemming from government grants. This category of revenue accounts for any funding that comes to an organization by means of a bidding process (RFA, RFQ, etc.) and is provided by a donor agency, such as a government agency (USAID, DFID, etc.) or a Foundation (Gates Foundation, Helen Keller International, etc.). Grant awards are an important part of INGO survival because they do account for such a large portion of each organization’s annual revenue. Moreover, much of international humanitarian

work is funded through aid agencies, which disperse funds through formalized bidding processes. Awards provide both the means to develop programs and the program staff to deliver results.

Grants, however, come with stipulations. In order to secure grant funding from donors, agents must be willing to build a program that is aimed at addressing a concern of the donor. When examining food security, for example, the donor may have a food distribution program in mind, while the INGO bidding has an expertise in economic development. The INGO, in this example, could develop a microfinance program for food distribution for example, a cash for work program. The bidding organization must make a compelling case to the donor agency that they have the expertise, knowledge, and ability to meet the outcomes of the grant program if they receive the funds. Therefore, funds are not available for the INGO to allocate as they see a need, especially if needs fall outside the award guidelines. Here, terms such as “donor dependency” are associated with situations where an organization is operating with a high percentage of grant funds (Duffield 1993; Edwards 1999; Cooley and Ron 2002). To put it another way, organizations that have many grants to implement have less freedom to develop and implement programs they see as top priority. The INGO’s priority must reflect the donor’s priority to receive consideration.

Funding from grants, while essential for survival, can also place a strain on the human resources within an organization. Securing grant funds requires

having in-house expertise in proposal writing. A large part of most INGO program and project manager's job is to keep a finger on the pulse of donor agencies and prepare for bidding opportunities. This preparation requires well-developed research and writing skills. Therefore, the need to develop stellar proposals is tied to the human resource discussion in the next section. The time and energy headquarter staff devote to proposal development accounts for the largest part of their job description. In turn, the human resources developing and administering programs must remain socially connected to donors to execute proposal development efficiently and effectively.

Furthermore, servicing grants requires dedicated personnel time. Internal operations servicing grants requires time from a finance officer who is knowledgeable about allowable costs, budgeting and fiscal reporting to a plethora of donor agencies. Finance officers work hand in hand with program managers to ensure deadlines are met, billings are processed and annual reports are submitted on time. Therefore, while program managers are working to coordinate the project's success on the ground, they are held accountable to the people they are trying to reach. This means that the INGOs are simultaneously accountable to their partners and the grant agencies that fund them.

Coordinating all the moving parts not only requires sector-specific experience, but skills in grant management and coordination. INGO program and finance managers must work together, demonstrating the interagency social connections.

These key personnel must also coordinate with partners at the donor agency for

bidding and reporting purposes, requiring inter-organizational social relations. Taking into account the complexity of securing and managing grants helps better explain the material capacity an organization must maintain to compete for scarce grant funds. Understanding this complexity, the linchpin, securing social capital and material resources begins to emerge. I argue that it takes coordination and partnership to secure many grants and operate in various environments. This creates an environment where INGOs begin to build material and social capacity in tandem. After explaining the components of the human resource construct, it may be more evident why social and material resources are both important aspects of an organization's performance.

Human Resources

Social capital, although directly related to organizational outcomes, does not operate without some form of material resources. Material resources, in addition to serving as a direct link to organizational outcomes, also act as a leveraging factor between INGO's social capital and their performance. Like all organizations, INGOs cannot operate without the workforce needed to execute programs and provide operational support. Although the internal operations of an INGO are similar in many ways to other types of organizations, they operate in two fundamentally different ways. First, they operate at both a headquarters level with general administrative support and grant writing staff as well as strategic leadership functions and they operate at a field level with staff

to implement programs and international leadership. This requires two entirely different skill-sets and creates an environment where career paths are not straightforward between the two levels of the organization. Second, it is evident that most INGOs in the development sector operate from a bottom-up model. The best way to picture this divergent operating model is to turn an organizational chart on its head, whereby, leadership and strategy consultants are on the bottom and the field-driven work is at the top, directing decision-makers. This is not entirely evident in practice, but theoretically, INGOs are mission and field driven, not led from headquarters, as one may intuitively think.

Disaggregating the components of human resources is fairly straightforward. However, as one scholar puts it: "There is surprisingly little research into the 'meso' issues of how the people and organizations that implement much development activity are managed, motivated, or lead" (Hailey and James 2004, 345). There are three main personnel categories within the INGO structure: fulltime employees, part-time employees, and volunteers. These employees operate at two levels, either the headquarters or in the field. Volunteers, particularly due to the risk involved in field work, tend to be focused on headquarter tasks, although there are exceptions.¹⁴ Also, it's essential to consider the leadership capacity in coordination with employees, as some organizations have high powered, big name leaders that assist in fundraising

¹⁴ Many INGOs, in an attempt to build a pipeline of entry-level program managers, now have volunteer field positions, such as summer internship programs and short-term projects operated by volunteers.

and advocacy initiatives, while others do not. International NGOs need strong, capable employees to carry out their missions, with personnel as a key ingredient to organizational capacity, and thus a cornerstone to the material resources available to the organization.

Conversely, securing and retaining topnotch employees and volunteers proves to be more difficult than might be supposed (Salamon 2003, 33, 77-78). Although the pool of individuals vying for positions in an INGO is large, many are not qualified and lack international field experience, which is key for success in the industry. Finding the right fit for the programs and the organization can be a challenging endeavor for INGOs. First, employees must possess a background in international work and have a strong employment and education record. Even many entry-level positions at INGOs require a master's degree and five or more years of experience. Therefore, applicants must have found another way to "break-in" to the industry than applying directly with an INGO. This takes persistence on the one hand and the ability to be flexible and work in insecure environments on the other hand. The Peace Corps is one such avenue, but not every young professional has the time and means to volunteer two years after earning a college degree. The dilemma then becomes finding someone who is both experienced and willing to dedicate much time into securing a position at an INGO (Smillie 1995; Fowler 1997; Eade 2000; Lewis 2001; Smillie and Hailey 2001; Edwards and Fowler 2002; Hailey and James 2004; James 2005). Often positions are open for more than a year while applicants are vetted, which puts a

strain on the organization and pulls on the internal resources available to execute programs.

Although the recruitment dilemma is an arduous task for the recruiter and applicant alike, the human resources struggle does not end when an offer is extended. In fact, it is often a difficult transition, especially for new employees. Often working for an INGO means long hours, difficult work environments and stressful encounters, specifically in the field. Workers in the INGO field are at a high risk for burnout, making retention an important and strenuous aspect of securing long-term material resources. Organizations employ strategies such as generous rest and relaxation packages as well as organizational learning programs to help keep employees refreshed and engaged. As mentioned previously, even hiring entry-level employees can be difficult at times, so it is essential to the organization's longevity employees be developed so they have a strong pool for senior level positions in the pipeline.

Developing a pipeline of leaders is no less challenging. Leaders in INGOs require specific skills, knowledge, and experience that are not easily transferred from other professional experiences (Mitzberg 2006; Jiang 2008). For example, a corporate CEO may decide he or she is ready to embark on the next phase of his or her career and pursue a position in development. Although the former CEO, no doubt, has much business experience and developed an impressive professional portfolio, the skills the applicant possesses are not always directly

transferable to a similar role as a Country Director or President of an INGO. As the pool of qualified applicants narrows with more professional field experience necessary, employers are even more inclined to focus on internal career paths and professional development opportunities to secure a qualified leadership pool.

Within the INGO field, career paths are not straightforward. In fact, they often bounce between programmatic positions and field positions, and often between agencies.¹⁵ Therefore, having a connection to the human resource function within INGOs is important to their material resources and *social capital*. Through networking and working together on social endeavors, INGOs become aware of the strong players and the upcoming leaders. They work together in the field, network at conferences and interact through advocacy efforts. Creating an avenue for INGO leaders to diversify experience and build internal capacity within agencies helps to build a stronger organizational network and ensure leaders are trained and ready for future emergencies and organizational needs.

An INGO's ability to retain quality leaders, especially in senior positions, is one of the biggest challenges they face. One of the most prevalent factors in the literature relates to the environmental contexts in which the leaders live and work (Fowler 1997; Smillie and Hailey 2001; James 2004; Hailey 2006). Other key

¹⁵ The transitioning we examine of employees from one INGO to another for professional development can also be seen as a potential for social capital between INGOs. As senior leaders develop professional relationships with many organizations, they tend to collaborate with familiar organizations and share resources among peers.

factors effecting the sector's ability to retain leadership personnel include: burnout, lack of funding, inability to provide comparable pay and benefits, stress, security, overwhelming accountability requirements and the challenges associated with working in complicated political environments (Salamon 2003, 32-35). Lack of support and feelings of isolation are also of importance in the supporting literature (Hailey 2004).

In conclusion, human resources form an important portion of the material resource construct, as the positions are not easy to fill, are essential to meet organizational outcomes and are sensitive to the social environment. As discussed, full-time employees, part-time employees and volunteers together make-up an INGO's human resource construct. While the resources and the challenge securing them can be a strain on the organization, having enough employees and volunteers to implement programs, secure grants and develop reports is essential to the organization's survival and achievement of their mission. In this section, the interplay between the internal resource construct and the social capital of INGOs is beginning to emerge, as the more INGOs coordinate and share resources, the better they can combat some of the challenges in career development and filling leadership positions within the INGO community.

Organizational Outcomes

In order to determine if material and social resources are effective, organizations must have measurable outcomes. I argue that leveraging social and material resources can enhance organizational performance. Why do we care about performance? First, performance of the organization is essential to gaining more material resources. Put another way, organizations that can demonstrate their programs are effective through examining a set of indicators, are more likely to gain access to funding in the future and attract high performing employees. Second, and more importantly, if programs are ineffective, people will continue to starve. Therefore, performance measures are fundamental in the furthering of research that examines the capacity of INGOs and the effectiveness of their organizational prerogative. I examine under what conditions organizations perform to meet established goals. And, when fail to perform, I provide some guidance and theoretical motivation for changing resource allocations.

Food security outcomes can be measured in myriad ways. INGOs collect data on some performance factors, such as the number of people served, the number of programs implemented, the cost per participant for programs, the pounds of food delivered, the number of seeds planted, the percentage of acres cultivated, the number of livestock provided to a community, etc. Programs run through the INGOs are evaluated based on program criterion, generally established by the donor agency. For a hypothetical example, a donor may say

that for a \$1 million food distribution program, the INGO must deliver food to 500 thousand people. In addition, a program may state the total number of people that must be enrolled, such as in an agricultural education program. Data such as these are collected based on the type of program. For instance, while a microfinance program may determine a total amount of revenue that must be generated from the new enterprise, an agricultural program may set a threshold of land that should be developed, and an education program that will determine the number of enrollees expected. The data collected across programs varies, except for one data point. That is, INGOs collect information of the number of people served through each program, which can be aggregated at the nation-state level, or examined based on local programs.

Alternative indicators of performance of global food insecurity, which are not reported by INGOs and donors, are available. In Chapter 1, I introduced the MDGs and illustrated that the trends recording progress have drastically slowed from the year 2000. Here, the UN is tracking progress based on the total number of people globally facing food insecurity, as defined by the WHO. The Global Hunger Index aggregates national data regarding the world's hungry populations, providing an indicator of the overall health of a nation's population. It could also be argued that infant mortality rates, and other global health indicators could reveal where there are health issues, for which food insecurity may play a part. Although these are not organizational indicators, and we cannot attribute their success or failure to the INGO, they help the international

community assess the current conditions of a given country. Moreover, national data is used to motivate donor-funding trends, in an attempt to target aid to the neediest populations.

Donors and INGOs alike track performance and use these measures to monitor programs across INGOs. In order to be successful, INGO's need to be able to demonstrate they are reaching hungry people, they are using resources wisely (i.e. not spending too much per participant on programs that measure individual expenditures) and they are targeting the neediest. Donors look for a track record of proven success in program implementation to reward future funds. INGOs, however, also use performance as a way to identify partners and pragmatically choose with whom to align. Therefore, outcomes are an important element for social relationships, material relationships and organizational success.

My empirical model will use a measure attributable to the INGO, to avoid confounding variables. Therefore, in Chapters 4 and 5, when I begin introducing and operationalizing variables, I work with the indicators collected and reported by INGOs regarding performance.

Evidence for the Need to Study Outcomes in INGOs

In most food security literature, INGOs are criticized for the lack of transition to sustainable living conditions in developing countries. While only one empirical study could be found that measures an INGO's organizational

outcome, related to social resources (Moore, Eng and Daniel 2003), the literature summarized below provides evidence to suggest that INGOs are not meeting the intended outcomes. Moreover, the need to develop a study that analyzes the best ways to stretch limited resources could be useful to INGO decision-makers that are criticized for the lack of improvement in the food security sector.

Foreign aid allocated to assist in moving from hunger to food security often faces challenges regarding unintended consequences, such as prolonging social unrest (Bonner 1989; Duffield 1990), creating conflict (Messer, Cohen and D'Costa 1998) or decreasing local motivation to participate in development initiatives (Borton and Shoham 1989). When considering motivation, the food security debate offers alternative views about aid allocations limiting another state's motivations to become self-sufficient (Weber, Staatz and Holtzman 1988). The dependency argument suggests that developed states offer assistance using means to limit paths to self-sufficiency by the less developed (Dos Santos 1971).¹⁶ Development projects are often criticized from a market perspective for removing the state's motivation to provide for its own needs because the society can rely on foreign aid (Brown 2011; David et al. 2001; Barrett 2002; Schanbacher 2010; Moss et al. 2006; Edwards 1999).¹⁷ Understanding the criticism INGOs face,

¹⁶ Although a careful look at dependencia is outside the scope of this design, it should be mentioned when considering aid dependency. For a detailed account of dependency, See Emmanuel Wallerstein, "Dependence in an Interdependent World: The Limited Possibilities of Transformation within the Capitalist World Economy," *African Studies Review* 17-1 (April 1974): 1-26. Also see Theotonio Dos Santos, "The Structure of Dependence," *American Economic Review* 60-2 (May, 1970): 231-236.

¹⁷ Similar measurements of good policy in the food security debate can be examined at the time of the USSR crisis and countrywide famine crisis. "Despite Henry Kissinger's famous aphorism about no child going hungry to bed, the World Food Conference of 1974 was born largely out of shock at the sharp rise in world

it seems appropriate to examine the organizational outcomes associated with food security in a systematic way.

Criticism of food assistance programs is easy to find, albeit based in anecdotes. Very limited evidence qualitatively or quantitatively, is available to systematically assess food assistance outcomes globally. The lack of evidence illustrates the need for research to examine outcomes. While there are wide arrays of food aid projects, some have received more scrutiny than others. Food distribution programs based on donor country surpluses have received the most criticism (Duffield 1993; Hopkins 1992). Other forms of aid, such as cash-for-work or voucher programs receive more positive feedback, as they tend to respect the community's autonomy and develop local capacities (Hopkins 1992; Schanbacher 2010). The limited findings suggest that food aid and food assistance program (FAP) are most effective when INGOs utilize a targeted approach built from a foundation of program diversity including cash assistance, food distribution, or tax incentives (Barrett 2002). Nevertheless, INGOs' role in the food security network, which is aimed at improving programs and transitioning from aid to development, is an important part of the equation.

As discussed, INGOs are criticized for their dependence on donor funds and their lack of autonomy about programming decisions. One example is Oxfam's strategy in Africa to combat hunger, which was evidence based, was

food prices in the preceding two years and fear that the world food system was running out of control. Hence the emphasis in the final report on world food supply and prices, and on the need to secure the system against risks, like those posed by the failure of the harvest in the USSR in 1972 (UN, 1975).” See Maxwell, p. 156.

overthrown by donor priorities (Duffield 1993, 146). The literature suggests INGOs are no longer independent; they are implementers of donor policy (Borton and Shoham 1989). Failures of INGOs are due to lack of resources and dependence on donor funds (Bonner 1989) and food aid and trade liberalization impede food security (Taylor 1992, cited in Duffield 1993, 149). INGOs overtime have failed to reach their full potential working on development initiatives. They suggest that INGOs must work on both interventions and structural reforms while navigating the political economy in which they are a part (Mitlin, Hickey and Bebbington 2006). This in turn, leads to resource dependency and lack of strategic initiative. One strategy to overcome the current dilemma is to develop closer ties to a larger development network. These arguments clearly point out that INGOs could better coordinate and develop partnerships to enhance programs, both from a material and social perspective. The descriptive elements of the food security network will be examined to assist INGOs in better connecting their organizations.

Social Capital and Material Resource Interactions

I have reviewed all three conceptual constructs: social capital, material resources and organizational outcomes. In Figure 2.3 below, the complete conceptual diagram is displayed, illustrating the interplay between the constructs and the outcome. INGOs use social capital as a means to gain influence, negotiate contracts, effect policy and coordinate programs in the field.

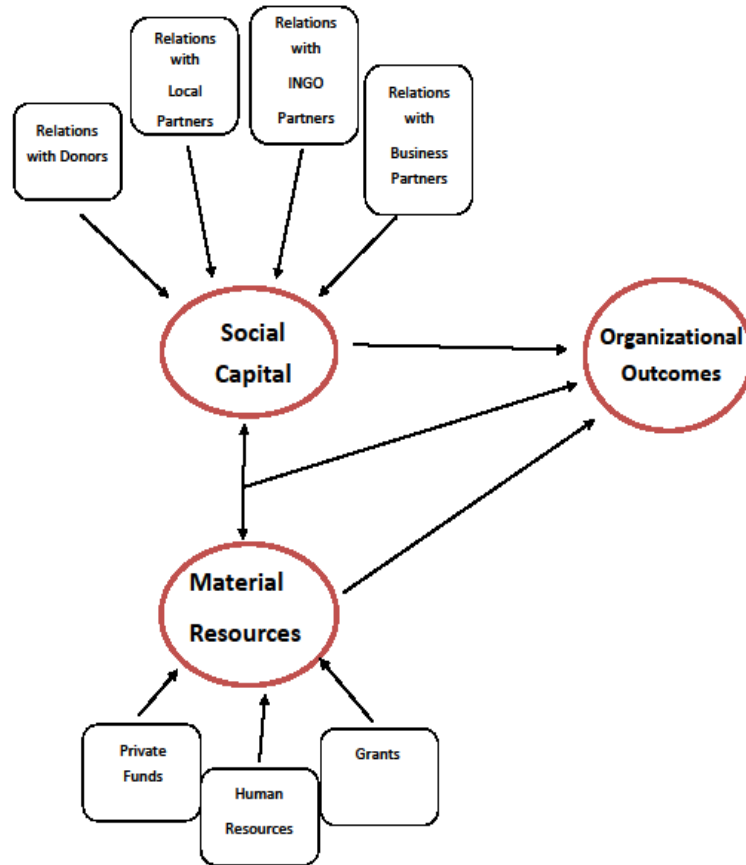
The communities affected by endemic poverty and food insecurity are generally slow to trust international partners, as years of intervention efforts have proven unsuccessful. Therefore, social capital provides a direct link to the food insecure populations, as the development of trust and a reputation for developing helpful programs are needed to gain access to the communities in need. Development of social ties, I argue, is necessary before material resources become meaningful. Through the development of social capital, INGOs can reach vulnerable populations, who are otherwise hard to reach. However, social capital is not enough.

Material resources are also essential in building programmatic capacity. Organizations, through social ties, need to develop winning proposals and secure private donations to procure the material resources needed to accomplish the food security programs. I theorize material resources moderate the relationship between INGOs' social capital and their ability to reach more people. Therefore, while material capabilities can, theoretically, provide a direct link to outcomes, the most effective use of resources is established when material capabilities help leverage, the more important, social capabilities, leading to long-term stability in the organization. I argue that the outcome will be long-term stability because organizations that pursue social relationships with donors, other INGOs, local partners and businesses have diversified their "toolbox" when it comes to resources they can draw on in times of need. In contrast, organizations with only material power would experience less flexibility in

programmatic choices during a time of organizational shock or economic difficulties.

Therefore, due to the moderating effects, I speculate that the relationship between social capital, material resources and their effect on organizational outcomes will not be linear. There may be a limit to the benefits of social capital if an organization lacks the material resources needed to develop programs. And for some organizations with little means of material resources, the ambition to secure social capital may be too much and diminish their ability to reach people by focusing resources and efforts on relationship building. Conversely, organizations focused on developing material capabilities and neglect relationship building and collaboration, will also lack the capacity necessary to sustain programs overtime.

Figure 2.3: Conceptual Diagram



Resource Interaction Propositions

The resource interactions posited here can form a variety of outcomes. In this section, I develop a typology of the interaction between the two main categories of resources and the expected outcome regarding organizational performance when the material and social resources are at varying levels. There are three categories of effects: high impact, moderate impact and low impact. The resources are categorized as either high or low, with four outcomes

available: high social and high material; high social and low material; low social and high material or low social and low material. I further develop these relationship interactions, ending with a summary found in Table 2.2.

High social and high material resources

Proposition 1: Organizations who have both high social capital and high material resources experience greater organizational outcomes. As mentioned, material and social resources work in tandem. Therefore, organizations successful at developing both will achieve the highest impact. Through material resources, they can attract and retain the best talent. They will also inevitably have a strong track record with donors, establishing a social and material resource base. When high social resources are examined, the INGO will have developed connections between and among other INGOs, local partners, businesses and donor agencies. This will allow them to diversify their funding base to create stability in the organization long-term. Moreover, the strong social connections establish a strong reputation and rapport with local communities, allowing these INGOs to work in the most vulnerable areas, which can be hardest to reach due to political and social instabilities. While social resources are theorized to be more important in reaching the hungry people in the world, organizations with high levels of social and material power will be able to achieve the best outcomes in reaching hungry people and stomping out hunger.

High material and low social resources

Proposition 2: Organizations with high material resources and low social resources have limited organizational performance. Organizations with high material capabilities may be thought to have more power. However, in this sector, that is not expected to be the case. In order to gain access to the communities in need, organizations must develop social ties, encouraging cooperation and building relationships with local communities. The first step in achieving this goal is to develop relationships with organizations performing similar work in the area, demonstrating the INGO's willingness to work with partners to achieve a mission. I suspect organizations with high material power and low social capital are also the organizations that carry a paternalistic reputation. The lack of impact expected is attributable to little coordination and information sharing in the field, which limits access to the populations needing service.

High social low material resources

Proposition 3: Organizations with high social resources and low material resource will have moderate organizational performance. I suspect moderate outcomes, as long as the organization develops enough organizational capacity to maintain social resources overtime. These organizations need some form of material resources to hire staff, pay for travel, and purchase materials. However, they do not need that much money, especially if they can latch onto existing

infrastructure. Organizations who refrain from “recreating the wheel” and enter into a food security project with a collaborative mindset can stretch their resources through developing partnerships. Social capital, however, enables access to the populations in need of assistance, so organizations without much in the form of material power are still ahead when it comes to reaching those in need. Therefore, social resources will make-up for the lack of material resources in the form of partnerships and collaborative projects, as well as access to those in need.

Low social and low material resources

Proposition 4: Organizations with low material and low social resources experience low performance. The inverse of the discussion in proposition one is true for this combination of resources. An organization that does not have material or social resources does not have the capacity to survive in the long-term. A mix of resources is necessary. In this scenario, the organization is deprived of connections with donors and partners. They will also lack the material resources necessary to successfully develop and sustain these relationships. Organizations with low material resources can enhance performance by building strategic partnerships, which may start with ideological preferences. However, without some material power, and pragmatic relationships, an organization cannot survive in the international development environment.

Table 2.2: Propositions Regarding Resource Allocations

<u>Material Resources</u>	<u>Social Capital</u>	
	<i>High</i>	<i>Low</i>
<i>High</i>	High Impact	Low Impact
<i>Low</i>	Moderate Impact	Low Impact

Chapter Summary

This chapter has provided an overview of the concepts used to examine INGO capacity to achieve an organizational outcome by means of social capital, material capabilities and the interaction between the two types of resources. Although this theoretical model was developed specific to measure INGO outcomes related to food security programs, I expect the model to remain consistent across sectors, including emergency response programs, gender equality, education and the like.

Interviews with food security professionals confirmed partnerships and social capital are a great asset for their programs. They also suggested these partnerships come at a cost to the organization, in the time and money they require to flourish. Food security partnerships emerge locally, at the city or village level. The evolution of partnerships and collaboration is very contextual

and generally develop in the field. In some cases, the connection is personal. One case in point came from Zimbabwe, where a partnership between two INGOs forged because the country directors found they worked well together and had similar interests. The social relationship led to a future proposal to build a collaborative program in the region. In other cases, a partnership is spawned due to necessity. Some partnerships create a strain on the organization. Other partnerships are sustained by prolonged interactions. Mercy Corps and Save the Children have partnered for years in Tajikistan. The partnership has flourished overtime and now runs smoothly with little cultivation.

Material resources were also discussed. I suggested that private donations, grant funds and human capital together account for an organization's material power. While material power is necessary to achieve organizational outcomes, these resources alone cannot sustain an organization operating in tumultuous environments. To be sure, money and personnel are vital aspects of fulfilling program requirements. However, without the social resources needed to enhance capabilities, organizations cannot withstand external shocks, reach leery populations or gain favorable positions with donors. I concluded that material resources and social capital interact to enhance outcomes.

Using information from interviews, published work, and INGO reports, I develop a complete conceptual model, presented here. In forthcoming chapters, these concepts are used in an empirical model, whereby key elements are

operationalized and data was collected to examine the practical interplay of social capital and material resources. An organizational outcome is evaluated to examine the interaction of the two resources and their connection to performance. In Chapter 4, I examine the social relationships through descriptive analysis. In Chapter 5, the results of Chapter 4 are added to an empirical model to test the interactive effects of the two types of resources.

Chapter 3: Social Capital: The Measurement Problem

Introduction

Various relationships are identified regarding INGOs, their connections with partners, the interaction between material and social resources and the effect of social and material resources on meeting organizational outcomes. As discussed in Chapter 2, there are two types of resources, social capital and material resources that assist an organization in meeting desired outcomes. While many researchers examine the consistent patterns of malnutrition and hunger, particularly in Sub-Saharan Africa and rural Asia, limited information currently exists that examines food insecurity systematically from a *resource perspective*. Moreover, emphasis tends to be on patterns of accountability and transparency, with little emphasis on *programmatic outcomes*. In scarce economic times, already lean organizations are facing multiple challenges – to build material capacity to respond while building social partnerships to combat the issues in a multifaceted, collaborative effort. Regardless of the importance and emphasis placed on resources, and the inherent need to collaborate, there is currently limited literature that exists to examine the relationship between the two, particularly in studies of non-governmental organizations¹⁸.

¹⁸ Studies of social and material resources are generally aimed at private organizational structures and firms, looking at ways to increase business outcomes and enhance employee performance, but little emphasis is placed on government and non-profit organizations from a social perspective to examine outcomes.

Literature relating to INGOs, as well as food security, is relatively sporadic and primarily developed for reports from the Food and Agricultural Organization (FAO) or the United Nations (UN). Little of the research is focused on the INGO, and investigation is not geared at examining organizational outcomes, or social capital. Considering the examination of social capital and material resources in the promotion of food security, this chapter reviews the empirical studies examining social capital in an organizational setting. I present the quantitative and qualitative empirical literature that addresses the relationships I posit in this study. More importantly, I review what the literature leaves out to provide evidence of the gap in social science when considering dual resources and organizational outcomes.

Organizational Social Capital

Organizations are complex entities (Scott 2003). As such, the inner workings of organizations are not easily categorized. When interest is targeted at the interplay between and among organizational units, the task is more difficult. This section of the reviewed literature focuses on organizational social capital, and particularly INGO networks. Social capital emerged in sociological literature in the early 1900s, with Jane Jacob's work on *American Cities* (1917) and was later adapted to political science in the 1990s, with Robert Putnam's inaugural book, *Making Democracies Work* (1993). Since then, the concept expanded to use in a plethora of environments, across disciplines and at myriad levels of

analysis. Social capital provides an alternative mechanism for viewing resources. Researchers argue social capital is a resource for the individual, the organization, the township, and the nation state.¹⁹ A World Bank proponent of social capital and development, Michael Woolcock, states:

Social capital provides . . . a fruitful conceptual and policy device by which to get beyond exhausted modernization and world-system theories and make potentially important contributions to questions of economic development. . . . Social capital's greatest merit is that it provides a . . . comprehensive multi and interdisciplinary approach to some of the most pressing issues of our time (Quoted in Cohen and Prusak 2001, 6).

Woolcock's explanation demonstrates why social capital is particularly important in development contexts. Social capital is compared to other resources in the literature and is explained as the resource that is available to an organization through the function of its location on a social structure (Adler and Kwon 2002). In the next section, I review: 1) definitions of social capital; 2) conceptualizations of the construct; 3) different forms of measurement including control variables; and 4) the connection between social capital, benefits and outcomes.

Definitions of Social Capital

There are many definitions of social capital in organizations, describing social capital as something that is internal to the organization, external to the organization or a combination of both. Social capital is categorized into two sub-

¹⁹ See the Inglehart's (1997) work on the World Values Survey for the first National attempt to capture social capital.

groups: internal and external. Similar to this study, Adler and Kwon have determined that social capital can exist within organizations, outside organizations or both. This is important because the conceptualization of social capital was inherently developed within organizations, and shared across departments and referred to as bonding social capital. The definitions emerged overtime, conceding social capital presented a resource external to the organization as well. Therefore, organizations can “share” social resources in much the same way they can borrow material resources, also referred to as bridging social capital. Bridging social capital refers to connections between various heterogeneous groups that are more likely to foster cooperation and inclusion when compared to bonding social capital (Coleman 1998). Bonding social capital is the connections within smaller subgroups; but not linked to outside members. As such, connections between employees in one organization would represent bonding social capital, whereas, inter-organizational cooperation constitutes bridging social capital. Some researchers have developed working definitions of social capital that encompass both bridging and bonding social capital. This conceptual argument opens doors in research, allowing us to examine inter-and intra- organizational collaboration with definitions that examine bridging and bonding capital in single definitions, outlined here. My research identifies inter-organizational social capital or bridging social capital, while also considering bonding social capital. In Table 3.1 below, adapted from Adler and Kwon (2002) summarizes the key definitions of

social capital in all the prominent and cross-disciplinary literature, linking internal and external definitions to a concept that encompasses both.

