

Table of Contents

Abstract.....	2
Chapter I: Introduction.....	3
A Brief History of Scavenging	6
Modern Theoretical Frameworks of Scavenging.....	14
Scavenger Obstacles	19
External Considerations	26
Developing Country Waste Management	32
Chapter Conclusions	36
Chapter II: Theories of Self-Management	37
Self-Management by the Poor	37
Perspectives on Scavenger Cooperatives.....	42
Impact of Cooperatives in the Developing World	46
Chapter Conclusions	51
Chapter III: Scavenger Cooperatives within Asia.....	52
Scavenging in The Philippines.....	53
Other Waste Cooperatives in Asia.....	63
Chapter Conclusions	66
Chapter IV: The Recycling Cooperative of Bariloche, Argentina	69
Pre-Cooperative Formation Realities and Context	70
Formation of the Recyclers' Association of Bariloche	76
Post-Cooperative Formation Realities	80
Government Interactions.....	85
Chapter Conclusions	88
Chapter V: Scavenger Cooperatives & Social Movements of Colombia and Brazil	91
Scavenging in Colombia	92
Government Interactions in Colombia.....	102
Brazil.....	105
Chapter Conclusions	109
Chapter VI: Conclusion	117
Appendix.....	122
Bibliography	127

Abstract

The discarding of an object implicitly communicates that it no longer has sufficient value for the owner to justify its retention. However, for nearly 1% of the world's population, that same object can have immense worth and potential. Common throughout the developing world, informal garbage scavengers are unrecognized agents of recycling. Through dangerous and laborious work, scavengers search for cardboard, plastics, metals, and other recyclables in garbage dumps, and on city streets. Both society and the intermediaries who purchase their recovered materials exploit and marginalize them. However, in spite of these circumstances, the economic and societal value of their work offers them opportunities for socioeconomic advancement.

Building off theoretical assumptions that scavenging is inevitable, and that self-organization can reduce poverty, this paper examines the impact of cooperatives on scavengers' socioeconomic and political status. The methodology for this research entails primary research conducted on a cooperative formed by former scavengers in Bariloche, Argentina. It also utilizes other case studies of scavengers and scavenger cooperatives throughout Latin America (focusing on Colombia and Brazil) and in Asia (focusing on the Philippines).

Analysis of the available scholarship suggests that cooperatives can significantly influence scavenger income levels and political representation. External actors, such as businesses and nonprofits, are essential, not only in promoting cooperative formation, but by providing support throughout a cooperative's existence. Finally, scavenger social movements can encourage national legislation that supports and encourages scavenging co-ops, as well as increase the economic and "social value" power of scavenger cooperatives. Utilizing these analyses, this work then concludes with a discussion of the viability and efficacy of different strategies.

Chapter I: Introduction

“Man is made for something better than disturbing dirt,” asserted Oscar Wilde in “The Soul of Man under Socialism.”¹ His incredulity that little dignity is possible when working with waste underpins this statement. At first impression, the experiences of garbage scavengers within the developing world appear to confirm Wilde’s position. Differing from “formal” sanitation workers, these garbage scavengers, or waste pickers,² scour streets and garbage dumps for materials that they can recover and then sell for profit. They society and governments often explicitly discriminate against waste pickers, who must also confront steep economic obstacles, and constant threats of injury and disease. However, a deeper investigation reveals that there is great potential to increase both the dignity of their work, as well as their socioeconomic status. My research’s primary goal is to determine what strategies can promote these positive characteristics. While there are many potential avenues of success for scavengers, I examine the effects of scavenger-based cooperative organization creation.

I begin with a consideration of the theoretical background and ramifications of waste. While scavengers can potentially obfuscate the line between waste and non-waste, they can also provide significant alleviation to concerns associated with waste. I next

¹ Oscar Wilde, *The Soul of Man Under Socialism* (Forgotten Books, 2008), 17.

² These terms are interchangeable in this thesis. Nomenclature for scavengers throughout the world is generally colloquial with negative connotations. While both “scavenger” and “waste picker” in some cases have negative connotations, they are the least polarizing, and most accurate. When this paper uses alternative words, I will include its literal English translation, as well as its context.

highlight some important historical consistencies of scavenging patterns. This framework, along with theoretical viewpoints of waste pickers, provides a point of reference for the case studies I examine. I also discuss and analyze the most significant obstacles that garbage scavengers throughout the global south confront, including, but not limited to issues of health, work security, economic exploitation, and societal marginalization. To provide additional context, I also describe common realities of developing country waste management systems. The scavenger cooperative case studies that I examine in this paper are mainly from Asia and Latin America. Some information and conclusions are similar in all the chapters, but each section has a different emphasis. The importance of nonprofits in the rise of and support of nonprofit organizations is the focus of the Asian case study chapter. The next chapter, concentrating on first hand research conducted in a scavenger cooperative in Argentina, examines scavenger cooperatives' immediate impact upon the lives of their members. Finally, scavenger social movements and large-scale organization is the topic of the last chapter. Analysis of these case studies provides a framework of strategies that can be successful in promoting increased scavenger autonomy.

What is Waste?

Waste pickers survive through waste collection, but what is waste? Definitions of waste vary—as Susan Strasser states in *Waste and Want: A Social History of Trash*,

“what counts as trash depends on who’s counting.”³ Therefore, I will use the broad definition of waste “as something that someone has discarded.”⁴

Waste has significant anthropological ramifications; Mikael Drackner’s analysis of this suggests that there are five key societal considerations with regards to waste.⁵ First, waste is a risk, as it represents the introduction of potential pathogens. Second, waste is a social contagion, in that “dirty” areas represent “dirty” people. The label of a “dirty” person can hold significant connotations of squalor, crime, and other undesirable human qualities—thus the undesirability of unclean communities. As a part of this reasoning, and third, is the idea that waste belongs in filthy places—it should be “out of sight, out of mind.” Fourth, as further examined below, waste can be an asset. Fifth, and potentially the most important, waste is “someone else’s problem.” While this attitude presents few problems in the developed world, where solid waste management systems are in general highly efficient, this attitude creates a conundrum in the developing world, where waste management inefficiencies make waste *everyone’s* problem. Finally, attitudes towards “filth” are an important factor in society’s perception of waste picker’s activities.

Author’s Note

I use a collection of both English and Spanish sources within this paper. However, language barriers have prevented the use of many sources not in either of those two languages. In some cases I have used English translations, or citations of these sources,

³ Susan Strasser, *Waste and Want: A Social History of Trash*, 1st ed., (Holt Paperbacks, 2000), 1.

⁴ Mikael Drackner, "What is Waste? To Whom? - an Anthropological Perspective on Garbage," *Waste Management & Research* 23, no. 3 (June 1, 2005), 175.

⁵ *ibid.*

which, I believe, has been successful. However, in the Brazil section I fail to utilize many sources due to lack of Portuguese knowledge. Additionally, I believe that the overwhelmingly English-centric nature of the scholarship is potentially harmful to non-English speaking organizations that attempt to assist scavengers. As I may lack key information, these organizations would almost certainly lack information. Therefore, efforts to translate conclusions on successful scavenger strategies could prove very useful to waste pickers.

A Brief History of Scavenging

Garbage scavenging, or “waste picking,” is as much of a human activity as consumption. As quoted above, “what counts as trash depends on who’s counting.” While waste’s second hand status usage may explicitly reduce its value, the benefits outweigh the costs of recuperation and reuse of a “used” material. For example, the recycling and reuse of aluminum cans (the most scavenged resource in the world) requires only 5 percent of the energy that one would need to produce aluminum from virgin (unexploited) materials.⁶ Scavengers provide the link between a discarded object and its transformation into an object of increased value, in that after recovering recyclable materials they then sell those materials to intermediaries, who in turn sell those materials in bulk to industries. Scavengers, therefore, are “mediators in the relationship between societies and their environments.”⁷ It is no surprise, therefore, that there are instances of garbage scavenging in nearly every society. This section will briefly describe some of the historical

⁶ Martin Medina, "Border Scavenging: A Case Study of Aluminum Recycling in Laredo, TX and Nuevo Laredo, Mexico," *Resources, Conservation and Recycling* 23, no. 3 (8, 1998), 120.

⁷ Martin Medina, *The World's Scavengers: Salvaging for Sustainable Consumption and Production* (Lanham: AltaMira Press, 2007), 273.

occurrences of scavengers, as well as contextualize the scavenger case studies of this paper within the greater historical context.

In the last thirty years, the amount of research on general scavenger activities has rapidly increased. Increased scholarly attention to poverty throughout the developing world, combined with the demographic changes of rapid urbanization in these countries, has increased scholarly exposure to scavenging patterns. One of the leading scholars that has contextualized modern waste pickers within the greater historical context is Martin Medina, a scholar who has written many publications on scavengers and scavenging patterns. Through his and other scholars' historical descriptions, further described below, my analysis will reveal several key, relevant realities. First, scavenger activities are omnipresent throughout history: despite humans' instinctual distaste of dirt and waste, there have always been humans that utilize waste to increase their socioeconomic standing—the scavengers of this paper are modern examples of this drive. Second, scavengers have had highly varied social standings, depending on the society and time period. In some instances, the majority of the society has engaged in some sort of waste picking, while in others only a small sub group scavenged, such as in India where only “untouchables” worked with waste. Therefore, scavenger stats can vary significantly, and often depend on cultural and religious factors. Third, and finally, while some scavengers may have marginalized scavengers, it is only in the last century that significant societal and institutional opposition has arisen to scavenger activities. This section mainly focuses on the actions of scavenging in pre-history, Europe, and the United States, as they were developing.

Scavenging in Prehistoric Times

Recent research suggests that scavenging was a significant, if not the most significant, source of food for the early *Homo sapiens* in Africa.⁸ The actions of these early scavengers interestingly mirror obstacles and attributes of modern-day scavengers. First, those humans who scavenged were able to survive in times of extreme duress. The dry season of Africa would have made live game more difficult to find, but animals dead from starvation would have been more common. Through scavenging of their carcasses, these early humans could glean high amounts of energy, as opposed to foraging for plants.⁹ Like modern-day scavengers who exchange their recovered goods for money, this recovered meat supported these prehistoric scavengers. Second, while scavenging allowed consumption of significant amounts of meat, it may have been nutritionally unsound, as dead animals would likely have been too lean to provide enough fat for scavengers' diets.¹⁰ Third, solitary scavenging was likely often more feasible than group scavenging, if dead animals were small, but when large amounts of meat was available, they likely cooperated in foraging, in order to maximize the amount of meat that could be saved and stored.¹¹ While connections between these early scavenger characteristics and modern-day scavengers have not been made before, one may find it interesting to note the continued existence of these main traits of scavenging—potential for high rewards, possibly damaging to health, and a mix of solitary and cooperative behavior—in the case studies of this paper.

⁸ R. J. Blumenshine and J. A. Cavallo, "Scavenging and Human Evolution," *Scientific American* 267, no. 4 (Oct, 1992), 90.

⁹ *ibid.*

¹⁰ *ibid.*, 94.

¹¹ *ibid.*, 95.

Scavenging in Antiquity

As early cultures began to rise, scavenging spread from food scavenging to recovery of resources. Furthermore, class began to be more of an explicit factor in dictating who were the waste pickers in society. Transitioning from a nearly universal act, scavenging increasingly became the occupation of the indigent. Not only scavenging for food, their needs sometimes resulted in grave robbing.¹² By engaging in this universally taboo act—robbing from the dead—one can begin to see a clear difference between the culturally acceptable scavenging in prehistoric times, and the subsequent stigma of scavenging as an uncivilized activity.

Furthermore, religious views towards waste were, and still are, important in shaping attitudes towards waste and those that work within waste. The Law of Moses established the importance of removing waste from one's vicinity, so that "... (The Lord) will not see among you anything indecent and turn away from you."¹³ Other religions share this association of "indecent" and "unholiness" with waste, including Islam¹⁴ and Hinduism.¹⁵ These cultural and religious stigmas, combined with the inherent uncleanliness associated with garbage, are a significant historical contributor to the modern association of scavengers with filth and undesirability

¹² Medina, *The World's Scavengers*, 19.

¹³ Deuteronomy 23:12, New International Version.

¹⁴ Only 4 percent of the Zabbaleen are Muslim. Via Susanna Myllayla, "NGOs in Urban Environmental Governance: Waste Recycling in Cairo," in *Associational Life in African Cities: Popular Responses to the Urban Crisis*, ed. Arne Tostensen, Inge Tvedten, and Mariken Vaa (Uppsala: Nordiska Afrikainstitutet, 2001), 198-217.

¹⁵ The former *untouchables*, or *dalit*, are ostracized due to their association with waste.

While this stigma often resulted in laws that forced scavenging activity to the outskirts of town such as Athens,¹⁶ *casual* scavenging was rampant and even encouraged. Just as modern society would not consider an ordinary citizen who returned cans to a grocery store a “garbage scavenger” *per se*, neither were Roman peddlers who sold scavenged goods. Several examples exemplify this double standard. In Ancient Rome, society increasingly saw those relegated to the *occupation* of waste collection and separation (such as those that recovered human excrement for fertilizer) as crude and dirty.¹⁷ On the other hand, those that engaged in equally unclean behavior, such as urine collection for the purpose of dyeing clothes, or those who recovered organic waste to sell to pig farmers, escaped this negative association, and were sometimes even taxed as respected businesspersons.¹⁸

Scavenging in the Middle Ages & Colonial Eras

Just as respectable newspapers today provide significant income to scavengers who recycle print, scavengers the past fed the papermaking industry’s hunger for materials. China began to significantly increase its utilization of papermaking techniques by 300 BCE, and this technique eventually spread to the Islamic World. With the invasion of the Moors of Spain in the 8th century A.D., papermaking began to spread throughout Europe.¹⁹ This early papermaking required significant amounts of highly fibrous materials, such as hemp, cotton, and linen (plentiful in ropes, fishing nets, and

¹⁶ J. Donald Hughes, *Pan's Travail: Environmental Problems of the Ancient Greeks and Romans* (The Johns Hopkins University Press, 1996), 288.

¹⁷ *ibid.*

¹⁸ *ibid.*; Medina, *The World's Scavengers*, 23.

¹⁹ Jonathan Bloom, *Paper before Print: The History and Impact of Paper in the Islamic World*. (New Haven: Yale University Press, 2001), 320.

clothes) were popular choices. However, these fabrics were not particularly plentiful, and societies rarely used them primarily for paper production. Therefore, the majority of papermaking that occurred relied on these pre-used, postconsumer materials.²⁰

Society *required* these “ragpickers”²¹ (as they became known) from the twelfth century until the eighteenth century, when more advanced papermaking techniques using tree pulp became common. While society often saw these ragpickers searching through trash for used clothes, or other fibrous materials, no one condemned this “unclean” work. Instead, governments, especially the Spanish monarchy, explicitly endorsed them. Spanish rulers explicitly banned the export of “rags” from Spain, and even supported the ragpicking of a single individual, Juan Otonel.²² Equally, the Spanish government even exempted ragpickers from taxes in the Spanish colonies, in the hopes of stimulating the collection of more paper making material.²³ Therefore, when conditions make specific materials increasingly scarce—as occurred in this case—attitudes can change, and previously marginalized activities become more socially acceptable.²⁴ Importantly, as this paper discusses in depth below, one of modern waste pickers’ core goals is societal recognition and support of their activities.

Therefore, cultural and economic interests are essential in the formation of stances towards those who work with trash. Rather than existing on a single-tier hierarchy, those in the waste occupation exist on multiple levels: those engaged in the most “socially acceptable” actions are on the highest rung, while those without the benefit of positive

²⁰ Medina, *The World's Scavengers*, 24.

²¹ The promulgation of the term “ragpicker” during this time is likely the direct ancestor of “waste picker.”

²² Medina, *The World's Scavengers*, 24; Oriol Valls, *The History of Paper in Spain* (Madrid: Empresa Nacional de Celulosas, 1978).

²³ Medina, *The World's Scavengers*, 24

²⁴ Valls.

association can be objects of significant disdain. To put it differently, that which is “revolting and uncivilized” can rapidly change, due to supply, demand, and governmental policies, to the respected and essential. For the scavengers in this paper’s case studies, changing societal attitudes towards their actions can be a significant boon to their monetary, governmental, and community support.

Scavenging During the Industrial Revolution

The final relevant, important historical trend to this study occurred at the beginning of the twentieth/nineteenth century. Before this time, there had come to be significant amounts of habitual scavenging practiced by members of all social groups. While some of this scavenging continued to be ragpicking, the increase of industry within America introduced a new type of scavenging: scavenging to support the new, burgeoning industries of the Industrial Revolution. The peddlers who sold to these businesses provided significant amounts of raw, reusable materials for the growing American industry.²⁵ For example, several advertisements in a newspaper in the late-1800’s advertised local businessmen willing to exchange their wares for “empty bottles” or “hogs bristles, tallow, and horse hair.”²⁶ While bartering was common at this time in Colonial America, especially due to varying forms of currency between colonies and states, it was not the exchange of two, relatively virgin materials. Instead, a significant portion of the population could easily have construed many of materials exchanged on these large scales as waste.

²⁵ J. R. Dolan, *The Yankee Peddlers of Early America: An Affectionate History of Life and Commerce in the Developing Colonies and the Young Republic* (New York: Clarkson N. Potter, Inc, 1964).

²⁶ Medina, *The World's Scavengers*, 29.

The thirst of the Industrial Revolution for resources, as well as the increasing amount of manufactured materials and containers, were important factors in this increase of habitual scavenging: recovered materials helped satiate these demands. However, as industrialization and urbanization rapidly spread, questions of both efficiency and sanitation concerning scavenging grew. While scavenging clearly promoted more efficient use of the available resources, there were significant risks associated with scavenging, both in the lack of sterility of the recycled goods, along with the public health risks that these habitual scavengers presented. Additionally, conservation was not a significant consideration—many people could not see the point of reuse when resources were so plentiful. This was a pivotal point of argument between those that supported resource efficiency and those that advocated sanitation:

Sanitary engineers eventually won the debate; public policy shifted and gave the highest priority to the speedy removal and disposal of waste.... Virgin material was more homogenous than recyclable materials recovered from waste, thus preferred by industry.²⁷

This was perhaps the most radical shift in policies towards scavenging. Because of this shift in policy in the industrialized nations, there was a marked decrease in recycling for industrial inputs, continuing until the mid-20th century. Without even tacit support for the recycling activities that they engaged in, scavengers became even more associated with “dirty” and the “lowest of the low.”

Pre-Twentieth Century Scavenging in the Global South

Historical records of scavengers in non-Western countries are significantly less common. In large part, their scavenger activities likely emphasized the recovery of

²⁷ *ibid.*, 42

materials for personal rather than retail use, and the recovery of manure for fertilizer. This lack of information about scavengers in the literature is likely due to scholarly bias in favor of analyzing scavenger activities within the Western world. However, the analysis of the information available about scavengers in the now-developed world suggests that in the absence of significant hunger or food shortages, industrial needs for raw materials largely fuel large-scale scavenging activities.

However, with modern industry in the developing world, the option of reconstituting postconsumer waste becomes a highly viable option. Therefore, the following examples of scavenging within the developing world offer an interesting mix of both past trends, combined with modern realities of industry and globalism. At the same time that countries and municipalities are struggling to contend with the realities of garbage scavengers, who are supporting growing industries, they are at the same time actors in a highly globalized and technologically advanced world. Therefore, specific government and scavenger actions of the past are in many ways unable to address modern concerns—they can be used as points of reference, but are ultimately likely to be unsuccessful in providing strategic plans for scavenger's success.

Modern Theoretical Frameworks of Scavenging

The academic outlook towards the future of scavengers has evolved significantly. The first view, espoused by Chris Birkbeck in 1978, resulted from Birkbeck's interviews with paper scavengers in Cali, Colombia.²⁸ Through his research, Birkbeck concluded that scavengers were "self-employed proletarians," "industrial outworkers," and without "a

²⁸ Chris Birkbeck, "Self-Employed Proletarians in an Informal Factory: The Case of Cali's Garbage Dump," *World Development* 6, no. 9-10 (10, 1978).

degree of trust sufficient to induce (them) to pool resources and work together.”²⁹ Birkbeck viewed scavenging as a temporary reality, and that any efforts made to improve scavengers’ well-being should primarily attempt to improve short-term income levels. He believed that the best option is the creation of an organization that would negotiate with intermediaries and the government on behalf of the individualistic scavengers.³⁰ This is the extent of Birkbeck’s change, as these “proletarians” are “locked into the lower end of capitalism, where the system is at its most brutal and divisive.”³¹ Birkbeck ultimately considered waste picker socioeconomic changes unlikely, as he believed that scavengers’ position at the bottom rung of society prevented them from improving their socioeconomic status in the absence of a complete societal overhaul.