Table 3.1: Adler & Kwon’s Summary of Social Capital Definitions

Internal versus External	Authors	Definitions of Social Capital
External	Baker	“a resource that actors derive from specific social structures and then use to pursue their interest; it is created by changes in the relationship among actors” (1996: 619).
	Belliveau, O’Reilly & Wade	"an individual's personal network and elite institutional affiliations" (1996:1572)
	Bourdieu	“the aggregate of the actual or potential resource which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition ” (1985: 248).
	Bourdieu & Wacquant	“the sum of resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance or recognition” (1992: 119).
	Boxman, De Graff & Flap	“the number of people who can be expected to provide support and the resources those people have at their disposal” (1991: 52).
	Burt	“friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital” (1992: 9). “the brokerage opportunities in a network” (1997: 355).
	Knoke	“the process by which social actors create and mobilize their network connections within and between organizations to gain access to other social actors’ resources” (1999: 18).
	Portes	“the ability of actors to secure benefits by virtue of membership in social networks or other social structures” (1998: 6).
Internal	Brehm & Rahn	“the web of cooperative relations between citizens that facilitates resolution of collective action problems” (1997: 999).

	Coleman	"social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure" (1990: 302).
	Fukuyama	"the ability of people to work together for common purposes in groups and organizations" (1995: 10). "social capital can be defined simply as the existence of a certain set of informal values or norms shared among members of a groups that permit cooperation among them" (1997).
	Inglehart	"a culture of trust and tolerance, in which extensive networks of voluntary associations emerge" (1997: 188).
	Portes & Sensenbrenner	"those expectations for action within a collectivity that affects the economic goals and goal-seeking behavior of its members, even if these expectation are not oriented toward the economic sphere" (1993: 1323).
	Putnam	"features of social organization such as networks, norms, and social trust that facilitate cooperation and coordination for mutual benefit" (1995: 67).
	Thomas	"those voluntary means and processes developed within civil society which promote development for the collective whole" (1996: 11).
Both	Loury	"naturally occurring social relationships among persons which promote or assist the acquisition of skills and traits valued in the marketplace...an asset which may be as significant as financial bequests in accounting for the maintenance of inequality in our society" (1992: 100).
	Nahapiet & Ghoshal	"the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network" (1998: 243).
	Pennar	"the web of social relationships that influences individual behavior and thereby affects economic growth" (1997: 154).
	Schiff	"the set of elements of the social structure that affects relations among people and are inputs or arguments of the production

		and/or utility function" (1992: 160).
	Woolcock	"the information, trust, and norms of reciprocity inhering in one's social networks" (1998: 153).

Table adapted from Adler and Kwon 2002, 20.

Examining this comprehensive set of definitions, I adopt Nahapiet and Ghoshal's definition, emphasizing the internal and external nature of INGO collaboration, as outlined in the social relationships presented in chapter 2, encompassing collaboration with other personnel, as well as partners from a set of heterogeneous organizations including other INGOs, donors, businesses and local partners.

Conceptualization of Social Capital

Within the literature, some of the most pertinent is the work that focuses inter-organizational collaboration. As argued in Chapter 2, social capital is a resource separate from material resources, which is essential for achieving programmatic outcomes. This type of social capital emerges when multiple actors engage in food security programs.

Adler and Kwon (2002), through a meta-analysis, develop a new framework for conducting social capital research. They synthesize over 20 years of theory to develop a common framework across disciplines. In Figure 3.1, their conceptual model is presented, which identifies: types of relations, sources of social capital, contingencies and values that come from the benefits and risks. They define social capital as "the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's relations. Its effects flow

from the information, influence, and solidarity it makes available to the actors” (Adler and Kwon 2002, 23). Through the social structure, they operationalize a tripartite of relations by which social capital emerges: market, social, and hierarchical relations.

They argue, through market, social, and hierarchical²⁰ relations with other actors, the sources of social capital arise from opportunity, motivation, and ability. By opportunity, they mean actors have the opportunity to engage in social transactions that may include shared information, leverage contacts, etc.. By motivation, they argue actors must have a reason to participate in the exchange of information and resources, even if opportunity is present. They suggest that in research focused on organizations, motivations are “instrumental” (2002, 25). Instrumental motivations are based on rational calculations and dyadic exchange, whereby actors determine what they can gain by entering into a social relationship, which is generally based on trust. If an actor determines there is little to gain, the relationship may not develop. Relationships between INGOs and donors illustrate this argument, as INGOs need to be able to provide donors with a reason to fund their projects. In other words, the donors need to be able to determine their return on investment. Finally, social capital emerges out of ability, which they define as “the competencies and resources at the nodes of the network” (2002, 26). In sum, the actors must possess the knowledge and abilities necessary to add value in the

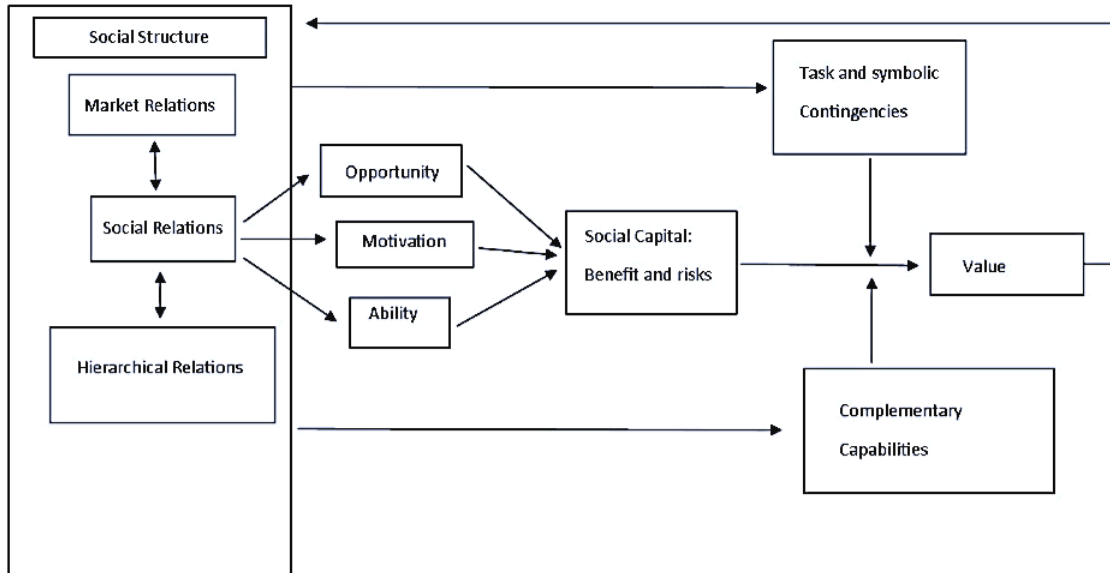
²⁰ In my research, relationships with donors represent hierarchical relations, relations with INGOs social and relations with businesses market.

social relationships they enter, similar to the comparative advantage argument I make regarding INGO program development. Adler and Kwon argue that all three sources, opportunity, motivation, and ability, must be present for social capital to emerge.

When social capital does appear, there are three benefits or outcomes identified by the authors: information, influence, and solidarity (Adler and Kwon 2002). The most straightforward is information. Through collaboration and connectivity, information flows more freely when transaction costs are low. Therefore, one organization can gain knowledge through engaging in information exchanges with another organization. Information sharing, however, can have drawbacks, including loss of power when information is shared across organizations. Second, social capital can create power for the organization through influence. One organization can rally support from partners to gain power and influence over other organizations. Also, actors who act as “bridges,” meaning they connect a disenfranchised member to the larger group through their network tie, can exert influence over the disconnected groups. Finally, solidarity is a benefit of social capital. Solidarity exists when strong social norms and beliefs are associated with high degrees of closure in a network. Solidarity can assist in integrating disadvantaged or isolated groups through bridges. This benefit also comes with the risk of becoming isolated from outside views and creating cliques where other groups feel unwelcome. In Figure 3.1 below, Adler

and Kwon’s conceptual model is presented, summarizing the information in this section (Adler and Kwon 2002, 23).

Figure 3.1: Adler and Kwon’s Social Capital Construct



A Conceptual Model of Social Capital

Aside from Adler and Kwon’s (2002) meta-analysis, other researchers have argued that social capital is important to organizations. Nahapiet and Ghoshal (1998) argue social capital is a resource within an organization, encompassing structural, relational and cognitive dimensions, which together benefit an organization in ways not achieved by other means. The three dimensions include: structural, cognitive and relational social capital.

Structural social capital includes: network ties, network configurations, appropriable organization. Nahapiet and Ghoshal (1998) contend that network

ties are central to social capital theory, as the network ties provide access to information. Information sharing is regarded as one of the greatest benefits of social capital and therefore, can be examined through ties or links between entities. They further argue that network configuration is equally important in determining information flow, as networks vary in form from density, connectivity and so on. Different configurations are linked to various outcomes, such as development of intellectual property, which is the topic of their most recent article. Finally, they suggest that patterns of social connectivity in one context may be transferred to other contexts. They refer to this concept as appropriable organization, where norms and values from one organization transcend organizational barriers and infiltrate other structures, creating a greater ability to motivate information sharing.

Cognitive social capital includes shared codes and language and shared narratives. Many aspects of language and shared narratives assist in social capital exchanges. The most obvious aspect relates to the ability to connect and communicate effectively without linguistic barriers. Language forms the basis for our ability to exchange information and develop shared perceptions. Networks often develop a shared set of concepts and codes, and these are communicated through a shared language, illustrating membership and shared understanding. In addition to shared language, networks that develop a shared narrative afford members a way to connect socially, developing a sense of

belonging and shared experience. Nahapiet and Ghoshal (1998) suggest this happens through sharing “myths, stories, and metaphors” (254).

Relational social capital includes: trust, norms, obligations and identification. Nahapiet and Ghoshal (1998) examine through previous research that high levels of trust are also associated with an actor’s willingness to engage in a social exchange. Therefore, developing trust within a network structure enhances connectivity and information sharing. Developing trust in the network allows actors to engage more openly and anticipate and react to challenges. Where trust is high, networks can weather external shocks better, as members connect and respond collectively rather than disengage. Norms, which emerge overtime, represent a mutually understood set of actions, such as a norm of cooperation or a norm of engagement. Agreed upon actions, therefore, can become a mechanism for control within a network, as they can regulate behavior. For example, humanitarian norms in international society create a perceived obligation to react when human rights are violated. This external form of control binds network members; say from democratic states or another network configuration to act according to agreed norms of behavior. Obligations are similar to and closely related to norms, except obligations are a predetermined code for future actions between actors. Using the previous example, democratic states have an obligation to respond to actions against partner states. The action is based on normative behaviors, but expected at a future date, should a set of conditions arise. For humanitarian aid organizations, such as the INGOs in this

network, they share a norm of compassion and have an obligation to act when a global shock affects a population's ability to access enough food. Finally, resulting from developed norms and trust and obligation, actors form a sense of identification. Identification is one's ability to see them as belonging to a group or network. Salient group identification, thereby, increases an actor's motivation to engage in an exchange relationship (Nahapiet and Ghoshal 1998, 256).

Similar to Adler and Kwon (2002), Nahapiet and Ghoshal (1998) do not employ methods to test hypotheses, however, their conceptual work assists researchers in making sense out of the various social capital scholarship. Most organizational social capital literature employs the above dimensions in examining empirical cases. In INGO studies, social capital spans across all three dimensions, however, little empirical research exists examining these relationships, especially when we consider research with large samples²¹.

Development scholars also deliver conceptual arguments in regard to social capital. Woolcock and Narayan (2000) examine social capital and its effects on development from a policy perspective. They examine the network structure of social capital and find synergy between network structures and valuable institutions structures is the best type of social capital to help reduce poverty in communities. They postulate collaboration between actors in a network is most effective when institutional elements support the transaction. I posit a similar proposition, stating an organization's material capital must be

²¹ Moore et al. (2003) use only one case. Ohanyan (2009) uses only 4 INGOs.

able to withstand the development and fostering of relational resources, but when the two align, organizations benefit.

Social capital, Narayan and Woolcock argue, is a tool linked to outcomes, even in the absence of material capital. One example regarding microfinance programs demonstrates this point particularly well, stating, “poor village women with no material collateral are given loans on the basis of their membership in a small peer group, which helps them start or expand a small business and thereby improve their families welfare” (232). I make a parallel argument regarding INGOs. Even an INGO with limited material resources, can achieve outcomes by using the material power of a partner INGO. This concept, illustrated by the Grameen Bank in Bangladesh, which is well known for its successful microfinance program, can expand to include other areas of research. In Woolcock’s model, the resources provided to the poor villager represent an opportunity to improve one’s well-being (A). However, they argue returns of the initial interaction reach a peak (B) and begin to diminish especially if they rely on bonding rather than bridging social capital. Continuing the same microfinance example, resources then may diminish, as the program becomes overwhelmed by a new group of beneficiaries applying for loans. In this instance, the benefits to the existing members decline, as resources are diverted and stretched to accommodate new applicants (C). When this happens, they argue members “divest” themselves of the initial asset, while simultaneously seeking connection to the broader community. This represented the expansion from “bonding” to

“bridging” social capital. Here the person in need of services connects to other resources offered by partner systems, creating a more diverse personal network (D). The network is then comprised of more members from heterogeneous backgrounds and the bridging social capital allows them to leverage the resources to achieve a greater sense of stability (E). Woolcock and Narayan’s (2000) model, which illustrates this overall argument, is displayed below in Figure 3.2.

This argument works well regarding relations between INGOs. While INGOs may develop strong intra-organizational ties, and establish bonding social capital, they will not be able to reach greater outcomes. By developing ties to other organizations via bridging social capital, they can achieve greater outcomes through the leveraging of additional material resources from other organizations. Together, the organizations can achieve more than when implementing their projects separately or in isolation from the other.

Figure 3.2: Woolcock and Narayan Social Capital Model

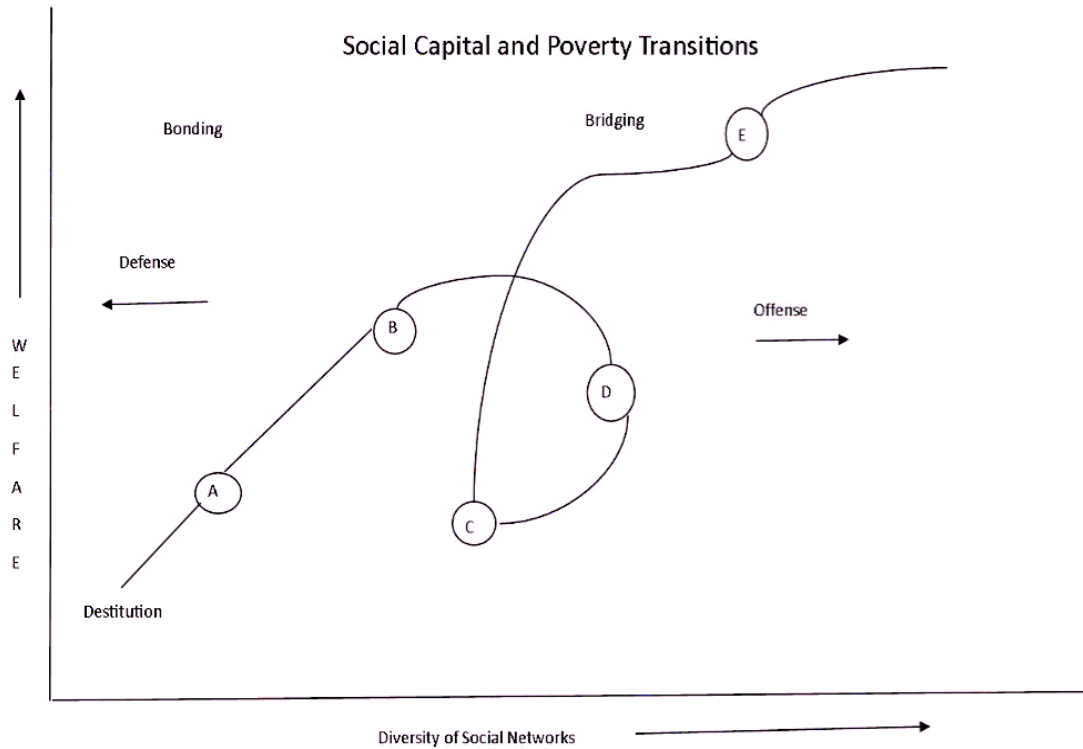


Figure recreated from Woolcock and Narayan 2000, 232.

Using this model, Woolcock and Narayan argue there is a relationship between network density and poverty. Binary network density is simply the proportion of all possible ties that are actually present in the given network (i.e. of all the actors that could be connected, what proportion are actually connected). In a dense network, the proportion of actual connections to possible connections is high. Woolcock predicts communities with high network density also have lower poverty indices. This proposition is testable using a social network approach, however, no empirical results are presented in their research.

Moreover, conceptualizing group collaboration in policy realms emerge from divergent perspectives within the INGO literature. Examining aspects such as issue development, issue framing and venue shopping, Keck and Sikkink (1998) explain the way groups emerge and how they succeed. Each of these stages of “gaining influence” is tied to the ability to exchange information and create effective campaigns, through bridging social capital. Nelson suggests influence within the INGO network is tied to donors, creating a more intertwined web of connectivity and strong linkages (1996, 608). Nelson argues strong network relationships begin with funding collaboration, not common projects (612). From the conceptual literature regarding INGO collaboration, social capital emerges due to the need to build collaborative practices to attack difficult social problems.

While studies reviewed in this section help form the basis for conceptualizing and defining social capital within organizations, they do not measure social capital or provide analytic tests of their assumptions. Although the aforementioned conceptual pieces help illustrate the importance of studying structural or network power and the connection between actors, these works constitute “soft” networks and offer little in the art of advancing empirical studies in social capital scholarship. In the next section, I examine studies that attempt to measure social capital in the public and non-profit sectors to assist in filling the void.

Measurement and Empirical Studies

In order to test propositions, the concepts provided in the previous sections need to be operationalized. When the literature is narrowed to include articles that deliver empirical, rather than theoretical findings, the results are disappointing. Within the literature, only one study examines inter-organizational collaboration in the public sector (Andrews 2010) and one examines inter-organizational collaboration between INGOs (Moore, Eng and Daniel 2003). In addition, a few studies attempt to empirically test the conceptual arguments presented above within the private organizational setting (Arregle, Hitt, Sirmon and Very 2007; Bolino, Turnley and Bloodgood 2002; Cross and Parker 2004). In each of these studies, organizations and individuals with enhanced social capital performed better, however, very few examine organizational outcomes based on bridging social capital and organizational structure.

I argue social capital can be influenced by an organization's structure (Bolino, Turnley and Bloodgood 2002; Nahapiet and Ghoshal 1998; Andrews 2010). After a review of the organizational literature, it is evident my argument can benefit most from the Andrews (2010) study because it represented the only examination of inter- rather than intra- organizational social capital in the public or non-profit sector. Moreover, he utilizes a moderated regression model, such as the one proposed in this research. Andrews (2010) using panel data, examines structural social capital on the performance of 100 governmental organizations

between 2002 and 2005. He argues a higher level of social capital equates better organizational outcomes. He adds in new elements as controls for the social capital effects, referred to as organizational structure, used as a moderator. The three moderating variables that are classified as structural variables include: centralization, formalization and specialization. Centralization is focused on management and decision-making. He conceptualized a centralized organization as one with decisions coming from top management, whereas in a decentralized organization, decisions are made at various levels. Formalization is a measure of the presence or absence of written policies. Organizations with policies and procedures guiding decision-making are considered formalized. Specialization measures job skills as either specialized or unspecialized. When an individual requires specific training it is specialized, likewise, when the individual's skills to complete a task are easily transferred to the skills are termed unspecialized. In Table 3.2 below, the survey items used in Andrews' analysis are presented; illustrating the single item scale he uses to measure the different types of social capital and organizational structure moderators (2010, 603).

Table 3.2 Andrews' Survey Items

Organizational Characteristics	Survey Items
Structural social capital	Co-ordinated and joint working with other departments is a major part of our approach to the organization of services. Cross-departmental/cross-cutting working in important in driving service improvement.
Relational social capital	There is a high level of trust between top management and staff. There is a high level of trust between officers and politicians.
Cognitive social capital	The authority concentrates on achieving its mission, values and objectives. The authority's mission, value and objectives are clearly and widely understood and owned by all staff in the service.
Centralization	When our results deviate from our plans, the decision to take appropriate corrective action usually comes from the top.
Formalization	Written policies and procedures are important in guiding the action of employees.
Specialization	We frequently transfer or second staff to different services/departments (inverted).

Table recreated from Andrews 2010, 603.

Here, Andrews demonstrates that social capital has a direct relationship with organizational outcomes. As his dependent variable, Andrews used the self-reported views of stakeholders on the service performance of local governments in the United Kingdom (UK). He finds relational social capital and cognitive social capital have a positive and significant relationship with organizational performance, while structural social capital does not. Table 3.3 summarizes his results from an OLS pooled regression analysis (597). To test the argument in Adler and Kwon's conceptualization, to see if there are also negative effects of social capital, Andrews also examined a quadratic effect in the same regression models and did not find a change in the results. These results suggest

the positive effects of social and cognitive social capital are not likely to turn negative (602).

Table 3.3: Andrews' Results: Organizational Social Capital and Performance

Independent variables	Slope	Slope
Organizational social capital		
Structural social capital		-.05
Relational social capital		.30**
Cognitive social capital		.19**
Control variables		
Lone parent households	-.18+	-.30**
Population growth	.30**	.30**
Age diversity	-.23**	-.08
Ethnic diversity	-.55**	-.47**
Social class diversity	-.001	.02
Population (log)	.10+	.06
Population density (log)	.31**	.35**
Service expenditure per capita	.21*	.26**
F-statistic	16.16**	21.60**
R ²	.32	.45
N of observations	387	387

+p <.10; *p<.05, **p<.01

Table recreated from Andrews 2010, 602.

As evident in Andrews' analysis, regarding structural social capital, elements within an organization can either enhance or strain the relationship between material and social resources. I use a comparable model to conceptualize material resources as the moderating organizational structure. As INGOs vary little in Andrews' form of organizational structure, I see minimal variance in specialization and formalization. INGOs are flat, decentralized, formalized organizations. However, other variables regarding organizational structure and capacity could yield interesting results, and vary drastically across the population.

Social Network Analysis (SNA) can also be used to measure social capital. Two scholarly articles utilize SNA to measure social capital within the INGO literature, only one of which actually conducts the analysis. Moore, Eng and Daniel (2003) use SNA to examine crisis response and coordination in one case study, focused on Mozambique. The paper uses two sets of data, INGO coordination and links to other organizations and beneficiary numbers. Using three measures of centrality (degree, eigenvector, and betweenness), the authors examined the link between the centrality measures and beneficiary numbers. Put simply, these researchers examined a group of actors, including INGOs, after an emergency to test whether their interactions with each other formed social resources that aided their outcomes to reach flood victims. The links between organizations were established using a proxy (shared location), comparable to the one proposed in the next chapter. In Figure 3.3, the conceptual model used in the Moore, Eng and Daniel study is presented below.

Figure 3.3: Moore et al. Conceptual Model

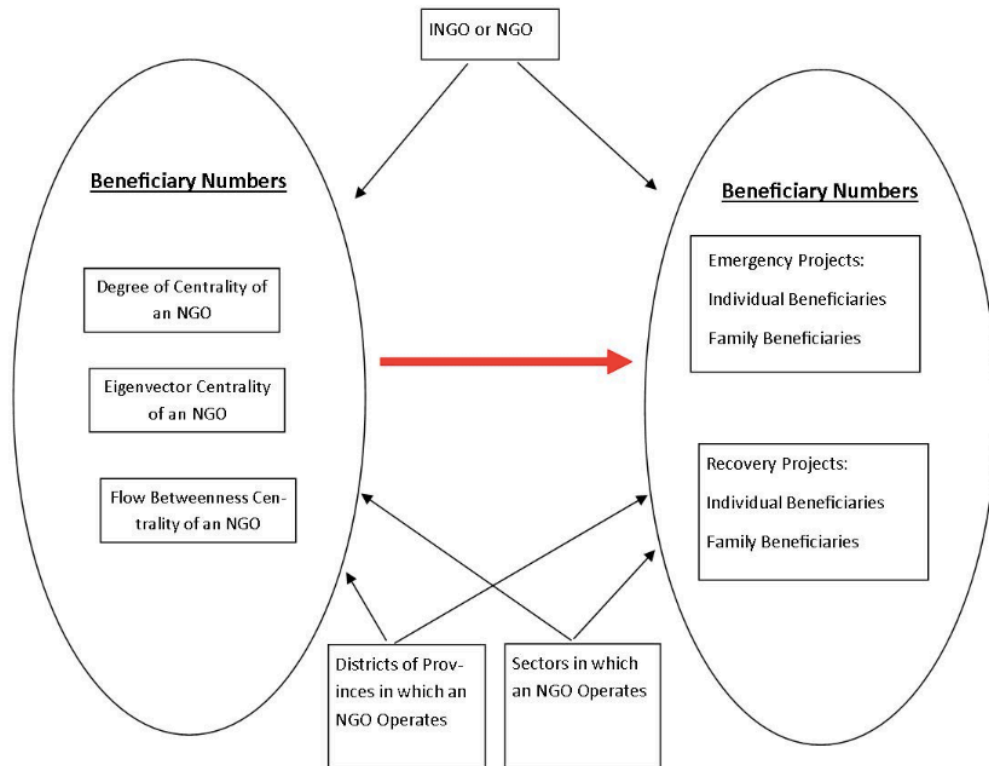


Figure recreated from Moore, Eng and Daniel, 2003, 306.

They hypothesized the organizations with higher centrality would also have higher numbers of beneficiaries. My research uses the same dependent variable. Analogous to my analysis, they measured beneficiaries as the sum of all categories of persons receiving services after the floods. To test this hypothesis, the authors used a Mann-Whitney U test. They examined degree, eigenvector, and flow betweenness centrality measures in relation to beneficiary outcome data. The authors dichotomized scores into 'high' and 'low' categories, using the mean as the cutting point. Mann-Whitney U determined whether the 'high' and 'low' district affiliation categories differed in numbers of beneficiaries. The

results indicated the link between centrality and more beneficiaries was in fact significant, using a 95% confidence interval.

The authors point out two main limitations to the study. The first is related to the data. There could be a bias in the sample, as the data utilized was from a self-reporting system. In addition, due to the type of data and statistical tests related to the levels of measurement, there was not a mechanism for testing causal hypotheses. Therefore, the conclusions are limited to the descriptive analysis, suggesting a relationship between centrality and benefactors.

One limitation not examined by the authors, is the moderating effect of the size of the organization and their access to donors in other words power and influence. The study concludes that INGOs have the highest degrees of centrality as well as the most beneficiaries. Contrary to the other INGO studies, this piece examines what I call social capital, without considering material capabilities. The effects of the larger organizations to attract and secure more resources were not examined, which also strengthens the argument for networked studies of emergency response and humanitarian aid.

The second study, conducted by Ohanyan (2009) examines INGO autonomy from donors in the policy process. Her research question is:

As non-governmental organizations (NGOs) and their donors, each usually with much different policy orientations, coalesce within inter-organizational networks, what determines whose policy preferences are pursued, implemented, and delivered on the ground? (2009, 475).

Ohanyan’s design focuses on the microfinance sector in Bosnia Herzegovina. She uses two variables: 1) the level of policy coherence and 2) the degree of power concentration. Utilizing these two variables, she created a typology of a network-based structure. In table 3.4 below, Ohanyan’s typology is presented to illustrate her four possibilities combinations for distinct network types.

Table 3.4: Ohanyan’s Network Typology

		Level of policy coherence (LPC)	
		High	Low
Degree of Power	Low	Unstructured concord	Insular embeddedness
Concentration (DPC)	High	Vertical specialization	Diffused pluralism

The network she examines is comprised of dyadic relationships between NGOs and donors. She finds that NGOs donor relationships that fall in the realm of “insular embeddedness” fare best in terms of developing the right mix of partnerships and autonomy. These NGO’s are able to balance reliance on donors and policy and programming autonomy. One nice aspect of this model, relevant to my current research is Ohanyan’s departure from a donor-recipient relationship to focus on the network attributes and patterns or relationships that enable enhanced policy outcomes. In some cases, donor priorities are pursued regardless of NGO preferences. In other cases, donors and NGOs act more like partners, each directing aspects of programming. She finds, “INGOs vary widely in their influence over global policy outcomes, and that influence is contingent on an INGO’s external network environment. Moreover, INGO autonomy is sensitive to the network structure in which the INGO operates rather than the

financial or organizational resources of the donors funding the INGO, as commonly believed in the literature” (498). She examines one NGO in each of the four quadrants in her model and examines that each form of networking between NGOs and donors creates a divergent outcome in microfinance policy. One of the major strengths of this study, although limited in scope, is her ability to model exact relationships in the network, as measured by donors who fund these NGOs. Here, she is able to demonstrate that through direct, and not through a proxy relationships, different levels of power concentration and policy coherence lead to different organizational outcomes. These findings support my conceptual model, suggesting that relationships between donors and INGOs are important in determining ways to enhance organizational performance and reach.