In 1991, Daniel Sicular examined groups of scavengers within Indonesian cities.³² Sicular considered Birkbeck’s model of “self-employed proletarians” as an “absurdity,” given that proletarians are inherently employees of capitalistic systems, and, therefore, cannot be “self-employed.”³³ Instead, Sicular suggested that garbage scavengers are not members of the same capitalist system in which waste management and industry exist. Rather, waste pickers are peasants that are part of a subculture—a “hunter-gatherer” society. Sicular suggests that these scavengers are a form of “precapitalist” society. Increased capital investment can help in the short term, but eventually scavengers will come into competition with established waste management and industrial capitalistic

²⁹ *ibid.*, 1184

³⁰ *ibid.*, 1185

³¹ *ibid.*, 1185

³² Daniel T. Sicular, “Pockets of Peasants in Indonesian Cities: The Case of Scavengers,” *World Development* 19, no. 2-3 (3, 1991).

³³ *ibid.*, 140

institutions.³⁴ This sudden contact with these capitalistic sectors, for Sicular, will then lead to a reduction in the number of scavengers, as well as more exploitation towards the remaining scavengers. This may result in jobs for former scavengers in these established, formal sectors, but new migrants would rapidly take their place. Therefore, Sicular sees scavenging as an inevitable and perpetual reality. Attempts to improve scavengers' livelihoods would fail to either transform the hierarchical system or guarantee an improvement in livelihood.³⁵

However, neither of these views successfully represents the grand scope of garbage scavengers. While Sicular's critique of Birkbeck successfully points out his inconsistencies, Sicular's view of scavengers as a precapitalist society does not adequately embody the realities of scavenger societies. Multiple case studies show that waste pickers can have significant impact in their interactions with the formal sector. The Egyptian Zabbaleen case perhaps highlights this best.³⁶ Made up of immigrant and members of the Coptic Christian minority, the Zabbaleen community daily collects and processes one-third (3000 tons) of Cairo's garbage; 80% of this waste is then recycled. This recycling success rate is exactly twice the future recycling goal of countries within the European Union.³⁷

³⁴ *ibid.*, 154

³⁵ *ibid.*, 155

³⁶ M. M. Hamed and Y. El Mahgary, "Outline of a National Strategy for Cleaner Production: The Case of Egypt," *Journal of Cleaner Production* 12, no. 4 (5, 2004), 327.; Ragui Assaad and Lili Buj, "La Transformacion Del Sistema De Recoleccion De Basura De El Cairo," *Revista Mexicana De Sociología* 57, no. 1, Orden jurídico y espacio urbano (Jan. - Mar., 1995), 167.; Ragui Assaad, "Formalizing the Informal? the Transformation of Cairo's Refuse Collection System," *Journal of Planning Education and Research* 16, no. 2 (December 1, 1996), 115.; Wael Salah Fahmi and Keith Sutton, "Cairo's Zabaleen Garbage Recyclers: Multi-Nationals' Takeover and State Relocation Plans," *Habitat International* 30, no. 4 (12, 2006), 812.

³⁷ Fahmi & Sutton, 815.

Just as their success highlights their ability to affect Cairo's waste management, their absences in garbage recovery also highlights their impact. A key emphasis of the Zabbaleen was in recovering food wastes. The Zabbaleen then fed this food to pigs, which they then sold to tourist hotels (Egypt is predominantly Muslim).³⁸ However, due to the government's ill-founded "fears"³⁹ about a swine flu epidemic, the government culled the entire pig population of Egypt in 2007. This was a disastrous decision, as the Zabbaleen have since refused to collect organic wastes. As the private companies tasked with handling waste management in Cairo are unable to collect most of the organic wastes generated, organic waste almost immediately began to pile up on the streets of Cairo. The sanitation emergency even deteriorated to the point that one resident commented, "All the pathways are full of trash. When you open up your window to breathe, you find garbage heaps on the ground."⁴⁰ The case studies in this paper will also illustrate the equal influence that waste picker cooperatives can have in waste management and industry.

Martin Medina offers the most recent view of scavengers' relationship with the formal waste management and industrial sectors. Medina's model consists of a simple supply and demand side. The supply side provides the rationale for why scavenging occurs: both chronic poverty (due to underdevelopment) and acute poverty (due to war and economic crises) create incentives for scavenging. The demand side—local industry and waste management—consumes the goods that the scavengers supply. Scavengers'

³⁸ Interestingly, this diversity in feed, resulting from scavenging, may potentially reduce many common pork-borne illnesses. See Robert L. Miller, "Hogs and Hygiene," *The Journal of Egyptian Archaeology* 76 (1990), 125.

³⁹ In reality, the government was likely maneuvering to replace the Zabbaleen with private companies that the government hoped would provide Cairo a better public image.

⁴⁰ Michael Slackman, "Cleaning Cairo, but Taking a Livelihood," *New York Times*, May 24, 2009, 2009.

material focus will generally mirror the demands of the local industry.⁴¹ This relationship between the formal sector and scavengers is in some ways similar to the relationship espoused by Birkbeck. Scavengers sell materials at a lower rate than virgin resources cost, and also provide waste management services either free of charge, or at a reduced rate (in the rare instances of municipalities' co-option of scavenger groups).⁴²

Medina suggests that as long as chronic poverty occurs, scavenging is inevitable. However, as the overall poverty within a country decreases, the level of occupational scavenging decreases—which is why the United States has so few scavengers.⁴³ Additionally, Medina sees scavenging as a response to individual, rather than societal, scarcity. In other words, scavenging (and therefore increased recycling for profit) will occur in response to an individual's desire for increased income, rather than the formal sector's desire for decreased costs.⁴⁴ Any policies towards scavengers with the ultimate goal either of improving scavengers, or in improving scavengers' services in society must be primarily scavenger-oriented. Given the public nature of scavengers, one could focus on primarily improving waste management in developing countries, with improving scavengers' socioeconomic status as a benefit; I instead focus on strategies to improve scavengers' livelihoods, with improvements to solid waste management as a secondary benefit. The following sections primarily, highlight the key areas of problems for scavengers, and, secondarily, developing countries' waste management.

⁴¹ Medina, *The World's Scavengers*, 260.

⁴² *ibid.*, 260.

⁴³ However, scavenging continues to exist in the United States, and it is possible that a serious downturn (such as that of 2008-2009) could result in a large increase of scavenging in the United States. Research into the incidence of scavenging after the downturn could confirm Medina's assertion. See Martin Medina, "Scavenging in America: Back to the Future?" *Resources, Conservation and Recycling* 31, no. 3 (3, 2001), 229.

⁴⁴ Medina, *The World's Scavengers*, 261.

Scavenger Obstacles

Health

There is always danger inherent with work with garbage. Even in developed countries, formal solid waste workers can be 5.6 times more at risk of occupational health injuries than the rest of the work force.⁴⁵ However, waste pickers' constant proximity and lack of protection makes scavenging significantly more dangerous. For example, before the scavengers of Bariloche, Argentina formed a cooperative, they faced significant obstacles in their bids to secure plastics and metals. During the Patagonian winter, when temperatures would fall below -20° F, the municipal dump within which the scavengers worked would fill with snow. Due to the methane heat emitted from the rotting organic waste, this snow would melt into a thick slush. In order to secure recyclable materials (and their livelihoods), these scavengers had to wade through this slush for hours with minimal protective gear.⁴⁶

Along with these general environmental hazards, there are often significant unforeseen chronic and acute medical problems, directly associated with actual scavenging work. As the act of scavenging necessitates a significant degree of sorting—often without knowing what one will find—hand injuries are rampant. In one study of Indian rag pickers, 80% had evidence of hand infections and injuries because of their

⁴⁵ Otto M. Poulsen et al., "Collection of Domestic Waste. Review of Occupational Health Problems and their Possible Causes," *Science of the Total Environment* 170, no. 1-2 (1995), 1.

⁴⁶ Elena Durón, Former CEDHA worker, and current worker at Gente Nueva, Interview by Author, Bariloche, Argentina, 11.23.08.

work.⁴⁷ Furthermore, medical waste (especially syringes) mixed in with general civil waste is common in the developing world, where lack of proper disposal techniques preclude proper medical waste management. Used syringes are especially common in garbage bags, and can easily stab even a cautious waste picker.

Other ailments also afflict waste pickers at a higher rate than others not engaged in scavenging. General malaise, headaches, and nausea are constant reminders of the contamination of scavenging. Other more serious diseases are also more common in waste picker communities. In one study of the scavengers in Mexico City, the life expectancy of scavengers of 35 was nearly half of the overall population's life expectancy of 67 years.⁴⁸ Equally, these risk factors can significantly infant mortality—which among the Zabbaleen population of Port Said, Egypt is several times that of the average rate throughout the rest of the region.⁴⁹ Respiratory problems are common, due to noxious gases, or mold, dust, and endotoxins.⁵⁰ Sometimes, waste pickers can contribute to this problem in their attempts to circumvent laws that prohibit scavenging. For example, in order to scavenge clandestinely at night, waste pickers may burn tires, releasing harmful, toxic gases, in which they must work.⁵¹ Constant uncleanness also creates an ideal breeding ground for contagious diseases like tuberculosis, anthrax, and

⁴⁷ Vinit Sharma, Anuragini Sharma, and Hemant Tiwari, "A Medico-Social Profile of Adolescent Rag Pickers Handling Hospital Wastes," *Journal of Adolescent Health* 17, no. 2 (8, 1995), 66.

⁴⁸ Hector F. Castillo Berthier, *La Sociedad De La Basura. Caciquismo Urbano En La Ciudad De México*, 2nd ed. (Mexico: Universidad Nacional Autónoma de México, 1990), 203.

⁴⁹ Medina, *The World's Scavengers*, 65.

⁵⁰ Jutta Gutberlet and Angela M. Baeder, "Informal Recycling and Occupational Health in Santo André, Brazil." *International Journal of Environmental Health Research* 18, no. 1 (02, 2008), 9.

⁵¹ Michael DiGregorio et al., *Linking Community and Small Enterprise Activities with Urban Waste Management: Hanoi Case Study* (Netherlands: WASTE, 1998), 57.

cholera.⁵² Finally, while scavengers often live on the periphery of society, their work can spread disease to the rest of the population.⁵³

Ultimately, one may reduce scavenger health risks into four distinct categories: mechanical (cuts and trauma from sharp objects); ergonomic (musculoskeletal pains from heavy lifting), chemical (skin and lung infections from hazardous chemicals), biological (exposure to pathogens), and malnourishment.⁵⁴ However, even within these categories, scavenger groups can have highly varied incidences of injury and disease, as some diseases may be more prevalent in certain regions.

These health risks are not easy to remedy. From an academic standpoint, there is a need for more research. While significant amounts of research is available about health risks to formal workers, scholars have devoted less research, comparably, to scavenger health problems.⁵⁵ This is likely due to scavengers' relatively low position in society, as well as the relatively new status of scavenger research. Solving scavenger health problems in specific communities requires dedicated research and information on a case-by-case basis, rather than general summaries (such as this one) or reliance on injury incidence among formal sanitation workers.⁵⁶

Additionally, scavengers themselves need more health outreach information. While many waste pickers are aware of the danger of their work, they sometimes may not know the exact cause of their affliction. In the aforementioned study of Indian waste

⁵² M. Palaypay, "Epidemiological Study of a Scavenger Community in Metro Manila" (1987). Via Medina, *The World's Scavengers*, 273.

⁵³ David C. Wilson, Costas Velis, and Chris Cheeseman, "Role of Informal Sector Recycling in Waste Management in Developing Countries," *Habitat International* 30, no. 4 (12, 2006), 804.

⁵⁴ Gutberlet and Baeder, 11.

⁵⁵ Jutta Gutberlet, *Recovering Resources - Recycling Citizenship: Urban Poverty Reduction in Latin America* (Aldershot, England, Burlington, VT: Ashgate, 2008), 105.

⁵⁶ *ibid.*, 105

pickers, the waste pickers did not know Hepatitis B as a disease, but rather “the Wrath of God.”⁵⁷ Therefore, simple education concerning medical realities is often lacking. Even when aware of the risks, such as in the case of mechanical or chemical risks, waste pickers rarely use safety equipment.⁵⁸ Proper safety equipment is too expensive, wears out quickly, or is overly deleterious to efficient material separation—for example, it is difficult to search quickly and efficiently with cheap, bulky gloves. Clearly, health hazards are not a problem simply cured by massive donations of safety equipment: educational outreach is also important.

Ultimately, however, scavengers that search for materials in garbage dumps should attempt to change their scavenging patterns. While source scavenging presents many of the same risks that dump scavenging entails, the risks are less concentrated in source scavenging. Furthermore, as occurs in several of the case studies examined below, source scavenging can increase the ease of access to recyclable materials through alliances with the community.

Environmental Discrimination

Another important health aspect that confronts waste pickers within the global south revolves their living locations. There is often a complex and intertwined relationship between poverty and garbage. Globally, communities recognize the need for waste storage: populaces just never want waste to be stored near *them*—the “Not in My

⁵⁷ Sharma, Sharma, and Tiwari, 67.

⁵⁸ *ibid.*; H. T. L. Nguyen et al., “Health and Social Needs of Waste Pickers in Vietnam” (Report for Canadian International Development Agency, (2003), 1.

Back Yard” (NIMBY) position.⁵⁹ As a result, those that are least able to voice their opinion, the poor, must often suffer the most in relation to garbage dumps’ location. In other words, garbage dumps are nearly universally (both in developing and developed nations) within or near poorer neighborhoods.⁶⁰ However, there is evidence that suggests that this proximity is not always the result of an external actor. Scavengers often move closer or even *into* garbage dumps in order to recover recyclables more efficiently. As mentioned above, this constant proximity to garbage—even when not scavenging—will obviously have adverse affects on one’s health. While improved transportation to and from garbage dumps can help offset this necessity to relocate near garbage dumps, environmental discrimination is a much larger, universal problem than one that just affects scavengers.

Child Labor

Child labor has a significant presence within the developing world, and child laborers in scavenger communities are in especially precarious positions. Their presence is almost certain in all scavenger communities:⁶¹ nearly 25% of the scavenger population

⁵⁹ Peter Schubeler, "Reports and Reviews: International Report: A Conceptual Framework for Municipal Solid Waste Management in Developing Countries," *Waste Management & Research* 15, no. 4 (August 1, 1997), 437.

⁶⁰ Vicki Been, "What's Fairness Got to do with it? Environmental Justice and the Siting of Locally Undesirable Land Uses," *Cornell Law Review* 78, no. 6 (1993), 1001.

⁶¹ Susan E. Gunn and Zenaida Ostos, "Dilemmas in Tackling Child Labour: The Case of Scavenger Children in the Philippines," *International Labour Review* 131, no. 6 (1992), 629.; Hossam Aziz, *Improving the Livelihood of Child Waste Pickers: Experiences with the 'Zabbaleen' in Cairo, Egypt* (Gouda, The Netherlands: WASTE, 2004), 1.; Medina, *The World's Scavengers*; Benedict Faccinni, *Recycled Rags, Renewed Lives. Education to Fight Exclusion Project. Innovations for Youth no. 3* (Paris, France: United Nations Educational, Scientific, and Cultural Organization, 1999), 1.; Catherine A. Madsen, "Feminizing Waste: Waste-Picking as an Empowerment Opportunity for Women and Children in Impoverished Communities," *Colorado Journal of International Environmental Law & Policy* 17, no. 1 (Winter, 2006), 165.

in Smokey Mountain, The Philippines is children.⁶² Under-developed immune systems are often unable to handle the myriad of disease that waste pickers daily encounter in their work and homes. In terms of work, child labor among scavengers can vary from the merely laborious—walking with parents in the search for recyclables⁶³—to the perilous—dismantling used plastic syringes into their separate materials.⁶⁴

Along with concerns about children's health, opponents of child labor emphasize the inability of such children to receive education. Therefore, most efforts to remedy the prevalence of child labor within scavenging communities often include stipends for families who do not permit their children to work as scavengers, or by creating social centers that directly provide for children and their mothers' needs.⁶⁵ However, in order to work, these programs need continuing monetary support to provide enough incentive to dissuade child labor. Unfortunately, even when scavengers agree to accept subsidies in exchange for disallowing child labor, the local government may not actually pay these subsidies.⁶⁶ Other studies have emphasized providing scavenger children alternative work, thereby still providing them income, but taking them out of constant contact with garbage. These have been successful, but their successes ultimately rely on the specific realities of the child and the community.⁶⁷ Finally, while child labor impedes childhood

⁶² Gunn and Ostos.

⁶³ Assaad and Buj, 170.

⁶⁴ Sally Ethelston, "Gender, Population, Environment," *Middle East Report*, no. 190, Gender, Population, Environment (Sep. - Oct., 1994), 2.

⁶⁵ Medina, *The World's Scavengers*, 226

⁶⁶ Solon Christensen-Szalanski, "Deseos, Promesas y Decisiones: Una Investigación de a Relación entre la Asociación de Recicladores de Bariloche (ARB) y la Municipalidad le Bariloche" (School of International Training Independent Study Project, 2008).

⁶⁷ Gunn and Ostos.

education,⁶⁸ stipends and scholarships do not necessarily lead to children's attendance at school, which suggests that there are other factors heretofore undiscovered.⁶⁹

Marginalization

The key reason that scavengers are generally unable to engage in source scavenging, as well as why many of their other concerns are not widely publicized, is because societal pressures prevent them from work within the public sphere. The historical analysis of scavenging highlighted scavengers' recent near endemic association with "filth." Throughout the developing world, societies also associate scavengers with crime—a related anthropological bias. This marginalization can vary from implicit—such as unofficially barring scavengers from private or public areas—to the explicit, such as "social cleansing" campaigns against scavengers.⁷⁰ Legal bias against scavengers is also common. The case of the "cartonero de Oliva" in Argentina highlights this reality.

In 2004, a *cartonero* (cardboard collector) named Paulo Altamirano in the Argentine town of Oliva was collecting discarded cardboard when he discovered \$50,000 in a cardboard box that someone had discarded on the street.⁷¹ At this point, no citizen had reported that money missing. Altamirano subsequently purchased a house, two cars, and created a storefront.⁷² However, after noticing Altamirano's newfound wealth,

⁶⁸ George Psacharopoulos, "Child Labor Versus Educational Attainment some Evidence from Latin America," *Journal of Population Economics* 10, no. 4 (Oct., 1997), 385.

⁶⁹ Martin Ravallion and Quentin Wodon, "Does Child Labour Displace Schooling? Evidence on Behavioural Responses to an Enrollment Subsidy" *The Economic Journal* 110, no. 462 (2000), 175.

⁷⁰ Medina, *The World's Scavengers*, 273

⁷¹ In general, houses and apartment buildings in Argentina do not have dumpsters; garbage is simply put on the curb, where *cartoneros* will then look through them for items of value. Waste disposal trucks will then dispose of the remaining trash.

⁷² Altamirano and his lawyer dispute the source of his funds. While they acknowledge that he acquired the money, they argued that he utilized the funds from his father's inheritance and from accident compensation

Emilia Bascoy de Aguirre, a wealthy local merchant, began to believe that the money was hers. According to her, she had hidden \$40,000 and some jewelry in a cardboard box months before, and one of her employees had “by mistake” disposed of this box on the street.⁷³ She subsequently changed multiple aspects of her story, concerning the amount of jewelry and money lost, and eventually settled on a similar amount to that found by Altamirano. While Altamirano supposedly found the money near Bascoy’s house, there were numerous questionable aspects of Bascoy’s case, especially since she only reported her loss after noticing Altamirano’s newfound wealth. Oddly, the judge fined Altamirano \$10,000, yet permitted him to keep the money that he had found. Altamirano’s lawyer summed up the double standard present: “If you do not force him to return the goods, then why is he convicted?”⁷⁴ Due to the nature of their work, scavengers occupy a nebulous legal area, of which they can easily fall victim. Further discussions of scavenger interactions with the public are below.

External Considerations

Scavengers rely on external actors, as to survive they must sell their goods to an intermediary. At the same time, they must often skirt police arrests, or unfavorable policies. These agents can have a significant negative influence on waste pickers’ future. I examine these influences in this section, and then in the next section conclude with a discussion of waste management within the developing world.

from when he had been employed. *See*: Camilo Ratti, "El Cartonero De La Mala Suerte," *Página 12*, December 6, 2006.

⁷³ Anonymous, "Un Cartonero Halló 50 Mil Dólares y Se Los Reclaman Judicialmente," *Página 12*, June 4, 2004.

⁷⁴ Ratti, 2006.

Government Interactions

As mentioned above, scavengers can often render substantial, unrecognized services for municipalities, as scavengers' efforts can significantly reduce the amount of money needed for waste management and recycling. However, in spite of the benefits of scavengers, local governments often have substantial variations in their treatment of scavengers. Martin Medina has categorized these policies—active, or covert—within the theoretical framework of *repression, neglect, collusion, and stimulation*.⁷⁵

Repression is the most common reality of scavenging. Governments that fit this category often actively attempt to eliminate scavenging through laws or organized violence. Anti-waste picker laws are common, especially as lawmakers attempt to create ordinances that frame the criminalization of scavenger activities as promoting public health, or the public image. Many governments consider scavengers a threat to society, and even to the nation as a whole: “they are considered thieves, morally corrupt, and uncontrollable.”⁷⁶ In other cases, private companies pressure governments to prevent scavenger activities, out of fears that they will reduce demand for their services,⁷⁷ or even because employees of these garbage companies are themselves illicitly engaging on scavenging for additional money.⁷⁸ These attitudes and laws make both the act of scavenging, as well as their “reassimilation” into society difficult, as effectively forcing them to engage (illegally) in the very occupation for which they are condemned.