Both the Ohanyan and Moore et al. studies begin to examine INGOs as networks and uncover more mechanisms for collaboration. However, Ohanyan’s generalizations are made from a sample of four INGOs, which seems inadequate considering the size of the field. The area is underdeveloped and will benefit from more extensive use of cases and additional variables.

In development studies, Woolcock and Narayan argue developing a direct measure of social capital is difficult, and the development of a common measure may be impossible. They suggest “more comparative research is required that uses precise measures of social capital to examine within-country and across-country variations in poverty reduction, government performance, ethnic

conflict, and economic growth" (2000, 239). Alternative proxies are presented, which includes: membership in informational associations and networks, density of associations, and norms and values that facilitate exchange. They recommend researchers measuring social capital "...unbundle social capital into its dimensions and to generate new data sets that are comparable across many countries" (Woolcock and Narayan, 240). Although they do not evaluate any measures, the advice from their development perspective is crucial and illustrates why a global network analysis of INGOs is important in developing a common tool; building a base for future empirical studies to expand. One important finding is the author's recommendation to use structural social capital or network ties when organizations are competing in dynamic environments.

Outcomes and Benefits from Social Capital

There are many benefits and outcomes associated with empirical studies of social capital. Social capital can increase efficiencies (Nahapiet and Ghoshal 1998), form new ways of learning and associating and create new norms (Fukuyama 1995; Jacobs 1965; Coleman 1988; Putnam 1993), provide access to resources through network ties (Burt 1992) and be strengthened over time (Bourdieu 1986). Conditions that make people or organizations more dependent on one another strengthen social capital. On the contrary, social capital is eroded when organizations are less dependent on one another (Coleman 1990). In examining INGOs, this seems intuitively correct, as resources become stretched, INGOs are more dependent on donor funds and may increase the viability of a

lasting relationship between INGOs and donors, but not necessarily between and among INGOs themselves.

Social capital is also closely related, and moderated through material resources. Social resources can enhance material resources and vice versa. This includes recruitment, professional development, and networking to build new proposals. Social capital creates an atmosphere that influences professional or career success (Burt 1992; Gabbay and Zuckerman 1998; Belliveau, O'Reilly and Wade 1996). Furthermore, social capital helps jobseekers gain employment and creates a better pool of applications for organizations to draw from (Granovetter 1995; Lin and Dumin 1996; Fernandez, Castilla and Moore 2000). The difficulty in obtaining material resources, discussed in Chapter 2, increases the importance of the social capital benefit in the INGO population.

Social capital is also an important resource between, and not just within organizations. Social capital facilitates inter-organizational resource exchanges and competitive innovation, which can help create new knowledge and technologies (Gabbay and Zuckerman 1998; Hansen 1998). As such, social capital creates intellectual capital and cross-functional team effectiveness (Hargadon and Sutton 1997; Nahapiet and Ghoshal 1998; Rosenthal 1996). Social capital has also been shown to strengthen relationships among firms (Asanuma 1985; Baker 1990; Dore 1983; Uzzi 1997; Kraatz 1998) and allowed access to other resources (Burt 1992). This in turn leads researchers to examine the effects social capital has on the motivation to create collaborative relationships and maintain

them overtime. The temporal aspect is the most important aspect of social capital (Coleman 1988). In Cohen and Prusak's book, *In Good Company*, (2001), they examine how social capital aids organizations in accomplishing their work, while enhancing performance. They argue social capital is a mechanism that high functioning businesses use to get work done. When social capital is present, Cohen and Prusak argue high levels of trust exist and vibrant communities of practice emerge. They suggest the real benefits of social capital, although sometimes held at the individual level, accrue at the organizational level. The collective arguments from Cohen and Prusak (2001), as well Nahapiet and Ghoshal (1998) support the importance of examining INGOs at the organizational level. Moreover, the social capital they obtain aids organizational outcomes, which deserves examining.

Considering the above arguments regarding social capital and its benefits to the organization internally and externally, the literature overwhelmingly concludes social capital is indeed a type of "capital" that can aid an organization and assist in achieving outcomes. Aside from Andrews (2010), no other studies examine an organization's structural elements in conjunction with the establishment of social capital. Andrews' sample consists of local government offices in one European country. I propose the one-county sample needs to be expanded to a global analysis with varying business structures, including non-profits. Considering social capital is an important and widely studied concept in sociological and organizational literature, it is important to turn attention to

social capital in development organizations to learn how we can measure and assess social capital within INGOs, adding to the World Bank research.

Limitations of Current Measurement Strategies

The current social capital literature is well developed on the theoretical and conceptual dimensions, but weak in empirical illustrations of its measurement and value in organizational studies. I reviewed the various definition of social capital, arguing the emergence of definitions that combine elements of bridging and bonding capital will assist in examining inter-organization research, including this project. I presented two empirical studies that examine social capital and its benefits through analyses in relief INGOs and the UK government. While these studies were both helpful in the formation of the conceptual model developed for this study, they also illustrate a real gap in empirical work that examines connections between and among organizations and their material resources. Andrews (2010) does an exemplary job applying one of the many social capital models in an empirical study. His conceptualization of moderating effects fills a gap in the literature, which needs to be expanded to include more variables regarding organizational capacity that might include size and financial power. He illustrates social capital does have an effect on organizational outcomes, but there are some limitations with his study. First, all of his measures are 1-item self-reported scale, which may be unreliable. Secondly, his dependent variable is a self-reported perception of performance, rather than an objective measure of performance. Finally, his study argues that

structural, social and cognitive elements are essential for organizations to meet outcomes, but he does not empirically model any of those connections. This is the biggest weakness of his work, which I plan to overcome through a formal social network analysis to examine the structural elements and network ties. Also, his study uses a very small sample, which is geographically limited in scope. With a model that connects over 1186 projects on every continent, I hope to add value as the first international adaption of these models of social capital.

Based on this literature review it is evident there are gaps in the research regarding *material resources*, leading to a plethora of future explorations needed to understand why and how material resources, such as employees and revenue effect an organization's ability to perform. As outlined in Chapter 2, INGOs are facing a huge human resource challenge in recruiting and retaining qualified personnel. The ability to develop a strong pipeline of future leaders is challenging when turnover is so high. There are, however, no current studies that examine the direct connection between social and material resources, or between material resources and organizational outcomes. The small body of applied research that does exist in this arena is focused on conceptual arguments, with no empirical findings. There clearly needs to be more research dedicated to global analyses of resource interactions in order to better understand and address the capacity building issues holistically (Hailey 2006, 27). The need to examine the material resources and social capital interactions is underrepresented in the literature and requires investigation.

Moreover, the literature in the field of INGO networks is inadequate. The extents to which organizational structure and external environments effect programmatic outcomes are not developed well or evaluated systematically. In part, the goal of this project is to develop a measure of social capacity that can be used in later studies, so environmental and organizational contexts become a larger part of INGO scholarship.

The two current SNA studies examined in this review are limited to one country, and one issue each, microfinance in Bosnia and flood assistance in Mozambique. This research, while limited to the one issue area of food security would offer the first large-scale global analysis, combining projects in every region of the world. Information regarding organization's connections is difficult to obtain, however, efforts to examine large international networks are not unfeasible. INGOs are best studied in an interconnected fashion, as they work collaboratively, advocate collectively, and unite in their fieldwork. It is also examined that INGOs that work together in the field have shared organizational ties. Yet, the extent to which collaboration is an effective means to achieve organizational outcomes, including reaching vulnerable populations, requires exploration.

This project provides value for scholarship and public policy within the INGO framework, as it develops a social capital construct and it examines the interplay of two types of resources, generally studied in isolation. Material resources and social capital will be examined empirically through a network

analytic approach. The network approach will connect the key players, INGOs, the levels of social capital, centrality in the network, and the moderating factors from a material resource perspective. While relationships between actors are normatively explained in some INGO literature, very little empirical work exists to test hypotheses regarding coalition building, network structures, and actor behavior. More importantly, I could not find a current research project that examines an organization's performance while accounting for both social and material resources. Perhaps there are factors that limit aid effectiveness other than donor-recipient dependency. These factors can include: lack of local capacity, inadequate funding and an inability to sustain material resources. In their summary of future research, Adler and Kwon identified examining these factors as highly important, after reviewing the last 20 years of empirical work.

They state:

Social capital's ultimate value depends on several moderating contingency factors...As we have indicated, factors that some researchers treat as moderating contingencies will appear as resources in other accounts. Debate over such issues is inevitable and healthy. This domain of research seems a high priority one, particularly if we are going to understand the conditions that determine the balance of benefits and risks (Adler and Kwon 2002, 35).

More work is necessary to understand the linkages, control variables, and collaboration between INGOs, NGOs, local constituencies and donors. This research is the first step. I develop new constructs and test hypotheses, while providing practical outcomes for organizations hoping to reach more hungry people with limited social and material resources.

Chapter 4: Examining Social Relationships Among INGOs

Single entities can deliver interventions; the right partnerships can deliver transformations.

~Paul Dudley Hart, Mercy Corps' leader on Global Partnerships

Introduction

A mix of both social capital and material resources are essential for INGOs to achieve their missions related to food security programs. As discussed in Chapters 2 and 3, the importance of social networks, and the social capital which emerges out of networks, is discussed in policy studies and academic literature across disciplines (Ostrom 1990, Woolcock 1998; Bourdieu 1984, 1988; Coleman 1990; Podolny and Rauch 2007; Putnam 2000; Barabassi 2002; Buchanan 2002; Sabel and Zeitling 2012; Torfing 2012; Lobel 2012; Rhodes 2012; Gilardi and Radaelli 2012; Uzzi 2007). Social networks can be defined "as a set of nodes or actors (persons or organizations) linked by social relationships or ties of a specified type. A tie or relation between two actors has both strength and content" (Castilla et al. 2000, 219). Networks are based on non-hierarchical coordination and horizontally embedded relations between actors. Some authors consider networks as a distinct type of governance outside the hierarchical structure of governmental organizations, bureaucracies, and firms (Borzal 2011; Williamson 1979; Powell 1990; Torfing 2012; Keck and Sikkink

1998). Because a plethora of organizations, both public and private, now engage in policy discussions, examining non-governmental actors within a network model is essential. Moreover, INGO's and their network interactions influence the different techniques and policies favored by donors for reducing food insecurity. As examined in Chapter 3, academia currently lacks empirical evidence illustrating the best factors in predicting INGO performance, particularly from a material and social resource perspective. In order to examine if social capital is a resource that aids INGOs in enhancing performance, the development of a method to assess social capital is needed. I examine the concept of social capital through social network analysis (SNA), providing an avenue for visual inspection of structural attributes, including centrality of the actors, and density of the network.

The concept of social capital, as examined in Chapters 2 and 3, emerged from patterns of behavior within hierarchical, social and market interactions. These patterns of relationships are examined using SNA. These patterns can be empirically measured through network centrality and density. What it means to act as an influential partner is assessed through an organization's role in the social network. In the following subsections, hypotheses, data collection techniques, methods, and descriptive results are presented. I discuss why, theoretically, INGOs are well suited for an examination of a network form of organization.

Why Study INGOs as a Network?

Networks create social capital for individuals (Burt 1992; Bourdieu 1985) and communities (Putnam 2000; Portes and Sensenbrenner 1993) as well as organizations (Andrews 2010). Network forms of organization are an alternative to markets and hierarchies (Powell 1990). Almost by definition, INGOs working together in the field share a connection. They often work in the same sector, each of which has a food security dimension: agriculture; disaster management; economic recovery and development; education; environment; food aid; health; human rights, democracy, and governance; peace and security; protection; shelter and housing; or water, sanitation, and hygiene. INGOs that work closely together share resources and connect socially and professionally, developing shared norms and procedures. The literature suggests these connections are essential for survival. There are consequences associated with repeated interactions, where actors are likely to associate in the future. In situations of solidarity and reciprocity, organizations working in close proximity are not only likely to cooperate; they are also likely to develop a social form of punishment for those who do not align, perhaps in the form of material resources or knowledge sharing sanctions (Axelrod 1984). As INGOs are likely to work together on future projects, motivation to maintain positive relational ties is also high.

Based on theoretical social network premises, those in close proximity tend to collaborate (Rodgers 1962; Rodgers 1965; Rodgers 1981; Coleman, Katz

and Menzel 1966). Moreover, the unique challenge of operating in tumultuous environments with limited resources drives a cultural adaptation of network structures, which is accentuated by actors' close proximity. Across all sectors, INGOs have formed partnerships, such as LINGOS (Learning in INGOs) and InterAction, which encourage inter-organizational collaboration and information sharing. In the 21st century, a transition to seeing multiple actors in the governance system can be examined, which includes non-governmental actors. This adaptation of the international system lends itself to a network form of organization, rather than a hierarchical or market-driven system.

A network form of organization relies on interdependent preferences and choices among actors as well as shared norms and reputation concerns (Powell 1990, 300). This form of organization is comprised of three elements driving network configuration: know-how, demand for speed, and trust (Powell 1990, 324). In developing a theoretical framework for network forms of organization, Powell argues:

Non-market, non-hierarchical modes of exchange represent a particular form of collective action, one which:

- Cooperation can be sustained over the long run as an effective arrangement;
- Networks create incentives for learning and the dissemination of information, thus allowing ideas to be translated into action quickly;
- The open-ended quality of networks is most useful when resources are variable and the environment uncertain;
- Networks offer a highly feasible means of utilizing and enhancing such intangible assets as tacit knowledge and technological innovation (1990, 322).

The network form of organization is, therefore, an ideal organizational structure for the examination of INGOs.

INGOs working together in the same sector share the four qualities of a network developed by Powell. First, they build long-lasting relationships with other organizations. Mercy Corps and Catholic Relief Services offer one good example, as they have over 15 years of experience building cooperative programs. Second, INGOs share information across organizations, and develop conference presentations, shared advocacy agendas, and consortiums like LINGOs that are designed to help disseminate information and learn through other organization's best practices and challenges. Third, and probably most important in sustaining a network structure, is related to the dearth of resources, both personnel and monetary. Resource shortages, paired with the challenge of operating programs in warzones or areas devastated by natural disasters and high degrees of social unrest, demand coordinated efforts, which are geographically different. An INGO's day-to-day work likely operates in one of the most uncertain environments known to international business. Finally, INGOs share resources and experts across organizations. Often, after burning out from fieldwork, senior INGO staff will develop a repertoire of short-term consultancies in many different organizations. Moreover, in certain emergencies, such as floods, where a high level of expertise is essential, such as water and sanitation engineering, personnel are shared between projects and across organizations. Hence, given Powell's (1990) conceptualization, interactions

between and among non-governmental actors are best conceptualized as a network.

When INGOs operate as a network, they communicate frequently, in the field and through national headquarters, share human and other material resources, and initiate programs based on comparative advantage. While large INGOs operate programs in multiple sectors, most INGOs in fact have particular operational niches. For example, CARE, food security; Médecins Sans Frontières, health; and Oxfam, sanitation; or as in the case of Save the Children, direct their programs at particular classes of beneficiaries (Stoddard 2003). Therefore, isolating and examining specific sectors within the INGO community may yield insights about prominent actors and their relationships, the composition of which is likely to vary. In sum, INGOs have often become mutually dependent. Therefore, to be effective at developing programs as well as securing funding from a limited number of donors requires that INGOs collaborate. In fact, these organizations often develop proposals and programs in tandem.

Examples of this type of collaboration are evident in practice. One example came up in an interview at Mercy Corps. The organization decided to partner with another INGO in Africa, because the other organizational already had established offices in the location necessary to complete the work, which saved money and time. A further example is, Catholic Relief Services (CRS), built strategic partnerships with World Vision and CARE to expand their reach

and deliver food packages to insecure environments they might not otherwise be able to reach due to their religious affiliation.

Expected Relationships within the INGO Community

Social capital is an essential resource assisting INGOs in achieving their missions related to food security. I explore the social capital construct and present results regarding INGOs and the relationships they forge. Reviewing literature and talking to INGO professionals brought the relational elements between INGOs to the forefront. Social capital scholars argued for a more global analysis of social relationships (Woolcock and Narayan 2000), for an examination of bridging social capital, which includes inter-organizational connections (Adler and Kwon 2002), and finally, for an examination of the norms and values that bond organizations (Nahapiet and Ghoshal 1998). Interviews with prominent food security personnel were conducted with the purpose of further building my conceptual model. Through the interview process, the importance of examining INGOs in relation to the network in which they operate was cited (December 2012-February 2013). This is due in part to the environments in which these organizations work. Project locations are generally isolated, insecure and often in areas of political and social unrest. As such, INGO personnel need to build inter-organizational bonds to operate efficiently and safely because the closest team members from their organization are often cities, and sometimes countries, away. Considering the information gleaned from interviews and the literature, expect a couple of relationships to emerge in this network.

First, I suspect that those INGOs best endowed with material resources are not necessarily the same INGOs with the most social connectivity. I predict social resources are linked to organizational outcomes, which I will examine further in chapter 5. However, I also posit organizations low in material resources, such as revenue, will still be able to achieve a central role in the network through their ability to form alliances with other organizations, sharing resources, knowledge and commodities, such as housing. Thus, social resources form an alternative mechanism for building up organizational capacity. Organizations with a talent for fostering lasting relationships and leveraging social capital are not necessarily the organizations with high material resources. In fact, organizations with high levels of social capital may be those with little in the form of material resources, as the lack of material power provides more motivation to seek partnerships. I predict some organizations low in material capital will therefore be able to achieve a central role in the network, suggesting material resources are not the only precursor to organizational capacity. During my interviews, the number of stories illustrating how an “underdog” organization was able to achieve great outcomes through the strategic partnerships they chose struck me. I examine this notion, suggesting outcomes can be achieved with the right mix of partnerships.

Second, I posit that relationships often form over ideological preferences, as discussed in Chapter 2. I predict that relational resources form when organizations share similar ideological stances, evident in network ties. In these

data, I suggest organizations with similar religious preferences partner. I am not suggesting religious or secular organizations are more central actors in the overall network. However, when I examine links between organizations, I expect the presence of ideological “glue” assisting in maintaining partnerships. Evidence suggests motivation to collaborate often emerges from an ideological position. As Powell conceived:

Networks should be most common in work settings which participants have some kind of common background – be it ethnic, geographic, ideological, or professional. The more homogenous the group, the greater the trust, hence the easier it is to sustain network-like arrangements. When the diversity of participants increases, trust receded, and so does the willingness to enter into long-term collaborations (1990, 326).

Moreover, religious groups have an established infrastructure for which partnerships naturally emerge (Powell 1990, 326). As sociological literature suggested, developing social resources at the onset can be costly, therefore, it may be beneficial to collaborate with other organizations with an established framework (Woolcock and Narayan 2000, 231). Religious institutions provide one such framework, although there may be others. I suspect the ideological foundations are evident in the structure of ties between organizations in the food security network.

The remainder of this chapter will present the data collection techniques, operationalization of the SNA variables and links, a description of SNA methods and presentation of the descriptive results.

Data Collection

In order to examine the relationships posited above, data were collected from multiple sources. The data were collected between June 2011 and February 2013 and compiled into one database. These data are cross-sectional, collected across multiple organizations at one snapshot in time. All the quantitative data used are archival meaning it already existed prior to this research. However, these data are used here for the first time in this manner. Data were collected from three sources: InterAction's Food Aid Map, GuideStar's website, and interviews with INGO staff. Data regarding the organizations were collected from multiple archival databases because field-level information is almost impossible to obtain from a primary source considering the decentralized nature of INGO work. Headquarter staff are connected to projects in the field for their area of expertise; however, fieldworkers are extremely difficult to reach. In order to get a complete picture of the organizational connections, without using a proxy, primary information would need to be gathered from field staff, which is not likely in a global analysis. INGO work is spread globally and often located in areas with limited connections to the outside world including access. Collecting survey data from the entire population by either traditional mail or electronic means was unfeasible. In network analysis, there is not a mechanism for dealing with missing data. Hence, conducting network research with a population that is difficult to contact is even more troublesome, leading to a pragmatic approach to information gathering.

In an effort to enhance reliability, the data utilized here were collected from required reporting systems. For example, GuideStar uses the national revenue service data, such as IRS 990 forms, for US based organizations, to collect organizational information regarding the number of employees, volunteers, and revenue. Additionally, InterAction is a consortium well connected to INGOs reporting staff and donors. Through funding from the FAO, InterAction researchers spent the last five years collecting project level information regarding INGO work in hot-topic sectors, such as food security. When INGOs are required to report project specific information to their donors, they also report this information to InterAction. The food aid researchers at InterAction collect data in the following areas: number of beneficiaries, project costs, primary and secondary project sectors, location of the projects, and the funding agency.

Although I attempted to stick with required reporting data, the information gathered is not without flaw. Both InterAction and GuideStar collect data based on INGO self-reporting, which could be problematic. However, I chose data required for federal reporting standards to avoid data that may be overinflated by INGOs. Therefore, I feel confident the information reported here is accurate, as reporting false data to donors and federal agencies such as the IRS has negative legal repercussions. I also considered using information gleaned from INGO's annual reports, but quickly found two problems. First, the metrics reported varied by organization, and often disaggregated project information

was not reported. Second, these reports are written for INGO board of directors and potential private donors, so the temptation to over embellish on accomplishments, such as organizational outcomes, is great. As such, I decided to use data validated by a reputable third party, even though it was also self-reported.

The first step in completing this project was identifying a comprehensive set of actors. In order to identify the actors, a complete list of all INGOs working on food security projects was created. I was able to get a full list of INGOs working on food security programs from the Food and Agricultural Organization (FAO), as they are working on a research mapping project of INGO programs related to food security. I constructed a spreadsheet with the name of the organizations in one column. Then, in order to examine the organizations and their connections and structural attributes, various other facts were collected from InterAction. First, I collected information regarding all the projects each organization was working on globally. The projects were varied in scope and size, ranging from a food distribution program in Haiti to a microfinance program in Central Asia. All programs listing food security as a primary objective were included in my dataset. Information regarding the projects, included the location of operation by country and village, and the funding agency and the sub-sector, such as agriculture, education, or health. Finally, I compiled the names and email addresses for the food security program officer at

each organization. These data were collected using InterAction's Food Aid map (April 2012).

Organizational attribute data was also collected. I examined if the organization was secular or religious, and if they had a headquarter office in the United States or Europe. This information was collected from the organizations' websites. Material attributes of each organization, including the financial and human resources were collected from GuideStar. I collected information about each organization in the network, including: total revenue for 2012, reported in dollars, total number of full and part-time employees and, total number of volunteers. This information will be used later in Chapter 5, when the inferential model is introduced. After completion of data collection, the network consisted of 51 INGOs, operating in 83 countries, servicing 1189 contracts (InterAction Food Aid Map, April 2012).²²

Operationalization of Concepts

Given the hypotheses formulated, concepts and empirical constructs were developed. When the data collection process was complete, I was able to operationalize some of the concepts identified in the model presented in Chapter 2. In this section, my operationalization of INGO inter-organizational social capital is explored. INGO operations within food security sector will be examined through a network analytic approach, connecting the conceptual

²² Country and contract data is up-to-date as of April 30, 2012 (from InterAction's Food Security Aid Map).

model of social capital to the empirical tool used for modeling interconnected relationships, SNA.

Examining the Network: Social Network Links

The main independent variable used in this study as discussed above, is a relational measure, used as a proxy for social capital. Researchers suggest examining social capital in relation to organizational capacity, which will also be introduced regarding material resources in the next chapter (Woolcock 2000; Adler and Kwon 2002; Moore, Eng and Daniel 2003; Ohanyan 2009). However, the concept of social capital modeled by coordinated efforts, social interaction, feelings of solidarity and information exchange fits SNA well. Within SNA, links are established between two actors, for any given pattern of communication, partnership, or collaboration. When conceptual models of social capital are analyzed empirically, SNA is a common tool utilized to model such interactions (see Moore, Eng and Daniel 2003 for an empirical example using INGOs).

In order to examine social capital in the INGO population, a reasonable representation of connections between and across organizations was established. Due to the necessity of information flow in the network, links needed to capture the geographically dispersed nature of the work. I had to consider the best proxy for a measure of direct coordination, not likely to create artificial connections. There are pros and cons to each operationalization, as a measure of direct connection is not available, however, I will explain the options available in this section.

Developing a social capital based on a relational proxy is an arduous task, often plagued with criterion deficiency, as each operationalization may plausibly miss aspects of the true relationships. There were several operational ties to consider in the INGO food security network, including shared sector, shared country location and village location. I propose that considering the three operational options, shared village location is the best proxy for communication. An operational measure that presents a link between two INGOs based on their work within the same sector or the same country will overestimate the extent of working ties within the INGO community. There are two reasons for this distinction. First, INGOs may work in the food security sector and choose not to coordinate. One organization may work only in Latin America, where another organization chooses to work only in Central Asia. Although both organizations work in the same sector, it is not reasonable to assume they are connected in a social manner, while geographically dispersed such that collaboration, solidarity, and information flow are unfeasible (see Adler and Kwon 2002). Furthermore, INGOs often operate in the same country, as the need is greatest in certain areas of the world. However, the organizations working in different regions will have the same difficulty sharing resources and information, as the areas in which they work are often isolated from outside environments. Simply located in the same country does not provide a reasonable geographic proxy due to the inability for information flow and shared resources to transcend great distances. My interviewees confirmed this idea and suggested using a more moderate

expression of partnerships, at the municipal level, where programs and projects are intimately connected.

Previous operationalizations of this work were based on shared country ties. Although previous results were significant and in the expected direction, the datasets were re-constructed to establish links at the local, rather than state level, which may have over-estimated connective parameters (Kraner and Kinsella 2012). There is reason to believe organizations working in the same country share connections, especially considering the nature of development work, however, I chose to use the more conservative measure to avoid overestimates of social capital. I also avoided the most conservative measure, those INGOs connected to the same project. The reason I avoided this measure, as discussed in the previous section, is because I learned from field experiences and from INGO reports that these organizations choose divergent projects in the same proximity to remain competitive and offer services that are best suited for their organizational capacity. For example, Save the Children may pass out nutritious snacks to youth in Quito. Meanwhile, CARE may deliver nutrition classes to parents of the same children. The work is in fact interconnected, albeit focused on divergent project objectives and target populations. In this example, CARE and Save the Children work in collaboration with divergent beneficiary populations to combat the same problem- malnutrition in the Quito area. Considering this example, using the same project as a proxy for social capital development, projects with these types of collaborative efforts would be missed.

Therefore, a decision to use connections based on shared location rather than projects was made.

Based on the problems identified with other possible operationalizations, through interviews with subject matter experts, and through a review of the literature, links were established at the local level. Link operationalization at the city or village level is partially based on elements presented in the INGO literature, sharing resources in the field and program development based on comparative advantage. Social capital conceptualization places solidarity and information sharing at the forefront, meaning close proximal ties are essential, especially where technological advance allowing for quick transmission of information are not readily available.

Throughout the INGO literature, researchers argue that partnerships are important and that INGOs work together in the field (Ohanyan 2009). As discussed above regarding the reasons to study INGOs as a network, it is evident that proximity to one another in the field represents a reasonable connection between organizations. These organizations communicate frequently, leverage resources, share housing, and propose mutually beneficial programs (Rodgers 1962; Rodgers 1965; Rodgers 1981; Coleman et al. 1966; Moore, Eng and Daniel 2003; Ohanyan 2009). Organizations working on food security programs, and are co-located in the field, collaborate as a network, sharing material resources. The INGO literature supports the assumption that close proximity, at the village level, indicates that INGOs are connected within a network (Moore, Eng and

Daniel 2003). In addition, the precursors, opportunity, motivation and ability, that need to exist for social capital to emerge are available at the city level, whereas the geographically and disenfranchised nature of the global network limits the ability for these conditions to emerge across countries (Adler and Kwon 2002).

Moreover, through interviews, interviewees who run these programs confirmed that proximity in the field offers a good indication that collaborations are present to some degree. When asking interviewees about the suspicion that INGOs in the same city collaborate, share information, human resources and communicate regularly, they confirmed this operationalization of links is appropriate and accurate given the typical interactions in fieldwork. In addition to the relational elements modeled in my social capital construct, interviewees suggested cognitive and structural social capital emerge when organizations work in such close proximity, simply based on the need to socialize and connect with other aid workers when missing home, feeling insecure or unsafe and witnessing grief and devastation. Many INGO workers form lasting bonds over their experiences in the field, which was brought up in each interview as a possible mechanism by which inter-organizational social capital forms. As Woolcock states, it is unreasonable in international analyses to assume we can model direct connection, but developing reasonable proxies for collaboration are essential (2000, 239-241). Taking the two reasons suggested in the literature and confirmation from field interviews, the network was constructed assuming a link

between organizations working on a food security program in the same city or village.

Constructing the Network

After researching the best proxy for collaboration, I needed to construct the network. The social capital variables were constructed using data from InterAction's Aid Map (April 2012). Social capital, by definition is the "sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nahapiet and Ghoshal 1998, 243). As such, I decided to examine these INGOs empirically, based on their interactions with other INGOs, forming network ties to measure social capital indirectly through a locational proxy, at the village level. While this measure is not void of criticism, it is the best option given the ability to directly and objectively measure collaboration and information sharing. As the definition implies, social capital does not take into account formal established relationships. In fact, the potential resources embedded within a community are important to collaboration. Therefore, it is reasonable to assume that even where direct coordination is not present, similar working conditions and shared proximity offer a reasonable expectation that potential resources may emerge.

To create the connections, making analysis possible, the network was constructed using project data derived from InterAction. These data were used to examine affiliation and adjacency of the nodes. In network analysis,

adjacency tells us whether there is a direct connection between two actors for un-directed data. This analysis uses shared project location as a proxy for direct connections. Moreover, affiliation means the actors share a property in common, such as the political climate in which work is conducted, the type of projects, etc. I constructed an affiliation matrix and a square adjacency matrix connecting organizations that worked in the same location at the village level ($Y_{ij} = \{1, \text{ if relation is present; } 0, \text{ if no relation is present}\}$). An affiliation matrix examines a list of nodes, in one column, with rows of defined characteristics. In Table 4.1 below, an example of an affiliation matrix is provided that shows organizations as the nodes in the first column, to assist readers in better understanding how shared properties can be utilized to create an affiliation matrix. The characteristic, a list of countries, appears in the top row. If the organization is working in that country, a 1 appears; if not, a zero appears.

Table 4.1: Example Affiliation Matrix

Organization	Africa	Belize	China	Denmark
Mercy Corps	1	0	1	0
Save the Children	1	1	0	0
World Vision	1	1	1	1

An adjacency matrix can be created from an affiliation matrix, which is how I constructed my data. In an adjacency matrix, the nodes appear as the row and column headers, with a 1 denoting a connection between the two nodes and

a zero indicating no connection. The nodes, or unit of analysis, in this study are the organizations themselves – the INGOs (N=51). The INGOs as the nodes in the network represent a mix of global nongovernmental organizations both secular and religious. Links can also be weighted, using numbers to indicate the frequency for which two nodes collaborate.

Links here are operationalized based on project proximity at the municipal level. The location where the project takes place offers much information about social connections, which offers a building block for social capital, as there is opportunity, motivation, and ability to share information, build solidarity, and develop influence. Therefore, in this network, specifically, a link is present if two or more nodes (INGOs) are connected to a project in the same city, or analogous unit. As such, I established a “link” between two organizations working in the same village, therefore creating an adjacency matrix. Analyses are based on a one by one (INGOxINGO) adjacency matrix, similar to the example provided in Table 4.2 below.

Table 4.2: Example Adjacency Matrix

Link: shared location	Mercy Corps	Save the Children	World Vision	Bread for the World
Mercy Corps	1	0	1	0
Save the Children	0	1	0	1
World Vision	1	0	1	1
Bread for the World	0	1	1	1

The adjacency matrix was then imported into UCINET and analyzed using SNA techniques to assess various measures, which will be covered in the following section.

Methods: Social Network Analysis Overview

Social network analysis (SNA) is an analytic approach mainly concerned with a set of actors (nodes) and the connections between them (links). Introduced in the social sciences first in the discipline of sociology, SNA is now gaining prominence across disciplines, including political science, international relations, criminal justice, and business administration. “The fundamental difference between a social network explanation and a non-network explanation of a process is the inclusion of concepts and information on relationships among units in a study” (Wasserman and Faust 1994, 6). The social network perspective highlights myriad levels of analysis, and offers an analytic tool for examining such relations (SNA). In SNA, differences among actors are traced to study the constraints and prospects that arise from their enclosure in networks; the structure and behavior of networks, and the local exchanges among actors. I examine the least complex ideas of the formal network analysis methods, including descriptive analysis. Despite the simplicity of the ideas and definitions, excellent theoretical reasons and some empirical evidence contend the basic properties of social networks have vital results based on connections.

First, patterns of connections emerge in social network analysis. These connections expose elements that can explain information flow, disenfranchised

actors, cliques and bridges. While some actors possess many connections, others have few. Divergent patterns of connection among actors are significant for understanding their attributes (material or otherwise), behavior and importance in a social system. More connections often mean these organizations are introduced to diverse information and possess greater opportunities to diversify program portfolios because they are connected to additional actors, abilities and donors. In turn, many connections could mean organizations can specialize because they can trade services based on abilities of a partner organization (see Andrews 2010 and Adler and Kwon 2002). Many connections may also be a sign of influence (Woolcock 2000). Highly connected individuals or organizations may be more influential or, on the contrary may be more influenced by other actors in the network. Remember Adler and Kwon's warning regarding solidarity and the potential to develop a mind-set based on similar ideas, limiting the inflow of new and innovative solutions to social problems.

Second, the difference within populations regarding the level of connections is also significant. For example, rumors and diseases spread more quickly where there are high rates of connection. However, these connections can also spread valuable information, which is identified as one of the most important benefits of social capital. Furthermore, densely connected populations may be better able to mobilize their social and material resources. This in turn makes organizations better able to bring varied and diverse perspectives to bear while wielding solutions to difficult problems. Differences in connections explain

much about the stratification of groups, which is highly important in development studies because many groups with low levels of connection and participation are also the most impoverished (Woolcock and Narayan 2000).

Finally, social network analysis allows researchers to model social relations among nodes, which can represent organizations, individuals, countries, or so on. The relational modeling allows us to examine structural elements of actors (nodes) interactions and connections. An examination of this type elucidates powerful actors in a sector, shows avenues for communication and highlights those actors “bridging” information and connection. A bridge is a link connecting two subgraphs. Simply put, if one actor connects two subgroups, through one link, they form a bridge between the two subgroups, and therefore, socially connect two groups. Many studies in the social sciences, and specifically organizational literature, ignore structural elements in analyses of cooperation and conflict and SNA allows us to add these elements into analyses to examine how and when a node’s placement within a network effects their interactions and business processes. Therefore, examinations of network structure deserves a prominent place in the literature and adequate attention from political scientists and policy experts.

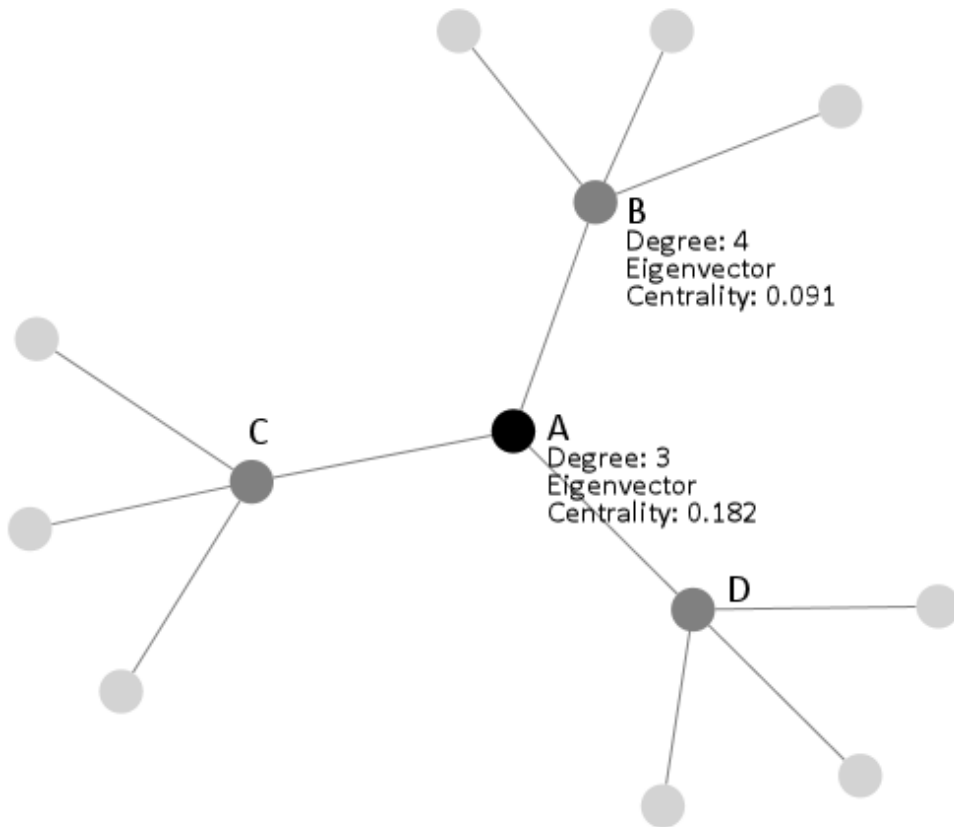
Constructing and Choosing Network Measures

There are myriad measures of centrality in SNA: degree centrality, closeness centrality, betweenness centrality, and Eigenvector centrality. This analysis will focus on measures of centrality as a proxy for social capital (see

Moore, Eng and Daniel 2003, for an empirical example of this measure within INGOs). I was interested in measures of centrality, density, and structural equivalence. Of these measures, centrality offers information within a network associated with the creation of social capital; opportunity, motivation and ability. Centrality refers to the group of measures termed betweenness, Eigenvector, closeness, and degree, which aim to quantify the importance or influence of a particular node within a network. Density represents the proportion of direct ties in a network, in relation to the total possible number of ties in the given network. A dense network is one with many connections between and among nodes. A sparse network has limited connections between nodes. While density is not a direct measure of social capital, the denseness of a network will provide some information about the benefits of social capital and how they transpire, including how information flows or the connectedness and solidarity assumed of a given network. Another descriptive measure of SNA is structural equivalence. Structural equivalence is the measure of the extent nodes mirrors one another's connections. In other words, it is the extent to which two nodes share the same social environments. Scholars often hypothesized that structurally equivalent nodes will be similar in other ways as well, such as in attitudes, behaviors, or performance. While structural equivalence measures can demonstrate what actors are similar, it will not demonstrate the relationally derived properties of social capital, which is the purpose of this study.

The ties are non-directional in this network. This means ties are dichotomous, they either exist or they do not exist. It does not make a difference in the data whether one organization provides services to another organization or if one is a sub-contractor. The connection arises based on the shared location and sector.²³ Based on these connections, various measures of centrality are explored, which offer divergent perspectives regarding relationships in the food security sector.

FIGURE 4.1: Eigenvector Centrality & Degree Centrality



Source: *umasocialmedia.com*

²³ The formulas and equations for these measures are presented in the analysis.

As illustrated in Figure 4.1 above, degree centrality and Eigenvector centrality, both measures of an actor's connections, provide different information regarding the structure of relationships. Taking node "B" in Figure 4.1, as an example, using a measure of degree centrality, "B" has a score of 4, the highest in the network, as opposed to an Eigenvector value of .091. When comparing "B" to "A", it is evident "B" has a higher degree centrality than node "A," however their connections in the network are structurally different. Node "A" has an Eigenvector value of .182 and a degree measure of only 3. While degree centrality provides a measure of overall connectedness, Eigenvector scores measure of the influence of a node in a network. The Eigenvector score assigns relative scores to all nodes in the network based on the concept that connections to high-scoring nodes contribute more to the score of the node in question than equal connections to low-scoring nodes. Betweenness centrality also measures structural properties of an actor's role in a network. Betweenness centrality refers to the number of times an organization needs a given node to reach another organization. Loosely defined, betweenness is measured as the number of paths that pass through a given point. As I want to consider each INGOs centrality, taking into account possible bridges, examining both degree and Eigenvector centrality assists in accounting for these nuances.

In the INGO food security network, it is essential that I consider the Eigenvector scores for a couple of reasons. The Eigenvector score of each node will take into account actors who are only connected to one or two other actors in the network,

while controlling for the connection to more central actors. In the food security network, the connection to other well-connected actors may provide one successful mechanism for overcoming resource shortages. For example, when an INGO is small and has limited time and money to spend on relationship building, they need to consider the best strategic partner to enhance reach. It does a small INGO like Bread for the World little good to spend limited resources connecting with Food for the Poor, a larger, but not well connected partner. On the contrary, Bread for the World would be better off building a relationship with say, the Hunger Project or World Vision, as these relationships have direct and indirect benefits. Just like other networking projects, say searching for a new job, the goal is to connect with other well-connected people or entities. If a job seeker spends all his or her time connecting to other job seekers, who also possess limited connections (and thus opportunities), the time is wasted. If the job seeker chooses to network with just a few well-connected people, they may have fewer direct connections, but many indirect connections, thus creating maximum connection for minimum effort. This analogy is the same in the food security network, because resources are scarce and time limited. Therefore, examining the Eigenvector scores gives us a measure of quality over quantity regarding social connectivity.

Social Network Analysis: Descriptive Results

This network is made up of organizations and each organization is

measured in terms of its attributes, including size, wealth, breadth, and global reach, which are examined later in Chapter 5. The relationships between material and social capital are provided below in Table 4.3 using correlation coefficients. The correlation coefficient demonstrate a strong ($r=.82$ or higher, $p<.001$) relationship between and among variables measuring material resources, revenue, employees, and volunteers. Similarly, both social capital variables degree and Eigenvector, are highly correlated ($r=.956$, $p<.001$). The outcome variable, reach, is moderately correlated with measures of both material and social capital, revenue, degree, and Eigenvector centrality ($r=.33$, $.37$ and $.34$, respectively). These results suggest that there is a relationship between social and material resources and the outcome of an organization; however, the causal mechanism has yet to be established.

Table 4.3: Correlation Coefficients- Material Resources and Social Capital

	Revenue	Employees	Volunteers	Reach	Degree	Eigenvector
Revenue	1					
Employees	.829**	1				
Volunteers	.826**	.935**	1			
Reach	.332*	.046	-.008	1		
Degree	-.08	-.081	-.190	.375**	1	
Eigenvector	-.118	-.096	-.200	.340*	.956**	1

There were 51 INGOs in this analysis, forming a global food security

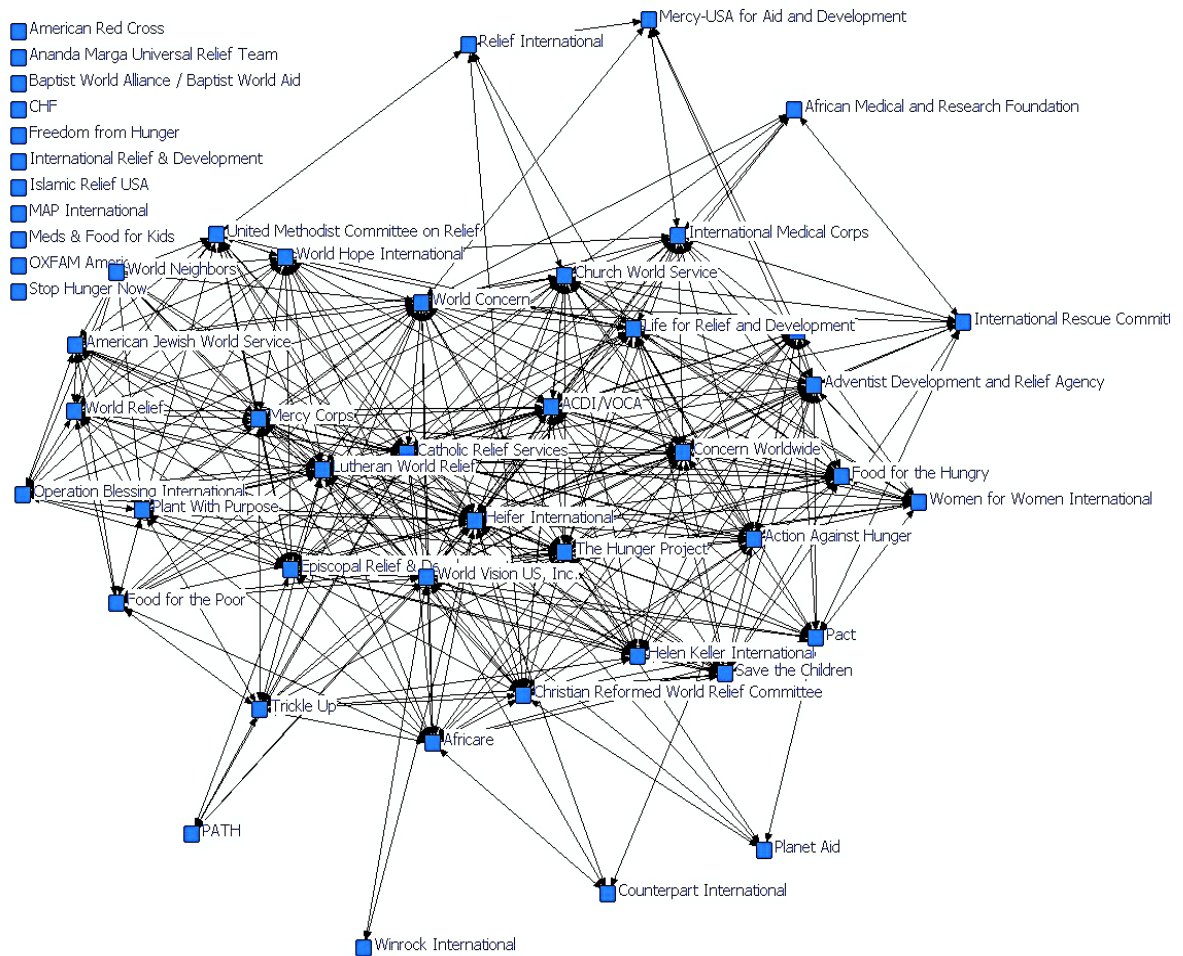
network. Each organization was examined in many areas to build measures of material and social capabilities. These organizations work, on average, in seven countries. They also work on average with between 3 and 4 different donors, which are primarily government agencies. These organizations together form a global network that is currently servicing 1189 projects in 83 countries. Projects span 13 cross cutting sectors related to food security, including: agriculture, health, education, water and sanitation, environment, food aid, and economic recovery. Food security affects many countries simultaneously, however the presence of INGOs working in multiple countries does not follow the same pattern.

To analyze these data further, I employ various descriptive methods from social network analysis (SNA). The food security network in this study consists of 51 nodes, all INGOs working on food security projects. In previous work, operationalizing the links between nodes in various ways, including the state level and donor connections were utilized. However, through interviews and research, as discussed in the previous section, it became evident that the links need be assessed at the local level to establish an accurate proxy for direct relationships. Developing links between INGOs was difficult, and took much experimentation, as described. The INGOs use unique project names for their activities, which do not match the project names used by other INGOs even when they are working closely in the field. The question became which alternative, indirect measures best proxy the sorts of direct working relationships

I am interested in examining. In the design section of this chapter, I support the connections through a proxy of shared municipal project location.

I also measure density of the given network. The density of a binary network is simply the proportion of all possible ties that are actually present. In a network with s nodes, the maximum number of directed ties between them is $s(s - 1)$. In an undirected network, such as this, the maximum number of ties is half that of the directed ties. The density of the same-sector, undirected INGO network, is 0.93. With a density of .93, we examine a network in which almost all nodes are connected to other nodes, forming a dense, interconnected network. When I operationalize links as existing when two INGOs working in at least one community – subnational level in common, network density is 0.299 (standard deviation= 0.954), which is much closer to a realistic representation. Figure 4.2 shows the corresponding “sociogram.” Because the network is moderately dense, the geodesic distances, or the number of paths any given node needs to travel to reach another node, are generally small. This suggests that information may travel pretty quickly in this network.

Figure 4.2: Network Sociogram



SNA includes various techniques for measuring the prominence of nodes and their strategic positioning relative to other nodes and groupings. As previously explained, SNA data are arranged as a square “sociomatrix” in which there is both a row and a column for each node in the network. A cell in the matrix contains a 1 if the actor represented by row i , designated n_i , had a relationship with the actor represented by column j , designated n_j , in which case $x_{ij} = 1$; otherwise $x_{ij} = 0$. These data are nondirectional in that a tie between two nodes represents a conjectured relationship rather than a sent or received

communication or other exchange; thus, $x_{ij} = x_{ji}$. But in subsequent research on ties connecting donors and INGOs, it may be useful to consider directional ties. In this case, an actor's *outdegree*, $d(n_i)$, is the number of other actors to whom that actor has directed some form of communication or exchange (for example, funding); *indegree*, $d(n_j)$, is the number of actors from whom a communication or exchange has been received. That is,

$$d(n_i) = \sum_{\forall j \neq i} x_{ij} \quad \text{and} \quad d(n_j) = \sum_{\forall i \neq j} x_{ji}, \quad (1)$$

which are, respectively, the row i and column j totals of the sociomatrix.

In most social networks, certain actors are more prominent than others and the evidence of their prominence is often the number and type of social ties they maintain with other actors. The *centrality* of a network actor is sometimes indexed as its outdegree, indegree, or both, but since these measures are greatly affected by the number of actors in a network, it is useful to normalize the index. Thus, the normalized outdegree and indegree centrality indexes can be computed as

$$C'_D(n_i) = \frac{\sum_{\forall j \neq i} x_{ij}}{s-1} \quad \text{and} \quad C'_D(n_j) = \frac{\sum_{\forall i \neq j} x_{ji}}{s-1}. \quad (2)$$

Again, because the data used for this analysis are nondirectional – the sociomatrix is symmetric – the formulas in (2) give the same result. In Table 4.4, the normalized results of degree, Eigenvector and betweenness centrality are

displayed for each INGO in the sample.

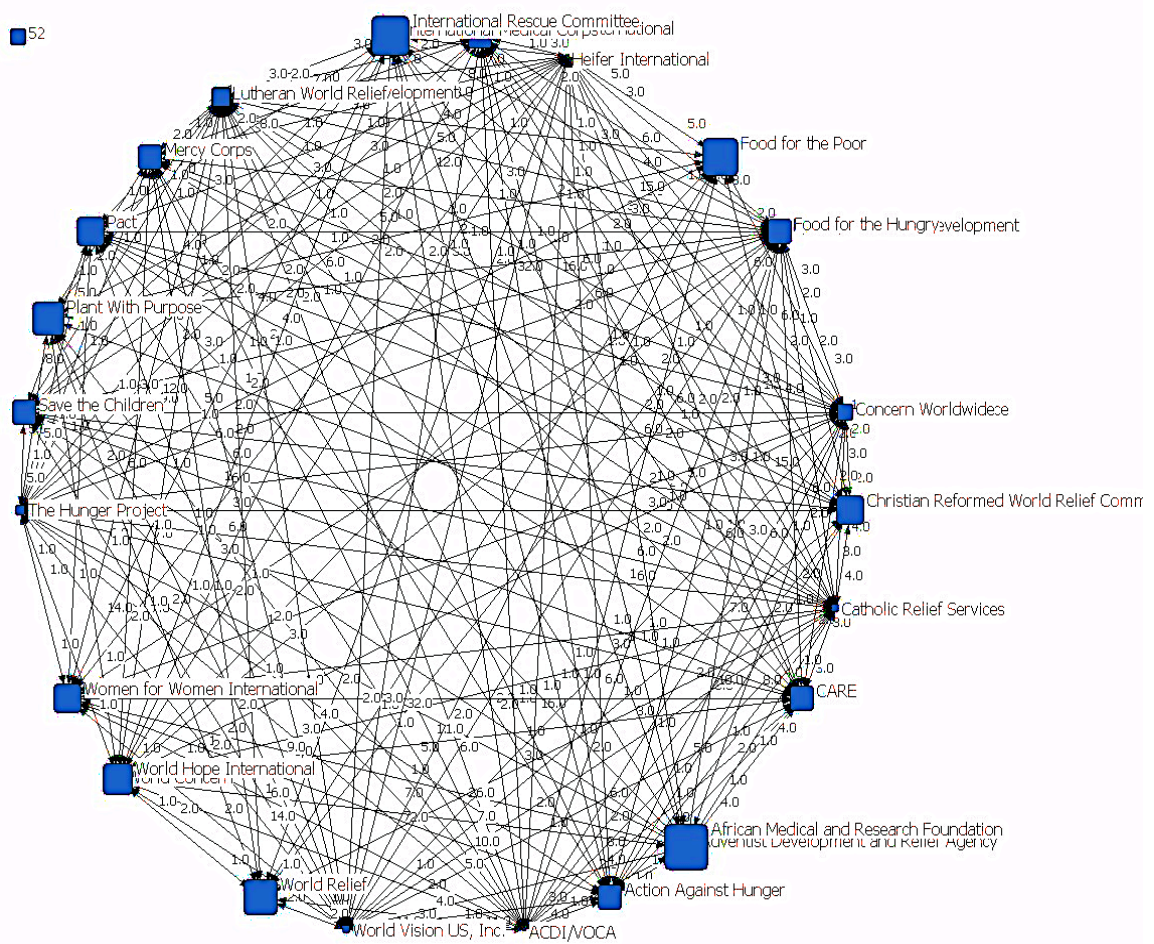
Table 4.4: Social Network Centrality Results

Organization	Degree	Eigenvector	Betweenness
Action Against Hunger	.420	.235	.011
ACDI/VOCA	.560	.310	.016
Adventist Development	.420	.235	.008
African Medical and R	.140	.076	.000
Africare	.380	.215	.007
American Jewish World	.320	.181	.001
American Red Cross	.000	.000	.000
Ananda Marga Universal	.000	.000	.000
Baptist World Alliance	.000	.000	.000
CARE	.400	.230	.006
Catholic Relief Service	.660	.355	.026
CHF	.000	.000	.000
Christian Reformed World	.400	.222	.012
Church World Service	.480	.261	.017
Concern Worldwide	.440	.267	.003
Counterpart International	.100	.267	.003
Episcopal Relief & De	.500	.277	.012
Food for the Hungry	.360	.277	.012
Freedom from Hunger	.000	.000	.000
Food for the Poor	.280	.170	.001
Heifer International	.760	.370	.074
Helen Keller International	.380	.236	.002
International Medical	.400	.221	.009
International Rescue	.200	.105	.001
International Relief	.000	.000	.000
Islamic Relief USA	.000	.000	.000
Life for Relief and D	.420	.303	.004
Lutheran World Relief	.540	.303	.011
MAP International	.020	.000	.000
Meds & Food for Kids	.000	.000	.000
Mercy Corps	.460	.264	.006
Mercy-USA for Aid and	.120	.050	.001
Operation Blessing In	.280	.162	.000
OXFAM America	.000	.000	.000
Pact	.340	.191	.004
PATH	.120	.073	.000
Planet Aid	.120	.070	.000
Plant With Purpose	.380	.216	.003
Relief International	.120	.046	.002
Save the Children	.380	.222	.004
Stop Hunger Now	.000	.000	.000
The Hunger Project	.560	.315	.014
Trickle Up	.300	.174	.003
United Methodist Comm.	.340	.185	.008
Winrock International	.060	.035	.000
Women for Women Inter	.300	.183	.000

World Concern	.600	.314	.034
World Hope International	.360	.212	.002
World Neighbors	.280	.184	.001
World Relief	.320	.184	.001
World Vision US, Inc.	.720	.362	.056

Figure 4.3 presents the degree centrality measures visually, arranges INGOs in a sphere.

Figure 4.3: Degree Centrality Sociogram



Supplementing degree centrality, Eigenvector centrality was examined for this network, which helps with examining influence, in addition to connectivity. To measure Eigenvector centrality, the following formula (3) is used²⁴:

$$x_v = \frac{1}{\lambda} \sum_{t \in M(v)} x_t = \frac{1}{\lambda} \sum_{t \in G} a_{v,t} x_t \quad (3)$$

Eigenvector centrality takes into account actors who are connected to other actors through indirect links, illustrating prominent actors in the network, by which information must flow. The difficulty of relying only on degree centrality is related to the structure of connections. For example, two organizations could have the same degree, but one organization knows only other organizations that know hardly anyone, while the other organization knows other INGOs who know lots of other organizations, expanding indirect connectivity.

In Figure 4.4 below, Eigenvector centrality results are presented visually, showing larger nodes for those organizations with higher levels of Eigenvector centrality. In Figure 4.5, below, the scaling is presented in an alternative view to show organizations with little or no Eigenvector scores (isolates) on the right-hand side of the diagram and those with the highest levels on the center, followed by mid-range scores on the left-hand side of the diagram.

²⁴ For a given graph $G := (V, E)$ with $|V|$ number of vertices let $A = (a_{v,t})$ be the adjacency matrix, i.e. $a_{v,t} = 1$ if vertex v is linked to vertex t , and $a_{v,t} = 0$ otherwise (Wasserman and Faust 1994).