⁷⁵ Medina, *The World's Scavengers*, 73-4.

⁷⁶ Daniel T. Sicular, *Scavengers, Recyclers, and Solutions for Solid Waste Management in Indonesia* (Berkeley, CA: Center for Southeast Asia Studies, University of California at Berkeley, 1992), 179.

⁷⁷ Medina, *The World's Scavengers*, 172

⁷⁸ Frederico Parra, "Reciclaje Popular y Politicas Publicas Sobre Manejo De Residuos En Bogota," in *Recicloscopio: Miradas Sobre Recuperadores Urbanos De Residuos De America Latina*, ed. Pablo J. Schamber and Francisco M. Suarez (Los Polvorines, Argentina: Universidad Nacional de General Sarmiento, 2007), 63-82.

Neglect is another common governmental stance. In instances of neglect, a municipal government will generally ignore scavenger activities. While there are some “benefits” for scavengers in instances of neglect—especially as scavengers can legally work—they are still in a precarious balance. Their lack of status means that scavengers are not only ineligible for governmental assistance, but, given their lack of publicity, their status can rapidly change to one of repression. Therefore, neglect is not significantly better than repression.

Collusion occurs when governments attempt to use scavengers to their advantage, but do not attempt to directly help them. The municipality of Bariloche, Argentina, discussed in the fourth chapter, is an excellent example of this stance. By law, the municipality has the duty to run a recycling program. Because of the economic crisis in 2001, many citizens of Bariloche began scavenging in the municipal dump, thus technically fulfilling the government’s obligation to have a recycling program. However, the government has subsequently failed to recognize publicly these scavengers as fulfilling a governmental duty. Therefore, by failing to properly acknowledge their work, the government is able to both enjoy the services of scavengers, without offering support or compensation. Equally, in Mexico City, the government has established strict guidelines and procedures for “support” of scavenger health, but in reality, political officials utilize this government oversight to curry votes.⁷⁹

While the least common, government stimulation is the ultimate goal of garbage scavengers. Through governmental recognition and support, scavengers can often gain greater economic and social benefits, such as job security, and improved access to

⁷⁹ Medina, *The World's Scavengers*, 137.

education. Furthermore, while the government must set aside time and support for the waste pickers, it can attempt to influence scavenging activities to fulfill more efficiently the municipality's goals. A perfect example of the results of this stimulation is the case of Italian-American scavengers in the 1920's who, upon forming a cooperative, gained licensing from the city of San Francisco to assist in waste disposal and recycling. While a larger waste management conglomerate has since acquired Sunset Scavenger, the structures of this cooperative are still a pivotal part in the waste collection San Francisco.⁸⁰

Without organization, scavengers are often unable to lobby their government for change, or gain representation in case of incarceration. The societal marginalization discussed above is one aspect. However, there are other contributors to this inability. On one hand, scavenging is a highly intensive occupation, requiring significant physical labor, mental focus, and time. This commitment can preclude other extra activities, such as political formation. Furthermore, scavenging groups often grow no larger than family--or extended family-sized units; the inherent scarcity and difficulty of recyclable material recuperation begets a competitive, cutthroat environment.

Therefore, with this understanding of governmental and scavenger interaction, governmental stimulation is vastly preferable to neglect and repression. Collusion is an important step in improving scavengers' position concerning waste management and their well being, but collusion is an intermediary step between repression, neglect, and stimulation. Any attempt to improve scavengers' social and economic standing must

⁸⁰ Further information about this scavenger cooperative is found in Chapter 2.

attempt to change the local (or even the national) government's stance towards scavenging.

Intermediaries

Formal industries almost universally refuse to buy recuperated goods from individual scavengers, due to issues of scale and worries of product quality. Therefore, scavengers will often need to go through intermediaries or intermediaries in order to sell their goods. Throughout the literature, there are multiple instances of intermediaries engaging in unfair business practices (or at least dominating negotiations). For example, in Bogota, Colombia, scavengers usually receive 5 percent of the price that intermediaries receive from the industry.⁸¹ Intermediaries come from higher-class standings, and as such have more substantial resources than individual scavengers. They also often operate within a monopsonistic market (they are the sole buyer). As such, they are often able to completely control market prices for types of recovered materials. In other cases, while they may provide some capital to scavengers for the purchase of transportation or basic machinery, they may often demand in exchange exclusive right to all the materials that the scavenger then collects.⁸² While there may be no formal "contract" within hierarchies such as this, those in a higher position of power can often exhibit actions similar to that of a loan shark, such as intimidation or forcible exclusion from searching for other sellers in the area.⁸³

⁸¹ Martin Medina, "Supporting Scavenger Co-Ops." *Biocycle* 38, no. 6 (06, 1997), 45.

⁸² Jacob Rebong and Anthony Ekna, "The Economics of Scavenging: Obscurity within the Recycling Business," *Prisma* 13 (1979), 36-45. Via Sicular, *Scavengers, Recyclers*, 201.

⁸³ Sicular, *Scavengers, Recyclers*, 82.

Instances when scavengers can rid themselves of intermediaries result in wages many times their previous wage, and open significant opportunities.⁸⁴ This almost universally requires a form of organization, such as the cooperatives that this paper discusses, but even when after creating a scavenger organization intermediaries often have monopolistic or oligarchic control of recyclable goods in an area. Therefore, in these cases, scavenger made need additional help from other sources.

Globalization

There is an increasingly global market for recovered, recyclable materials which is increasingly establishing demand and prices of recyclable goods. Interestingly, while countries export recycled goods overseas, the overall distribution of export destinations is decreasing; China is increasingly become a pivotal consumer of recycled goods.⁸⁵ While this has become a relatively new phenomenon, and as of yet largely unstudied, globalization will likely further increase the interdependence of formal and informal systems of recycling globally. Policies that attempt to remedy waste pickers' and municipalities waste management situation necessitate cognizance of recycling and waste management realities within the global south.

⁸⁴ Martin Medina, "Environmental Education on the U.S.-Mexico Border: Challenges and Opportunities in Tijuana/San Diego," in *Transboundary Policy Challenges in the Pacific Border Regions of North America*, ed. James Loucky and Donald K. Alper (Calgary: University of Calgary Press, 2008).

⁸⁵ Joshua Goldstein, "The Remains of the Everyday: One Hundred Years of Recycling in Beijing," in *Everyday Modernity in China*, ed. Madeline Yue Dong and Joshua Goldstein (Seattle: University of Washington Press, 2006), 260-302.

Developing Country Waste Management

I will pause the considerations of scavenger obstacles briefly. Now, imagine a typical garbage day within the developed world. Community members put out their trash in specially marked bins. There are bins labeled for general trash, recyclable materials, such as aluminum cans, newspaper, and sometimes even for compost. One of the many modern garbage trucks owned by the private company contracted by the city to handle municipal waste collects these bins. Citizens rest assured that sanitation workers have processed and disposed of the materials in an efficient manner—the instant they turn their backs to the trashcans, the trash inside disappears from their consciousnesses, forever. Some former municipal dumps are now covered over and are now parks where children play. The streets are in general clean, and well-kept.

Compare that to the typical waste management system in the developing world. Garbage is haphazardly put along the side of the road. *If* the private company in charge of picking up garbage does so, it does not engage in any separation of the waste, and throws all the trash into an open-air garbage dump. These private companies attempt to also utilize modern technology and equipment, but it can consistently fail. Sometimes in order to create more space in the dump, workers burn garbage, releasing toxic chemicals. Due to lack of funding, initiative, and grassroots support, the city ignores its own bylaws that require a high quality of waste collection. Garbage is often scattered on the streets, and when private companies fail, as happens frequently in the developing world, these piles of garbage can grow until they block traffic. At the same time, in spite of these inefficiencies, these municipalities vehemently protect their legal “ownership” of

municipal waste, thereby preventing interested parties, such as scavengers, from reducing these problems.

While these two scenarios share some similarities, there are glaring differences. Interestingly, the waste management systems of the developing world often attempt to mimic the waste management systems of the developed world. While developing cities' attempts are valiant attempts—they attempt to copy successful systems—the vast differences in realities between the developed and the developing world prevent the proper functioning of the global south waste management systems.

Waste Inefficiency

Urban solid waste management is one of the most pressing and serious environmental problems that confront municipalities in developing countries.⁸⁶ While there are indeed some successful instances of successful private or public waste management services,⁸⁷ the vast majority of developing cities often only collect between 50% and 80% of a city's waste.⁸⁸ This collection failure occurs in spite of significant attention by municipal governments: thirty to fifty percent of a municipality's operating budget generally goes to waste management.⁸⁹ As citizens will generally pay a certain amount for garbage recovery, municipalities often expect to recoup much of this investment. However, the operating costs are often so high that in some instances,

⁸⁶ Roland Schertenleib and Werner Meyer, "Municipal Solid Waste Management in DC's: Problems and Issues; Need for Future Research," *IRCWD News* 26 (1992), 2.

⁸⁷ Carl R. Bartone et al., "Private Sector Participation in Municipal Solid Waste Service: Experiences in Latin America," *Waste Management & Research* 9, no. 1 (January 1, 1991), 495.

⁸⁸ Wilson, Velis, and Cheeseman, 798.

⁸⁹ Medina, *The World's Scavengers*, 51.

collectors only recover 20% of their operating costs from their collection and transportation fees, thereby depriving cities of these hoped for funds.⁹⁰

Failure to Collect Waste

At the same time that many of the waste management's constituents are unable to pay for services, low-income areas are often the lowest priority for waste pick-up. Sometimes, for lack of a better location, locals dump domestic waste and excrement in piles in the street.⁹¹ In other instances, citizens within these areas often create informal dumps wherever possible. These dumping grounds are dangerous, as high, uncontrolled methane deposits can create fires—a fire at one such informal dump burned for six months in Tampico, Mexico.⁹² While this lack of collection in low-income areas may be due to the lack of payment, difficult roads and lack of infrastructure also discourage waste pickup.⁹³ Additionally, there is a significant lack of incentive for expansion in waste collection services in these low-income areas, mainly due to political reasons (or lack thereof), as well as the relegation of waste collection to the lower levels of the municipal bureaucracy.⁹⁴

Possible Alternatives

Rather than the large waste management systems that municipalities currently employ, some scholars—such as Martin Medina—argue for a more “decentralized”

⁹⁰ Imad Khatib and Nader Al-Khateeb, "Solid Waste Treatment Opportunities in the Palestinian Authority Areas," *Waste Management* 29, no. 5 (5, 2009), 1680.

⁹¹ Schertenleib and Meyer, 2.

⁹² Medina, *The World's Scavengers*, 52

⁹³ Schertenleib and Meyer, 3.

⁹⁴ *ibid.*, 3.

system, one that could address the realities of low-income communities that the centralized, developed model is unable to address. Within this model, with an emphasis on both the formal and “informal” sectors, there is significant opportunity for both scavengers and municipalities to gain substantial benefits through a co-option of the developing world waste management. While joint waste collection and transport of materials can be an ultimate goal of such a decentralized, or shared system, within the context of informal scavengers’, recycling can be the primary point of scavengers’ entry into municipal SWM systems.

Many of the modern policies that advocate recycling have as their foundation the belief that recycling ought to be encouraged because it is an environmental good. However, while recycling has numerous advantages from an environmental perspective, it can also (and perhaps more importantly for developing countries) create an economic advantage. First, it can prolong national resources: every ton of paper or cardboard recycled saves the harvesting of 20 trees.⁹⁵ Recycling plastics and glasses can reduce the amount of minerals mined, or petroleum imported. These are important considerations for developing countries, especially when they may have fewer available resources, or less infrastructure for taking advantage of those resources than more developed countries.

Secondly, recycled materials can fuel developing countries’ industries either more efficiently, or at reduced prices. Border scavenging can be an important source of these materials. The cardboard recovered, and then shipped to Mexico, by scavengers on the Texas side of the U.S.-Mexico border is of higher quality than cardboard found within

⁹⁵ Cesar A. Rodríguez-Garavito, "Solidarity Economy and the Struggle for Social Citizenship in Times of Globalization: A Study of the Cooperatives of Informal Garbage Pickers in Colombia," in *Another Production is Possible: Beyond the Capitalist Canon (Reinventing Social Emancipation: Towards New Manifestoes, Volume 2)*, ed. Boaventura de Sousa Santos (Verso, 2006), 49.

Mexico. Due to its recovered nature, industries are able to take advantage of this higher quality at a lower price, and by utilizing scavengers, rather than more formal channels, the Mexican paper industry need only pay MEX\$300, rather than the usual MEX\$2,250 per ton.⁹⁶⁹⁷ Recycled materials (from scavengers) have also provided the spark necessary to jumpstart a country's struggling industry—cheap recyclables helped feed Argentine industry after that country's economic crash in 2001.⁹⁸ Therefore, scavengers not only provide a logistical benefit—by reducing total waste overall—but they can also provide economic and industrial opportunities.

Chapter Conclusions

Within this context, exist the waste pickers of the developing world. Many of the obstacles that scavengers in general face are results of either economic deficits, or their inability to influence society. While next chapter will examine the general impacts of cooperatives on scavengers' lives, the case studies in the following chapters will examine the results of cooperative formation, as well as potential strategies that co-ops can enact to address these aforementioned issues.

⁹⁶ This significant disparity in costs exemplifies, I believe, scavengers can reasonably receive a higher price for their recovered materials.

⁹⁷ Martin Medina, "The Cardboard Collectors of Nuevo Laredo: How Scavengers Protect the Environment and Benefit the Economy," in *Struggles for Social Rights in Latin America*, ed. Susan Eckstein and Timothy P. Wickham-Crowley (New York; London: Routledge, 2003), 112.

⁹⁸ Medina, *The World's Scavengers: Salvaging for Sustainable Consumption and Production*, 167-182.

Chapter II: Theories of Self-Management

Organization breeds advancement. Like political party or interest group, organizations of the poor can more efficiently and efficaciously represent their interest, offer support, and pool their resources, thereby bettering all members' situations. The previous chapter outlined the common obstacles and problems for scavengers. It concluded that many of these problems result from economic exploitation and societal marginalization, both serious obstacles to overcome, especially when trying to do so as a solitary individual or family group. Therefore, this chapter further delineates the argument that participation and organization are important steps in the advancement of waste pickers' socioeconomic, political, and human rights statuses. Waste pickers cannot completely address the myriad of obstacles they face simply with a "strong work ethic." They need external assistance to seriously improve their situation.

Self-Management by the Poor

Background

While important in the scavenging contest, self-organization is not the only method that has historically supported the poor. For example, charitable institutions and government projects are also historically significant sources of support for the impoverished. However, self-organization is one of the few strategies that not only provides basic aid to the poor, but also allow them to escape poverty under their own

power.⁹⁹ Even when social programs are able to decrease infant mortality and starvation rates, they can still fail to change significant income distribution disparities.¹⁰⁰ Governments in developing countries are often corrupt, lack important demographic information about their population, and mismanage funds. Charitable organizations can often focus on alleviating specific problems, rather than addressing the roots of a problem, and are often themselves inefficient, relying on external donations to fund their goals.

Organizations owned and managed by their workers are at their core transformational, not just economically transactional, because they explicitly demand personal responsibility and accountability for an organization's successes and failures. As the members involved must often confront obstacles that they have little prior experience with, self-management also engenders and cultivates constant learning within their members. This control of their situation and destiny is important and novel for scavengers, who, as discussed previously, are often unable to have power in intermediary negotiations, issues of health, or municipal laws.

Through self-management, waste pickers seek *empowerment*, or "...the expansion of assets and capabilities of poor people to participate in, negotiate with, influence, control, and hold accountable institutions that affect their lives."¹⁰¹ This fight to gain more empowerment engages all aspects of a society—improved governance,

⁹⁹ Eve Crowley et al., "Organizations of the Poor. Conditions for Success," in *Membership-Based Organizations of the Poor*, ed. Martha Chen et al. (New York: Routledge Studies in Development Economics, 2007), 23-42.; John Iliffe, *The African Poor: A History (African Studies)*: Cambridge University Press, 1987), 400.

¹⁰⁰ Daniel T. Sicular, *Scavengers, Recyclers, and Solutions for Solid Waste Management in Indonesia* (Berkeley, CA: Center for Southeast Asia Studies, University of California at Berkeley, 1992), 177.

¹⁰¹ Deepa Narayan, "Conceptual Framework and Methodological Challenges," in *Measuring Empowerment Cross-Disciplinary Perspectives*, ed. Deepa Narayan: (The World Bank, 2005), 5.

changing social norms and stigmas, and an economic market shift are often necessary enablers of this empowerment. Yet, the poor themselves can have a significant impact upon their own empowerment, through collective action. This collective action is “often critical in building confidence and new identity.”¹⁰² Both of these characteristics—low self-esteem and lack of recognition—are key problems for garbage scavengers, and are important aspects of the reasoning behind encouraging cooperative formation.

Cooperative Theories

The term “cooperative” has a general definition, and this section considers two different understandings of cooperatives. One of the understandings is that of a cooperative support organization, and the other is from a scholarly perspective. Both of these definitions help delineate the characteristics of the cooperatives I consider in this thesis.

The International Co-operative Alliance, a conglomeration of multiple cooperatives, defines a cooperative as “an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.”¹⁰³ Cooperatives can have many reasons for formation, such as housing cooperatives, credit unions, and even health cooperatives. This text will focus on the subset of worker cooperatives, but the key characteristic to all cooperatives, as stated above, is that be are jointly owned and democratically controlled.

¹⁰² *ibid.*, 18.

¹⁰³ “Statement on the Co-Operative Identity,” <http://www.ica.coop/coop/principles.html> (accessed 3/3/2010, 2010).

While cooperative ownership and collective action occur throughout history—such as in early human tribal actions—the main thrust of the modern cooperative movement began in the mid-eighteenth century. In 1844, weavers in Rochdale England formed the Rochdale Society of Equitable Pioneers in order to purchase jointly a storefront that they could not otherwise afford. Outlining each member's duty were the Seven Rochdale Principles, of which three characteristics are applicable to the modern scavenger co-ops of this paper.¹⁰⁴ Following these characteristics, these cooperatives first must have *open membership*—they may not discriminate on applicants of “good character.” The second principle is *democratic control*, or in layman's terms, “one man, one vote.” This is perhaps the most important characteristic of a successful cooperative, as active political participation not only gives members control over the co-op, but also an increased stake in the organization. The third principle is *distribution of the surplus to the members in proportion to their transactions*—all members should equally divide, according to their time, the cooperative surplus.

The above definition directly considers the general area of cooperatives. Taking these characteristics one-step further is the following description of cooperatives composed primarily of the impoverished and disadvantaged. These organizations—known in the literature as Membership-based Organizations of the Poor, or MBOP's, have six common characteristics:

1. [Its] primary objective is to cater for the socioeconomic needs of its members.
2. A well-defined constituency from which membership is drawn.

¹⁰⁴ "Rochdale Principles of Co-Operation 1937 - Section 2," <http://www.ica.coop/coop/1937-04.html> (accessed 4/12/2010, 2010).

3. The organization is financed by its members.
4. The highest decision making structure is (or should be) the most representative forum of members.
5. A strongly developed sense of ownership of the organization by the members, and of accountability of the leadership to the membership.
6. [The cooperative must] embody values of cooperation and solidarity.¹⁰⁵

While some information is available on the day-to-day organization, and structure of the cooperatives of this paper—namely in chapter describing the experience of scavenger in Bariloche, few of the other case studies examined in this paper offer concrete information about cooperative structures. This paper holds that the cooperatives in this paper have similar—or strive to have similar characteristics to this list. The three characteristics as described by the International Co-operative alliance are assumed to exist within each cooperative as well. One could see this as a potential shortcoming to the subsequent analysis focusing on “cooperatives,” given the ambiguous structures of each cooperative examined. However, given the universal acceptance of these above characteristics with regards to cooperative formation, it seems reasonable to assume that those organizations that scholars deem “cooperatives” are in agreement with the cooperative characteristics outlined above.

Cooperative Success

¹⁰⁵ Jan Theron, "Membership-Based Organisations of the Poor: The South African Tradition," in *Membership-Based Organizations of the Poor*, ed. Martha Chen et al. (New York: Routledge Studies in Development Economics, 2007), 244. Via Martha Chen et al., "Membership-Based Organizations of the Poor," in *Membership-Based Organizations of the Poor*, ed. Martha Chen et al. (New York: Routledge Studies in Development Economics, 2007), 6.