Figure 4.4: Eigenvector Centrality: Shared Location

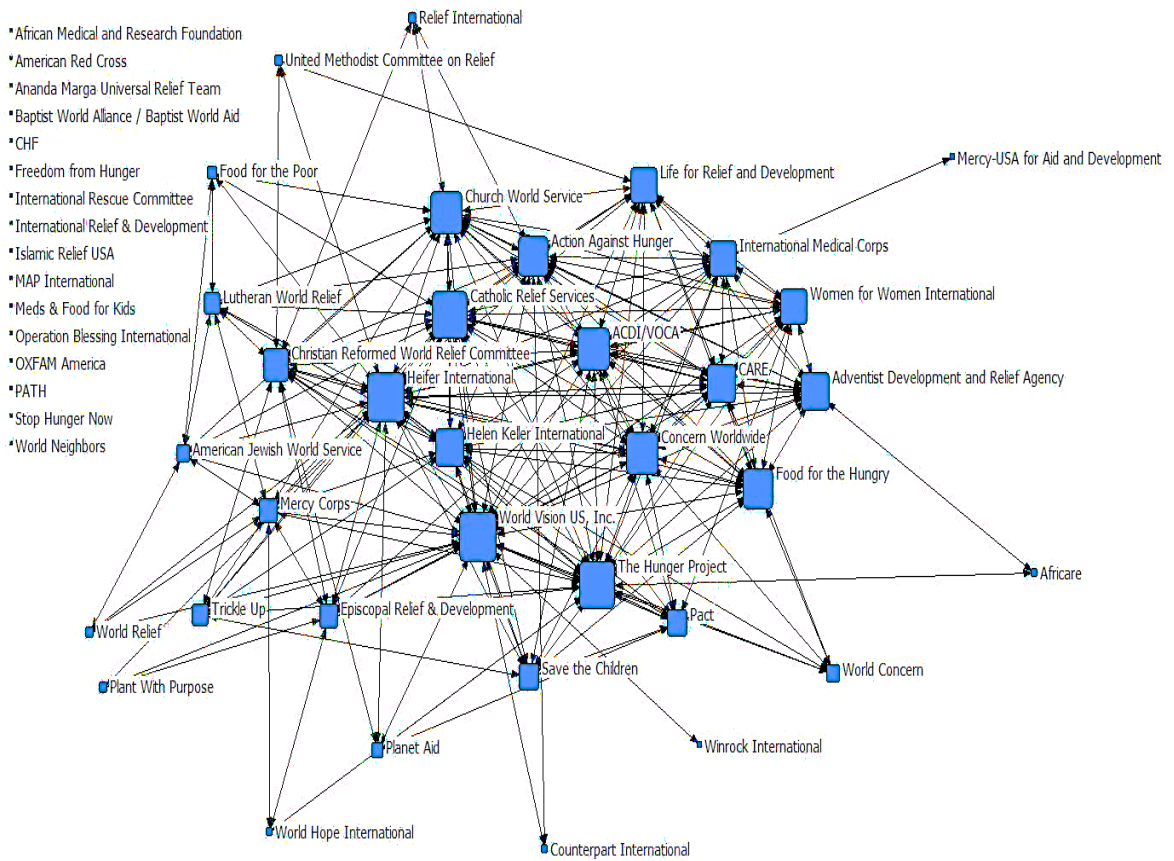
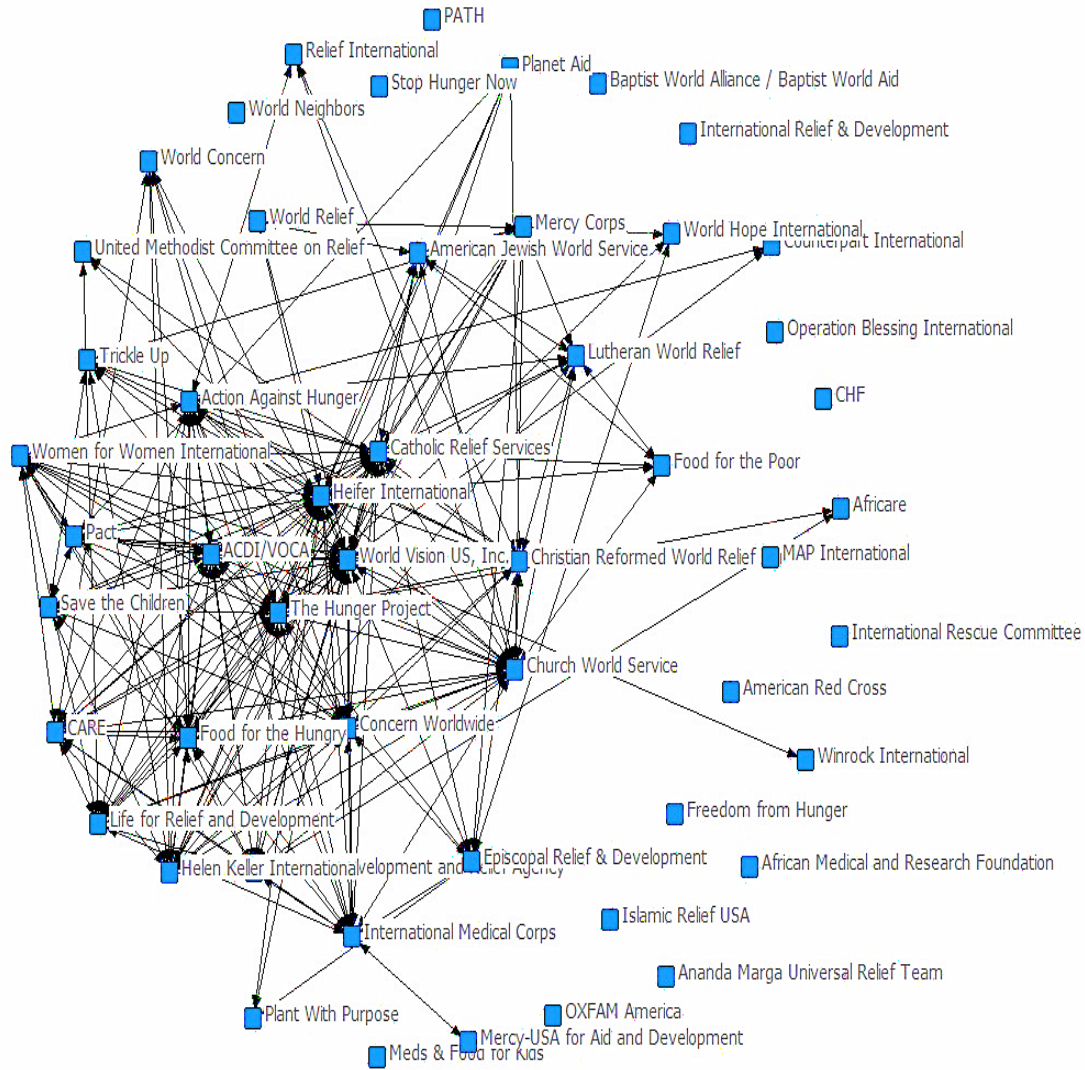


Figure 4.5: Network Sociogram



The descriptive SNA results demonstrate some organizations continually score higher in their level of social capital, as measured by Eigenvector centrality and degree centrality. A combination of secular and religious organizations, like The Hunger Project, World Vision, Heifer International, and Catholic Relief Services

form the center of the network's core. Others, such as Oxfam, Planet with Purpose, and Africare, form the periphery of the network, with few connections to other organizations. These organizations are able to gain prominence in the network because they have established a mission that favors collaboration and cross-organizational projects. In addition, they have created an organizational brand that allows for their fundraising campaigns to be effective. Therefore, they established the ability to bring in material resources and have established a mechanism and infrastructure that allows for partnerships to emerge in their field offices.

However, are these INGOs, with potentially high levels of social capital, also organizations with the greatest material resources at their disposal? GuideStar, a provider of information on nonprofits, reports various statistics taken from IRS Forms 990, which are filed by tax-exempt organizations (see www.guidestar.org). For each of the INGOs examined here, I have collected data on net revenue, number of employees, and number of volunteers, which will be further analyzed in the next chapter. Two INGOs with high centrality measures, Catholic Relief Services and World Vision, are also among the top ten in terms of revenue and employees, but the others rank below this in one or both measures of material resources. In fact, Heifer International, ranked number one for social capital and is ranked 18th among the sample for revenue. The Hunger Project, ranked fourth for social capital and is scaled nearly at the bottom for revenue, ranked 38th out of 51 organizations. Here, social capital measures provide some

evidence in the ability to leverage resources, as organizations at the top of the social list are not always those with the highest level of material resources at their disposal. This suggests that social capital development is not solely dependent on revenue. For a list of the top ten organizations in regard to social capital, compared to their revenue ranking, see Table 4.5 below. From this table, it is evident those INGOs highest in social resources are not those INGOs highest in material resources, with the exception of World Vision and Catholic Relief Services, which are high in both.

Table 4.5: Top 10 INGOs for Social Capital

INGO	Eigenvector Centrality	Revenue Rank
Heifer International	0.37	18
World Vision US, Inc.	0.362	3
Catholic Relief Services	0.355	4
The Hunger Project	0.315	39
World Concern	0.314	33
Action Against Hunger	0.31	29
Life for Relief and Development	0.303	35
Lutheran World Relief	0.303	30
Episcopal Relief & Development	0.277	37
Food for the Hungry	0.277	20

As this is a descriptive analysis, I am unable to determine if social capital has a causal relationship related to organizational outcomes. However, in the next chapter, I explore how social capital of these INGOs relates to material resources and organizational outcomes. To be a powerful actor in the food security network means more than the possession of material resources. To be sure, such resources are important to INGOs. For example, CARE is one of the

largest INGOs in the United States, operating with budget and staff numbers that far exceed many other organizations, such as Africare, Concern Worldwide, and Food for the Hungry. But some INGOs with limited material resources can manage to become prominent in the food security network by virtue of the relationships they develop with other INGOs. The example regarding World Vision and Food for the Poor in Chapter 1 illustrates that similar material resource do not always equate to analogous outcomes.

Conclusion

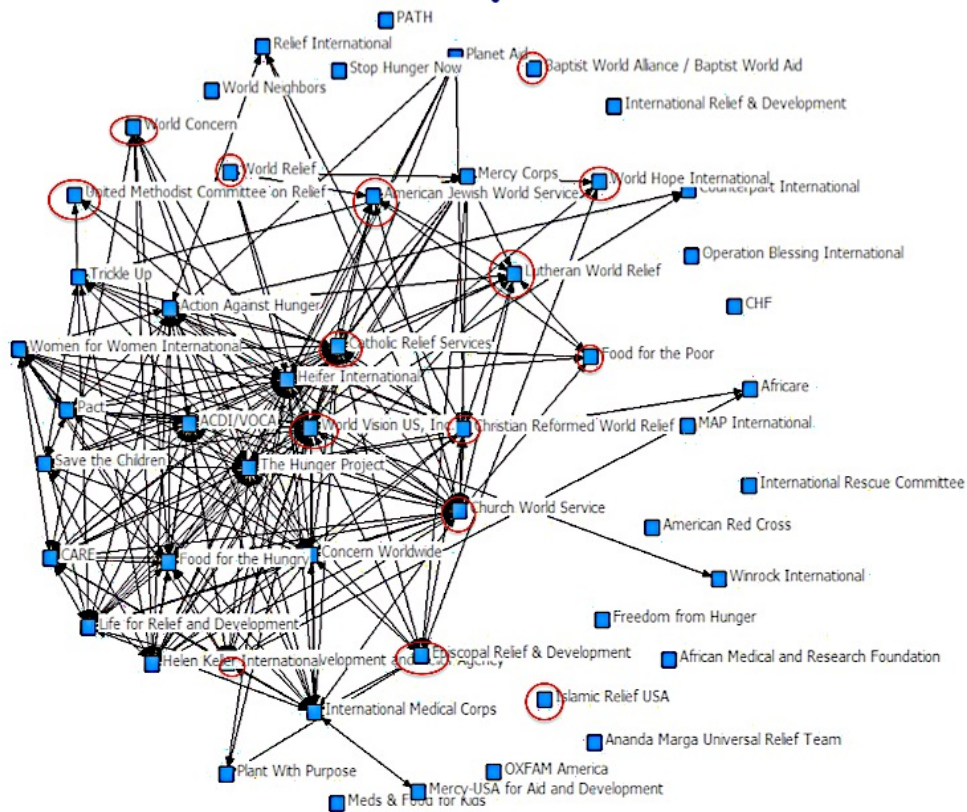
The results here indicate social capital is stronger in some organizations than others. As discussed, with a descriptive analysis, I cannot deduce what organizational factors caused the variance in social connectivity. However, based on interviews, field experience and a review of common elements in the literature, I suggested two propositions regarding resources and the relationships I expected to observe. In this final section, I revisit these propositions and provide some insight as to why we may be seeing these patterns of relationships emerge.

I argued that those organizations with the highest material power might not always be the same actors best connected socially. In these data, it was examined that both organizations with high and low levels of income were indeed located in the core of the network. One might expect holding a central and influential role in a development network requires large amounts of material resources. This research, however, argues organizations with limited resources

are able to secure programs by building relationships with other organization, which in turn becomes an alternative resource called social capital. As presented in Figure 4.8, small, medium, and large organizations operate at the core of the network, as well as at the periphery, suggesting material resources are not the only precursor to building social capital. Based on the ranking of material resources and social capital, I can conclude that material resources are not the only prerequisite to building social capital. Organizations with limited material power have successfully maintained central roles in this network. Additionally, these results have face validity within the INGO community. When interviewing members of this network, I shared results and rank-ordered lists with interviewees. One of the key questions I asked interviewees was regarding the validity of results, especially since my measure of connectivity was based on a proxy for collaboration, where I might expect social exchanges in the field. The INGO representatives thought the results were accurate based on their experiences. One interviewee suggested that some of the INGOs they would expect to see at the center, such as World Vision, had achieved this position through developing relationships through both ideological and pragmatic means. Interestingly, two of my interviewees pondered over the names of organizations on the periphery, asking questions about their work, as they were not well known in the industry. This reaction led me to conclude that many of the organizations on the periphery are not well connected and their disadvantage is evident in their ability to reach more hungry people.

As with material resources, I expected to see organizations of both ideological backgrounds to have central roles in the network, although I expected them to partner with similar organizations, as posited at the beginning of this chapter. Figure 4.6 below represents a network sociogram, demonstrating Eigenvector centrality scores. In Figure 4.6, below, religious organizations were identified with a red circle.

Figure 4.6: Sociogram- Religious and Secular INGOs



As demonstrated by this sociogram, both religious and secular organizations are central players in the network. However, I can examine that all religious INGOs aside from isolates, are connected to at least one other religious INGO. Secular

INGOs are also connected to religious INGOs, suggesting ideology is not the only influence in building partnerships across sectors. In Chapter 2, I suggested that organizations do sometimes choose to partner based on shared belief systems, but given the resource shortages in the industry, we could also expect pragmatic partnerships to emerge.

Based on Figure 4.6, I can also examine several of the religious organizations, as well as the secular organizations partner. There are also a myriad of links between and among various different ideologies, suggesting that organizations build ties strategically and ideologically, but tend to prefer like-minded organizations. I can see an alliance of religious organizations on the right side of the sociogram in Figure 4.6; however, I can also see links to secular organizations, which I would have expected.

The limited ability of these findings is based on limited data and my ability to measure only “downstream” relations. By downstream relations, I mean the INGO connections to one another in the field. These relationships are only one piece of a much larger collaborative network that includes donors, local organizations and business relationships. These relationships, I argue in Chapter 2, are all part of the social capital construct, yet I am not able to model these relationships at this time. Therefore, my estimations of social capital are weak and underestimate the probably connections forming between these INGOs and the other classes of organizations not examined here.

In the next chapter, I explore some of these social capital findings in more detail in relation to material resources and programmatic outcomes.

Chapter 5: The Interactive Effects of Material and Social Capital

Introduction: Material Resources and Social Capital

Social resources, I argue, although beneficial, are best examined considering an organization's capacity. I offer results on the predictors of INGO food security activities, including the relative importance of their material resources and social capital. In Chapter 4, the social capital of INGOs was explored, illustrating there are mechanisms within social relations that form within traditional organizational structures. While I was interested in structural properties of the food security network, like density, I was also interested in properties of actors, namely INGOs, which derive from their positions and connectivity within the network. In Chapter 2, I discussed the difference between INGOs material resources, like financing and personnel, and their social capital, which derives from their relationships with other actors in the network.

In this chapter, I also explore how the social capital of the organization interacts with the material properties, such as fiscal and human capital. This study, therefore, examines the social capital of organizations, in relation to material capacity. I test three empirical models. A cross-sectional design will be utilized, examining all current INGO projects globally. No sampling technique will be used, as the purpose of a network approach is to have a complete set of data, to examine structural elements of the entire study population.

The chapter is organized as follows: 1) the hypotheses are presented; 2) data collection techniques and sources are reviewed; 3) concepts in the empirical models that were utilized are operationalized; 4) the methods utilized are explained; and 5) the results are presented concluding with a review of the findings related to the hypotheses.

Hypotheses

Examining structural elements of INGOs (network centrality), I elucidate what resources, both material and social, assist these organizations in reaching improved outcomes. Using both social network analysis to measure social capital in Chapter 4, and a moderated regression analysis in the current chapter, I examine the interplay of social and material resources to test the following hypotheses.

I examine both social and material resources to explain the variance in an organizational outcome related to the food security sector. I suspect that both are important aspects of the model. However, I propose that social capital is the main source of improved performance. Moreover, although both social and material resources are hypothesized as important in explaining reach, I suspect social capital, as measured by the Eigenvector centrality, explains more of the variance than revenue.

H1: The social connectedness of an INGO is positively related to the outcomes they achieve.

Second, I investigate material resources and the relationship to reaching hungry people. Although I suggest that social resources are more important in the promotion of enhanced organizational outcomes, a certain level of material resources are necessary to achieve program goals. I suspect all resources are inter-related, however, and that both social connectivity and material capabilities are necessary to achieve enhanced outcomes.

H2: Material resources enhance an INGO's ability to achieve greater organizational outcomes.

Finally, I predict that the level of material resources moderates the relationship between social capital and an outcome variable. Therefore, I suspect in organizations with higher levels of revenue, the returns of social capital on reach are higher than those organizations with little revenue. Previous social capital research suggests building and sustaining relational resources is time consuming and costly (Powell 1990). Although there are hypothesized benefits related to developing social capital, the pursuit of relationship building may strain an organization from a material perspective. Current studies of social capital are divorced of the material elements necessary to explain this interplay of resources. I posit that material and social resources interact to form divergent outcomes given an organization's capabilities. This argument, in turn, suggests some organizations are better off than others at pursuing social capital.

H3: Material resources moderate the relationship social capital has on reaching vulnerable populations.

The remainder of this chapter will lay out the research design, including data collection and methods, before providing the results and discussion related to the posited hypotheses.

Data Collection

In order to test the hypotheses outlined in this chapter, data needed to be collected. In addition to the data collection processes explained in Chapter 4 related to social capital, I needed information that could serve as the organizational outcome, or dependent variable of this study. I collected information related to the total number of people served by each project, within each organization. This information was gathered in April 2012 from the InterAction Aid Map on InterAction's website.

In addition to the food security project specific information, I also collected information about each of the 51 organizations in this network. This information was utilized to complete the material resources construct. I collected information about the organization's human resources, such as number of employees and number of volunteers, about their operating budget including grant funds, donations, and contracts, and information about their organizational preferences, such as the number of local partners. I also determined the type of donors for each project, categories include: private, IGO, other NGO, government donor agency, and whether the organization was secular or religious. These data, both categorical and continuous in nature, were added to a

database. Together, these variables providing an overview of the sector and the organizations that make-up the food security network.

As mentioned in Chapter 4, these data regarding projects, revenue, populations served and required for federal reporting systems, such as the IRS, donor agencies, etc. Therefore, with legal ramifications possible, the validity of these measures is not expected to be compromised by INGO self-reporting. The data utilized here were collected from required reporting systems. For example, GuideStar uses the national revenue service data such as IRS 990 forms to collect organizational information regarding the number of employees, volunteers and revenue. Additionally, InterAction is a consortium well connected to INGO reporting staff and donors. When INGOs are required to report project specific information to constituents such as donors, they also report this information to InterAction.

Both InterAction and Guidestar collect data based on INGO self-reporting, which could be problematic. However, I chose data that is required for federal reporting standards, such as revenue for tax purposes, to avoid data that may be overinflated by INGOs. Therefore, I feel confident the information reported here is accurate, as reporting false data to donors and federal agencies such as the IRS has negative legal implications. The alternative sources of information considered was the INGO's annual reports. However, as this information is written for a different audience, INGO board of directors and potential personal donors, the temptation to over embellish on accomplishments, such as

organizational outcomes, would be great. As such, I decided to use the data that was validated by a reputable third party, even though it was self-reported.

These data represent a large portion of the elements I outlined in Chapter 2. There are however, limitations. I was not able to gather information about business partnerships and specific information about local partners outside the INGO framework. Regardless, these elements will prove important aspects of future research on this topic. In the next section, the concepts operationalized for this analysis are presented.

Operationalization of Concepts

In Chapter 4, I introduced the concept of social capital and operationalized the links between and among INGOs within villages. I argued that the geographic proximity of INGOs working on food security projects provides a proxy for all the elements necessary for social capital to emerge. That is, there is opportunity, motivation and ability for the organizations to coordinate (Adler and Kwon 2002). Moreover, the environmental contexts in which these INGO's work requires a network form of organization, as resources are tight, shared information is crucial and solidarity between project teams is essential for the safety of the personnel working in the field (Powell 1990). After establishing and analyzing the social capital measures, the next logical task is to examine the predictive and interactive effects hypothesized above. To investigate how the social resources interact with the material resources and outcomes, other

indicators were established. In this section, the operationalization for material resources and organizational outcomes is presented.

Material Resources

From the various data collected regarding the material aspects of INGOs, variables were formulated. First, I summed the total number of part-time employees and the total number of full time employees to form a variable “employees.” Similarly, the total number of people volunteering in each organization was used as an additional human resource measure, called “volunteers.” Then, summing the total number of grants, other donations, and internal operating budget reported on GuideStar, a variable of organizational wealth was created called “revenue.” Together, “employees,” “volunteers,” and “revenue” provide measures of material capacity, revenue used as a measure of organizational wealth, and the total number of employees and volunteers to assess human capital. These three variables were constructed using information from GuideStar’s annual report of non-profit organizations (2012). To create the composite measure of “material resources” a weighted sum of the three variables was computed.

Social Capital

A measure of social capital is utilized from the network analysis completed in Chapter 4. Although many analyses were run, only centrality measures will be used in the model to assess the organization’s social capital in the present chapter. Other measures, such as density, while interesting and help

communicate a clear picture regarding possible information flow, do not access social capital. Eigenvector centrality was chosen as the measure of social capital in these three models, due to its ability to assess an organization's influence in a network, considering paths that must pass through that node to reach another node in the network (see Figure 4.1). Since I am interested in the connectivity of INGOs in relation to their ability to leverage other material resources, I am interested in a measure accounting for influence and power, as determined by the location in the social structure. While degree centrality provides information on connection, all links are treated equally, which limits the ability to examine relational strength. Hence, Eigenvector centrality illustrates the central location of each node as well as accounts for possible bridges. For example, World Vision is working in multiple locations and so is Heifer International. These organizations are connected to one another through a few direct links (which would appear in their degree centrality measures). However, these two very central actors are also working with some smaller INGOs, who are further on the periphery of the network. These smaller organizations, like the Hunger Project, have higher Eigenvector scores because they are connected to other powerful actors such as World Vision. In turn, these connections enable the Hunger Project to have a shared social connection with other organization that they may not be working with directly. Here, Eigenvector centrality takes into account, in this network, those actors who are connected to other powerful actors, and not just the number of direct links. On average, the organizations had an Eigenvector

score of .168, with all possible values falling between 0 and 1. The Eigenvector scores are used in this analysis as the single-item measure of social capital, my primary independent variable.

Although I argue that the relationships I examine in the field are only part of the social capital available to INGOs, that is the relationships between only other INGOs, there are a couple limitations to my design that deserve examination. In this research, I am examining two “downstream” activities. That is, I am looking at connections between INGOs in the field as well as an outcome related to field location, which could potentially be argued to be tapping the same phenomenon. I have argued that social capital and reach are related, however, I argue that in my model, they are tapping different variance. These two measures are correlated, as I expect, but not so highly related that there is concern these measures are interchangeable or representing a biased result (see correlation matrix for exact statistics, Chapter 4). The following paragraphs will present evidence to support the argument that my independent variable and dependent variable are indeed tapping divergent pieces of the model, one as a service provider and one as a service beneficiary.

The operationalization of social capital of INGOs measures more than simply the interconnected presence on the ground. Many interactions take place between two or more INGOs who work in the same location. Surely, location provides motivation for collaboration. However, once relationships develop, sustaining these relationships happens across different levels of the organization.

Communication, resource sharing and collaboration happen at headquarters, between leadership teams and through advocacy channels. Therefore, the proxy used to measure social capital, proximity in the field, is capturing more than field-level coordination. It captures human resource sharing, reporting collaboration, coordination with donors as well as the location specific collaboration such as shared housing, or inter-organizational personnel. Moore, Eng and Daniel (2003) also use centrality measures as independent variables in a model assessing reach, suggesting there is a qualitative difference between proxy related to co-location and the variable measuring reach.

Moreover, researchers are tempted to assume co-location is need driven, data suggests this is not the case (InterAction Aid Map 2012; WFP Hunger Map 2012). This is an important distinction, as to avoid assuming higher need drive INGO's co-location. Some of the most food insecure areas are also those with the fewest number of projects. What is the reason for this? Simply put, security concerns discourage INGO actions. Many INGOs develop a high tolerance for operating in extremely insecure environments, especially in those areas prone to civil wars and violence. Others, however, do not attempt to operate under such conditions. This results in an uneven aid distribution.

Currently, the lowest numbers of aid programs are operated in some of the world's most food insecure populations. In Iraq, Yemen, Sudan, Tajikistan, Angola, Afghanistan and Rwanda, chronic hunger affects 35% or more of the

total population (WFP Hunger Map 2012). I would assume, if co-location were need-driven, areas most affected would experience an abundance of support. That is not the case. In Iraq, 6 programs exist, in Afghanistan 2 (InterAction Food Aid Map). In Sudan, 3 programs interact, In Angola, only 1. Furthermore, Yemen does not have a single program. When compared to areas experiencing moderate need, such as China and Bangladesh, each with 5% or less of the population chronically hungry, 29 and 88 projects currently operate, respectively. It is evident, need is not the only factor driving co-location. Therefore, I argue my social capital variable construction accounts for more than chance or need driven project saturation. The coordination accounts for mainly downstream activities, although not perfectly measured. The proxy for co-located projects captures the coordination at divergent levels of the organization, not just those employees bumping shoulders in the field.

Examining Organizational Outcomes

Chapter 2 presents an argument regarding the need to examine organizational outcomes. In this model, I decided to focus on the people served by INGO programs directly, as a measure of the INGO's reach, as the main outcome. When the number of people reached is high, I infer these are successful programs. I argue a mix of social capital and material resources are necessary to reach vulnerable populations and the right mix of resources can aid an organization in better achieving their goals to stomp out hunger.

An organization's reach is a direct product of the programs they implement. By reach, I mean the total number of people who are served by any given project. The number of people reached serves as an indicator of the breadth and depth of the INGO's programming resources, illustrating how they are distributed among communities. While examining the number of people reached is not a perfect outcome measure, it is the only measure that is directly related to the INGO and their programming and not confounded with other extraneous elements that are outside the scope of this project. Examining an organization's reach gives us a quantitative and objective outcome. Reach can be used to compare INGOs and examine patterns between INGOs because it is calculated consistently across organizations. In this section, I will explain why I choose reach, and evaluate the other options, explaining why they were not the best choice for this research.

Although reach provides the only direct measure related to the INGO's programming, it is not a perfect measure. Reach does not account for program complexity. Take for example a program where an INGO trains a small group of local farmers to cultivate and re-plant seeds using a new irrigation technique. A program such as this is complex and requires multiple layers of expertise in botany, agriculture, engineering and technical training. The program, for the sake of illustration, may reach 15 farmers directly. Alternatively, imagine a food distribution program that is geared towards handing out nutrient dense cereal bars to school-aged children every morning for the duration of a school year. In

this school, let us say there are 150 children. The program is less complex than the farmer training described above, takes less resources, say a program manager and a few support personnel in charge of procuring and distributing the bars. Although the food distribution program is less complex, the reach measured directly is far greater than the complex farming program. Accounting for this type of complexity when comparing programs with a common outcome is difficult. I argue, however, that the farming program, with less direct beneficiaries, will create far greater outcome based on the ability to create food locally and develop knowledge at the village level. While I suspect information regarding the differentiation of various projects does exist, the mechanisms for recording this information vary by organization and would require a case study approach to validate the use of a weighted measure. In my dataset, I have no way of differentiating between an in-depth program and one that is less intense. Therefore, a weighted scheme is unviable in these data. Regardless of its shortcomings, measuring reach remains the best alternative to examining direct benefits of INGO capacity building.

I considered many concepts that could account for the outcome of food security programs when developing this conceptual model. However, alternate objective measures are also troublesome for divergent reasons. The other outcomes that could be measured to examine possible effects of the food security programs are objective health outcomes, such as infant mortality rates, or global indicators such as the Global Health Index (GHI). The reason why these types of

outcomes are not a good fit for this conceptual model is simple and two-fold: 1). They are measured at the nation-state level; 2) they are not direct effects of INGO programming and confound other aspects such as quality of health care systems, institutionalization within the country, prominence for local disease and so on. Considering the need to examine INGO specific indicators, I also investigated INGO data to see if the organizations measure location specific health indicators. Unfortunately, the information available, is also reported at the state level. Moreover, the INGO data collection and reporting mechanisms are drastically different, making comparisons between organizations implausible. Given the confounding nature of the other observable outcomes, as well as the mismatched unit of analysis, moving from the village level indicator to the nation-state, the best conceptual option available is to measure INGO reach directly.

In sum, the dependent variable of this study is an operationalization of each organization's outcome, measured by reach. "Reach" was operationalized as the people organizations serve with the resources available. The variable used to assess capacity is called "Total Reach." To construct the "total reach" variable, the total number of people served by each project was summed for each organization. Similarly, I created a variable for "average reached," by dividing the "total reached" variable by the number of projects at each organization.

In Table 5.1, below, the variables used in these models are summarized before introducing the empirical models.

Table 5.1: Summary of Data and Source

Variable	Source	Operationalization	Purpose
Total Reach	InterAction's Food Aid Map	A continuous variable was compiled that examines the total number of beneficiaries reached by food security projects.	Outcome variable of the study
Revenue	GuideStar	The total of all grants and other funds will be calculated as a measure of the organization's wealth.	The first of three variables used to assess an INGO's material resources
Employees	GuideStar	The total number of FT and PT volunteers will be summed for each INGO, illustrating human capital.	The second of three variables used to assess an INGO's material resources
Volunteers	GuideStar	The total number of volunteers providing time to an organization	The third of three variables used to assess an INGO's material resources
Eigenvector Centrality	InterAction's Food Aid Map	All INGOs will have a link with one another should they be involved in a project in the same city (or similar unit). The connective measures will be used to create a variable for social capital.	To evaluate the effect social connections (social capital) have on the population's ability to reach more people suffering from food insecurity. For a more in-depth overview, please see Chapter 4.