While this thesis does not primarily concern itself with the specific *organization* of these scavenger MBOPs, it is concerned with the potential success and impacts of these organizations—an understanding of the general goals of these types organizations is an important starting point to analyze how, then, one can define success within these organizations. Some authors suggest that one can measure an organization’s success by focusing on two categories: an internal (focusing on encouraging internal participation and governance) and external (influencing political and social policy).¹⁰⁶ However, even this definition of “success” is too broad for the focus of this paper—that of how to improve the lives of a group of scavengers as a whole. Therefore, co-ops’ goals will be one of the points suggested by Eve Crowley et. al in *Organizations of the Poor*: “An MBOP can be considered ‘successful’ when...[it] bring improvement to the self-esteem, and economic and social well-being of its members.”¹⁰⁷

Perspectives on Scavenger Cooperatives

While authors of case studies concerning scavengers often do not provide concrete suggestions, they generally conclude that some sort of organization and regulation would positively influence the scavengers’ situations.¹⁰⁸ With this

¹⁰⁶ Sally Roever, "Informal Governance and Organizational Success: The Effects of Noncompliance among Lima's Street-Vending Organizations," in *Membership-Based Organizations of the Poor*, ed. Martha Chen et al. (New York: Routledge Studies in Development Economics, 2007), 261-78.

¹⁰⁷ Crowley et al., 25.

¹⁰⁸ D. S. Tevera, "Dump Scavenging in Gaborone, Botswana: Anachronism Or Refuge Occupation of the Poor?" *Geografiska Annaler.Series B, Human Geography* 76, no. 1 (1994), 21.; Belinda Langenhoven and Michael Dyssel, "The Recycling Industry and Subsistence Waste Collectors: A Case Study of Mitchell's Plain," *Urban Forum* 18, no. 1 (01, 2007), 114.; Thaddeus Chidi Nzeadibe, "Solid Waste Reforms and Informal Recycling in Enugu Urban Area, Nigeria," *Habitat International* 33, no. 1 (1, 2009), 93.; Eugenio Gonzales, "From Wastes to Assets: The Scavengers of Payatas Conference Paper Series no. 7" Political Economy Research Institute and Centre for Science and the Environment, 2003).; Rocio Moreno-Sanchez, Jorge H. Maldonado, and Ian Sheldon, "The Role of Scavengers in a Dynamic Model of Solid-Waste Disposal and Recycling in Developing Countries" (Paper presented at the First Latin American and

understanding of the literature, and the previous theoretical framework, organization is the first step in remedying the two key problems of scavenging: economic exploitation and social exclusion.¹⁰⁹ Garbage scavenging cooperatives can result in significant improvements for their members' socioeconomic status. They can prevent economic abuse from intermediaries, and they can sign contracts with municipalities and private companies. They can also help provide the nexus for improving health and sanitation for their members, as well as offer scavengers a platform from which waste pickers can organize and address governments on more equal ground. Finally, they offer the opportunity to improve the perception and dignity of the work of garbage scavengers. Importantly, scholarship on empowerment has shown that economic improvement is more successful when combined with the political struggles for citizenship and societal rights.¹¹⁰

A Successful Cooperative—Sunset Scavengers

Caribbean Congress on Environmental and Resource Economics, , 2003), 1.; Daniel T. Sicular, "Pockets of Peasants in Indonesian Cities: The Case of Scavengers," *World Development* 19, no. 2-3 (3, 1991), 137.; Chris Birkbeck, "Self-Employed Proletarians in an Informal Factory: The Case of Cali's Garbage Dump," *World Development* 6, no. 9-10 (10, 1978), 1173.; Hector F. Castillo Berthier, *La Sociedad De La Basura. Caciquismo Urbano En La Ciudad De Mexico*, 2nd ed. (Mexico: Universidad Nacional Autonoma de Mexico, 1990), 203.; David C. Wilson, Costas Velis, and Chris Cheeseman, "Role of Informal Sector Recycling in Waste Management in Developing Countries," *Habitat International* 30, no. 4 (12, 2006), 797.

¹⁰⁹ Cesar A. Rodríguez-Garavito, "Solidarity Economy and the Struggle for Social Citizenship in Times of Globalization: A Study of the Cooperatives of Informal Garbage Pickers in Colombia," in *Another Production is Possible: Beyond the Capitalist Canon (Reinventing Social Emancipation: Towards New Manifestoes, Volume 2)*, ed. Boaventura de Sousa Santos. (Verso, 2006), 53.

¹¹⁰ Albert O. Hirschman, *Getting Ahead Collectively: Grassroots Experiences in Latin America* : Pergamon Pr, 1984), 120.

Perhaps the most successful garbage scavenger co-op in the scholarship is the Sunset Scavenger¹¹¹ Cooperative in San Francisco. Stewart Perry's 1978 Work, *Collecting Garbage: Dirty Work, Clean Jobs, Proud People*, offers the most comprehensive history of these scavengers. This Sunset Scavenger example provides an example of the potential success that waste pickers within a cooperative can have. However, it does not help with many relevant strategies to this paper, as this paper will discuss.

In the early twentieth century, immigrants, especially those of Italian descent, dominated the waste collection of San Francisco. At that time, there was no formal delegation of waste collection duties; instead, private scavengers, often family based, who formed individual agreements with either individuals or neighborhoods, handled waste collection. These waste pickers not only sorted out rags, bottles, and food for composting, but also transported trash to the local incinerator, for a fee. Competition between scavengers was fierce, as they would constantly change prices for waste collection services in order to undercut other scavengers.¹¹²

However, in 1920, a waste picker named Emilio Rattaro successfully incorporated other scavengers into his scavenger cooperative, the Sunset Scavenger Cooperative. Perry, who spent decades in contact with former members of the Sunset Scavenger cooperative, admits that he has as of yet been unable to determine exactly *why* the cooperative formed at that time.¹¹³ However, given the paucity of other clear influences

¹¹¹ Later renamed Envirocal Waste in 1973. Furthermore, while not discussed as much in the literature, there was another cooperative organization in San Francisco—the Scavengers' Protective Cooperative

¹¹² Stewart E. Perry, *Collecting Garbage : Dirty Work, Clean Jobs, Proud People* (New Brunswick, N.J.: Transaction Publishers, 1998), 16.

¹¹³ *ibid.*

in the literature, it is likely that Rattaro and other scavengers at this time made the move to form a cooperative in order to end the divisive and inefficient competition between individual scavengers.¹¹⁴

Shortly after the formation of the Sunset Scavenger cooperative, the city council attempted to auction off the municipal contracts for the city's garbage;¹¹⁵ however, they did not receive any bids, and subsequently had to establish a licensing system for waste collection agencies. Under these licenses, Sunset Scavenger collected and supported waste and recyclables in the outlying streets of San Francisco for the next forty years. Waste Management, one of the largest waste management companies in North America, eventually acquired it, and the cooperative nature of the organization disappeared. In the last days of the cooperative, however, employee shares in the company reached a value of more than \$100,000, highlighting the success that the cooperative had in San Francisco's waste management.¹¹⁶

The Sunset Scavenger example shows that it is possible for garbage scavengers to form a cooperative, gain licenses for waste collection and recycling, and eventually gain enough legitimacy to for acquisition by a waste conglomerate. However, there are few similarities between the rise of Sunset Scavenger, and the cooperatives examined in this paper. While Sunset Scavenger engaged in a similar type of wage division,¹¹⁷ it incorporated at a time when there was no other competition in the city. This is hardly the

¹¹⁴ Additionally, the Scavengers' Protective Association also formed later that year.

¹¹⁵ Perry states that this 1921 municipal decision to auction off the city contracts was likely not an influence on the formation of scavenger cooperatives, since they did not attempt to bid for the city contracts. However, I would not rule out the potential of Rattaro having insider knowledge, as the formation of a larger organization would have been essential for a successful bid.

¹¹⁶ *ibid.*, 216

¹¹⁷ The president of the cooperative in 1978 earned the same as the rest of the members, and had himself worked as a collector for more than a decade. (Perry, 4)

case in the case studies examined below, where scavengers from the beginning compete with locally entrenched private companies. It is likely that if a city currently existed without official waste collection, scavengers would be able to rapidly organize and succeed. Furthermore, there is little evidence of marginalization of the Italian scavengers due to their scavenger background in Perry's account, suggesting that their road to legitimacy is significantly easier than the taboo nature of waste pickers in the developing world. Therefore, while there are some similarities to the case studies of this paper, I would strongly hesitate to apply any conclusions from this example to modern scavenging communities in developing world.

Impact of Cooperatives in the Developing World

The majority of cooperative's power in directly improving scavenger's socioeconomic status lies in their ability to improve scavengers' income, but this also requires them to interact with the surrounding culture:

...The improvement of material conditions and the struggle for inclusion are two sides of the same coin. Without a viable economic strategy, recyclers are doomed to live in conditions of abject poverty...lacking a social and political strategy, economic gains cannot alter the conditions of exclusion of recyclers at large.¹¹⁸

Therefore, while one can achieve several forms of economic improvement without acting politically (namely middleman negotiations), significant impacts necessitate interaction with governments and private companies. This section will focus mainly on these immediate, economic impacts—following chapters will attempt the (more complicated) analysis of political interactions.

¹¹⁸ Rodríguez-Garavito, 53.

Economic Impacts—Intermediary Negotiations

As discussed previously, intermediaries that exist between scavengers and the industry that consumes their scavenged materials often make vast profits at the scavenger's expense. In a notable case in Mexico City, a man named Rafael Gutierrez was the sole buyer of recycled materials at the Mexican city dump beginning in 1983. As a *cacique* (chief) of the area, he provided vast bribes to the police in order exclude the city government from his operations at the dump. This control led to his unofficial title of “the garbage tsar.” While his bribes significantly helped maintain his autonomy at the dump, it is also likely that authorities' apathy towards the dump and scavengers further enabled his action.¹¹⁹ As the de facto ruler of the garbage dump, Gutierrez was able to undercharge the scavengers for the materials, and subsequently sell them for a considerable markup to the area industries: by some accounts he earned \$70,000 a day. His control of the dump—and its vast income—not only allowed him to sexually exploit the scavengers without fear of legal retribution,¹²⁰ but also enabled his nomination to the lower chamber of the Mexican congress.¹²¹ Intermediaries such as Gutierrez are significant obstacles to the socioeconomic growth of scavengers.

Cooperatives offer the opportunity to more equal negotiations with intermediaries, or even the ability to skip them entirely. Similar to the above situation in the Mexico City

¹¹⁹ Berthier, 150.

¹²⁰ Gutierrez had an insatiable appetite for women. He allegedly had exercised the “droit de seigneur” (the lord's right) with wives-to-be within the garbage dump, and fathered 100 children during his years of “rule.” After his 1987 assassination, (at the hands of his wife) many of these children received parts of his immense wealth. Considered a monster by the scavengers, he was not missed. (Bethier, 148)

¹²¹ Martin Medina, *The World's Scavengers : Salvaging for Sustainable Consumption and Production* (Lanham: AltaMira Press, 2007), 135.

dump, scavengers in the Juarez, Mexico dump had to sell to a single intermediary.¹²² In 1975, the buyer stated that he would stop purchasing all materials except paper, and that he would be paying the scavengers a lower price. This threat drove the scavengers together, and they began protesting. Local citizens, including a college professor and the mayor, supported the waste pickers' position, and helped them form a cooperative. The cooperative, the Cooperative Society of Material Selectors (Sociedad Cooperativa de Seleccionadores de Materiales) or SOCOSEMA, has developed formal relations with industries, despite their initial reluctance to engage a cooperative for their resources. Its members are able to recover five percent of the wastes at the dump, and have increased their incomes tenfold.¹²³ As of 2008, the cooperative provides educational classes and training, health care, and legal protection to its members, and is one of the most successful co-ops in Mexico.¹²⁴

If a cooperative chooses to continue selling its recovered materials to middlemen, its increased power can greatly reduce the incidence of intermediaries fixing their scales to register a reduced weight (thereby reducing the amount paid for each amount of recyclables).¹²⁵ However, in many other instances the cooperative can successfully begin to sell to industries; the cooperative is able to both provide large amounts of recycled materials, and can maintain a degree of quality control (the two key reasons why industry's avoid buying from individual scavengers). As the table (showing price

¹²² Martin Medina, "Environmental Education on the U.S.-Mexico Border: Challenges and Opportunities in Tijuana/San Diego," in *Transboundary Policy Challenges in the Pacific Border Regions of North America*, ed. James Loucky and Donald K. Alper: University of Calgary Press, 2008), 301.

¹²³ *ibid.*, 302; Martin Medina, "Supporting Scavenger Co-Ops." *Biocycle* 38, no. 6 (1997), 45.

¹²⁴ Medina, "Environmental Education on the U.S.-Mexico Border" 302.

¹²⁵ Medina, *The World's Scavengers*, 177.

differences in Brazil) shows, there are often vast disparities in intermediary and industry prices.

Material	Middlemen price (in R\$)	Industry price (in R\$)	Increase in %	Data collected
Cardboard	0.15 to 0.18	0.29	61 to 93 %	Dec. 2006
White paper	0.35	0.52	49 %	Dec. 2006
Tetrapack	0.16	0.30	87 %	Oct. 2007
Plastic (PP)	1.00	1.55	55 %	Oct. 2007
Plastic (PEAD)	0.80	1.10	37 %	Oct. 2007
Plastic (PET)	1.05	1.20	14 %	Oct. 2007

Table 1. Price differences between intermediaries and industry prices in Sao Paulo.¹²⁶

Therefore, by bypassing intermediaries and retail directly to industry, cooperatives can enjoy vastly increased prices through negotiations with industries.

Other Economic Impacts

Market fluctuations of recycled goods can often result in a significant decrease in demand—and thus price—for recycled goods. With proper pre-planning, cooperatives can set aside funds to continue to pay their constituents.¹²⁷ In these cases, a co-op can also store its collected recyclable materials in warehouses in anticipation of improved market conditions.

Cooperative organization not only provides new selling opportunities, but also collection and business opportunities. Once co-ops have increased their legitimacy—either by becoming quality suppliers of industry, or through societal recognition (often

¹²⁶ Jutta Gutberlet, "Micro-Credit and Recycling Co-Ops: Grassroots Initiatives to Alleviate Poverty" (Paper presented at the First International CIRIEC Research Conference on the Social Economy, 2007), 13.

¹²⁷ Jutta Gutberlet, "Solidarity Economy and Recycling Co-Ops in São Paulo: Micro-Credit to Alleviate Poverty," *Development in Practice* 19, no. 6 (2009), 13.

evidenced by statements of recognition by a local municipality—they have the ability to diversify. For example, the Recuperar cooperative in Medellin, Colombia cleans and tends the gardens of the Medellin bus station, and other Colombian cooperatives sweep streets or provide composting.¹²⁸ Finally, in a unique (and somewhat ironic) twist, the Argentine scavenger cooperative of Nuevo Rumbo acts as an intermediary for other intermediaries: its prices for recovered materials are 70% higher than those of other intermediaries in the region.¹²⁹ It is clear that since Nuevo Rumbo is still profitable in spite of it paying more money than other intermediaries are, that there are significant economical advantages inherent in avoiding utilizing intermediaries.

Finally, the rise of globalization offers garbage cooperatives significant opportunities. Prices for recyclables can vary drastically between countries. For example, there has long been a scavenging presence along the United States-Mexican border. Recyclable materials from the United States tend to be of higher quality than those from Mexico, therefore commanding higher prices. Indeed, in 1998 Mexico purchased one billion dollars of recycled materials from the United States.¹³⁰ Both immigrant and illegal alien scavengers in Laredo recover approximately 275 tons of aluminum cans every month, which end up in Mexico.¹³¹ Additionally, as Mexico lacks significant reserves of softwoods, required for the creation of cardboard and paper, the paper and cardboard recycled in border towns like Laredo offer high amounts of these higher quality materials.

¹²⁸ Medina, "Supporting Scavenger Co-Ops," 45.

¹²⁹ Medina, *The World's Scavengers*, 179

¹³⁰ Martin Medina, "Scavenging in America: Back to the Future?" *Resources, Conservation, and Recycling* 31, no. 3 (2001), 237.

¹³¹ Martin Medina, "Border Scavenging: A Case Study of Aluminum Recycling in Laredo, TX and Nuevo Laredo, Mexico," *Resources, Conservation and Recycling* 23, no. 3 (8, 1998), 107.

Cooperatives are also capable of exporting their materials to other developing countries if it is economical.¹³²

Chapter Conclusions

While the abilities to hire out members as temporary sanitation workers and to avoid intermediaries are obvious benefits to cooperativism, these are material gains “without the benefit of social inclusion.” While each cooperative has different amounts of success at self-inclusion within society, they can achieve a high degree of legitimacy in certain situations.

Ultimately, while the previous examples unfortunately do not illuminate a blueprint for scavenger cooperative successes, they do provide the framework that supports, and even advocates, the creation of garbage scavenging cooperatives. Increased economic strength—highlighted above—can allow cooperatives to purchase protective clothing, invest in education, and even engage in public relations campaigns. However, they are often unable to make these long-term changes alone. The following case studies of garbage cooperatives will highlight these complications, as well as other methods of promoting increased scavenger socioeconomic status.

¹³² Medina, *The World's Scavengers : Salvaging for Sustainable Consumption and Production*, 180.

Chapter III: Scavenger Cooperatives within Asia

The Importance of Patronage

Scholars have often portrayed scavengers as constantly searching for support “from above”:

“[Garbage scavengers] are aware that those of higher (social standing) exploit them, but at the same time they know that they are alone, therefore—after their logical despair—they search for stable situations of dependence which tantalize them with apparent security.”¹³³

While charity and government dole outs are often still common, membership-based organizations of the poor (MBOP) are increasingly leveling the field for the poor. Rather than scrounge individually, scavengers within garbage based cooperatives can gain significant economic and political advantages through organization. Indeed, as I have described, the theoretical consideration of a “successful” MBOP is common throughout the literature. However, in order to gain these benefits, waste pickers must first form a cooperative.

The following regional case studies in Asia will highlight the important aspects that both NGOs and governments can provide in scavenger creation, and in their continuing societal success. Throughout these experiences, several things will become clear. First, NGOs and governments are catalysts for cooperative organization formations. Like the lifting of economic sanctions, or the creation of new funding, sudden

¹³³ Jose A. Perasso, *Los Pobres del Basural* (Asuncion, Paraguay: El Lector, 1987), 33.

policy shifts can open up large opportunities for garbage scavengers, and NGOs that were previously unaware of the immensity of scavenging activities can suddenly make scavengers a priority. Second, governmental bodies—or more often governmental leaders—can make sudden decisions to subvert or support scavenger activities. Third, and finally, ordinary citizens can be important sources of assistance for scavengers' missions. These case studies in different regions, with different histories, attitudes towards scavengers, and economies will help allow a general definition of important considerations for the creation and success of scavenging organizations and cooperatives.

Within Asia, there is a glut of garbage scavenging. Scholarship on Asian scavenging has generally highlighted the large numbers of scavengers, and their utter destitution. Many places, such as Smokey Mountain in the Philippines, have become symbols of squalor in Asia. Given the numbers of urban poor throughout India, garbage scavengers are more common than uncommon in municipalities. Even China's booming industrial cities, with their skylines of modern skyscrapers, have black market, or at least questionably legal, trade in recycled goods collected by waste pickers. Sometimes, however, scavengers are able to organize, and form cooperatives. This chapter, while focusing on the formation and support of scavenger cooperatives in the Philippines, will also briefly examine waste picker cooperatives in Malaysia, Sri Lanka, and India.

Scavenging in The Philippines

In Metro Manila, Philippines, many organizations have greatly assisted both formally organized scavenger cooperatives, as well as loosely organized scavenger organizations. Of these, there are two key organizations: the Women's Balikatan

Movement, and the Vincentian Missionaries Social Development Foundation Inc. Both of these have strongly emphasized education, funding, and forming alliances with the scavenger groups. I will discuss the impacts of these two organizations, as well as the influence of the government and other events on the lives of Filipino scavengers.

Women's Balikatan Movement

The Women's Balikatan Movement primarily concerns itself with issues of "environment and sustainable development, health, and livelihood." Specifically, it focuses on providing education and assisting women through educational assistance, seminars and workshops, as well as facilities (offering day care and other benefits) to the women of Metro Manila.¹³⁴ As many of the scavengers in the region were young mothers and children, Leonarda Camacho, president of the Balikatan movement, created the *Linis Ganda* (Clean and Beautiful) program in 1983. This program began as a simple economic improvement program, and eventually advanced into a more flexible organization.

At first, the Balikatan movement merely encouraged the utilization of scavengers as laborers for intermediaries. The program gave scavengers—denominated as "Eco Aides" within the program—official identification, uniforms, and transportation, in exchange for their commitment to sell to a single junk shop owner (who would then resell their goods to other buyers).¹³⁵ While these Eco Aides were generally at the "mercy" of their individual buyers, the influence of the Balikatan movement helped to alleviate potential abuses. Furthermore, *Linis Ganda* emphasized community education—

¹³⁴ "Urban Poor - Metro Manila Council of Women Balikatan Movement [Balikatan] ", <http://www.ncrfw.gov.ph/index.php/directory-women-ngos/67-directory-ngo-client-urban-poor/285-ngo-balikatan> (accessed 3/18/2010, 2010).