Methods

I have posited that both social capital and material resources are important in reaching hungry people. In this section, I will lay out the methodological choices chosen to assess my claims before presenting the results.

OLS Regression and Moderation

Ordinary Least Square (OLS) Regression analysis is a method used to examine predictive relationships between an outcome variable (dependent variable) and at least one predictor variable (independent variable) (Nishishiba, Jones and Kraner 2013). OLS regression models use correlation as a basis to predict the value of one variable from the value of a second variable or the combination of several variables. Linear regression analysis provides information about the strength of the relationship between the dependent variable and independent variable. In a moderated regression model, such as the one presented here, the relationship between the independent variable and the dependent variable is affected by a third variable, the moderator. In a moderated regression model, the effect of the moderator is called an interaction effect. Here, the moderator variable is the measure of organizational capacity – material resources. The purpose for choosing a moderated regression model was driven theoretically by Andrews (2010) in his work examining how resources and organizational structure can interact with social resources to have an impact on organizational output.

I also use a measure of centrality, derived from my SNA. This type of analysis, using a network output as a predictor in a regression model, has precedent in political science and international relations (Baybeck and Huckfeldt 2002; Fowler 2006; Franzese and Hays 2006; Lazer 2005; Maoz et al. 2006; Maoz 2009; Schneider et al. 2003; Scholz and Wang 2006; Ward and Hoff 2007; Ahlquist and Ward 2009). Some criticisms of this approach have emerged, suggesting that network measures violate the independence assumption of OLS regression, and thus alternatives should be investigated. However, scholars still use network measures in regression analysis, as viable alternatives are limited, depending on the structure of data and the temporal availability of longitudinal data. Although I would have opted to use an ERGM to test my hypotheses, the specifications of my data were not optimal for using an ERGM, specifically the need for specified dyadic relationships. While other alternatives may have been appropriate, my knowledge of such alternatives was limited. Moreover, I was planning to use more than one relational measure in my final equation. However, upon examination of my data, I found that all of my relational measures were highly correlated, and thus tapping the same phenomenon, I abandoned that approach. I chose the best alternative, using only one relational measure, Eigenvector centrality. I opted to utilize a network measure as one of my independent variables in these empirical models, alongside other continuous attribute variables.

It is also theorized here that material resources moderate social resources, altering the effect on organizational outcomes (Andrews 2010). The best way to model this interplay was with a moderated regression analysis to examine both predictors and their interaction on the dependent variable. In the next section, the empirical models are outlined.

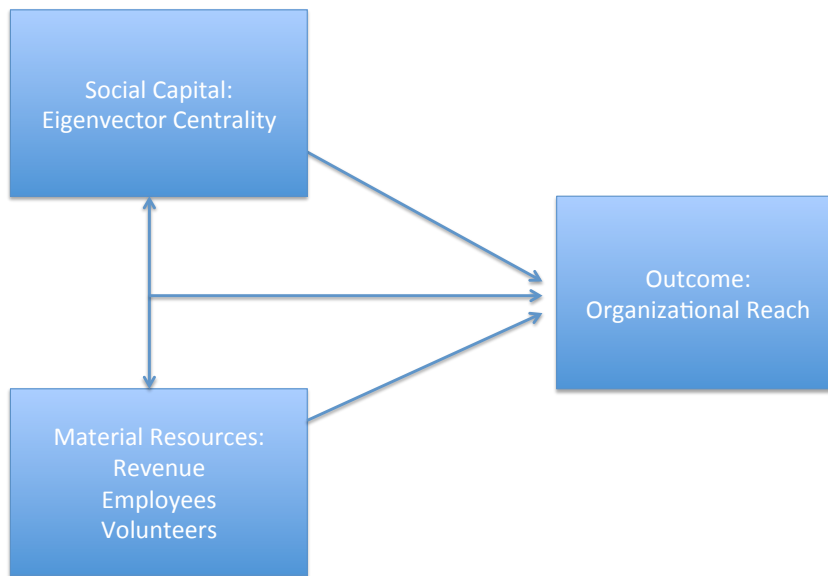
Empirical Model Specification

One model is presented in this chapter, mirroring elements I was able to operationalize based on my conceptual model in Chapter 2. The unit of analysis will be the *INGO* (n=51) and the sector (or population) includes all food security projects carried out by an INGO. A total of 1189 projects were utilized to establish links, examined using SNA in Chapter 4. The network data was constructed in Chapter 4, making descriptive analysis possible. However, this chapter takes the analysis further. As illustrated in the literature, most of the information presented in articles and white papers is predominately anecdotal and there are few large-scale analyses. Studies of INGOs, particularly focusing on actions of strategic actors, are limited. These results aim to offer new evidence to support claims about social capital in organizations, considering also material resources.

This model will test an empirical model that examines the interactive effect of material resources and social capital on reach. The model suggests material capacity moderates the relationship between social capital and reach. Therefore, this research suggests that divergent effects can occur when

examining social capital, which may be explained by the organization's ability to absorb challenges with the appropriate levels of staff and finances. To examine this phenomenon, the model and equation (1) in Figure 5.1 will be utilized.

Figure 5.1: Empirical Model



$$(1) \text{ Reach} = b_0 + b_1 \text{ Social Capital} + b_2 \text{ Material Resources} + b_3 (\text{ Social Capital} \times \text{ Material Resources}) + E$$

This model, as defined is expected to have a high level of internal reliability, meaning these measures are established and collected similarly for all INGOs.

Therefore, each of the measures used in this study are consistent between cases. Moreover, donors place stipulations on reporting requirements, and these data are required for reporting purposes, further demonstrating the consistency in measurement. In sum, measures of revenue, project beneficiaries and the like are consistent across all units in the study. The measures chosen are also objective measures, reported for legal purposes and not likely to be over-inflated by INGO self-reporting. Also, as these measures are common across projects, comparisons of INGOs based on these criteria are possible. There is empirical precedent for using social connectivity of organizations as a form of social capital (Andrews 2010; Woolcock and Narayan 2000; Powell 1990).

Moreover, considering the large sample size, external validity is not expected to be a problem. I do not expect these results to be isolated within the food security sector. These models are expected to remain robust, even when tested in a divergent sector, as INGO programming is executed similarly across sectors. Therefore, I would expect an analysis of health programs to yield similar results, for example. In sum, the findings from this study are expected to be generalizable to other sectors within the INGO community, such as human rights programs, governance projects, and civil society enhancing programs. Suggestions following this research will aid donors and INGOs alike, offering possible explanations for organizational outcomes. It is possible, and often probable, that donors and INGOs have different development goals and expectations, as suggested in Chapter 2. Therefore, a study empirically testing

the assertion that material and social resources both have an affect on outcomes should prove useful. Furthermore, with the squeeze on resources, a study examining capacities and their ability to enhance reach could guide INGO decision-makers in their organizational planning and resource allocation agenda.

Analytic Results

This study examines the role social and financial resources play in aiding INGOs in their missions to reach hungry people. These results represent the first tests of social connectedness on reach, in a predictive model or as moderated by an organization's material resources. Through conversations with leaders in the field, it became evident social connections, partnerships and coordination are at the forefront of each organization's agenda. Yet, quantifying the benefits or usefulness of such resources is not well documented.

I posited that INGOs have resources at their disposal, both material, like financing and staff, but also social, such as partnerships and alliances. Using a measure of centrality, derived from SNA, in a regression analysis allows for inference to be made of the potential importance and relationship both categories of resources have on the overall outcome, or people reached.

Organizational Description

In this network, I examined the material resources by means of revenue, employees and volunteers. The average revenue within this network was \$245 million and the median value was \$58 million. This illustrates that the

organizations varied greatly in their internal funding resources. The number of employees also varied greatly across organizations, with an average number of full and part-time employees at 1766 and a median of 202 employees. When it comes to volunteers, there is no exception – the median number of volunteers in these 51 organizations is 23 volunteers²⁵.

In order to test my hypotheses, a dependent variable was chosen that best assessed the organization’s ability to serve the organization’s constituents, organizational reach. The variable was constructed by summing the total number of community members in food insecure environments who were served by each project, for each organization. On average, each organization served 2.7 million people as of April 2012. Table 5.2 provides a summary of the descriptive statistics for each variable used in these models.

Table 5.2: Descriptive Statistics

Variable	Mean	Median	Standard Deviation
Revenue (in millions)	244.9	57.9	577.2
Employees	1766.43	202.00	5093.15
Volunteers	12373.63	23.00	83948.75
Total Reached (in millions)	2.72	.280	7.93
Eigenvector Centrality	.168	.185	.118
Countries	7.29	5.00	9.08
Donors	3.43	2.00	4.11

N= 51 International Nongovernmental Organizations

²⁵ The average number of volunteers in these organizations was 12,373. Here, the median is reported, as a few outliers in the dataset (organizations such as the Red Cross, who rely heavily on volunteers, skew the data).

Regression Analysis

In an Ordinary Least Squares (OLS) regression it was found that these measures of material and social capital are tapping distinct attributes of these actors, with possibly different implications for the influence and efficacy in the food security network. The original model proposed in the research design included multiple measures of material capacity, using revenue, employees, and volunteers as separate indicators. However, upon examination of the data, it was found that the multi-collinearity among the three variables was quite high. In fact, they were almost perfectly correlated, with values of $r = .8$ and higher. To address this problem and retain the integrity of the model, I created a composite variable called “material resources” using the three independent variables. The composite measure is used in the analysis²⁶. Overall, there is a low correlation between INGOs’ Eigenvector centrality and their revenue ($r = -0.12$), employees ($r = -0.09$), and volunteers ($r = -0.20$).

Model Summary Results

In this section, results from the empirical model will be presented. Considering the evidence and organizational context, I expected that while social resources and material resources are essential to reaching vulnerable populations, there is likely an interactive effect within this relationship. Social

²⁶ I conducted multiple preliminary analyses with different model specifications. I used all the independent variables in one model, just one measure of each concept in another and a moderated regression with just revenue and social capital. The results are consistent, regardless of the model specification. There are no direction changes or conflicting results, so only the final model is presented, as it most closely matches the theoretical arguments proposed in Chapter 2.

resources come at a cost – time, money and human resources must be devoted to the pursuit and maintenance of the social resources. Therefore, understanding the full effects of social capital means examining the organization’s material capacity to sustain partnerships, share information and devote staff member’s time to fostering relationships.

Interviews with organizational leaders also suggested there is a cost to building social capital. Moreover, some leaders suggest that pursuing partnerships is not always beneficial. For example, some organizations do not have the material capacity to embark on such endeavors. This was an interesting concept, which I wanted to build on in my analysis. Based on the theoretical components in my theory, I posit that outcomes vary based on different levels of material and social capital.

To test this assumption, I conducted a moderated regression analysis (Baron and Kenny 1986). I used a macro called “simple1” developed by Jason Newsom at Portland State University. Using the macro, I calculated the moderating effects and simple slopes for social capital (x), reach (y), and revenue (z).

A multiple regression model was tested to examine whether the relationship between social capital and reach was moderated by revenue. After centering both social capital and revenue, and computing a social capital-revenue interaction term (xz) the two predictors and the interaction term were entered into a simultaneous regression analysis. The variance accounted for by

adding in the interaction term is much higher than either Model 1 or Model 2 ($R^2=.752$), providing the best fit of the three models. The overall model, predicting 75.2% of the variance in reach was significant, $F(3)=47.43$, $p<.001$, suggesting that there is a relationship between material resources and social capital and their relation to predicting reach, however, this relationship is altered for varying levels of revenue. In this model, both main effects as well as the interaction effect were statistically significant. For each standard deviation change in Eigenvector centrality, we can expect a .268 standard deviation change in total reach ($\beta=.268$, $t=3.618$, $p<.001$). When considering material resources, each standard deviation change in revenue will result in a .951 standard deviation change in reach ($\beta=.951$, $t=10.104$, $p<.001$). The interaction term with Eigenvector Centrality and revenue was also significant and in the expected direction ($\beta=.924$, $t=9.687$, $p<.001$). The interaction term has slightly less impact on the dependent variable than revenue alone, and I suspect this is due to the resources allocated to developing social capital. In addition, the measure of social capital is imperfect. It is a proxy, which means it is not measuring relationships directly. It is also only measuring relationships between one set of actors (INGOs) and not the other theorized actors in the network. Therefore, the impact of this variable may be compromised due to criterion deficiency. Table 5.3 below provides the summary statistics and Table 5.4 presents the correlations between the two independent variables in this model and the interaction term. Figure 5.2 displays the resulting model graphically.

Figure 5.2: Results

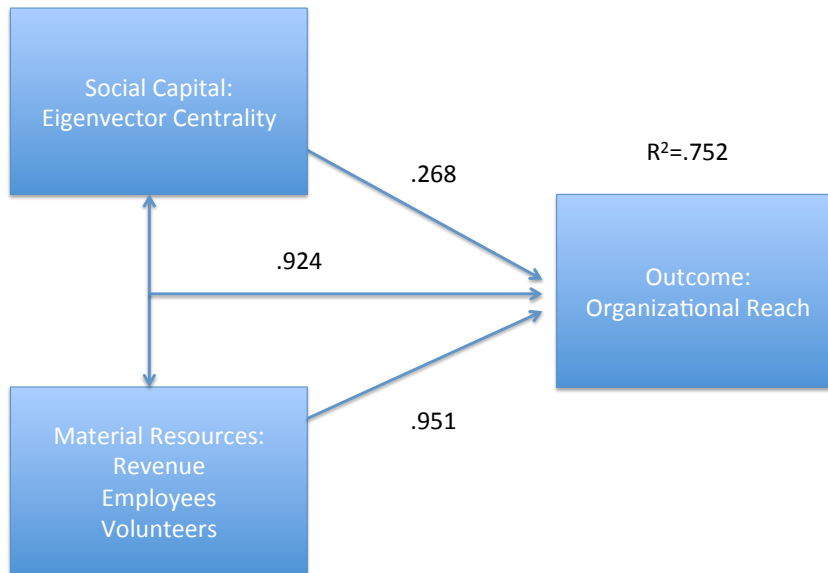


Table 5.3: Moderated Regression Summary

Predictors	(B)	Standard Error	(Beta)	t	p- value
Constant	3331963.94	574406.309		5.801	.000
Eigenvector Centrality (x)	18036878.968	4985566.531	.268 (SE=.074)	3.618	.001
Material Resources (z)	.013	.001	.951 (SE=.094)	10.104	.000
xz	.077	.008	.924 (SE=.095)	9.687	.000

Table 5.4: Correlations

	xz	Eigenvector	Revenue	Reach
xz	1			
Eigenvector (x)	-.162	1		
Material	.629	-.011	1	
Resources (z)		.340*	.332*	1
Reach (y)				

To investigate the nature of the interaction, simple slopes for the association of social capital (x) on reach at low, mean and high values of revenue (z) were computed. Low revenue is defined as one standard deviation below the mean. Medium revenue is defined as at the mean level. High revenue is measured at one standard deviation above the mean. All three simple slopes were statistically significant (low $\beta = -.39$, $p < .001$; medium $\beta = .27$, $p < .001$; high $\beta = .93$, $p < .001$). These results indicated that social capital was more strongly associated with reach at high levels of revenue. Specific summary statistics regarding the standardized simple slopes are reported in Table 5.5 below.

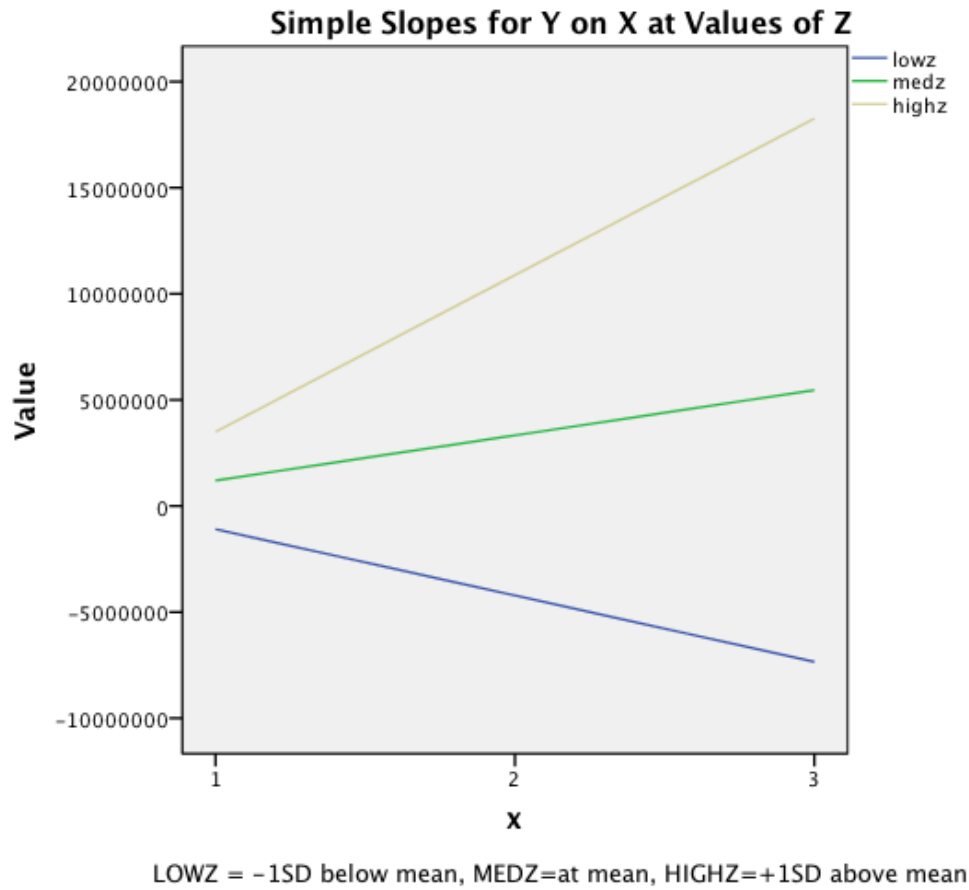
Table 5.5: Significance Test: Simple Slopes for Social Capital

	Beta	t-value	p-value
Low revenue (z)	-.39	-3.62	.001
Mean revenue (z)	.27	3.62	.001
High Revenue (z)	.93	10.07	.000

These results suggest that there are in fact some organizations who would benefit from developing social capital, and others, who would not. As predicted,

these relationships are not linear. In fact, organizations that have low revenue, who seek out social resources and negatively impact reach. There are two possible explanations for this finding. First, it may be that smaller organizations are getting crowded out in the field by larger organizations, and thus are not able to reach as many needy people. Second, and perhaps most relevant, is the explanation that an organization's pursuit of social capital takes up resources, which are then diverted from programs that reach hungry people to other organizational activities, such as networking, attending conferences, and building partnerships. These findings suggest that organizations at the mean level of revenue or above can benefit needy populations by developing social ties, greatly increasing their efforts. However, this is not always the case and organizations should be aware that some attempts to build partnerships, if their portfolios are weak, would diminish organizational returns. Figure 5.3 also illustrates what happens to social capital's effect on reach at different values of revenue, visually.

Figure 5.3: Simple Standardized Slopes for Social Capital



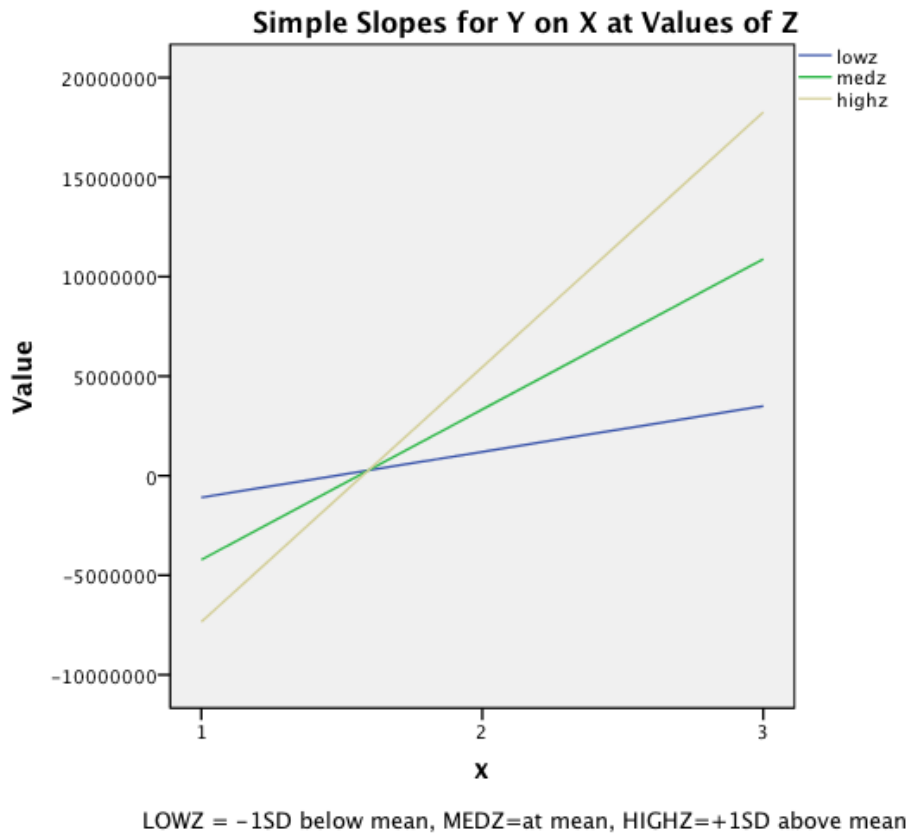
$x = \text{Eigenvector centrality}$, $z = \text{Material Resources}$, $y = \text{reach}$

To further investigate social capital's impact on reach, I conducted a simple slopes test for the association of material resources (x) on reach at low, mean and high values of social capital (z).²⁷ Low social capital is defined as one standard deviation below the mean. Medium social capital is defined as at the mean level. High social capital is measured at one standard deviation above the

²⁷ Please note that variable specification have been changed between the two simple slopes test. In order to test the nature of the interaction on both independent variables, two simple slopes tests were needed. The first uses the moderator (z) as social capital. In the second simple slopes test, (z) was changed to material resources to examine the nature of the interaction at different levels of material resources.

mean. All three simple slopes in this analysis remained statistically significant, although the nature of the interaction altered (low $\beta = -.29$, $p < .001$; medium $\beta = .95$, $p < .001$; high $\beta = 1.61$, $p < .001$). These results indicated that revenue was more strongly associated with reach at high levels of social capital. Interestingly, when we examine social capital as a leveraging mechanism, the impact revenue has on reach is greater at all three levels of social capital. This suggests, that while impact is still greatest at high levels of revenue and social capital, organizations that use social relationships to stretch funding fare better than those organizations using revenue to stretch social capital. Specific summary statistics regarding the standardized simple slopes for revenue are reported in Table 5.6 below. The significance test results for the three simple slopes reported here is located in Table 5.6.

Figure 5.4: Simple Standardized Slopes for Material Resources



x= revenue, z= Eigenvector centrality, y= reach

Table 5.6: Simple Slopes Significance Test for Material Resources

	Beta	t-value	p-value
Low Social Capital (z)	.29	3.93	.000
Mean Social Capital (z)	.95	10.10	.000
High Social Capital (z)	1.61	10.97	.000

Conclusion: Making Sense of the Results

At the beginning of this chapter, three hypotheses were laid out, predicting the effects of social capital when material capital measures were

introduced. In this section, I will revisit each hypothesis, in relation to the results presented in this chapter, further explaining my results.

Hypothesis 1:

H1: The social connectedness of an INGO is positively related to the outcomes they achieve.

The results of the regression analysis confirm that social capital enables organizations to reach more hungry people. As social capital increases (as measured by Eigenvector centrality) so does the predicted number of beneficiaries. This finding holds true with multiple material control variables. When I include the use of material resources as a moderator in a moderated regression analysis, the overall model fares better, but the impact of social capital decreases. However, when I examine the actual nature of the interaction, as indicated in the two simple slope tests in the previous section, when social capital is used to leverage revenue, all variations of the model achieve greater results. The moderator variable require more explanation, which will be explained in the discussion for hypothesis 3, as the relationship between social capital and reach in non-linear.

Hypothesis 2:

H2: Material resources enhance an INGO's ability to achieve greater organizational outcomes.

As expected, material resources impacted organizational reach in the expected direction. The direct effect of material resources in reach was significant and

positive, which suggests that as material resources increase, reach also increases. I did not expect material resources to account for a larger variation in reach for each unit change, however, I suspect this is due to the imperfect and incomplete measure of social capital utilized in the model, as explained in the previous section. This criterion deficiency leads me to believe that when I am able to operationalize more of my concepts for measuring social capital, the impact of social capital on organizational outcomes will become stronger, and perhaps outweigh material resources.

Hypothesis 3:

H3: Material resources moderate the relationship social capital has on reaching vulnerable populations.

It was examined that material resources indeed moderate the relationship between social capital and reach. For some organizations, those at the mean level of income of above, the promotion of social capital is beneficial. However, organizations with little income do not receive the same benefits. This means, the non-linear relationship between my predictor variables and my outcome variable reach.

This finding makes sense, based on the theoretical arguments posited earlier in Chapters 2 and 3. Social capital, while beneficial in the long run, can have a time-lagged impact. That is, the initial development of relational resources can be costly, both in regards to revenue and employee time devoted to establishing and fostering relationships. This finding is contrary, however, to

what I expected to observe. Although I expected a relationship between material and social resources, I also expected that organizations short on material capital would be able to reach more people through the promotion of social capital. While this is the case for some organizations, those at a mean income level and above, other small organizations do not operate in the same manner. I expected to find universal benefits. When I examine the nature of the interaction further, I find that when organizations use social capital as a leveraging tool, say to reach more hungry people through partnerships, the outcome remains consistently improved.

These results could also be partly attributable to the measurement of social capital employed in this analysis. While I was able to empirically test all the components of my material resources construct, I was only able to empirically test one elements of social capital. That is, I was only able to examine the relationships between INGOs, and not the other three elements of social capital – the relationships between INGOs and donors, local partners and businesses. I still argue, when additional measures of social capital are able to be accounted for in the model, the impact of social capital will be enhanced. It may be the case that smaller INGOs rely more heavily on local partners, accounting for the downward slope at low levels of revenue. When all aspects of social capital are considered, it is plausible that developing relational resources will enhance performance for varying organizational sizes. Further discussion and

the policy implications of these results are discussed in the final section of this chapter.

Descriptive and inferential analysis results have been presented in Chapter 4 and Chapter 5, but what does this mean in terms of organizational reach and INGO policy decisions? There are several points here worth pondering. First, researchers need to understand what it means to build social capital. I conclude, from prior research and from the interviews conducted for this project, social capital is in fact a resource, much like monetary resources or human capital. It must be developed, cared for over time and can take time and energy to sustain. In this analysis, it was also suggested social capital impacts can be detrimental to some organization's outcomes, as measured by reach in this analysis. This is extremely important and new information INGOs as well as scholars can use to advance studies of organizational capacity, taking into account both organizational structure and external capabilities.

In this network, I deduced only organizations with a certain threshold of revenue should pursue such ventures, and when they do, the gains are high. However, other small revenue organizations do not secure the same fate. When organizations with little monetary resources begin vying for social power in this network, they begin to negatively effect their missions, trading in social resources for the benefit of the populations who depend on them for food and water, agricultural assistance and the like.

On the contrary, the leveraging power of finances can assist an

organization in enhancing reach. International NGOs can adapt through the development of long-term strategies, first build the organization's material capacity. The material capacity, once established can reach greater outcomes through a leveraging of social relationships. Material capacity building can include developing diverse revenue portfolios as well as developing a talented pipeline of future leaders that can help combat the human resource deficit these organizations face now and are certain to face in the future. When they reach a desired threshold of material capacity to withstand the external environmental challenges, they can begin building partnerships and expanding horizontally. This notion is generally against the status quo of INGO studies, which suggest that organizations spend time collaborating and playing off of their collective comparative advantage. I have shown here that this endeavor is at times advantageous, but not always the best course of action. In the next chapters, I will expand on one organization's story as well as present the limitations and the direction for future research.

Chapter 6: Mercy Corps Narrative

Introduction

In Chapter 5, the results of the empirical model were presented that illustrate both social and material resources contain predictive properties regarding an organization's ability to reach hungry people. The model could only test some aspects of the theory; however, there is much work that can be completed in future research to expand on the ideas presented and tested in this work. In this chapter, I aim to provide a more concrete and in-depth understanding of my results, adding real life narrative, which explains how social capital actually emerges, and how it interacts with material resources. I use Mercy Corps as a case example, given my in-depth knowledge of the organization and my site visits. The case will illustrate how one organization works in the real world, demonstrating the elements of my model in a more practical light.

My data suggests Mercy Corps has many partners, but it is not entirely clear when and why they chose to partner. I wanted to investigate the organizational motivation and decision-making process to better understand how my model assists us in understanding the causal mechanisms associated in advancing organizational capabilities. Collaborating is a large part of Mercy Corps' programs. Building and sustaining such relationships can be difficult to manage. In most instances, relationships emerge organically, from either

personal connection among employees from different organizations or through location specific needs. Mercy Corps is currently working on many food security proposals that, if funded, would not be possible without the collaborative efforts of partners. Partnerships enable organizations to enhance the programs and in some cases, get into an area they would not otherwise be welcome or respected. I attempt to uncover the causal mechanisms at play, using examples. From the empirical results presented within this work, I now understand there is something embedded in the interaction of resources, but how and why this relationship emerges is still underdeveloped. Through a case example, albeit from one organization, we can get a deeper, richer understanding of this phenomenon, building a launching point for future research.