¹³⁵ Martin Medina, "Collecting Recyclables in Metro Manila," *BioCycle* 34, no. 6 (1993), 51.

informing households and business about what materials could be recycled, and which junk shops were nearby—which allowed scavengers to proceed directly to individual households and businesses. This source recovery was not only safer, allowing scavengers to avoid working in the dangerous municipal dump, but it also promoted higher incomes: scavengers could now expect to earn around \$2 a day (in rare instances they could earn \$20 a day).¹³⁶ Subsequently, through the influence of the Linis Ganda program, scavengers were able to shift from a intermediary-based working system to a cooperative based working system; there are now 17 cooperatives, employing 2,400 workers, in all 17 municipalities of Metro Manila.¹³⁷ This change increased the lower end of the wage range of scavengers from \$2 a day to \$5 a day.¹³⁸

Linis Ganda and the Filipino Government

Along with facilitating the shift from intermediary-based to cooperative-based scavenging work, Linis Ganda has allowed a potential bridge between the Filipino government and the garbage scavengers. Solid waste management is a serious problem in Metro Manila. Of the 4,000 tons of garbage that the city produced every day, between 200 and 500 tons daily are “burned, illegally dumped, or thrown into canals.”¹³⁹

Furthermore, the four dumpsites of Metro Manila—Smokey Mountain, Carmona, Payatas, and San Mateo—steadily filled up and the government eventually closed them. However, a “garbage crises” occurred in response to these closings—garbage piled up on

¹³⁶ *ibid.*

¹³⁷ Martin Medina, "Scavenger Cooperatives in Asia and Latin America," *Resources, Conservation and Recycling* 31, no. 1 (12, 2000), 63.

¹³⁸ *ibid.*, 63.

¹³⁹ Medina, *Collecting Recyclables in Metro Manila*, 51; Martin Medina, *The World's Scavengers: Salvaging for Sustainable Consumption and Production* (Lanham: AltaMira Press, 2007), 184.

the streets as the government abdicated its solid waste management responsibilities.¹⁴⁰ While the government eventually created a new landfill, and reopened the Payatas dumpsite, scholars consider solid waste management in Manila “permanently deficient.”¹⁴¹ The public health hazards from these occasional “garbage crises” and from the noxious gases from burning garbage are significant—morbidity from tuberculosis is eight times the national average.¹⁴² Toxic chemical dumping at night is common, and the Filipino semiconductor industry has long generated millions of tons of wastewater without a proper collection storage location in the waste dumps.¹⁴³ Along with these health risks, drugs, violence, and fragmented families riddle Payatas. One-third of the scavengers are children.¹⁴⁴ Given that the scavengers of Manila explicitly reduce the amount of municipal waste (through their collection efforts), their work would appear to be capable of alleviating some of the SWM problems of Manila. At various points, the government has officially recognized this fact. Manila’s Vice Governor backed the formation of Linis Ganda in 1983, and even personally launched the program.¹⁴⁵ Furthermore, the Philippine Department of Trade and Industry and the Land Bank both offer scavenger cooperatives low-interest and collateral-free loans.¹⁴⁶

However, the scavenging cooperatives still face problems from the government. In some cases, local government officials resist efforts to recognize scavenger cooperatives. For example, in 1975, eight years before the launch of Linis Ganda,

¹⁴⁰ Eugenio Gonzales, "From Wastes to Assets: The Scavengers of Payatas Conference Paper Series no. 7" Political Economy Research Institute and Centre for Science and the Environment, 2003).

¹⁴¹ *ibid.*; Medina, *The World's Scavengers*, 184.

¹⁴² Gonzales, *From Wastes to Assets: The Scavengers of Payatas Conference Paper Series no. 7*, 17.

¹⁴³ *ibid.*

¹⁴⁴ Susan E. Gunn and Zenaida Ostos, "Dilemmas in Tackling Child Labour: The Case of Scavenger Children in the Philippines," *International Labour Review* 131, no. 6 (1992), 629-30.

¹⁴⁵ Medina, *Collecting Recyclables in Metro Manila*, 51-54.

¹⁴⁶ Medina, *Scavenger Cooperatives in Asia and Latin America*, 63.

Balikatan attempted to create a similar program in the municipality of Mandaluyong. However, the mayor of Mandaluyong feared that Balikatan would use the program as a political tool to usurp his authority.¹⁴⁷ Other government officials have been found to resist the Linis Ganda program out of fear that their positions will become obsolete, or because they themselves could profit from their own private scavenging.¹⁴⁸

Lastly, the government's reaction to the realities of the Payatas garbage dump highlight one of the important trends in developing countries' governmental considerations of scavengers and scavenging—governments will generally only react to scavenger needs after explicit, public problems force them to do so.

Since the 1980s, the “Smokey Mountain” dump represented poverty in the Philippines. A 1988 survey estimated that nearly 13,500 individuals lived around the dump, with the majority being scavengers.¹⁴⁹ A study once discovered thirty-three different diseases among those living there; morbidity and mortality were two to three times higher than the rest of the city.¹⁵⁰ Tours from Australia would often visit Smokey Mountain so that “tourists could see the big mountain of garbage and the poverty around it.”¹⁵¹ These visits to the dump would often leave tourists speechless.

The Manilan government eventually closed the dump, and the scavengers moved to the Payatas dump. The dump is in the north-eastern region of Metropolitan Manila. Estimates of the size of the dump range between 15- and 30-hectares, and highly varying

¹⁴⁷ Medina, *Collecting Recyclables in Metro Manila*, 3.

¹⁴⁸ Medina, *The World's Scavengers*, 195.

¹⁴⁹ *ibid.*

¹⁵⁰ M. Palaypay, "Epidemiological Study of a Scavenger Community in Metro Manila" (1987). Via Medina, *The World's Scavengers : Salvaging for Sustainable Consumption and Production*.

¹⁵¹ *ibid.*, 188

estimates put the number of scavengers there between 13,000 and 80,000.¹⁵² In 1998, a large portion of the dump collapsed, killing more than 200 scavengers. This tragedy embarrassed the government and, according to many activists, spurred it to enact the Ecological Solid Waste Management Act of 2000, which explicitly banned scavenging activities in the dump.¹⁵³ This is an important and almost universal trend throughout government treatment of scavenging activities in the third world. Governments often only respond to scavengers' plights in response to a public crisis. As long as scavengers stay out of the limelight—even if they are in the public consciousness—governments will usually fail to act. If their situation changes drastically, if they begin threatening governmental contracts, or if they gain more publicity,

However, this ban was in name only, and the government granted the scavengers' request to reopen the dump to their activities. Furthermore, other NGOs have also increased their aid to garbage scavengers in response to the Payatas tragedy. These events coincided with the realization of some of the goals of the other case study of this section, the Vincentian Missionaries Social Development Foundation Inc's (VMSDFI) attempt to improve land rights and alliance formation for Payatas scavengers.

Vincentian Missionaries Social Development Foundation

In 1991 a religious group, called the Vincentian Missionaries Social Development Foundation Inc. (VMSDFI) began integrating itself into the lives of some of the

¹⁵² Vincentian Missionaries, "The Payatas Environmental Development Programme: Microenterprise Promotion and Involvement in Solid Waste Management in Quezon City," *Environment and Urbanization* 10, no. 2 (October 1, 1998), 55.; John Ireuil E. Teodoro and Jason Christopher Rayos Co, "Community-Driven Land Tenure Strategies: The Experiences of the Homeless People's Federation of the Philippines," *Environment and Urbanization* 21, no. 2 (October 1, 2009), 415.; Medina, *The World's Scavengers*, 273; Gonzales, *From Wastes to Assets: The Scavengers of Payatas Conference Paper Series no. 7*, 1

¹⁵³ Medina, *The World's Scavengers*, 191; Gonzales, 22.

scavengers living in the area scavengers. Through data gathering and learning, the VMSDFI realized several important things. First, the waste pickers were “expert” workers—they were already very good at utilizing all their means to search for the best quality recyclable materials. Second, that while their materials were of great worth, they were under-compensated, as their informal nature made them easy prey to the local intermediaries. Third, the scavengers asserted that they desperately wanted to improve their situation.¹⁵⁴ Through these mutual realizations by the scavengers and the VMSDFI, the Payatas Scavengers’ Development Programme was born. The Development Programme had an approach that, importantly, highly emphasized self-management through “...practically all the stages of programme planning, implementation, operation, maintenance and evaluation.”¹⁵⁵ This is constant with the importance of self-management advocated earlier in this paper.

In order to promote cooperative formation, the VMSDFI adopted the Grameen Bank’s model of microfinance to increase their available funding. This financing emphasized loans to low-income women engaged in scavenging activities.¹⁵⁶ Additionally, by granting the loans to women, the VMSDFI further encouraged female rights within the scavenger community—as the sole receivers of loans, women were able to have more control over funds. With increased funds alleviating the scavengers’ immediate needs, they were able to devote time to local, community-level “initiatives.” This immediate financial alleviation could be an important factor in successful cooperative development, as, like other marginalized and poor people throughout the

¹⁵⁴ Vincentian Missionaries, *The Payatas Environmental Development Programme*, 56

¹⁵⁵ *ibid.*, 59

¹⁵⁶ Christian M. Rogerson, "The Waste Sector and Informal Entrepreneurship in Developing World Cities," *Urban Forum* 12, no. 2 (Apr, 2001), 52.

world, heavy labor can often prescribe other activities—especially educational workshops.

The meetings, or community-based initiatives, that the scavengers engaged in provided them forums in which they could discuss their problems and future desires. Throughout these discussions, training needs emerged, upon which the Vincentian Missionaries and waste pickers would then work in conjunction to address.¹⁵⁷ Through these discussions, the scavengers came to realize their core desires for change in their community. In 1993, the scavengers of Payatas then approached the local mayor with these desires, which included health care facilities, training centers, and the ability to avoid selling to intermediaries.¹⁵⁸ However, the scavengers did not expect the government to provide for these projects (they began working on the projects themselves), but they wanted the public to know their desires—they wanted for the public and government to know that they too wanted basic rights and necessities.

This public request helped the Payatas scavengers—largely unknown in the public consciousness before—receive further attention from NGOs that advocated environmental and urban poverty issues. These alliances resulted in funds that paid for some members of the cooperative to visit with the community-based Zabbaleen garbage scavengers of Cairo. This visit allowed the Payatas scavengers to create a blueprint for their future successes, a plan that emphasized action on a community level, not an individual level.¹⁵⁹ Further visits by different subgroups of scavengers to India and South America (sponsored by Slum Dwellers International, an NGO) helped educate their

¹⁵⁷ Vincentian Missionaries, *The Payatas Environmental Development Programme*, 59

¹⁵⁸ *ibid.*, 57

¹⁵⁹ *ibid.*, 57

community organizations about strategies to efficiently pool money and communally purchase land. These visits served as the catalyst for their increased desire for land ownership.¹⁶⁰

Scavengers are often explicitly squatters—living either in or near a garbage dump—or are homeless, moving from place to place. In truth, the homeless, landless, and garbage scavenger are all similar, existing along society's periphery, with many of the same problems, especially low education.¹⁶¹ A lack of land and housing options for the poor results in "...a cycle of squatting and eviction, which further impoverishes the poor and prevents them from developing themselves."¹⁶² For scavengers—who are often squatters themselves—housing issues can be obstacles to their socioeconomic success.

In the early 1990's, half of the land in the Philippines was either government protected or heavily forested; wealthy citizens mostly owned the remaining land. Furthermore, space within cities has contracted, as the cities of the Philippines have urbanized very rapidly: 60 percent of the population will live in urban areas in 2010, doubling since 1960.¹⁶³ Some reforms have occurred within the Philippines, such as the 1992 Urban Development and Housing Act (UDHA) that made provisions for housing, relocation, and slum upgrades.¹⁶⁴ However, due to concessions and bureaucratic influences, those that would take advantage of UDHA have the onerous task of understanding the legal intricacies of the law.¹⁶⁵ This legal training, and the ability to

¹⁶⁰ Teodoro and Rayos Co, *Community-Driven Land Tenure Strategies: The Experiences of the Homeless People's Federation of the Philippines*, 427

¹⁶¹ David Royse, "Homelessness among Trash Pickers," *Psychological Reports*, no. 60 (1987), 808.

¹⁶² Vincentian Missionaries Social Development Foundation Incorporated (VMSDFI), Manila, "Meet the Philippines Homeless People's Federation," *Environment and Urbanization* 13, no. 2 (October 1, 2001), 74.

¹⁶³ Teodoro and Rayos Co, 415

¹⁶⁴ *ibid.*

¹⁶⁵ *ibid.*, 422

hire lawyers, was generally outside of the Manilan poor's means. Even in the case of these cooperativized scavengers, self-organization was not enough in this case. The VMSDFI again proved essential to their success

The VMSDFI provided paralegal training to members of the Payatas Scavengers Homeowners Association, a sub-organization that began looking for land outside of the unsanitary dump area. They subsequently found, and purchased a three-hectare plot in nearby Montalban, utilizing both community financing as well as financing from outside sources.¹⁶⁶ While these new land-owners had had experience jury-rigging shelter kludges, housing design workshops augmented these skills. These workshops not only provided better housing designs (assuring more stable shelter) but also provided information on creating two-story cement and wood houses that only cost \$800.¹⁶⁷ As a side note, this amount is drastically less than the \$5,000 it costs the government to build a house, half the size, in a relocation colony.¹⁶⁸

Through the influence of the VMSDFI, Payatas scavengers have been able to both form cooperatives, and purchase land. Thanks to their organization—spurred by the VMSDFI—they have been able to secure support for their Payatas Environmental Development Program from government agencies, such as the Department of the Environment and natural Resources in a Memorandum of Agreement.¹⁶⁹ In addition, the mayor of Montalban, where the waste pickers purchased land, waived development fees,

¹⁶⁶ *ibid.*, 427

¹⁶⁷ Vincentian Missionaries Social Development Foundation Incorporated (VMSDFI), *Meet the Philippines Homeless People's Federation*, 79

¹⁶⁸ *ibid.*, 80

¹⁶⁹ Vincentian Missionaries, *The Payatas Environmental Development Programme*, 57.

and even offered them strategic advice.¹⁷⁰ While they still face serious economic and health challenges, the words of the then president of the Scavengers Homeowners Association sum up their changes best: “In Payatas we were squatters. Here, this is really ours. We cannot be driven out from here.”¹⁷¹

Other Waste Cooperatives in Asia

While there are informal scavengers throughout Asia, and many have likely formed cooperatives or another form of organization, there are not currently significant studies of their organizational experiences—the literature has merely mentioned them in passing. However, these studies still provide interesting information about influences that can improve scavengers’ socioeconomic statuses.

Sri Lanka

In an examination of scavengers in Sri Lanka, local NGOs, such as the Colombo-based Sevantha,¹⁷² have educated and encouraged local citizens to begin community-based recycling centers. These community members engage in educational workshops, sort their own waste, and then work part-time within the local recycling center. While these members are not explicitly a cooperative, Sevantha utilizes many of the similar techniques that both VMSDFI and the Linis Ganda program used, further

¹⁷⁰ Teodoro and Rayos Co, 428

¹⁷¹ *ibid.*, 428

¹⁷² Sevantha is an agency that focuses on issues of urban poverty, and is built upon “relational resources.” Throughout this program it has acted as an intermediary between the city and the community, as well as providing technical and material support.

suggesting those programs' universal merit in promoting efficient, community-based recycling.¹⁷³

Indonesia

Some governments in Asia have also been effective at promoting scavenger cooperative businesses. In the first chapter, Daniel Sicular's analysis of scavengers in Indonesia suggested that if scavengers are peasants, then "any transformation is stymied as long as the institutions that define the relations of production remain intact."¹⁷⁴ In other words, as long as there is a strict hierarchy between the "informality" of scavengers, and formal industry, nothing will change. However, while there have not been significant studies in this area since Sicular, there are some suggestions that the government and other formal organizations have begun to recognize scavenger cooperatives in Indonesia. The controversial President Suharto stated in 1992 that "waste pickers were beneficial to the country's economy and environment," and that they were a "self-reliant" army.¹⁷⁵ This resulted in the government supporting scavenger cooperative formation, as well as a duty on foreign waste, in an attempt to maintain the scavengers' profits. Private support, in the form of bank loans, subsequently followed this explicit governmental declaration of support.

¹⁷³ Basil Horen, "Fragmented Coherence: Solid Waste Management in Colombo," *International Journal of Urban and Regional Research* 28, no. 4 (2004), 764-5.

¹⁷⁴ Daniel T. Sicular, "Pockets of Peasants in Indonesian Cities: The Case of Scavengers," *World Development* 19, no. 2-3 (3, 1991), 155.

¹⁷⁵ Martin Medina, "Waste Picker Cooperatives in Developing Countries," in *Membership-Based Organizations of the Poor*, ed. Martha Chen et al. (New York: Routledge Studies in Development Economics, 2007), 116.; Daniel T. Sicular, *Scavengers, Recyclers, and Solutions for Solid Waste Management in Indonesia* (Berkeley, CA: Center for Southeast Asia Studies, University of California at Berkeley, 1992), 181.

India

In a similar vein to the Sri Lankan case, the EXNORA (EXcellent NOvel RADical) organization of Chennai, India has made significant attempts to formalize waste scavengers. EXNORA has been a significant force in driving the sustainable and environmental movement since 1989. As part of this mission, it has emphasized efforts to address the “pathetic” state of waste management in the city—more than a quarter of the city’s waste is not collected.¹⁷⁶ Their efforts—the “zero waste management scheme”—began with researching the realities of waste management. They found that 95% of all household waste could be recycled or composted.¹⁷⁷ Utilizing this information, EXNORA began to act as a facilitator, motivator, and technical assistant to the predominantly community run organization. They encouraged the creation of loose scavenger organizations that would collect the garbage, in return for a monthly fee paid by community members. The scavengers would then sell these goods for their personal profit. This strategic cooperation has resulted in increased waste collection and earnings for the scavengers, as well as cleaner streets and reduced dumping by the city.¹⁷⁸

While this example has indeed increased the scavengers’ economic status, as well as reduced health risks through source recycling, this would not be an example of a “successful” model using the criteria delineated in the previous chapter. These scavengers have not gained any political power, only a slightly increased economic power. While EXNORA has indeed improved their public perception, it is not a long term sustainable

¹⁷⁶ Marine Colon and Ben Fawcett, "Community-Based Household Waste Management: Lessons Learnt from EXNORA's 'zero Waste Management' Scheme in Two South Indian Cities," *Habitat International* 30, no. 4 (12, 2006), 917.

¹⁷⁷ *ibid.*, 918.

¹⁷⁸ Medina, *Waste Picker Cooperatives in Developing Countries*, 118.

source of waste collection. Given the hierarchy established by the community and the “for-hire” use of scavengers, the community is in a sense acting as a “reverse” intermediary: they control all the resources, and thus they only care about the scavengers as garbage collectors. Resulting from this unequal relationship, the community’s interests consistently override the interests of the scavengers—there is no acknowledgement of the health risks to the scavengers’ work, and the community actually benefits from their poverty.¹⁷⁹ Therefore, while EXNORA and the community encourage self-reliance by these scavengers, their lack of significant self-organization and ability to improve their social standing prevents them from being a “successful” MBOP.¹⁸⁰

Chapter Conclusions

These organizations (and the subsequent alliances) have highlighted certain important realities to take into account. First, grassroots education is very important—in order for scavengers to successfully organize and cooperate (even if not in an explicitly cooperative setting) they must *want* to do so. Individual desires will rapidly overshadow these outside influences if the scavengers do not truly believe in organizing. Along these same lines, it is important for NGOs that are attempting to organize scavengers to become completely familiar with their realities; nearly all-successful cases of NGO

¹⁷⁹ Colon and Fawcett, 926

¹⁸⁰ Furthermore, society traditionally tasked *dalits* or “untouchables” with the odious work of waste collection and scavenging. While the 1949 Indian Constitution, banned divisions of society based upon caste, there are shreds of it within social consciousness. While enough time has passed that explicit discrimination is less-common, significant numbers of ex-untouchables remained in sanitation department’s years after the banning, and rarely moved into more skilled occupations. This is a subject of interest for another paper, but their experience highlights the importance that cultural considerations can have on scavengers’ ability to change their social standing. See Harold Robert Isaacs, *India's Ex-Untouchables*, 1st ed. (New York: Harper Torchbook, 1974), 188.

intervention utilize this knowledge.¹⁸¹ The VMSDFI was likely successful because it worked to address the scavengers' immediate needs, before proceeding to build the foundation of their cooperative organizations. Linis Ganda's decision to educate the community to the values of recycling, as well as information on where citizens could send their recyclable goods made the scavengers associated with their program's lives' much easier.

Education started these scavengers' organizations, and continued throughout their experiences. Furthermore, this education was not explicitly "taught," but was often community forums or workshops. In *Pedagogy of the Oppressed*, Paulo Freire comments how the teacher-student relationship can be hazardous to the poor's self-improvement. This individual consciousness—or conscientization—allows the socially marginalized and disposed to liberate themselves from the dependence on societal norms, and "must attempt through reflection and action to transform it into independence."¹⁸² Therefore, by avoiding this explicitly hierarchical education, waste pickers are able to improve their livelihoods.

One explicit example of this improvement was the ability of the VMSDFI to influence and help the Scavengers Homeowners Association secure their own land through legal purchases and legal challenges. While certain studies suggest that many housing development projects by low-income people succeed *because* they ignore legal

¹⁸¹ See Susanna Myllyla, "NGOs in Urban Environmental Governance: Waste Recycling in Cairo," in *Associational Life in African Cities : Popular Responses to the Urban Crisis*, ed. Arne Tostensen, Inge Tvedten, and Mariken Vaa (Uppsala: Nordiska Afrikainstitutet, 2001), 198-217.; Gunn and Ostos, *Dilemmas in Tackling Child Labour: The Case of Scavenger Children in the Philippines*, 629-647.

¹⁸² Paulo Freire, *Pedagogy of the Oppressed*, 30th ed. (New York: Continuum, 2000), 66.

requirements and restrictions,¹⁸³ there are equally strong arguments that legal projects are equally successful and can even have positive externalities on entire urban development plans.¹⁸⁴ Along with this potential of value of setting a precedent for future land reform for other members of the urban poor, the Scavengers Homeowners Association gained legal experience, which they can use in future interactions with the government.

Finally, the influence of these NGOs allowed the creation of relations between the scavengers, other scavenger groups, NGOs, and the municipal governments of Manila. Through interaction with other scavenger groups and NGOs, the scavengers of Manila were able to gain vicarious experience, as well as explicit resources and technical support. The NGOs and other scavenger groups are allies that can support the goals of the scavengers.

¹⁸³ J. Hardoy and D. Satterthwaite, "Housing Policies: A Review of Changing Government Attitudes and Responses to City Housing Policies in the Third World," in *Urban Management: Policies and Innovations in Developing Countries*, ed. G. Shabbir Cheema and Sandra E. Ward (Westport, Conn.: Praeger, 1993), 111-60.

¹⁸⁴ P. McAuslan, "The Role of Law in Urban Planning," in *Managing Fast Growing Cities*, ed. Nick Devas and Carole Rakodi (New York: Longman, 1993), 236-64 (accessed 3/19/2010).; A. L. Mabogune, "A New Paradigm for Development," in *Proceedings of the World Bank Conference on Developing Economics* (Washington D.C.: The World Bank, 1991), 191-219.

Chapter IV: The Recycling Cooperative of Bariloche, Argentina

Successes and Needs after Cooperative Formation

The previous chapter highlighted the importance of nonprofit organizations and education. This chapter, focusing on the experiences of scavengers in Bariloche, Argentina also shows the importance of nonprofits in cooperative formation, but also provides a detailed description of some of the problems that cooperatives can face in their interactions with the local government. Ultimately, even in cases when governments offer their support to cooperatives, there can still be significant, unfulfilled needs. Therefore, this case study emphasizes areas of future improvement after cooperative formation.

Methodology

The research in this chapter is from both primary and secondary source material. The primary source material derives from my academic study in Argentina, and my previous work on the ARB (*la Asociación de Recicladores de Bariloche*, or the Recyclers' Association of Bariloche), entitled "Promises, Desires, and Decisions."¹⁸⁵ I discuss my methodology for this primary source research at length within this previous work. Personal interviews with ARB workers, government officials, and service workers are the fundamental basis for this account of cooperative. I recorded and transcribed these

¹⁸⁵ Located in the on-site archive in the offices of the School of International Training: Human Rights and Social Movements program in Buenos Aires, or available upon request.

interviews. Additional information derives from an article written by the ARB's president, Zulema Morales, and Elena Durón, a critical supporter.¹⁸⁶

Pre-Cooperative Formation Realities and Context

Resulting from Argentine President Fernando de la Rúa's economic policies (following in the footsteps of Carlos Menem's policy of a fixed, convertible 1:1 Peso: US Dollar exchange rate, a mounting current account deficit, and banking crisis), GDP rapidly fell, and the country experienced a deflation rate 1.8%. Argentines, in accordance with their strong cultural traditions of protest, took to the streets with the slogan "Que Se Vayan Todos" (Throw them all out [of political office]). De la Rúa resigned on December 20, 2001, and the national legislature appointed three subsequent presidents appointed (after each resigned) within the next month. Unemployment and inflation soared because of this political and financial instability. Argentines call this period *la crisis*, and it affected all of Argentina.

San Carlos de Bariloche

San Carlos de Bariloche is in the southeastern corner of the Río Negro province in Argentina, approximately 20 hours by bus from Buenos Aires. The weather of Bariloche is brisk and windy year round. The city is located in a shallow basin, with Lake Nahuel Huapi to one side, and the foothills of the Andes on the other side. Given its pristine environment, and its proximity to Patagonia, tourism is a booming trade in Bariloche.

¹⁸⁶ Elena Durón Miranda and Zulema Morales, "Excavadores Del Basural De Bariloche. Apuntes De Una Experiencia En Curso," in *Recicloscopio: Miradas Sobre Recuperadores Urbanos De Residuos De América Latina*, ed. Pablo J. Schamber and Francisco M. Suarez (Los Polvorines, Argentina: Universidad Nacional de General Sarmiento, 2007), 115-28.

While Bariloche has rapidly developed in response to this money from tourism of capital, the beautiful exteriors of tourist hotels contrast sharply with the shantytowns and poverty that has become endemic just outside the city.

While there have been waste pickers in Bariloche since the mid-1980's, there was a significant influx of pickers after *la crisis*.¹⁸⁷ Like the rest of Argentina, the majority of those waste pickers after the crisis were former members of the middle class. Importantly, however, many of them at the time had been working in *relación de dependencia*, or as seasonal workers. With Bariloche's emphasis on tourism, many of these workers would work at ski lodges during the winter, and then work on the lake and in hotels in the summer. While one could consider their state of living "precarious," given that they had no fixed contracts, tourism in Bariloche was a guaranteed constant. However, with the collapse of the economy in 2001, their expertise mattered little, and they (in their own words) had no other choice but to turn to waste picking. As there were few garbage receptacles along the streets, and the majority of the waste was (and still is) processed through the hotels and resorts—locales that were closed off to "undesirables" such as the waste pickers—their recourse was to search within the *basural*, or the municipal open-air dump.

The Basural

The dump, or *basural*, is located approximately 30 minutes from Bariloche's town center. The only buildings near the dump are small, squatter shanties, and they are frighteningly close: the entrance to the dump is 200m from the entrance to the

¹⁸⁷ Elena Durón, Interview by Author, Bariloche, Argentina, 11.23.08.

shantytown. While almost all of the members of the ARB now live in the shanty town, this was not always so. In the early part of the new millennium the majority of the waste pickers both lived and worked in the garbage dump. While technically "illegal" dump squatters, the government, as well as the private company that provided waste management for the city at the time, left them on their own. With this relative "autonomy," or in the words of Medina "neglect," they searched for those materials that had the lowest opportunity cost and highest resale value (mainly of plastic bottles, glass, cardboard, and newspaper.)

After the large influx of new scavengers after the crisis, there became a sharp delineation among segments of the dump population (estimated to be around 200 people).¹⁸⁸ The first group was made up of so-called "professionals" that had lived and worked within the dump for years, sometimes their entire life; some of those who had scavenged in the *basural* before the crisis had begun waste picking when they were ten years old.¹⁸⁹ Occasionally, some of these experts also owned, or shared vehicles with which they were then able to work on the behalf of their intermediaries by transporting goods to the industry; however, they inevitably returned to simply garbage scavenging. For these members of the scavenging "community," scavenging was their career, and often the only thing that they had ever known.

These "professionals" contrasted sharply with those members that joined because of their perceived temporary unemployment. Many of these waste pickers were former seasonal workers that had been members of the then-burgeoning Argentine middle class before the crisis wiped out their savings and jobs. As such, these workers saw work in the

¹⁸⁸ Dario Duch, City Councilor, Interview by Author, Bariloche, Argentina, 11.19.08.

¹⁸⁹ Miranda and Morales, 117.

basural as fundamentally temporary. Thus, these new workers organized along close family lines, and separated themselves from the “professionals.” This was not a choice due to a perceived “hierarchy” within the *basural*, but rather a division due to different interests among these scavengers. Without specific organization, scavengers informally divided the dump among these groups. Competition was not significant, as, given the amount of garbage that arrived, there were little scarcity for recyclables goods.¹⁹⁰

Safety & Health

Both sickness and physical injury were constant problems for the scavengers of Bariloche. Just as there was little organization to the division of the dump between groups, there was no organization to any of the garbage dumped there; they had to manually wade among the trash bags and open each individual bag by hand:

They undertook these activities during the morning, afternoon and night; they scavenged without any type of safety (equipment), other than what they were able to improvise for themselves--such as plastic bag "gloves" or hooks that let them open bags without inserting their hands.¹⁹¹

In lieu of other safety provisions, and often in spite of whatever kludge protection they were able to create, they often cut their hands on glass, or other sharp objects. Due to their relative distance from town (the lone bus that travels to the dump only arrives once an hour), and lack of a telephone at the dump, attention to medical needs was a calculated sacrifice. Consistent exposure to both rotting garbage and biohazard waste further complicated their inclination to ignore cuts and scrapes. Technically speaking, the bio-

¹⁹⁰ This was (and still is) a result of Bariloche’s tourism industry, which, while savaged by the crisis, was still present. The tourist industry provided the *basural* large amounts of high-quality packaging from the processed goods and materials that tourists consumed.

¹⁹¹ (Author Translation) Miranda and Morales, 119-120

waste present in the dump ought to have been disposed of in formal incinerators; however, failure to comply with such regulations was not common. Unfortunately, this bio waste often lacked labels of any kind.¹⁹²

Furthermore, child labor was common. As mentioned earlier, some waste pickers had worked within the *basural* since they were ten years old; this was common as a full 50 percent of the waste pickers within the garbage dump were under 18 years old. While the adults did not wish children to work within the dump—especially since intestinal, skin, and respiratory problems were common—their contribution to a family's income was too important. While protection of the children was the adult scavengers' first priority (often the reason why so many of the adults themselves were injured), there was still a high rate of child injury.

There are no tall buildings, and few trees near the dump, leaving the entire area to the icy winds that sweep down from the foothills. Not only did the garbage scavengers at this time lack shelter from this weather as they were sorting through waste, they also had to wade—sometimes knee deep—in the slushy water that formed as a result of the residual heat from the methane-rich waste. Constant work in these cold conditions further increased the incidence of frostbite and disease.

Economic Realities

Importantly, at this point, the scavengers were only able to sell them to intermediaries on an individual basis—these intermediaries would sell the recyclables to

¹⁹² *ibid.*, 117

industries in cities such as Mendoza, and even Buenos Aires. The option to sell directly to the industry was non-existent for the scavengers due to their relatively small amount of materials, as well as the industry's mistrust of their material's quality. Those that I interviewed universally agreed that they earned significantly more as members of the cooperative.¹⁹³ Finally, their only source from which they could search for recycled materials was the municipal dump. They were not allowed to enter hotels, schools, or other places of business, out of fears that they would “scare off” tourists.

Marginalization

Working within the *basural* was not a simple “job” as the “new” or “professional” scavengers had hoped; there were serious social connotations to their engaging in scavenging. Even though there were members of the former middle class that now scavenged at the dump, Bariloche society considered their work highly distasteful.¹⁹⁴ Indeed, due in large part to this societal condemnation of their work as “dirty” and “subhuman,” these scavengers withdrew from everything but the bare minimum amount of interaction with the public, and attempted to create, their “*propio mundo*” (own world) within the dump.¹⁹⁵ Interestingly, therefore, rather than become marginalized by the community as a whole—as scholarship often suggests—the garbage scavengers engaged in self-marginalization. This self-marginalization manifested itself in explicit feelings of self-loathing and distaste among the garbage scavengers; however, as they could not

¹⁹³ Zulema Morales, ARB President, Interview by Author, Bariloche, Argentina, 11.24.08.; Elena Durón, Former CEDHA worker, and current worker at Gente Nueva, Interview by Author, Bariloche, Argentina, 11.23.08.; Marina García, ARB Coordinator, Interview by Author, Bariloche, Argentina, 11.18.08.

¹⁹⁴ Miranda and Morales, 116.

¹⁹⁵ Joint interview with Zulema Morales and Norma Sandobal, President and Vice-President respectively of the ARB, Interview by Author, Bariloche, Argentina, 11.19.08

avoid engaging in such work, they continued to engage in their self-repellant work. These feelings of dehumanization and self-loathing were characteristic of all those who scavenged in the *basural*.¹⁹⁶

Formation of the Recyclers' Association of Bariloche

In many ways, the scavenger's marginalization and self-marginalization was so successful that they remained out of the public eye in large part. While there were occasional instances in which the government "helped" waste pickers, there were no actual attempts by the municipality to fundamentally improve the waste picker's living conditions.¹⁹⁷ Given the waste picker's already precarious sustenance situation, they were unable to advance their own interests further. While they were familiar with the idea of cooperativism, common in Argentina, they lacked the skills and the sense of initiative to move forward.¹⁹⁸ Like the experiences of the scavengers in the Philippines, a nonprofit organization would prove essential for their formation.

Influences of CEDHA

At the beginning of October 2002, the Center of Human and Environmental Rights (*El Centro de Derechos Humanos y Ambiente*; CEDHA) sent two employees, Elena Durón and Sofia Bordenave, to assist the waste scavengers. Rather than

¹⁹⁶ Miranda and Morales; Solon Christensen-Szalanski, "Deseos, Promesas y Decisiones: Una Investigación de la Relación entre la Asociación de Recicladores de Bariloche (ARB) y la Municipalidad de Bariloche" (School of International Training Independent Study Project, 2008), 2.

¹⁹⁷ However, when elections occurred, candidates would often spontaneously offer the scavengers food; given the timing this was likely in order to curry votes—much like the collusion exhibited in Mexico City.

¹⁹⁸ Cooperativism is strong in Argentina; after the crisis, many of the factories that went bankrupt, and then became state assets were "recovered" by their former workers, who went on to work the same factory from a strategic, cooperative-based framework.

immediately enter the garbage dump, and begin telling the scavengers how they *should* organize themselves, Durón and Bordenave began to observe, and talk with the waste pickers—these women wanted to “enter and immerse themselves in the scavengers’ reality.”¹⁹⁹ They intended to “help build the foundation, so that the scavengers could stand themselves up.”²⁰⁰

Through their observations, these CEDHA representatives realized that their primary goal should be to attempt to eradicate the embarrassment and shame that the waste pickers felt. Their negative feelings precluded any possible hope that they could organize themselves, and create an improved life for themselves. These were serious feelings too—these waste pickers had truly come to believe that society had completely ostracized them, and that they were living a life of squalor. Therefore, in order to lessen these feelings, Durón and Bordenave began by creating meetings in which they discussed both “human rights, the possible dignity of their work, and the possibility of a recycling plant in which these garbage scavengers could one day work.”²⁰¹

These discussions over many months had a profound impact on the waste pickers’ view of themselves, and of their future. Rather than feeling as though they only had endless days of work ahead of them, they each began to feel as though they had the potential to become a part of something bigger themselves—that they could be fully-recognized, workers in a recycling facility. They also formulated their primary desires,

¹⁹⁹ Elena Durón, Former CEDHA worker, and current worker at Gente Nueva, Interview by Author, Bariloche, Argentina, 11.23.08.

²⁰⁰ Elena Durón, Former CEDHA worker, and current worker at Gente Nueva, Interview by Author, Bariloche, Argentina, 11.21.08.

²⁰¹ Christensen-Szalanski, 19.

among which, the municipality's recognition of them as workers, and the importance of their work.²⁰²

Public Exposure

They finally publicly vocalized their demands on April 7, 2003, when 14 waste scavengers arrived in front of the *Mesa de Concentración Social* (Social Issues Committee). This committee had been created by the city of Bariloche because of the crisis, with the duty to help provide resources for those that were in danger of “marginalization”—a duty it was clearly failing concerning the waste pickers. There, the garbage scavengers “revealed” themselves, publicly to the municipality: “We wanted to tell them, ‘here we are: we are workers too.’”²⁰³ Another worker, stated, “I am a worker in the dump, and for the last eight years I have recovered cardboard and metal.”²⁰⁴ While straightforward, these public introductions were an important juncture for the scavengers, as it publicly affirmed their worth and the lessons of their workshops with Elena and Sofia. Because of this meeting, pressure by CEDHA, and lobbying by other NGO supporters, the city government began to tacitly support the scavengers, by sending a functionary to the garbage dump to see what the municipality could offer the scavengers in terms of substantive help.

As can be seen in these desires, these scavengers were beyond simply requesting help based on ethical grounds; instead, they increasingly began to frame their predicament to the public from environmental and economic perspectives. They

²⁰² Miranda and Morales, 119.

²⁰³ Zulema Morales, ARB President, Interview by Author, Bariloche, Argentina, 11.24.08.

²⁰⁴ Miranda and Morales, 122.

emphasized that the municipality of Bariloche was responsible for providing waste management for the city, and, as part of that, they were responsible for making an effort to reduce the waste through recycling.²⁰⁵ They also showed how, thanks to their work as scavengers, they were able to make more than the pittance that they would have received for being “unemployed” (150 pesos a month, or less than \$50US). Through framing their issues and demands in these pragmatic, rather than idealistic, terms, the garbage scavengers hoped to gain more legitimacy and support—as they did.

Cooperative Formation

On September 11, 2003, 67 of the former waste scavengers of the Bariloche dump formally created the Recyclers’ Association of Bariloche (ARB). After that day, they officially ceased referring to themselves as “*cirujas*,” (surgeons)²⁰⁶ a derogatory term that they had naturally used to refer to themselves. Instead, they now considered themselves “recyclers.” In the following five years, many improvements occurred at the garbage dump, most notably their self-imposed ban on habitation within the dump, as well as child labor. However, many subsequent obstacles occurred. The following section considers the realities after the creation of the ARB. Through an analysis of these realities, one can conclude that while a cooperative is a significant improvement over no organization, key problems can remain.

²⁰⁵ While I have been unable to secure a clear delineation of what the municipality’s role concerning recycling is (due in large part to the bureaucracy and inefficiency of the city), every single interviewee emphasized that the scavengers were in fact doing the government’s job (and were not receiving recognition for doing so).

²⁰⁶ The term “*ciruja*” derives from the Spanish term “*cirujano*,” or surgeon, in that the action of opening garbage bags was reminiscent of surgery.

Post-Cooperative Formation Realities

Organization

As of 2008, the number of scavengers within the cooperative had increased to 82. The co-op holds meetings every Saturday, during which members are able to vote on issues, or make public comments. There is significant division of labor, emphasizing the following, key recyclable goods: plastics, cardboard, paper, newspaper, and glass. However, the cooperative has found that it gains the most by focusing on recovering plastics and glass, due to their resale value. Within the last two years, the ARB has also expanded its recycling efforts to include “hard” plastic and nylon. The ARB has also considered the feasibility of electronic (T.V. and computer) recycling.

The ARB refers to members (somewhat tongue-in-cheek) in reference to the object that they collect: those that collect plastic (*plástico*) are *plasticeros*; those that collect cardboard (*cartón*) are *cartoneros*; those that collect glass (*vidrio*) are *vidrieros*, and so on. Members work in two shifts of six hours,²⁰⁷ and a “coordinator” oversees each shift. This coordinator is there to confirm that all those scheduled to work at that time attend, and that they are actively working. Occasionally, some members work “too little,” and if they habitually do so, the leadership discusses their delinquency.²⁰⁸

Those in leadership positions (namely the President, Vice-President, and the Treasurer/Secretary) of the cooperative do not need to regularly hunt for recyclable materials, but instead must deal with the many organizational administrative tasks. One of the most important tasks that these members of the cooperative administration have is to meet within the “*comisión directiva*,” a weekly meeting between the ARB

²⁰⁷The two shifts were either from 0.800-14.00, or from 14.00-20.00 during the day.

²⁰⁸ Marina García, ARB Coordinator, Interview by Author, Bariloche, Argentina, 11.18.08.

administration and representatives from the various NGOs and social workers that work to help the ARB. Occasionally, a reporter from the local newspaper attends, especially in anticipation of events held by the ARB to increase community knowledge of their work. At a meeting that I witnessed, the ARB discussed plans for an upcoming “festival,” at the *basural*, in order to show citizens what happened there. Local residents needed to bring a bag with recyclable goods to attend. Whenever the ARB makes similar decisions within the public sphere at these meetings, a reporter will usually cover it. This positive publicity is an important tool in promoting cooperative success; however, negative publicity, as examined later in this chapter, can be an equally important tool.