Why look at Mercy Corps? There are several reasons to examine Mercy Corps as a case example in food security programming. First, their commitment to maintaining partnerships at all levels in my conceptual model is outstanding. As you will see in this section, they have over 48 current thriving international partnerships and even more partnerships with local collaborators in their field locations (Interview December 2012). In addition, Mercy Corps is one of the industry leaders in reaching vulnerable populations and make it their mission to relieve pain and suffering. In my food security analysis, Mercy Corps ranks among the top half of the organizations in all the areas investigated. They rank thirteenth in social capital, eleventh in revenue, and sixth in reach, out of fifty-one organizations. Mercy Corps is currently serving 4.2 million food insecure

people (InterAction 2012). They provide an outstanding example of how to build partnerships while expanding reach. It is remarkable that although they are in the top third of organizations for social capital and revenue, they are in the top ten for reach, which means they are doing something right to exceed larger and more connected organizations on getting the resources to their intended source, the local communities. The following section provides a narrative focusing on the empirical models presented in Chapter 5.

Mercy Corps Organizational Overview

Mercy Corps is a large INGO working on over 30 issue areas. They began working in relief and development in 1979, and see their expertise as helping transitional communities (Mercy Corps' Annual Report 2012). Although Mercy Corps operates in many program areas, they started with a food security project in 1982 in Honduras. They developed a local partnership to teach soil conservation and watershed management. In 1985, Mercy Corps began a food security program in Sudan and in 1986 in Afghanistan, illustrating the organization's roots were established partially in food security.

Presently, Mercy Corps is serving 19 million people (Mercy Corps Website 2013). Since 1979, Mercy Corps has provided \$2.2 billion in assistance to people in 114 countries (Mercy Corps Website 2013). The agency consistently ranks as one of America's most effective and efficient charitable organizations, with a commitment to get resources to the communities in need (GuideStar 2012). Over

the last five years, more than 88 percent of resources were allocated directly to programs that help families turn crisis into an opportunity to develop.

Mercy Corps and Social Capital

Mercy Corps favors a strategy to engage partners at multiple levels, from international to communal. When describing partnership, they state:

Mercy Corps believes that partnership is critical to achieving deep impact, sustainability, and amplifying reach. We collaborate with a diverse range of partner agencies and institutions at all levels of the public, private and civil society sectors to address the global challenges that drive our work (Mercy Corps Website 2013).

This statement epitomizes the focus of my research, as the work Mercy Corps executes around the globe with limited resources, illustrates that to reach more people and get results, partnering is an essential ingredient. I review how Mercy Corps' builds and sustains partnerships with other INGOs, as well as other local partners, to add qualitative richness to my empirical findings.

Mercy Corps Collaboration with Other INGOs

Mercy Corps collaborates with other large INGOs on almost every project. They have a long-standing relationship with Save the Children, where they have worked side-by-side for over a decade in Tajikistan. Catholic Relief Services (CRS) is also a long-standing partner. Mercy Corps works with other INGOs in development and delivery of programs, across sectors including food security. How do these partnerships emerge, how are they sustained and to what extent

are they fostered across the organization? These questions, unable to be answered by my empirical model, are important in understanding the causal mechanisms in this study.

First, these partnerships emerge, almost always, in the field. Often these projects in infancy are not interconnected or well developed with the intent to collaborate. Mercy Corps, like most other large INGOs, responds to calls for proposals, while trying to identify a niche where they can offer services. Therefore, one of the primary organizational imperatives is to write winning proposals. Donors, such as USAID, send out these request for proposals (RFP). Mercy Corps then employs an internal team to develop an evaluation of needs on the ground. The field staff typically coordinates location specific information. A program officer at the headquarters is the primary writer for the proposal. This initial step requires little outside collaborative effort, as Mercy Corps relies on the social capital built with donors, through sustained projects, to develop a case for their project. Therefore, they are relying on relationships at the donor-INGO level, but not the INGO-INGO level at the beginning of proposal development.

As the proposal is developed, there are pieces not easily implemented by one organization, as these programs require many outputs with small budgets. This in turn, *motivates* INGOs to look for areas of collaboration with other INGOs seeking funding. The program officers working on the proposal at headquarters find themselves in a strategic dilemma, one where they need to be cautious, so as

to not give up information about the projects they are developing proposals for, but also pragmatic, as they are unlikely to win the proposal if they cannot offer solutions to the problems identified by the donors. Keep in mind, donors have a bird's eye view of the projects currently in operation, as a few donors and government agencies fund the majority of these projects. Therefore, if Mercy Corps proposes a project that either duplicates current work, or shows lack of knowledge of the other programs already established, they appear uncoordinated; an undesirable perception when competing for scarce funding. Program officers often find themselves in a situation where they need to find a partner to build a better proposal.

The idea of partnership begins to emerge, at the headquarters, during a project's infancy. However, coordination, although perhaps articulated at headquarters, is established in the field. When the program officers reach the conclusion that a partnership is needed to develop a winning proposal, they look to their organizational leaders in the field for guidance. For example, assume that Mercy Corps' is building a program to reduce childhood malnutrition in Somalia. The program officer, in Portland, Oregon, is not familiar enough with the conditions on the ground, or with the other organizations willing to work in a highly volatile and dangerous environment to offer advice on how to partner nor which partners to choose. The program officer would then contact the country specific staff, either a country director or program manager, for input on how to proceed with the proposal. Continuing with the same example, Mercy

Corps may have an established track record with school nutrition programs and would like to propose an intervention focused on school meals. The project criterion recommends an education program for families. The on the ground country director in Somalia will then rely on the social capital he or she has developed, suggest partners. He or she will argue that Mercy Corps should partner with organization “A” because they are already working with parents in the area, have an established rapport and are well connected with the civic groups. The country director may also suggest not considering organization “B” because their staff are having a hard time adjusting to the living conditions, and are otherwise distracted because of fear for their safety.²⁸ One example came from Zimbabwe, where a partnership between two INGOs forged in the field because the country directors found they worked well together and had similar interests. In Niger last year, Mercy Corps had a partner that was creating a reporting nightmare for the organization and they had to internalize the reporting functions of the partner agency to avoid losing funding. In another case, a partnership had less than desirable outcomes when it was discovered that Mercy Corps had a much higher tolerance for working in insecure environments. The other agency was not performing and feeling insecure in the DRC. The Mercy Corps’ program officer, lacking geographic connection, or environmental

²⁸ Although this is an illustrative example, these events are based on real observations in fieldwork, where some organizations are not prepared to work in the environments where projects are implemented. Thus, their performance is crippled by anxiety and inability to cope, which is more common in emergency response situations.

knowledge, relies on the social connections and information gained from the field staff operating on the ground to begin a discussion with possible partners.

Moreover, the motivation for partnership emergence is based on experiences with the other INGOs. Different INGOs hire staff with different specialties, and sometimes, divergent ideological preferences. When INGOs interact on the ground, they get to know the other staff well, and begin to form friendships, or a social support network in the field. These social interactions turn into social capital when the organization is looking for new partners, or need to build collaborative programs in a specific geographic location. At Mercy Corps, the field staff that work in close proximity often forge friendships that, in turn, develop into business partnerships. INGOs operate with high levels of grant funding and the likelihood two organizations will need to collaborate in the future is high, thus creating an incentive to foster lasting relationships. While this is just an example illustrating how partnerships begin, I later cover how these relationships add benefit to the organization.

I provided an example of how social capital emerges, both at headquarters and in the field, primarily with an imperative to gain access to funding. Now, I will turn attention to how these partnerships are sustained and why.

Partnerships, much like friendships, take time to establish. In INGOs, similar to other organizational structures, trust is an important aspect in fostering relationships. At an organization like Mercy Corps, whose livelihood depends

on their reputation with donors, beneficiaries and private constituents, entering into a partnership can be risky business. As such, Mercy Corps is slow to enter into a partnership with another INGO, but once trust is established, effort is directed at maintaining the relationship.

For example, Mercy Corps has a long-standing relationship with Save the Children. The relationship emerged through field collaboration, as outlined above, in Central Asia in the 1980s (Interview 2013). The two organizations recognize their collective advantage, in serving different classes of beneficiaries, communities in transition and children. After successfully completing a project together, they developed personal and professional ties between organizations and established contacts between program officers of the two organizations. Now, when it comes time to develop a proposal, or share a resource in the field, Mercy Corps has an established connection, and the upfront costs of developing the relationship, are no longer a strain on the organization. It should be noted that maintaining the relationship takes time and resources.

Once relationships are established at Mercy Corps, like the relationship with Save the Children, they are maintained in several ways. First, they are maintained through continued interaction and cooperative projects in the field. Mercy Corps has a small set of partnerships with other INGOs that are well developed. These organizations collaboratively develop projects, and share resources, such as housing, food and other commodities in the field. This

continued day-to-day interaction is part of the glue holding the organizations together and keeping a trusted bond in place. Second, they are maintained through connections with program staff. Once Mercy Corps partners with an INGO, the program officers working at headquarters become connected and regular emails and telephone messages are exchanged. This communication can aid the organization in brainstorming collaborative solutions to complex problems, help in finding a solution to a staffing issues, or simply checking in to see how the person is doing, establishing an alternative mechanism for dealing with stress through personal connections and friendship. Third, they are maintained through policy and advocacy channels. INGOs are known for collaborating on policy issues, for example, banning landmines, fighting for human rights in Argentina, or demanding international action in Sudan to name a few. INGOs who have an established track record of working together enter into policy activism regularly. Mercy Corps with CARE, Save the Children, and Oxfam fought against the war in Iraq and genocide in Sudan at a national policy level. Through established trust and relational bonds, the organizations were willing to stand-up for perceived problems, showing solidarity. Finally, these relationships are sustained through leadership channels. Mercy Corps' leaders often have to make difficult decisions, whether that means the recent decision to send staff to Syria, knowing there is a chance someone could not return home, or decisions about programs that need to be cut when funding is tight. In these tough decision-making dilemmas, solitary leaders, say the CEO of Mercy Corps,

calls upon the opinion and advice of his respected colleagues in partner organizations. In all four of these situations, in the field, at headquarters, through advocacy or through leadership exchanges, Mercy Corps interacts with other INGOs to develop solutions, discuss difficult problems, and act in solidarity. The social capital that emerges out of these interactions may begin in the field, but it is sustained at all levels of the organization, providing real and perceived benefits to the organization.

Benefits of Collaborating with Other INGOs

I have reviewed the mechanisms allowing social capital to emerge at Mercy Corps, and some of the reasons it is sustained, but this discussion is not complete without a demonstration of the benefits associated with the social capital generation and maintenance. Adler and Kwon outlined three benefits derived from social capital, which I reviewed in Chapter 3 (Adler and Kwon 2002, 29-32). In this section, I will focus on these three benefits in relation to coordination with other INGOs at Mercy Corps.

The first benefit is information. Mercy Corps greatly benefits from information sharing with other INGOs. They are aware of new RFP calls before they are released through enhanced information flows. They are also aware of the challenges other organizations are facing in certain geographic areas, so they can act proactively to avoid facing similar challenges. Mercy Corps shares data and evaluation material with other INGOs that is used to build program

objectives. They also share information about employees so they can build solutions to the human resource shortages. Mercy Corps is also part of Learning in International NGOs (LINGOS), which is an umbrella group that coordinates opportunities for INGOs to share information and develop better solutions based on best practices. LINGOS facilitates webinars, conferences, and mechanisms for circulating information. In short, Mercy Corps is part of formal and informal channels of communication with other INGOs.

Influence is another benefit Mercy Corps' derives from their interactions with other INGOs. Through building collaborative partnerships with other large INGOs, like CRS, CARE, and Save the Children, Mercy Corps has an established "club"²⁹, or a group of organizations that are able to persuade other actors through the power and control in numbers. Mercy Corps based on collaboration with other INGOs has negotiated positions in Sudan, as well in Iraq, while other organizations were forced out. In environments where conflict is currently taking place, Sudan, Iraq, Afghanistan, and Syria, Mercy Corps has established themselves as a leader. Here, the ability to form partnerships has enabled Mercy Corps to influence the conversation in a coordinated manner, urging policy-makers in Washington, DC to take humanitarian crises more seriously and allocate funding to the problems.

²⁹ Coleman (1998) developed this concept, where he examines that Senators can call upon favors from other members, as they owe them for previous interactions. Coleman calls this the "Senate Club".

Influence, and the power derived from inter-collaboration is closely related to the third benefit of social capital, solidarity. Solidarity assists in establishing strong social norms, beliefs and compliance with local rules, in the absence of any formal controls. INGO work, especially in global contexts, benefits as a whole from solidarity. The INGOs working together, in the field or in administrative roles, keep each other in check, and establish a strong normative basis for their interactions with local communities. At Mercy Corps, their reputation for working in the field in a non-paternalistic manner is echoed by partners. Mercy Corps and other INGOs are held accountable to the larger INGO community regarding expectations for behavior and upholding rules. Mercy Corps benefits from solidarity in a sense that the costs for monitoring program staff and field workers does not depend on developing a hierarchical staffing arrangement with direct supervision. At Mercy Corps, the program staff are held accountable for actions not only by their supervisors, but also by other INGO staff working in close proximity. Much of the work program managers do is independent of supervision, adding extra pressure to perform and uphold empowerment norms in the industry comes from other co-located INGO project staff. Additionally, working in close proximity to other INGOs allows Mercy Corps to establish a high level of commitment for the project success for programs inside and outside the Mercy Corps structure. Therefore, meeting organizational outcomes is a performance measure for the INGO, but also, in the case of Mercy Corps working with other INGOs, a reputational imperative.

In summary, Mercy Corps gains access to information, influence and industry solidarity from social capital. The three benefits Mercy Corps gains from developing relationships with other INGOs is not divorced from the concept of securing much needed material resources. In the next section, I will begin to explore a few real life examples that demonstrate the interactive nature of social and material resources.

Interaction Between Material and Social Resources

The development of social resources, as argued previously, does not operate in a vacuum. The ability to develop social resources is dependent on material resources, and vice versa. At Mercy Corps, the interaction between material and social resources is evident in two main areas: 1) human resource shortages; and 2) collaborative efforts to secure grant funding. Remember the discussion in Chapter 2 regarding the difficulties facing INGOs when it comes to recruiting, and more importantly, retaining high performing staff? Developing social capital can assist with combating the human resources challenges in many ways. When Mercy Corps posts a position on their webpage, it can remain open for quite a while, sometimes up to a year. Moreover, when positions are filled, especially in the field, the average tenure is about 9 months (Interview 2013).

There are many problems with this low recruitment and high turnover rate, not the least of which is the lack of personnel needed to complete tasks. This challenge of recruiting and retaining staff at Mercy Corps is a large cost to

the organization, an organization attempting to run a lean headquarters operation in order to divert more money to field operations. Over the last five years, the Learning and Effectiveness division of Mercy Corps has grown dramatically in an attempt to fill positions efficiently, and keep personnel once they are hired. In addition, seven years ago, there was one full-time and one half-time recruiter at Mercy Corps. Today, there is a recruitment director, four full-time recruiters and temporary recruiters brought in during high volume times. The role of finding, interviewing and hiring staff is creating a strain on the organization.

However, this strain is also being combatted, aside from hiring more professional recruiters, through a well-developed social network. This is the case for two reasons. First, INGO personnel, through relational ties are better able to recruit personnel through referrals and direct knowledge of an employee's intention to resign, enabling proactive action. Second, one of the main reasons cited for resigning from field positions is the isolated and often stressful environment in the field (exit interview data 2004). Developing relationships with other co-located INGO professionals helps build an emotional support system that may reduce turnover. This in turn, reduces the cost to hire and re-train a new employee. The social relationships forged in the field become an asset to retaining employees who otherwise feel isolated. The relationships create solidarity, which at the very least, provides an avenue for social support. At best, this provides a relational resource from which future project collaboration

emerges. At my site visit, I was told about an example of this collaboration in Zimbabwe last year, where a partnership between two INGOs forged in the field because the country directors found they worked well together and had similar interests (Mercy Corps Site Visit, June 2013). In sum, the relational resources between Mercy Corps and other INGOs is interacting with the material resources, enabling them to hold onto staff longer.

Secondly, social resources interact with material resources when it comes to applying for donor funding. As mentioned above, in the illustration regarding how INGOs begin to form partnerships, it was argued that this partnership almost always begins with a pragmatic decision, necessary to gain access to funding. However, this relational element, that assists Mercy Corps in securing funding from large donors like DFID, USAID, or the UN, is a function of the relationships they develop in the field and at headquarters. Simply put, as organizations like Mercy Corps, Save the Children, or CRS develop long-lasting partnerships, the efficacy for which they can gain access to funding increases. They have more ears to the ground, to learn about upcoming funding proposals. They have program managers whom have a history of working together to quickly develop the proposals and they have a network of employees with different specialties and from across organizations to choose from. These relationships assist in efficiencies and waste less material resources in the time an employee needs to spend establishing the relationships. Here, building relationships can lead to increased funding, and increased funding means that

Mercy Corps and their partners have the resources necessary to maintain relationships; representing the non-linear interaction of material and social capital.

Finally, global emergencies accentuate the interaction between resources. The Indian Ocean Tsunami hit on December 26, 2004. It was one of the largest emergencies requiring humanitarian intervention this century. The natural disaster claimed 260,000 lives, with even more injuries. One and a-half-million people were displaced. It took over \$14 billion dollars of aid to restore the communities effected in Sri Lanka, India, Indonesia, Somalia, and other surrounding areas. This event was the largest emergency Mercy Corps has responded to in its history. An event this catastrophic requires coordination and a speedy response. Every minute that passed created more imminent danger for the affected population, including the risk of water related illnesses due to compromised water tables.

I was working at Mercy Corps at the time, and had allowed my team to take the week off for the holidays. I was called at 1:30 am, the day after Christmas, and needed to respond immediately. Countless tasks were at hand, not the least of which was recruiting volunteers and hiring staff to get on the ground quickly. Also, we needed to coordinate logistics, supplies, water purification materials, and develop a plan to house and feed hundreds of thousands of people without homes. In order to accomplish this task, and save

lives, our local team at Mercy Corps relied on our social capital to respond quickly and adequately and stretch our material power.

We connected with our team members in Banda Aceh, Indonesia the closest geographic location affected by the disaster. We spent the first hours after the emergency planning and developing a list of materials needed and social connections we could call on to get immediate solutions on the ground. One of the primary tasks was to reach out to every partner we knew. Who else had staff in the field nearby? What business partners did we have in the area that can help with gathering supplies? What connection do we have with other INGOs that could stretch our material power? We had conference calls with responding teams at all the major INGOs. With the help of partners, we deployed resources quickly. Mercy Corps had a strong connection to Engineers without Borders. CARE had a connection to the Red Cross. Medical Teams International showed up at Mercy Corps headquarters with medical supplies and helped pack boxes for shipment. We relied on other INGOs to help with logistics, purchasing airline tickets, etc. Instead of deploying many logistics coordinators, we streamlined the teams across organizations, with cross-organizational teams deployed to all effected areas that included: logistics personnel, water and sanitation engineers, program managers, refugee camp coordinators, food distribution personnel, medical doctors, and counselors. Where Mercy Corps alone did not have the material capability financing or staff with all the needed expertise to respond, through the social connections established across the INGO

community, we were able to build complete teams, share personnel, streamline administrative tasks, and coordinate planning efforts.

While there were mistakes made and panic was not eliminated through coordination, the ability to respond was enhanced through social connections. The relational resources between INGOs enabled pooled material resources to reach further. Moreover, the staff needed to coordinate the projects were streamlined, sharing responsibility across regions and technical areas. INGOs have since used the response to the 2004 Tsunami as a learning opportunity where they together debriefed and wrote after action reviews that helped the organizations plan for better responses to the next emergency. One outcome, the development of a centralized emergency response team, has since been established in the major INGOs as a way to quickly and efficiently coordinate these emergency efforts. This is just one example, for which I have personal experience, which demonstrates how the connections established within INGOs can greatly aid the ability to react when the need is immediate and resources are slim.

While I attempted to model the relationships between INGOs in my empirical models, there are other sources of social capital I was unable to operationalize and test, which in fact form an essential part of Mercy Corps, and other organizations', abilities to reach more people. These relationships are between INGOs and local partners and INGOs and business partners. In the

following sections, I will review each, respectively, based on the information I was able to gather from organizational sources and from my own professional experience.

The Elephant in the Room: Local Partnerships

I argue in my theoretical motivation for this project, that social capital only emerges in part out of the relationships with other INGOs. Other relationships also account for social capital exchanges, including relationships with local partners. I was unable to test this aspect of my model, but still contend it is an important element in modeling an INGO's social capital. The following section provides a review of what I learned about partnering choices in the food security sector while conducting a site visit at the Mercy Corps World Headquarters on June 20, 2013. As I do not have the information available to assess the organization's local partnerships systematically, a couple of specific examples from current proposals will be used to demonstrate the use of local partners and the important role they play in reaching populations. These proposals are currently under review by funding agencies to enhance partnerships and food security programs at Mercy Corps: Afghanistan Poppy Production; Coffee Kids Collaboration; and Coffeelands Initiative.

Afghanistan Poppy Production

Opium crops are big business in Afghanistan agriculture. Currently, although many other fruits and vegetables can grow optimally in areas where

poppies are cultivated, the financial benefits of food production do not match the narcotic prices. In an attempt to strengthen food availability and grow a variety of crops in Afghanistan, Mercy Corps is working on a proposal that is not strictly food security, but aims at diversifying poppy production in areas that are ideal for other food production. The first goal of the program was to reduce poppy cultivation, with a secondary goal to increase the value of food crops. Finally the program aims to create a variety of foods available in the market. In many areas of the country, communities can only get vegetables a couple months a year. By increasing nutritional diversity in the optimal growing environments, they can triple the time that fruits and vegetables are available to Afghans. In addition, the program has an aim to increase capacity of the anti-narcotics arm of the government. Mercy Corps has worked in Kandahar since 1986. Because the communities appreciate the work accomplished by the organization, Mercy Corps has a solid reputation within the communities. In order to retain that privileged relationship, Mercy Corps needed to separate their objectives from the government. To achieve the funding requirements, Mercy Corps found a partner within the community that has connections with the counter-narcotics ministry, which in turn is linked to the Ministry of Agriculture. Therefore, Mercy Corps can continue to work with the communities, where they have the most impact, and their partner agency can work with the government agencies, meeting all the donor requirements. In turn, they can achieve all the aims, without jeopardizing their trust and commitment to the community, whom generally distrust the

government ministries. In this instance, Mercy Corps would not be able to achieve the program objectives without partnership. The local partner they chose was identified through on-going field interactions between the local agency and Mercy Corps' Afghanistan team.

Partnerships, as I have argued, are difficult to start and sustain, however. Mercy Corps' partnership with the new local NGO struggled in the middle of the proposal. The organization was not performing and failing to deliver the research necessary to complete the proposal submission on time. This in turn, led to Mercy Corps dedicating more material capacity to the development of the proposal and nurturing the relationship at the same time. Before the proposal, Mercy Corps and this organization had only previous social relationships, but no established working relationship. In order to get up and going, Mercy Corps representatives reported that it can take a lot of energy and resources at the onset. When there are immediate interests for an opportunity present, sometimes one organization has to be willing to take on more of the work to build the partnership, before it can be sustained.

Coffee and the Hope of Collaboration

Coffee cultivation and coffee corporations offer a rich source of collaboration. The coffee industry is unique. Businesses that roast and sell the coffee report feeling a sense of responsibility to help coffee farmers (Mercy Corps Website 2013). The companies report that they see their role as helping farmers

to climb out of poverty. In April 2013, Mercy Corps began a new partnership in Boston with a specialty coffee associate. They are beginning a new movement in food security for coffee producers. A small NGO named Coffee Kids is well respected, with a funding history of over 25 years. Coffee Kids works with local organizations in coffee producing areas, primarily in Latin America. They focus on building capacity to take on institutional funding within local NGOs in the coffee producing regions. Coffee Kids' connections and local respect within Latin America countries make them a perfect partner organization for Mercy Corps. In addition, Coffee Kids is looking at a way to grow without losing their specialty. Partnerships with larger NGOs allow them to remain specialized and still grow as an organization.

The current coffee crisis is also responsible for spawning an increased interest in collaboration among INGOs, NGOs and the coffee producers and cultivators. We are about to experience a major problem in the coffee industry with an outbreak of the Coffee Leaf Rust. Coffee Leaf Rust is a fungus that grows in Latin America and it is attacking coffee crops. As of June 2013, 77% of farmers in the area are in trouble because a portion of their crops were damaged (Interview May 2013). Coffee production is threatened. Once the trees are damaged, producers could lose their main cash crop for the next 5 to 7 years, which is the time it takes for a new tree to mature. This crisis is somewhat unique in agriculture due the prolonged damage destruction in a coffee crop ensues.

Conversations about the damage to the crops and the developing partnerships got USAID interested. USAID flew out to Portland because they to hear about the plan partners were beginning to establish with specialties from CRS, Heifer International, and Coffee Kids, forming a new consortium. This consortium is comprised of both local NGOs and INGOs. Coffee Kids is in more countries in Latin America than the other NGOs, which allows the larger INGOs, such as Mercy Corps to get closer to communities without the initial start-up energy. Mercy Corps' field offices, including Guatemala are currently looking at coffee proposals that incorporate the use of smaller NGOs, such as Coffee Kids. Coffee Kids has local networks and can form new relationships faster within their established framework. The new partnership allows INGOs to save on valuable time in an emergency response and allows Coffee Kids the opportunity to align with larger NGOs so they can expand without losing their specialized advantage.

Coffeelands Initiative

As discussed, coffee has proven to be a great area for food security programs to embrace collaboration across sectors. Mercy Corps' new program invites business and industry leaders into the conversation with local growers, harvesters, NGOs, and donors. After the industry was reprimanded for unsustainable fair trade practices in 2012, they launched a large study of food insecurity in the agricultural areas designated as the "coffeelands." They found

fair trade had not improved the situation of local farmers, which was a huge disappointment for business leaders whom prided themselves on better implementing fair trade practices than multi-national corporations (Mercy Corps Website 2013; Interview 2012). Mercy Corps is finding coffee farmers are still food insecure for seven to eight months each year (Interview 2013) .

Through research and consultation on the area of coffee industry collaboration, the reviews are mixed. The INGOs and other partners coordinate sometimes and sometimes they do not. The end results are good at the community level, but not shaping up on a global scale. When asked if the programs collaborative efforts are working, a Mercy Corps representative responded, “Are we moving a needle in a larger population sense? The answer is no. Collaboration is good, but it’s hard to get things done in a meaningful manner” (Interview June 2013). Mercy Corps, along with the other partners in the Coffeelands consortium are arguing for the creation of a shared measuring system. They are calling the structure a “backbone organization.”

The backbone organization’s role is to drive coordination and establish a community of practice. Coordination takes time, energy, and resources. Many of the partners have little to spare. At this stage, Mercy Corps has engaged a consultant to begin a scoping exercise, examining what it will take to make a backbone organization fruitful for the partners, while enhancing collaboration and reducing transaction costs. The final report is due out at the end of 2013 to

examine how a coordinating board would help promote collective action. First and foremost, the organizations working in a common industry need to establish common and agreed upon goals and measurement standards. Many are interested in the coffee issue right now, but funding for the research side to get the initiative going is waning. However, the partners are arguing that if they can get the program going to alleviate some of the coordinating pressures, this program, “could really expand reach.”

Business Partnerships

Emphasis at Mercy Corps is placed on partnerships with other development agencies, but the pursuit of building social capital does not stop there. Mercy Corps has many partners in business and industry, as well as many foundations that support their work. Programs range from employee giving programs to relief packages. In 2012, Mercy Corps had forty-eight such partners, which are listed below in Table 6.1 (Mercy Corps Website 2012). Each of these partners donated more than \$50 thousand to assist in the program of their choice and some donated \$500 thousand or more.

Table 6.1: Mercy Corps Business and Foundation Partners in 2012

The Bill & Melinda Gates Foundation	Nike, Inc.
Chevron Corporation	Shell
Margaret A. Cargill Foundation	Starbucks Foundation
NVIDIA Corporation	The Gerald and Henrietta Rauenhorst Foundation
Omidyar Network	The Vibrant Village Foundation
Reach Out To Asia	Warner Bros. Entertainment, Inc.
Silicon Valley Community Foundation	W.K. Kellogg Foundation
Source of Hope Foundation	Western Union Foundation
The Rockefeller Foundation	Boston Foundation
Xylem	Beijing Shunya International Investment Co. Ltd.

Boeing	Combined Jewish Philanthropies
Carnegie Corporation of New York	CREDO
Conrad N. Hilton Foundation	Global Giving
ELMA Relief Foundation	James E. and Lila G. Miller Charitable Trust
Global Impact	Linked Foundation
Google	Microsoft
Greater Good	Ploughshares Fund
Green Mountain Coffee Roasters, Inc.	T. Rowe Price Foundation, Inc.
Intel Foundation	The Ford Foundation
JELD-WEN Foundation	The W. O'Neil Foundation
Kind Hearts for Charitable Humanitarian Development	United Way of the Columbia Willamette
MasterCard Worldwide	Vista Hermosa Foundation
Middle East Children's Institute	Waggener Edstrom Worldwide
Nike Foundation	Wish for Haiti

Mercy Corps chooses to partner with businesses and foundations to enhance monetary capital. The organizations listed in Table 6.1 help build a funding base that carries less stipulations than donors. Moreover, there is less competition for some of these partnerships between and among INGOs based on proximity. For illustration, Nike supports a great deal of programs at Mercy Corps. Part of the reason for this collaborative relationship is related to the location of both organization's headquarters in Portland, Oregon. While Nike supports other philanthropic endeavors, the partnerships with Mercy Corps is strengthened due to their ability to remain personally connected. At Mercy Corps, an entire division is dedicated to seeking these partnerships and sustaining them, in the hopes of gaining financial support. Although not tested in my model, the relationships Mercy Corps builds with businesses interacts with their ability to secure donations from these partners, further illustrating the chemistry between social connections and financial capabilities.