Compensation & Economic Concerns

Each worker within the ARB is to work 6 days a week—those that do not work the requisite amount receive less pay. The organization divides the income from the sale of the recycled materials equally among the members, regardless of their position within the cooperative. While there is some money set aside for future projects, the vast majority goes directly to the workers, in accordance of the Rochdale principles. In 2008, each member’s salary was AR\$1,000, or approximately \$300 dollars every two weeks. The national minimum wage at that time was AR\$1,200 a month, meaning that on average workers earned twice the minimum wage. However, due to the high levels of tourism within Bariloche, prices are higher than they are in many other parts of the country. Additionally, while the scavengers were able to earn a relatively respectable income, recyclable resale prices were highly dependent on the national and global markets. At the

time of my academic study in 2008, the world stock markets were beginning to show serious signs of contraction, and as a result, the ARB expected that for the near future, members would only earn between AR\$600-700 every two weeks.²⁰⁹

Self-Esteem

The remarkable differences that occurred thanks to the workshops led by CEDHA, that emphasized human rights, environmental rights, and worker dignity in 2002, are still very vibrant within the ARB institutional philosophy. This institutional memory imparted the desire to all of its members that they society recognizes them not as *cirujas*, but as recyclers—as *dignified workers*. This desire has even extended itself to the ARB’s desire to not simply work in an eventual waste processing plant, but to be able to do so under self-management.²¹⁰

Furthermore, this feeling of personal self-esteem has also extended itself to the community. Members of the ARB feel as though they are doing an essential public service, and even global service. Before CEDHA’s intervention, scavengers were mainly concerned with providing themselves the opportunity to work, and to work in safe conditions. However, in spite of their still serious lack of funds, their interest has shifted to include working simply to protect the environment. Therefore, rather than viewing recycling as simply the means to life sustenance, many ARB demands (and requests of them)²¹¹ are now also made from an environmental perspective.²¹²

²⁰⁹ Marina García, ARB Coordinator, Interview by Author, Bariloche, Argentina, 11.18.08.

²¹⁰ Edward Shaw, Project Director at Fundación Arelaquen, Interview by Author, Bariloche, Argentina, 11.21.08.

²¹¹ As an example, many of the ARB, and those associated with them, emphasize that they were doing a *public service*, and one that was essential for the future well-being of the city. In many instances, workers

Health

Perhaps one of the most significant differences that occurred after the formation of the ARB is the end of habitation inside the garbage dump. While still exposed to the filth within the garbage dump, the members of the ARB this exposure is only during their six-hour shift, rather than perpetual exposure. Along with this dump habitation ban, the ARB and municipality prohibited non-ARB scavengers from entering the dump and night scavenging (albeit with limited success, as discussed below).

The ARB also eliminated child labor. While parents were unanimous in agreement that they did not wish for their children to have to work in the dump—“It’s not fair,” said a mother, “that our children surrender their childhood to the *basural*,”²¹³—the presence and work of their children had offered them the opportunity to more adequately care, in monetary terms, for their children’s well-being. Thanks to workshops, organized by CEDHA, resulting in the inculcation and institutionalization of beliefs in the importance of ending child labor, the ARB co-created with the city of Bariloche the “Program to Eradicate Child Labor S.O.S. (PETISOS).”²¹⁴ While this project attempted to solidify the banning of child labor based upon ideological terms, the municipality also offered a subsidy to the families that pledged to end child labor. Unfortunately, the government never actually delivered this subsidy, but the ideological beliefs by the individuals and ARB organization solidified the banning of child labor.

were more proud of providing this service, than they were that they had relatively consistent work. This emphasis can also be seen in those that request help from the ARB—when the city government requested that the ARB begin collecting polyurethane bags, it framed the request from an environmental perspective, and not a monetary perspective.

²¹² Zulema Morales, ARB President, Interview by Author, Bariloche, Argentina, 11.24.08.

²¹³ Miranda and Morales, 122.

²¹⁴ In Spanish, “el Programa de Erradicación de Trabajo Infantil S.O.S”

There have been some sanitation improvements as well. While they are well-worn, the ARB has some protective uniforms available for its workers. Some gloves are also available, but not as many as the ARB would like—while the municipality has promised them gloves and uniforms, they are rarely provided.²¹⁵ Due to the shift system that they have instigated, workers on different shifts are able to share these uniforms. The impact of a shift system should not be underestimated either—as they work less, workers have less exposure to the dangers of the dump.

However, there still are dangers. There are the omnipresent dangers associated with broken bits of glass and garbage in the bags, but there are still incidences of exposure to hazardous metal wastes. The ARB often finds syringes mixed with general waste,²¹⁶ and occasionally finds bags that have been marked “biohazard” in the dump.²¹⁷ Additionally, fires occasionally occur within the dump. While not explicitly life-threatening, these fires—which can burn for days, and are results of the poor landfill habits of the city—prevent the ARB from significant work, and release noxious smoke that is deleterious to their throats, eyes, and lungs.

Perhaps the most important health risk to the members of the ARB is that they still work in the dump, rather than finding recyclables at the source. As mentioned previously, informal scavenging will almost universally present some health risks, but source collection can mitigate these health risks. In the case of the ARB, rather than engage in significant source recycling, they wish to become workers at a recycling

²¹⁵ Elena Durón, Former CEDHA worker, and current worker at Gente Nueva, Interview by Author, Bariloche, Argentina, 11.23.08.

²¹⁶ Even during my brief stay, a syringe stabbed a 19-year-old male in the hand. The members remarked that this was not out of the ordinary.

²¹⁷ ANBariloche, "Rechazan Tratar Residuos Patógenos en el Vertedero e Insisten con el Cierre Definitivo," <http://www.anbariloche.com.ar/noticia.php?nota=13017> (accessed 3/5/2010, 2010).

processing plant; however, their relationship with the government makes this projects' feasibility questionable.

Government Interactions

The ARB has signed numerous agreements with the city since its formation in 2003. In the most pivotal of these agreements, signed in 2004, the city of Bariloche, and the ARB signed Ordinance 1040-CM-00, which granted the ARB exclusive recycling rights within the *basural*. In exchange, the ARB promised to end scavenging during the night and child labor. Additionally, the city of Bariloche promised to “provide all the necessary conditions (for the ARB’s work)...including water, toilets, electricity, and a shed” to the ARB.” It also committed to providing security at the garbage dump, in order to prevent intruders at night.²¹⁸ While this document at least provided the ARB exclusive rights to the recyclable material at the dump, the “provide all necessary conditions” clause is a significant point of disagreement between the municipality and the ARB, as they both have different views on what is “necessary.”

Unfortunately, while this accord may have suggested that the city of Bariloche was interesting in outright stimulation of the ARB, the city instead embarked on a series of attitude and policies towards the ARB that more closely collusion. In the words of Elena Durón, the municipality’s attitude was “feign interest, but fail to do anything.”²¹⁹ While the city installed a bathroom at the dump, it did not provide security, or a shed.

²¹⁸ While the ARB had stopped living in the dump, and had established hours of recuperation within the dump, other local citizens sometimes entered the dump after these established hours. Sometimes these people started fires in the dump—likely in the hopes of finding valuable metals within the ashes. Security would prevent these intrusions.

²¹⁹ Elena Durón, Former CEDHA worker, and current worker at Gente Nueva, Interview by Author, Bariloche, Argentina, 11.21.08.

The shed was perhaps the most pressing need for the ARB, as it would protect the workers from the harsh Patagonian weather.²²⁰ Even when the ARB committed to providing the manual labor for the construction of the shed (so long as the government provided the materials), the government still failed to provide the funds,²²¹ and continued to do so even when the ARB sent a letter to Argentine President Kirchner, asking her support in their pressure on the Bariloche government. Eventually, Fundación Arelaquen²²² shared the cost of the shed with the ARB, whereupon the shed was finished at the end of 2005.

Issues of security with the government continued until 2006. The government repeatedly promised to maintain the outside fence, as well as to provide security guards at the entrance, but never followed up on these promises. On September 18, however, a massive fire began, and raged for several days. The fire consumed the ARB's infrastructure at the dump (including the shed and machinery for compacting recyclables), as well as their storage of sorted recyclables. Evidence strongly suggested that illegal night scavengers had started the fires in order to find valuable metals. The same security that the municipality had been delinquent in providing would have almost certainly prevented this fire.

This fire was a pivotal point in the ARB's interactions with the government and public. While security may have prevented the fire, it highlighted other institutional

²²⁰ This shed was not to cover the entire dump, but only the sorting area. For example, in the case of plastic "plasticeros" would search for all types of plastics, and then bring those plastics back to sorting area where other workers would divide by type and quality the plastics.

²²¹ Representatives from the government when I interviewed them did claim that they had provided funds. However, other interviewees rejected this.

²²² Fundación Arelaquen, a nonprofit, promotes environmentally and socially sustainable development in Bariloche and Patagonia. Fundación Arelaquen began working with the ARB because it considered their work a manifestation of its own mission. In fact, Fundación Arelaquen ultimately became the ARB's largest benefactor, as it provided a truck, trash compactors, an a conveyor belt.

problems. The private waste collection business²²³ in charge of the dump had installed fire sirens, but they were inoperable. There were also no functioning water lines or fire hydrants for firefighters to use, and so they could do little to put out the flames other than attempt to shovel dirt on the flames. This fire—and the scavengers' plight—was well-publicized in local papers²²⁴ and this high level of publicity of the government's failings forced them to act, first, BY paying for private security, and then by providing significant funds to replace the ARB's destroyed equipment. Therefore, while the fire presented serious, lasting obstacles to the ARB, it ultimately engendered increased government support in the subsequent months.²²⁵ Increasing (and utilizing) negative publicity resulting from developing countries' failures can be an important and powerful tool.

Ultimately, the question of the creation of a recycling plant, in which the members of the ARB could work in, came to the forefront of the ARB-government interactions. In the 2004 accord mentioned above, there was a clause that explicitly stated: "the municipality and the ARB will work in conjunction on the outlining of projects...with the objective to create a recycling processing plant in the municipal dump." However, like previous interactions, the Bariloche government stalled and stymied efforts to move forward with further planning of the plant. Even when members of the ARB—in response to municipality claims that a plant would be too expensive—travelled to Buenos Aires and secured nearly AR\$15 million, there was little response.

²²³ Unfortunately, I was unable to interview, or gain significant amounts of information about the structure or actions of the private businesses that handled the majority of the waste in Bariloche. By all (second hand) accounts, they are able to collect the majority of the waste. Future studies of the ARB would benefit from this information.

²²⁴ "Quejas por incendio en el basural de Bariloche." Rio Negro Online. 20 Sept. 2006. Rio Negro. Accessed 20 Nov. 2008 <<http://www.rionegro.com.ar/diario/2006/09/20/20069v20f01.php>>.

²²⁵ Edward Shaw, Project Director at Fundación Arelaquen, Interview by Author, Bariloche, Argentina, 11.21.08.

Due to the lack of a response, the scavengers held a demonstration in the city, demanding that the government keep its promises. After this rally, the municipality informed the ARB that it was “searching for land” suitable for the plant’s creation. However, it continues to refuse to explicitly state in writing what its ultimate plan is.

Chapter Conclusions

The formation of a cooperative has not led to the solution of all of the Bariloche recyclers’ problems, but it has had remarkable impacts. It has eliminated child labor, increased earnings, and self-esteem, and has given a voice to people who were once completely ashamed of their way of life. Before the formation of the ARB, there was little acknowledgement of the importance of recycling within the community of Bariloche. However, through their outreach efforts, they have agreed with the local government to co-initiate program of source-recycling at local schools and governmental offices. This is a groundbreaking step, as it would allow the ARB to collect some recyclables without having to resort to working within the garbage dump.

Furthermore, the ARB has also provided increased legitimacy to its members. They are no longer “*cirujas*,” but dignified workers. This experience has given them significant amounts of legitimacy, as they make their plea to the local government to allow them to be the workers within the upcoming recycling plant in the city.

However, this future is uncertain, as the municipality “holds all the cards,” so to speak. The ARB is currently providing a public service, with minimal support from the

municipality.²²⁶ Given that the ARB is financially dependent on its work, and will continue to engage in its recycling activities even if the government fails to support it, there is little reason for the municipality to act immediately. Furthermore, Italian waste companies have approached the municipality of Bariloche about taking over its waste management. From the city's perspective, the entrance of private companies would not only potentially bring in more money, but would also be more appealing on a public relations level. Rather than have relatively ill-educated scavengers handling the recycling—potentially bad for tourism, the city's livelihood—utilizing a waste management company from the developed world could present a more pleasant picture of Bariloche.²²⁷ Corruption and inefficiency is also a contributing factor. However, these factors are unfortunately out of the ARB's control.

One ought to neither be overly hopeful, nor pessimistic about the ARB's future. There is still a possibility that they will be able to work within a formal recycling plant. This degree of legitimacy—as municipal workers—would give them increased job security, benefits, and socioeconomic status. As they still must recuperate recycling within the garbage dump, they still face many obstacles, such as health risks and spontaneous fires.²²⁸ However, even if the government ultimately fails to create a recycling plant, these *recyclers* have made serious gains. As a legitimate organization, they have the ability to act as public actors, utilizing both the press, and public spaces.

²²⁶The municipality provides approximately AR\$2,500/month, but this is only 15-20% of costs for the ARB. Given the amount that the ARB does on behalf, and behest, of the municipality, this is extremely low. (Fernando del Campo, Municipal social worker, Interview by Author, Bariloche, Argentina, 11.24.08.)

²²⁷ Edward Shaw, Project Director at Fundación Arelaquen, Interview by Author, Bariloche, Argentina, 11.21.08..

²²⁸ Agencia de Noticias Bariloche, "Controlan El Incendio En El Vertedero (05-04-2010)," , <http://www.anbariloche.com.ar/noticia.php?nota=13722> (accessed 4/16/2010, 2010).

Utilizing this, the ARB and other cooperatives in a similar position can then begin to form larger alliances and social movements—the focus of the next chapter.

Chapter V: Scavenger Cooperatives & Social Movements of Colombia and Brazil

Cooperatives can have significant positive influence on scavengers; the Asian cooperative experiences especially highlight the importance of nonprofits in cooperative formation, and the experiences of the ARB help emphasize the immediate economic impacts of cooperatives. Furthermore, the impact of both external actors on the success of the ARB and scavengers in Philippines strongly elucidated the positive, and often essential, influence that nonprofits and governmental organizations can have on a scavenger cooperatives' success. However, while many of these scavenger and recycling organizations show significant improvements over their pre-organizational statuses, many of them still struggle; the ARB struggles to gain official governmental recognition for their work and at formal recycling plant. Many of the organizations of the Philippines, while improved, still face institutional resistance and cultural criticism of their work. This chapter, therefore, attempts to introduce what one could consider the “next” step in a garbage cooperative's development—social movements and support networks.

Some of the Filipino organizations, along with the ARB, utilize social networks for political lobbying and training. However, these loose alliances are not as advanced as those networks in Colombia and Brazil, the subjects of this chapter. Scavenger networks can be important tools to advance scavenger interests further, especially in terms of

political power. While there have been attempts to utilize scavenger networks to increase scavenging of scavenger operations, there remains a significant amount of potential to expand this support.

Scavenging in Colombia

The 250,000 individuals who secure their livings through scavenging in Colombia recover more than 300,000 tons of recycled materials every year.²²⁹ While many scavengers continue to work as individuals, or within small family units, significant portions affiliate themselves with cooperatives throughout the country. Many of these cooperatives ally themselves with larger, cooperative organizations. These organizations, which provide training and lobbying power, are largely a result of an NGO, *Fundación Social*.

Fundación Social

Like the case studies examined in previous chapters, the success of the Colombian cooperatives, and the subsequent formation of the National Recyclers' Association (ANR), occurred through the influence of external actors—in this instance, the organization was *Fundación Social*. Founded in 1911 by a Jesuit priest, *Fundación Social* works to alleviate poverty in Colombia by “modifying the structural causes of poverty” through the utilization of microentrepreneurship, socially-directed projects, and

²²⁹ National Association of Recyclers (*Fundación Social*), "Case Study: Promotion of Enterprises Supporting Recyclers for the Integrated Management of Urban Solid Waste in Colombia" (Paper Presented to the Workshop on Micro-Enterprises Involvement in Municipal Solid Waste Management in Developing Countries, 1996), 1.; Martin Medina, "Supporting Scavenger Co-Ops." *Biocycle* 38, no. 6 (06, 1997), 45.

Macroinflujo (mass-mobilization).²³⁰ An important part of Fundación Social's ability to affect change is its considerable structural assets—Fundación Social controls its own bank, construction company, investment fund, and insurance company.²³¹

In 1987, Fundación Social began assisting garbage scavengers in the city of Manizales through cooperative formation and support. After the municipality announced plans to create a new sanitary landfill that would effectively prevent any scavenging activities in the dump, Fundación Social assisted the 150 waste picking families of the dump in the formation of a cooperative.²³² Thanks to the support of Fundación Social, and the local government that supported their work these scavengers can engage in source recycling. Their relations with the government in subsequent years have improved, and the local government has enlisted their assistance in the trial run of the city's new composting system.²³³

Much like the experiences of other garbage scavenger organizations throughout the literature, Fundación Social provided training courses for the Manizales scavengers before their cooperative formation on topics that promoted organization and self-supportive action. Loans were available for specific projects, as well as regular provisions of expertise from Fundación Social's legal and managerial experts.²³⁴ The success in Manizales led Fundación Social to expand its operations.

²³⁰ "Fundación Social ", <http://www.Fudación-social.com.co/> (accessed 3/23/2010, 2010).

²³¹ Martin Medina, *The World's Scavengers : Salvaging for Sustainable Consumption and Production* (Lanham: AltaMira Press, 2007), 156.

²³² Martin Medina, "Waste Picker Cooperatives in Developing Countries," in *Membership-Based Organizations of the Poor*, ed. Martha Chen et al. (New York: Routledge Studies in Development Economics, 2007), 112.

²³³ Carlos Julio Castillo Ríos, "Elaboración De Compost En Manizales a Partir De Residuos Orgánicos Urbanos" (Presentation,).

²³⁴ Medina, *The World's Scavengers*.

Throughout Colombia, Fundación Social has continued this trend of providing grants, loans, and free consultations from business, legal, and administrative professionals—Fundación Social covered 80% of the costs of recycler programs.²³⁵ Within three years, twenty cooperatives collectivized, thanks to assistance from Fundación Social.²³⁶ Fundación Social officially denominated this project its National Recycling Program (NRP) in 1991. By 2000, this program included over 100 different scavenger cooperatives throughout Colombia, and 4500 cooperative families.²³⁷ Importantly, Fundación Social has taken care to constantly reform and review the success of its actions on both individual cooperatives and on the national Recycling Program as a whole.²³⁸ However, the assistance provided by the foundation did not stop with simple, day to day financing and consultation—through the Fundación Social’s assistance, cooperatives would become part of a greater movement.

Scavenger Social Movements

Making up this greater movement, are local, regional, and national cooperative association—of these, the National Recyclers’ Association (ANR—Asociación nacional de recicladores) was the first of its kind. Launched through the influence of *Fundación*

²³⁵ National Association of Recyclers (Fundación Social).

²³⁶ Cesar A. Rodríguez-Garavito, "Solidarity Economy and the Struggle for Social Citizenship in Times of Globalization: A Study of the Cooperatives of Informal Garbage Pickers in Colombia," in *Another Production is Possible: Beyond the Capitalist Canon (Reinventing Social Emancipation: Towards New Manifestoes, Volume 2)*, ed. Boaventura de Sousa Santos: Verso, 2006), 54.

²³⁷ Martin Medina, "Scavenger Cooperatives in Asia and Latin America," *Resources, Conservation and Recycling* 31, no. 1 (12, 2000), 60.; Medina, *The World's Scavengers*, 157.

²³⁸ Medina, *The World's Scavengers*, 158.

Social, in 1991, over 125,000 individuals and 100 cooperatives have received assistance through the ANR structures. *Fundación Social* has attempted to develop five basic strategies with scavengers through the ANR: increase education; create cooperative and support networks; secure financing from both charitable sources and financial intuitions; activate advisory committees; and engage in “research and development” to constantly improve and innovate scavenging activities.²³⁹ These principles propelled organizations that originally received funding from *Fundación Social* to not only create cooperatives, but regional and national support networks as well. The social mobilization of the 125,000 individuals in the ANR has resulted in the recovery of 300,000 tons of paper, glass, metals, plastics, and compostable materials every year.²⁴⁰

Five regional associations are core sub-organizations of the ANR, each of which is made of numerous associations located in individual cities. These associations focus on educating both their constituents, as well as the outside citizenry of their work. They also work closely with one another as they attempt to secure additional political and societal rights from the government.²⁴¹ Interestingly, cooperatives and organizations do not utilize formal scholars from outside of the garbage scavenging trade; instead, the ANR deploys *multiplicadores*,” who themselves use to be scavengers, to assist scavenger cooperatives.²⁴²

There are three different projects that scavengers—with the assistance of the ANR and NRP—have undertaken: commercialization of recyclable materials, transformation-

²³⁹ National Association of Recyclers (Fudación Social).