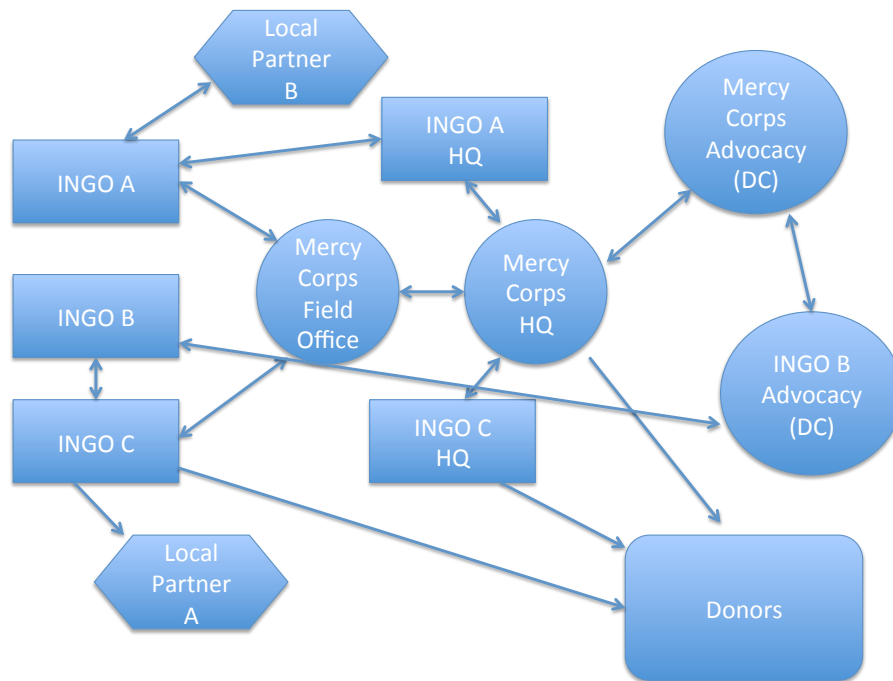
Summary and Conclusion

Interviews, site visits and personal experience with food security professionals have confirmed that partnerships are a great asset for Mercy Corps' programs; however, these partnerships come at a cost to the organization. Mercy Corps favors a diverse portfolio with multiple partnerships. Food security partnerships appear to be locally based at the city or regional level. The evolution of partnerships and collaboration is very contextual and generally emerges in the field. In some cases, the connection is personal. In other cases, the partnership is spawned due to necessity, like the Afghanistan opium reduction program, where Mercy Corps needed to remain apolitical. Some partnerships create a strain on the organization. It is evident that the location of the partnerships matters. In another country, this same partner is working beautifully with the same program, illustrating the country context for choosing partners. Other partnerships are sustained by prolonged interactions. Mercy Corps and Save the Children have partnered for years in Tajikistan. The partnership has flourished overtime and now runs smoothly with little cultivation.

In summary, relationships that emerge from downstream activities, meaning those activities located in the field, are also connected to other activities at different levels of the organization. Figure 6.1 below illustrates a coordination map, where a few partnerships with other INGOs transcend field level

coordination. Partnerships in the field are linked both at the location and at headquarters. In addition, advocacy offices tend to coordinate, depending on the issue. The collaboration map below, using just a few of the many partners, helps illustrate how complex these relationships become.

Figure 6.1: Sample Mercy Corps Collaboration Map



Overall, there are four lessons to be learned from this narrative regarding the Mercy Corps case example:

- Partnerships are fruitful and they take time and resources to sustain;

- Some programs cannot be accomplished without strategic partnerships;
- Organizations and their employees have social resources they draw on to get work done; and
- Developing and sustaining relationships with partner agencies is driven from the field and is best done in the contextual environment in which these organizations work.

The case examples help highlight how my empirical models play out in real life scenarios. In addition, the information obtained through interviews and site visits made possible future research initiatives more clear, which will be discussed in the final chapter.

Chapter 7: Implications, Limitations and Future Research

Introduction

I posited both social capital and material resources are essential in reaching hungry populations. The theoretic basis of INGO interaction was developed. The subsequent empirical model was tested to examine the relationship between divergent resources and organizational reach, as the main outcome variable of this study. It was evident that the relationship between social capital and reach is not linear. In fact, for some organizations with little financial assets, the pursuit of additional social capital can be detrimental to their missions of reaching and serving the one-billion hungry people in the world. Here, it was found that those with revenue at the mean level or above had an organizational advantage in collaborating and using some material resources to pursue and maintain relationships with other INGOs. The premise and findings represent a first attempt to quantify food security programs to examine the use of relational and material resources in meeting outcomes. The remainder of this chapter will present the implications of these findings as well as the limitations and suggested direction of future research.

Implications of Findings

Social capital benefits are gaining prominence in the social science literature, especially at the individual level, including the use of social media.

This study looked at a different unit of analysis—the organization. It was

hypothesized that organizations pursue and maintain relationships as a source of capital. In turn, this capital enables the organizations to create and sustain programs, aiding their outputs. As suspected, organizational resources, such as social capital, can be beneficial to achieving the INGOs mission, but there are some critical findings that warrant discussion regarding both resource allocation and public policy decisions.

INGO Resource Allocation Implications

International NGOs struggle with the proper mix of resources needed to get the job done right. This study proves no exception, as some organizations choose divergent methods of obtaining and using resources to reach hungry populations. However, we need to understand what these findings mean in a practical manner in order to aid INGOs in their resource allocation decisions.

The findings here suggest INGOs view social relationships as a source of capital, much like revenue or human resources. However, organizations should develop a long-term strategic plan before choosing to pursue a more rigorous social portfolio. These findings suggest some attention should be given to organizational capacity building, whether in terms of fundraising campaigns, staff development training, or the securing of a diverse grant portfolio. I suggest before embarking on a partnership with other large INGOs, these organizations work on building a financial stream that can sustain the organization. This is interesting, as much of the literature suggests that promoting partnerships is a

preferred way to grow the organization. However, when it comes to reaching the hungry populations, organizations must realize that pursuing social relationships may, at first, diminish their ability to reach the people they are pledged to serve. These findings, do not suggest that social capital is not helpful or should not be pursued. For some organizations, social capital can greatly increase their ability to reach vulnerable populations. The key take-away message is that a stable financial portfolio is a precursor to building and sustaining social resources.

Policy Implications

What do these findings mean for public policy and the development sector? First, it suggests donors may want to reconsider placing limitations on funding based on partnerships. This practice may harm smaller organizations; sometimes those focused on one or two issue areas, which often incorporate nutrition and health. To enable grassroots organizations to grow, government agencies need to re-evaluate the growth curve and consider funding smaller agencies, with perhaps seed money, to allow them to flourish and develop the social connections needed at the next phase of their development. This in turn, could help diversify the types of organizations seeking partnership and enrich programs by providing more of a variety of professions and backgrounds in the field.

In addition, INGOs should be aware of the implications and costs to sustain social relations overtime. They can develop internal strategic plans that organize social connectivity as part of a long-term strategy and be prepared with human and financial capital to begin building social wealth when the organization is ready. Moreover, the organizations may want to begin using the social connections in more advocacy roles to build awareness of the power local social connections can establish. This may require bringing on new champions for change within the organization to help alleviate the pressure on the organization to expand horizontally.

Civil society organizations are also an important part of the policy plan. These organizations have a natural place in the community and may be best suited for connecting INGOs and local organizations. Building stronger connections to civil society organizations as an intermediary decision, before branching out to business and other international partners may have a better return on investment for the organizations in terms of using resources and still reaching local populations, although I was not able to model this expectation.

In sum, the international environment makes building and sustaining partnerships even more challenging than domestic social relations due to location and access. As this research illustrates, regardless of the difficulty of developing such relations, they can prove invaluable when pursued at the right time. This section has offered a few suggestions about the future policy

direction, with hopes that organizations will continue to see the value in building relationships and partnering for global change.

Limitations

As with any research, there are limitations to these findings and suggestions for improving future research projects. The four limitations discussed here are: the use of archival data, the ability to model the international and not local partnerships, the limitation of one sector analysis and the availability of outcome variables. The reasons for choosing archival data were outlined in chapter 4, citing the difficulty of obtaining primary data when sampling is not an option. In review, to execute a complete and accurate SNA, all actors must be accounted for, making global analyses and data collection difficult. In this analysis, through consultation with INGOs, the connections between organizations, using archival data, were used based on a shared location at the village level. Although this is likely a fairly close proxy to actual partnerships, given the nature of the work, it would be better to develop a link given actual partnerships, with an ability to measure strength of the relationship added to the analysis. In order to complete a project of that nature, one would need to conduct either a survey with 100% participation rate or conduct a series of case studies at the country level that can eventually be linked back to a global analysis. Neither of these approaches is desirable given the fluidity of the sector, but modeling exact connections would be desired to a proxy approach.

Second, I focus on partnerships between and among INGOs. While this is a valuable project, there is also value in expanding to include other partners outlined in the conceptual model in Chapter 2. Information regarding local partnerships and business partnerships would likely aid in understanding the full model of participation and elucidate more on the value of connectivity and social capital in development issues. Regardless of this limitation, the first attempt at modeling connections between INGOs proved to be useful and gives researchers reason to dig deeper into the phenomena of inter-organization collaboration to effect organizational outcomes.

Third, this analysis focused on the food security sector. Given the large variety of sectors represented by INGO work, I would like to see this model applied to other sectors including, human rights or gender-based violence to further test external validity. It would be desirable to replicate this study with another sector to see if the model withstands variation and can be used as a model for all sectors in the INGO collaboration framework. The nature of the work, including the locations, isolation and insecure environment does not change depending on the sector, so there is reason to believe this is a robust model, but until it is tested across sectors, it remains limited in generalizability.

Finally, another limitation to this study is the use of the outcome variable as measured by the organization's reach. Ideally, the outcome variable would be an objective measure of development, either indicators on the global health index

or other local health and nutrition related outcomes, including disease prevalence. This would enable us to make inference that the organizations are not only reaching those in need, as well as evaluate the effectiveness of those activities. It would prove interesting to use this model to test effectiveness and evaluate the use of social capital on sustained health and nutrition changes, modeled longitudinally. Given the limitations in available data, as well as the ability to collect village level data for all communities in the world, the analysis presented here was limited to an objective, but fairly crude outcome of an organization's effectiveness.

In conclusion, there are some limitations of this study and areas for improvement in future research. Although this study was also evaluated at a process level with representatives of the INGOs themselves, it still seems plausible to expand and test the model's robustness across time, other sectors, levels of partnerships, and alternate outcomes.

Direction of Future Research

As mentioned, this study is the first in an attempt to begin building a comprehensive network structure of INGOs and their coordination efforts. There are countless activities and areas for expansion both looking at other areas in the network, as suggested in the limitations of this project, and in the ability to build the concept of both social capital and material capacity for this sector that often works in very insecure, dangerous environments, and often in isolation. As

discussed, the INGO sector faces other human resource challenges, in addition to having the capacity to build social connections. Looking at a few of these organizations more in-depth, like I have done here with Mercy Corps, may help to build a robust theory. There are a few specific ideas that are worth mentioning on the topic of future research ideas: a case study approach, an internal perspective, and an alternative sector model.

Case Study: African Regions

Food security, like many other development issues, hits Africa much harder than other regions of the world. Drought, lack of access to markets, and limited crop varieties make Africa the target of many food insecurity issues. In order to test some of the limitations mentioned above, particularly the actual connections with local partners and businesses, a comprehensive case study of the African regions would be very useful. This project would take much time and resources, and would require external funding. However, a project examining actual links to address poverty issues in one of the hardest hit regions of the world would be a viable research agenda worth pursuing. The case studies would include interviews of local aid workers, attending and observing project meetings, and meeting local partners. A case study project, especially with its limited number of participants, would also make collecting an additional outcome variable more likely.

The leadership pipeline & organizational stressors

INGO leaders, as well as other aid workers operate in environments that are highly stressful. They are at risk for burnout and feelings of disconnect from the organization due to their work in isolation. INGOs across the spectrum have cited problems in human resource shortages and the lack of leaders in the pipeline. In order to better understand these issues and help address the lack of material resources available to address development issues such as food security, we need to investigate some of the internal processes and environments effecting employee's ability to stay engaged, move to positions of leadership and develop the ability to sustain the relationships.

A project examining material capacity issues and well-being of international aid workers would be valuable and is currently not receiving much attention in the academic literature. This project would need a pilot to enable the research questions and process to be better focused and tailored to create changes for the population. However, I see this project as developing an intervention that connects aid works and builds a community structure that assists the isolated staff members in building networks of support, expanding the social capital of the organization to include the social capital of the individual workers that make-up the organization. This in turn, may be the link that assists in better making a case for connections between social capital and organizational outcomes, which may be mediated by internal human resource demands.

Test Hypotheses in Another Sector

As mentioned, I focused on the food security sector, one of over 40 sectors gaining attention in INGO work. While I included all areas with a food security component, including agricultural and health promotion programs, there are other areas in which to expand. However, selection criteria involved food security, which is not the only activity in development. There are many programs in the INGO field that are focused on divergent activities, not related to food security. For example, there are governance programs, conflict initiatives, and women and gender programs. These each represent an alternative sector of INGO work, outside the scope of food security. To further test this model, and make inference about INGO work more globally, it would be important to test these hypotheses and model descriptions looking at other sectors.

Conclusion

This research accomplished much in the quantification of food security resources and the application of social capital to the organizational level. There are, however, still projects that could be completed to further advance this research agenda, including building the social and material capability constructs to include alternate variables and looking for an outcome variable assessing both reach and effectiveness. Nonetheless, I conclude material resources are an important factor in determining an INGO's reach in the food security sector. I

must also concede not all organizations receive the same reward for the promotion of cooperation and partnership. However, social capital does aid organizations in reaching more people, and I still contend, that once alternative relationships are modeled between INGOs and donors, businesses, and local partners, the impact of social capital will increase in the model.

In sum, I advanced the scholarship of INGO work in international relations and organizational literature and provided some new measurement constructs that can be tested across sectors in future research. In conclusion, organizations are in fact social beings and their connections can, under the correct environment, aid in achieving organizational outcomes. I demonstrated how one such organization, Mercy Corps, is using these tools to build collaborative work environments. Future studies are encouraged to model social relations and outcomes related to the interactions of organizations globally.

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Appendix A: IRB Approval

Portland State University HSRRC Memorandum

To: David Kinsella and Mariah Kraner

From: Todd Bodner, Chair, HSRRC 2012

Date: November 29, 2012

Re: Your HSRRC application titled, "Friends or Foes?: Examining Social Capital of International NGOs and Food Security Programs" (HSRRC Proposal #122372)

In accordance with your request, the Human Subjects Research Review Committee has reviewed your proposal referenced above for compliance with DHHS policies and regulations covering the protection of human subjects. The committee is satisfied that your provisions for protecting the rights and welfare of all subjects participating in the research are adequate, and your project is approved.

Please note the following requirements:

Changes to Protocol: Any changes in the proposed study, whether to procedures, survey instruments, consent forms or cover letters, must be outlined and submitted to the Chair of the HSRRC immediately. The proposed changes cannot be implemented before they have been reviewed and approved by the Committee.

Continuing Review: *This approval will expire 11/29/13, one year from the approval date.* It is the investigator's responsibility to ensure that a *Continuing Review Report* (available in RSP) of the status of the project is submitted to the HSRRC approximately two months before the expiration date, and that approval of the study is kept current.

Adverse Reactions: If any adverse reactions occur as a result of this study, you are required to notify the Chair of the HSRRC immediately. If the problem is serious, approval may be withdrawn pending an investigation by the Committee.

Completion of Study: Please notify the Chair of the Human Subjects Research Review Committee (campus mail code ORSP) as soon as your research has been completed. Study records, including protocols and signed consent forms for each participant, must be kept by the investigator in a secure location for three years following completion of the study.

If you have questions or concerns, please contact the HSRRC in the Office of Research and Strategic Partnerships, Market Center Building, Suite 620, 1600 SW Fourth Ave, Portland OR 97207 (503)725-2243.

cc: Andrea Haack

Appendix B: Interview Consent Form

Consent Form

You are invited to participate in a study conducted by Dr. David Kinsella and his doctoral student Mariah Kraner, ABD at Portland State University. They are studying the social and financial resources international non-governmental organizations (INGO) use to conduct food security programs. Food security and technical support managers in the area of food security working at INGOs are invited to participate in the study.

If you decide to participate, we ask that you complete a one hour interview with the researcher to answer questions about your organization's network and food security programs. The interview will take place at your place of work and during your scheduled work hours, either in person or over the phone, which ever is more convenient for you. With your permission, the interview will be recorded. The audio files will be password protected and stored for 5 years to protect the fidelity of the interview transcripts.

Frequently Asked Questions

How will my privacy be protected?

We will protect your privacy in the following ways:

1. Your name or other protected information will not be used in any published documents.
2. Only research personnel associated with the study will be able to access your information and these individuals will keep your information confidential.
3. The code key, linking your name to your participant code and study data will be stored in a locked and password-protected computer file, with access limited only to investigators.

What are the risks and discomforts?

There may be personal discomfort when answering questions about your organization. You may refuse to answer any of the questions or stop the interview at anytime. There is also a potential risk of embarrassment for organizations from a participant's comments. Participants also have a minimal risk that their personal viewpoints about an organization may be subject to employment repercussions. You can choose to keep your identity confidential as a potential safeguard against this risk.

There are limited numbers of participants in this study. Therefore, top leaders and employers may potentially identify the sources of statements/information, particularly when participants provide anecdotes or specific examples. You should keep this risk in mind when agreeing to participate in this study. Every effort will be made on the part of the researchers to protect the identity of interviewees. As a potential safeguard, organizational names and employee names will not be included in any reports for this research project. In addition, you will be sent a copy of the interview questions ahead of time so that you can judge your comfort with the interview material and think about what information you feel comfortable sharing, giving the potential risks stated above.

What are the benefits?

You may or may not personally benefit from being in this study. However, by serving as a subject, you may help us learn how to benefit others in the future.

What are my alternatives?

You may choose not to be in this study. You can choose not to answer interview questions or ask to have information withheld from the transcript.

Confidentiality and privacy of your protected health information:

We will not use your name or your identity for publication or publicity purposes. If you sign this form, you are agreeing that PSU may use and publish the de-identified information collected and created in this research study.

You have the right to revoke this authorization and can withdraw your permission for us to use your information for this research by sending a written request to the Investigator listed at the bottom of the research consent form. If you do send a letter to the Principal Investigator, the use and disclosure of your information will stop as of the date he receives your request. However, the Principal Investigator is allowed to use and disclose information collected before the date of the letter or collected in good faith before your letter arrives.

The information about you that is used or disclosed in this study may be re-disclosed and no longer protected under federal law.

Costs:

There will be no direct cost to you for participating in the study.

Liability:

If you have concerns or questions about your participation in this study or your rights as a research subject, please contact the Human Subjects Research Review

Committee, Research + Strategic Partnerships (RSP), PO Box 751, Portland, OR 97207, (503) 725-4288 / 1-877-480-4400, or via email at HSRRC (hsrrc@pdx.edu). If you have questions about the study itself, please contact Mariah Kraner at (503) 550-0983, mariahk@pdx.edu.

Participation:

You do not have to join this or any research study. If you do join, and later change your mind, you may quit at any time. If you refuse to join or withdraw early from the study, there will be no penalty or loss of any benefits to which you are otherwise entitled.

You may refuse to sign this consent and authorization form.

You will be given a copy of this consent form for your records.

Your responses are completely confidential and will not be linked to you in any way. No information on any individual or organization will be provided to management.

Signatures:

Your signature below indicates that you have read this entire form and that you agree to be in this study.

<i>(Participant' s name</i>	<i>(Participant's signature)</i>	<i>(Date)</i>
<i>(Name of person obtaining consent)</i>	<i>(Signature of person obtaining consent)</i>	<i>(Date)</i>

Appendix C: List of Interview Questions

Interview Questions

Overview: This semi-structured interview script is designed for a *45 minute to 1-hour interview* with senior food security or strategic planning staff at large International Non-Governmental Organizations (INGOs). These questions will be asked after a cursory social network analysis has been completed, aiding the discussion to understand the theoretic foundations of organizational cooperation, given the social and material structure.

Questions:

1. Understanding that your organization has to make tradeoffs when focusing resources to expand reach, would you say that more effort is directed to building relationships with partners in the field or on enhancing internal capacity and fundraising?
2. Here is a global overview of the actual connections INGOs have related to food security. What reasons would you give for this social structure and resource allocation?
3. Why do social relationships have more of an impact on your organization's reach? What about material resources ?
4. When you choose to partner with other organizations, what are the reasons to make such a decision? Are there criteria your organization establishes when choosing to work with another organization in the field?
5. When it comes to choosing food security programs, would you say that your organization has the resources and liberty to develop programs that are based on beneficiary need? Why or why not?

Appendix D: Invitation to Interview

Invitation to Participate in Interview

Greetings _____,

You are receiving this message because of your work in the food security programs at (insert organization). I am a doctoral student at Portland State University in the Public Affairs and Policy program. Dr. David Kinsella and I are studying the global reach of food security programs at International Non-Governmental Organizations (INGOs). We are looking at how both social and financial resources assist organizations in achieving their missions related to food security. In order to better understand the nature of the work and our preliminary results, I would like to schedule a one-hour interview with you. We can conduct it in person or over the phone, which ever is more convenient for you. If you decide to participate, I will send you a consent form, the interview questions and a copy of my dissertation overview to better orient you to the project. If you'd like to participate, please send me an email at mariahk@pdx.edu and I'll schedule a time that is convenient for you.

Thank you in advance for taking the time to consider assisting in this research project and for helping me complete my dissertation project.

Kind regards,

Mariah Kraner, MA, ABD
Research Associate/Project Manager
Oregon Healthy Workforce Center

Appendix E: IRB Application

Human Subject Research Review Committee
Research and Strategic Partnerships
Portland State University



Kraner IRB Application November 2012

I. Investigator's Assurance

Attached.

II. Project Title & Prospectus

Friends or Foes?:

Examining Social Capital of International NGOs and Food Security Programs

There are one billion hungry people in the world, 90 percent of whom are chronically hungry and malnourished. International Non-Governmental Organizations (INGOs), such as OXFAM, Save the Children, Mercy Corps and Catholic Relief Services, currently provide an avenue for reaching the world's "bottom billion"¹ – those suffering from severe poverty, malnutrition and insecurity. These organizations are pivotal in enabling a global response to stomp out hunger, provide access to clean water and administer vaccines for deadly diseases. The ability of INGOs to respond to global emergencies, including growing food insecurity, in any meaningful manner is directly related to the resources they are able to secure in relation to their missions. Yet their ability to respond is constantly in jeopardy because these organizations, many of them working in isolation, lack organizational capacity. An INGO's effectiveness in targeting time and money to developing relations is tied to its ability to build organizational capacity, drawing on both internal and external resources. This dissertation will examine INGOs from a structural and social standpoint to answer the following research questions:

1. *Considering both internal and external organizational resources and pressures, what factors best predict an international non-governmental organization's reach in the food security network?*
2. *To what extent does an organization's social capital predict its humanitarian reach?*

An INGO's capacity to serve its constituency is dependent on its internal organizational resources, including its financial and human capital. It is dependent on external resources as well, such as its relationships with other actors engaged in the same and related relief activities. However, the interplay between the internal and external capacities of INGOs to carry out their humanitarian missions is understudied in social science literature.

III. Type of Review

We would like to request an **expedited review** of this proposal. There is minimal risk to participating in this research project.

¹ Paul Collier coined the term "bottom billion" in his 2007 book.

Appendix F: Rank Order- Centrality

INGO	Eigenvector
1. Heifer International	0.37
2. World Vision US, Inc.	0.362
3. Catholic Relief Services	0.355
4. The Hunger Project	0.315
5. World Concern	0.314
6. Action Against Hunger	0.31
7. Life for Relief and Development	0.303
8. Lutheran World Relief	0.303
9. Episcopal Relief & Development	0.277
10. Food for the Hungry	0.277
11. Concern Worldwide	0.267
12. Counterpart International	0.267
13. Mercy Corps	0.264
14. Church World Service	0.261
15. Helen Keller International	0.236
16. ACDI/VOCA	0.235
17. Adventist Development and Relief Agency	0.235
18. CARE	0.23
19. Christian Reformed World Relief Committee	0.222
20. Save the Children	0.222
21. International Medical Corps	0.221
22. Plant With Purpose	0.216
23. Africare	0.215
24. World Hope International	0.212
25. Pact	0.191
26. United Methodist Committee on Relief	0.185
27. World Neighbors	0.184
28. World Relief	0.184
29. Women for Women International	0.183
30. American Jewish World Service	0.181
31. Trickle Up	0.174
32. Freedom from Hunger	0.17
33. Operation Blessing International	0.162
34. International Rescue Committee	0.105
35. African Medical and Research Foundation	0.076
36. PATH	0.073

37. Planet Aid	0.07
38. Mercy-USA for Aid and Development	0.05
39. Relief International	0.046
40. Winrock International	0.035
41. American Red Cross	0
42. Ananda Marga Universal Relief Team	0
43. Baptist World Alliance / Baptist World Aid	0
44. CHF	0
45. Food for the Poor	0
46. International Relief & Development	0
47. Islamic Relief USA	0
48. MAP International	0
49. Meds & Food for Kids	0
50. OXFAM America	0
51. Stop Hunger Now	0

Appendix G: Rank Order- Reach

INGO	tot_reached
1. World Vision US, Inc.	48090762
2. Helen Keller International	24448304
3. Catholic Relief Services	22191797
4. Pact	5001402
5. Save the Children	4693692
6. Mercy Corps	4258849
7. Freedom from Hunger	3281665
8. Action Against Hunger	3094032
9. The Hunger Project	2816006
10. Counterpart International	2697663
11. American Red Cross	2265000
12. African Medical and Research Foundation	1852001
13. Baptist World Alliance / Baptist World Aid	1799305
14. Meds & Food for Kids	1707588
15. Africare	1601209
16. Food for the Hungry	1311288
17. CARE	1114973
18. Winrock International	921510
19. International Medical Corps	670388
20. Food for the Poor	542039
21. ACDI/VOCA	524000
22. Islamic Relief USA	452000
23. World Concern	386542
24. Lutheran World Relief	344726
25. Mercy-USA for Aid and Development	338457
26. Church World Service	280544
27. Episcopal Relief & Development	279127
28. United Methodist Committee on Relief	279119
29. PATH	265000
30. Concern Worldwide	239640
31. Relief International	174931
32. Christian Reformed World Relief Committee	144468
33. Adventist Development and Relief Agency	142892
34. International Rescue Committee	135509

35. World Hope International	124800
36. Heifer International	124231
37. World Neighbors	88594
38. CHF	70000
39. International Relief & Development	50000
40. American Jewish World Service	47580
41. OXFAM America	33350
42. Life for Relief and Development	33025
43. MAP International	29100
44. Stop Hunger Now	26959
45. World Relief	15250
46. Trickle Up	12910
47. Women for Women International	12000
48. Planet Aid	6000
49. Plant With Purpose	5800
50. Operation Blessing International	4500
51. Ananda Marga Universal Relief Team	2700

Appendix H: Rank Order- Revenue

INGO	Revenue
1. American Red Cross	3587775430
2. Food for the Poor	1514086411
3. World Vision US, Inc.	1508088782
4. Catholic Relief Services	918950000
5. CARE	611013453
6. Operation Blessing International	473062348
7. Save the Children	445564956
8. International Rescue Committee	397873717
9. Relief International	338439221
10. PATH	264120854
11. Mercy Corps	244942281
12. MAP International	209454380
13. Pact	190764968
14. Islamic Relief USA	147310283
15. CHF	139076747
16. ACDI/VOCA	138356769
17. International Medical Corps	131132443
18. Heifer International	118297299
19. Helen Keller International	94627525
20. Food for the Hungry	87417777
21. Counterpart International	87171456
22. OXFAM America	84865882
23. Church World Service	82412807
24. Adventist Development and Relief Agency	74728346
25. Winrock International	58766249
26. American Jewish World Service	57979919
27. World Relief	56683191
28. International Relief & Development	56661360
29. Action Against Hunger	50300597
30. Lutheran World Relief	41988503
31. Planet Aid	36360283
32. Concern Worldwide	32009344
33. World Concern	32009344
34. Women for Women International	31197464
35. Life for Relief and Development	29630156
36. Christian Reformed World Relief Committee	16238289

37. Episcopal Relief & Development	16134462
38. World Hope International	14236514
39. The Hunger Project	11804326
40. United Methodist Committee on Relief	10925358
41. Freedom from Hunger	7436071
42. African Medical and Research Foundation	7094000
43. Stop Hunger Now	6804737
44. Africare	6168946
45. Mercy-USA for Aid and Development	6156289
46. Baptist World Alliance / Baptist World Aid	5503587
47. World Neighbors	5107695
48. Trickle Up	3997360
49. Meds & Food for Kids	2464359
50. Plant With Purpose	703127
51. Ananda Marga Universal Relief Team	360928