²⁴⁰ Medina, *Waste Picker Cooperatives in Developing Countries*, 113; National Association of Recyclers (Fudación Social).

²⁴¹ Medina, *Waste Picker Cooperatives in Developing Countries*, 112

²⁴² Medina, *Scavenger Cooperatives in Asia and Latin America*, 60

industrialization of debris, and municipal sanitation services.²⁴³ The commercialization of recyclable materials is similar to normal recycling activities, but with an emphasis on source recovery (thereby avoiding the health hazards of the dump). Through the transformation-industrialization of debris, scavengers create new products from recovered materials, such as handicraft paper or plastic hoses. Finally, for municipal sanitation projects, cooperatives hire themselves out either to a private company in charge of the city's solid waste management, or to the city directly (as in the case of Manizales' composting above).²⁴⁴ While scavenger cooperatives will often handle only one of the myriad of aspects of a city's SWM system, some towns have signed contracts with local scavenger co-ops that delegate the handling of SWM to the cooperative.²⁴⁵

The local, regional, and national organizations of scavengers each delegate their tasks—or at least their stated goals differently. While these immediate projects, along with promoting the formation of cooperatives, are important aspects of the mission of the ANR, it also has other, societal goals. These goals include: the education Colombians about the important, positive ramifications of recycling and scavenger activities; increase awareness about scavengers' living and working conditions, as well as work to alleviate their conditions; and, finally, work to legalize and dignify the occupation of scavenging within Colombia.²⁴⁶ The ANR routinely holds meetings with representatives of organizations, as well as a national meeting of all its members every two years. While many of these goals are structural goals, those regional organizations that have allied

²⁴³ National Association of Recyclers (Fundación Social).

²⁴⁴ *ibid.*

²⁴⁵ Medina, *The World's Scavengers*, 160.

²⁴⁶ *ibid.*, 159

themselves with the ANR have increased their revenues by approximately 30%.²⁴⁷ Efforts to effect structural change, therefore, can also lead to immediate economic and social change.

Regional organizations focus on forming alliances and agreements between different cooperatives in order to bypass intermediaries and sell directly to the industry, while local organizations work towards increasing local support (such as child care or educational centers for scavengers' family) and formal recognition of the potential public good of scavenging.²⁴⁸

While social movement and formal alliances between cooperatives can have significant positive effects on garbage scavenging cooperatives, there are some instances of “successful” cooperatives that are “independent” cooperatives, in that they are not officially affiliated with a Colombian scavenger organization. Indeed, through the discussion of the following two cooperatives—Recuperar and Rescatar—it becomes clear that, first, all cooperatives are not created equal—several key decisions and attitudes can have vast impacts that may not have been known before making the decision. Second, while some cooperatives can survive independently, they can generally expect to need a greater network, or social movement to support them as obstacles arise.

Cooperative Recuperar

The Cooperative Recuperar is a cooperative that has succeeded before the influence of a support network. Similar to the experience of the garbage scavengers of Manizales several years later, Recuperar formed in 1983 as a response to the municipality

²⁴⁷ *ibid.*, 161

²⁴⁸ *ibid.*, 160

of Medellín's decision to replace the open dump with a modern sanitary landfill. The installation of this sanitary landfill would prevent the 320 waste picker families from engaging in scavenging activities. After the city government made this decision, the scavengers had few options: at this time, they did not seriously consider self-organization, because they lacked funds and experience in such matters.

Out of recognition of the significant experience and potential that these scavengers had with regards to waste, the administrators of the dump encouraged local businesses and nonprofits to support these scavenger families.²⁴⁹ With these actors' support, the waste pickers formed the Recuperar work cooperative with an emphasis on maintaining worker control, increasing the dignity of its members' work, improving their working conditions, and committing to high quality of work.²⁵⁰ Twenty-four years after its formation, Recuperar had burgeoned to 1,300 workers who each earn one and a half times the national minimum wage. Constant employee education is also very important; as of 2002, 19 of its members were studying in the local university, and members of its administration had received accounting and business administration degrees. Impressively, throughout its existence, Recuperar has granted over \$400,000 in loans to its members.²⁵¹

Through these efforts, Recuperar has become a significant asset in the SWM in the region near Medellín, and has amassed assets greater than \$500,000.²⁵² By continuing its alliances that it made at its formation with private companies, it is able to engage in

²⁴⁹ Armando Montoya and Fabio Tobon, "From Waste Collectors to Entrepreneurs with ISO 9000," 2002, 42.

²⁵⁰ *ibid.*42

²⁵¹ Medina, *The World's Scavengers*, 162

²⁵² *ibid.*

significant amounts of source recycling (important in that it avoids many of the typical health problems of scavengers. It runs the SWM management of the city of Guarne and makes available its (well-trained) members as consultants and workers to assist in other clean up endeavors throughout the region.²⁵³

As discussed above, quality is often a concern for scavengers' potential business partners: industries generally refuse to buy from individual scavengers as there is little quality assurance, and municipalities worry that due to waste pickers' informal origins they are less capable of committing to municipal waste management contracts. However, the Recuperar cooperative has successfully inculcated itself into the local SWM system. How, one must ask, was it able to do so?

There are several key factors. First, as stated above, Recuperar has made significant investments in the well-being and education of its workers. Not only do these investments serve to explicitly better the workers' health and earnings, they also increase the self-esteem and dignity of the workers. Furthermore, by providing so many benefits, Recuperar is able to maintain a highly loyal work force. As with any organization attempting to gain governmental contracts, its perceived stability is an important factor—Recuperar's low turnover rate strongly help its outside perception.

Second, Recuperar, in keeping with its fundamental tenets, highly emphasizes quality. This is an uncommon characteristic in developing world SWM systems, as previous examples have shown. Beyond a merely theoretical commitment to quality, Recuperar has gained certification in the internationally recognized ISO 9002 quality standard, which is a certification of high quality management within an organization. It

²⁵³ *ibid.*, 162

reached this certification by a comprehensive self-education system. Importantly, the commitment to quality is cooperative wide. The members conducted training from a basic perspective, in order to assist those that had little technical education. Both staff and workers collaborated in completing documentation, and the leadership made sure that they clearly delineated each member's individual responsibilities and duty.²⁵⁴

Cooperative Rescatar

Most of the scholarly information about the Rescatar cooperative in Bolivia comes from César A. Rodríguez-Garavito, a notable Colombian professor and sociologist. In his research of Rescatar, Garavito discovered that Rescatar was able to offer significant benefits—similar to those of Recuperar—to its members. Immediate benefits—such as forming agreements with neighborhood associations that allow scavengers access to increased recyclable materials—allow Rescatar to provide for its members' economic needs. Furthermore, in 1992, Rescatar successfully secured a contract with the city of Bogotá to take over garbage collection of portions of the city. The cooperative also provides significant opportunities for members to invest in themselves. Called “social profit” these benefits are both tangible benefits, such as subsidized healthcare and pensions, and intangible benefits, such as increased interpersonal contact and support.²⁵⁵

However, Rodríguez-Garavito notes how, in spite of its relative success, Rescatar still faces significant difficulties. First, while it successfully secured a contractual agreement with Bogotá to handle parts of its SWM system, the city eventually terminated

²⁵⁴ Montoya and Tobon, 43.

²⁵⁵ Rodríguez-Garavito, 57.

the contract—in favor of working with a multinational waste collection company—solely because of a “lack of trust” in the scavengers’ ability.²⁵⁶ Therefore, while Rescatar—and many other cooperatives—are able to secure some agreements with municipalities, these are often unstable, temporary agreements that end when a private company bids for a contract.

A second difficulty that Rescatar faces is that while it is a member of the ANR, and has alliances with other cooperatives throughout the country, it is still a strongly independent unit from other cooperatives in Colombia. Indeed, while politically and philosophically interdependent, the vast majority of cooperatives in Bolivia are largely economically independent. Rodriguez-Garavito suggests that in providing for cooperatives’ political representation, emphasis on improving immediate technical and economic details fall by the wayside.²⁵⁷

This is not necessary true, as there are significant opportunities for training and even investment, but he brings up an important point. As cooperatives begin to expand their social support networks with the ANR and other regional organizations, as well as their political structures, there is increased opportunity for individual interests to be lost in political bureaucracy. Examples of this disconnect can even be found on the individual cooperative level, weakening a cooperative’s foundation. As a communally controlled entity, cooperatives demand participation by their members, but in the case of Rescatar, many members resent, and distrust the administrative staff. Friction between both sides, often a result of disparities in education levels upon entering the cooperative have led to a

²⁵⁶ *ibid.*

²⁵⁷ *ibid.*, 61.

fluctuating membership, and declined interest in participating within the cooperative.²⁵⁸ Therefore, social networks that rely heavily on decisions made by a select group of people can lose significant amount of support from recyclers—who, given their marginalized backgrounds, are often inclined to not trust authority figures. Efforts to organize political representation need to emphasize administration-recycler relations.

Government Interactions in Colombia

To further understand the political affect of the above garbage scavenger organizations and organization, one needs the context of Colombian attitudes towards garbage scavengers. This attitude varies throughout history, especially in Colombia's capital, Bogotá. From 1958 to 1994, a private agency called EDIS (in Spanish, *Empresa Prestadora de Servicios Públicos*) maintained the waste management of Bogotá. EDIS quickly determined that the selling of recyclables represented a potential significant boon to the finances of the country, and did everything in its power to prevent scavengers from poaching its potential profits—one scavenger is quoted as saying, bitterly, “we had an all out war with them.”²⁵⁹ Perhaps due to this emphasis on excluding other workers from waste recycling, Bogotá experienced a state of waste emergency in 1987. EDIS was unable to keep up with Bogotá's waste production, because of its own illicit scavenger activities. Eventually, the government prohibited EDIS to engage in further recycling

²⁵⁸ *ibid.*, 60.

²⁵⁹ Frederico Parra, "Reciclaje Popular y Politicas Publicas Sobre Manejo De Residuos En Bogota," in *Recicloscopio: Miradas Sobre Recuperadores Urbanos De Residuos De America Latina*, ed. Pablo J. Schamber and Francisco M. Suarez (Los Polvorines, Argentina: Universidad Nacional de General Sarmiento, 2007), 74.

activities, and ordered that it focus its efforts on the main task of waste recovery and transportation out of the city.²⁶⁰

While this marked a decrease in institutional opposition, there was also significant societal opposition to scavengers' work. Often, these attitudes—born out of lack of understanding—would be restricted to the typical perception of scavengers as criminals, dirty, or beneath the help of society. Indeed, people often derogatorily referred to scavengers as *gallinazos*, or vultures.²⁶¹ In more extreme cases, however, this distrust and dislike became violent; throughout the 1980's and early 1990's, scavengers in Colombia were targets of social cleansing campaigns. Right wing groups—stirred by waste pickers' "dirt" and squalor—would occasionally mobilize violent campaigns towards scavengers. In these campaigns of social cleansing, these groups murdered members of "disposable" groups, such as scavengers, beggars, and prostitutes. In one instance, these groups killed forty scavengers, removed their organs removed for transplants, and then sold their bodies as cadavers to a medical school.²⁶² As of 1992, these campaigns had accounted for the deaths of two thousand of these "disposable" citizens. While these campaigns have ended, scavengers have clearly faced an uphill battle in gaining societal legitimization for their work.

While government attitudes and societal norms have since changed, they remain remarkably antagonistic towards scavengers. In 1999, the Colombian Senate passed a law (Law 511) in that decriminalized (but not necessarily legalized) garbage scavenging. At the same time, it established March 1 as "National Day of the Scavenger and Recycling."

²⁶⁰ *ibid.*, 76.

²⁶¹ In response to these terms, Colombian recyclers now prefer the term *recicladores*.

²⁶² Medina, *The World's Scavengers*, 155.

The law also contained considerations for scavenger training and education programs. A subsequent statute (Decree 2395) provided some increased incentives and enforcement of Law 511.²⁶³ For the first time in Colombia, garbage scavengers were no longer explicitly acting in violation of the law.

However, while these laws had opened the door for the wholehearted embrace of scavenger cooperatives within Colombia, further government influence obfuscated the situation. In a notable paradoxical instance in 2002, the Colombian President, Andres Pastrana, signed a law (Decree 1713) that recognized Colombia's recycler population as "legitimate" workers that were pivotal workers in diminishing the city's environmental concerns.²⁶⁴ This state recognition is a fundamental desire of scavengers. However, this law was a bad romance for the scavengers from the outset, as hidden "between the lines" of the decree, the Supreme Court held that under the new law that recyclable items that were thrown away were inherent "public goods." Therefore, as the Recyclers' Association of Bogotá rightly points out, this "public good" status allows antagonistic police to legally arrest recyclers for "stealing" these recyclable items.²⁶⁵

Why did this occur? First, the increased publicity and visibility of scavengers after their organization in cooperatives is an important factor in their increased recognition. Labels have been important throughout Colombian history concerning scavengers, and there is a significant amount of difference between public recognition as a dignified *recycler* and that of public derision towards a "disposable," or a "vulture."

²⁶³ *ibid.*, 164.

²⁶⁴ Parra, *Reciclaje Popular*.

²⁶⁵ *ibid.*, 77

This recognition of waste pickers as potentially valuable and respectable members of society—led the government to take a more favorable stance on humanistic grounds. Combining that humanistic approach with the massive problems that Colombia SWM programs often face, and it is no surprise that Colombian governments have in many ways eagerly allowed scavengers to engage in their activities, thus saving governments hundreds of thousands of dollars in waste management problems.

However, like those experiences throughout the rest of Latin America, there are significant problems with this approach. While municipalities have often signed agreements with scavengers, it is important to remember that in the past they also signed contracts with private companies. When those private companies failed, or when cheaper, more efficient alternatives presented itself, those companies were replaced. The same is true of scavengers, but in many ways they are under more threats than private companies are, due to their informal economy origins. It is easy to sway municipalities with the technology of modern SWM companies, especially those municipalities that actively seek to portray their city as a modern, technologically advanced city.

Brazil

Similar to the scavenger movements of Colombia, there is a significant garbage scavenger movement within Brazil. Like the Colombian movements, garbage recyclers within Brazil enjoy significant political representation through their local and national scavenger movements. However, the Brazilian organizations have successfully integrated a strong economic support model for both cooperatives and individual members using communal financing, and microfinance. Through these self-investment efforts, and with

the support of non-profits, and the Brazilian government, current scholarship considers the Brazilian cooperative movement “the most dynamic” in the world.²⁶⁶

Scholarship on Brazilian waste scavengers has increased over the last few decades. While society was aware of garbage scavengers in the same way that most societies are—scavengers are located on the extreme range of society’s consciousness—there was little concrete information available on Brazilian scavengers, or the Portuguese word, *catadores*. As with other scavenger cases, they were “known of” but few members of the population had any direct contact with scavengers.

CEMPRE

Many modern cooperatives have arisen with the help of an influential nonprofit devoted to improving garbage management in Brazil, Cempre (The Brazilian Recycling Commitment, or *Compromissa Empresarial para Reciclagem* in Portuguese). Founded in 1992 through donations by multinational and Brazilian corporations, Cempre began as a project to document the recycling projects of cities throughout Brazil.²⁶⁷ Through its research, it gleaned much information about the thousands of garbage scavengers that were common in Brazilian cities: 37% of cities in Brazil confirm the existence of informal scavengers²⁶⁸ However, scavengers’ presences were likely higher, due to both their informal, covert nature, and to municipalities’ inclination to deny their existence (thereby decreasing pressure to attempt to improve their situations).

²⁶⁶ Medina, *Waste Picker Cooperatives in Developing Countries*, 113.

²⁶⁷ Brazilian Recycling Commitment (CEMPRE), "Educational Kit for the Promotion of Recycling Cooperatives in Brazil" (Cairo, UMP/SDC Collaborative Programme on MSWM in Low-income Countries, 1996).

²⁶⁸ Jutta Gutberlet, *Recovering Resources - Recycling Citizenship : Urban Poverty Reduction in Latin America* (Aldershot, England ; Burlington, VT: Ashgate, 2008), 81.

In response to this “discovery,” Cempre began working to improve waste pickers’ efficiency and income. It also began to form alliances with scavenger cooperatives, such as Coopamare in Sao Paulo. Through coordination of both general research on the part of Cempre, the anecdotal experiences of Coopamare (a highly efficient scavenger cooperative)²⁶⁹, and the help of a commercial training school, these organizations created an “educational kit” for those wanting to create microenterprises and cooperatives.²⁷⁰ This educational kit—distributed over 200 times to different pre-organizations—focuses on addressing problems of unemployment, low incomes, social development, and scavenger self-esteem.²⁷¹

Scavenger Social Movements

Along with external, grassroots organizations like Cempre, scavengers in Brazil also have significant grassroots movements to assist them. For example, the Recyclers’ Forum of Sao Paulo, formed in 2000, routinely meets to increase alliances between members of different recycling cooperatives. These alliances can add significant support to the life of a recycler, by improving logistic considerations and shared commercialization.

Some have recently attempted to use microfinance to fund garbage scavengers in Sao Paulo. Different from the traditional microfinance model popularized by the Grameen bank; lenders loan money to cooperatives and social organizations, and not individual scavengers. Women still administer the funds, like Grameen, but the money

²⁶⁹ Coopmare, in Sao Paulo, collects half of what the entire municipal recycling program collects in a month at a greatly reduced cost. While doing so, its workers successfully earn double the Brazilian minimum wage) Via (CEMPRE).

²⁷⁰ Gutberlet, *Recovering Resources*, 81.

²⁷¹ *ibid.*

goes to fund organizational efforts and specific cooperative investment holdings. Eight women currently administer a microfinance fund for 30 groups.²⁷² As this is a recent occurrence, there is not significant amount of information available to determine future feasibility, but given the success of microfinance in many other instances, it can easily be as successful in this instance.

Through their political organizations, scavengers have successfully gained increased governmental support. For example, an international waste collector meeting held in Sao Sebastiao in 2000 (with the support of the German non-profit GTZ) gained the participation of 60 delegates from Brazil, Argentina, and Mexico. Through the alliances formed in this meeting, a nationwide movement grew and resulted in increased scavenger recognition, social security, and governmental programs supporting the scavengers.²⁷³ Many Brazilian local governments have also increased their support of garbage scavengers in recent years. In 2007, Sao Paulo gave local recycling cooperatives priority in bids for waste management contracts. Later that same year, the national congress passed a law that gave all recycling cooperatives throughout the country first preference in garbage recovery programs.²⁷⁴ By order of Brazilian President Lula da Silva, the government has allocated significant funds from the National Economic and Social Development bank expressly for loans to garbage cooperatives.²⁷⁵ Both of these are equally important—by giving recycler cooperatives preference, garbage cooperatives

²⁷² Jutta Gutberlet, "Solidarity Economy and Recycling Co-Ops in São Paulo: Micro-Credit to Alleviate Poverty," *Development in Practice* 19, no. 6 (2009), 749.

²⁷³ "GTZ. Partnerships in Recycling Management," <http://www.gtz.de/en/praxis/2196.htm> (accessed 4/5/2010, 2010).

²⁷⁴ Gutberlet, *Recovering Resources - Recycling Citizenship : Urban Poverty Reduction in Latin America*, 34.

²⁷⁵ Jutta Gutberlet, "Micro-Credit and Recycling Co-Ops: Grassroots Initiatives to Alleviate Poverty" (Paper presented at the 1. International CIRIEC Research Conference on the Social Economy, 2007), 8.

gain significant assistance in political lobbying for dignified, waste collection work. Increased loans allow increased material and educational investment.

Chapter Conclusions

Social movements can provide significant immediate, political lobbying power, as well as investment in education and future plans. These regional recycler organizations also have the ability to influence solid waste management more—for example in Manizales, the local government enlisted the assistance of the regional recyclers association to organize test runs of a potential composting system for the city.²⁷⁶ Through these alliances—albeit temporary—with governments and other organizations, scavengers not only can steadily gain increased social respectability, but they can also gain other marketable skills.

Perhaps the most beneficial result of garbage scavenger cooperatives aligning themselves within a greater organization is the ability to expand their knowledge base, and negotiate with both local, regional, and national governments. While they do indeed have a significant amount of economic power and often provide integral services for municipalities, their definitive informal status precludes them from a substantive amount of job security—they serve at the whim of the government—sometimes even at the whim of a single administrator.

There are two key benefits from this knowledge base and negotiation power. First, an increased knowledge base allows the garbage scavengers to share their collective experiences, and to discuss tactics and strategies that were successful. Not only can this

²⁷⁶ Ríos, *Elaboración De Compost En Manizales a Partir De Residuos Orgánicos Urbanos*.

correspondence be successful within a country (given that many experiences may be similar within a similar societal/cultural reality) cross-national correspondences can provide different perspectives.

Second, by emphasizing an adaptive business strategy, along with increasing worker rights and social inclusion, garbage scavengers and cooperatives can more rapidly advance their position. Cooperatives must shy away from merely maintaining the status quo, albeit with increased wages and social standing. This is clearly not to mean that they should ignore increased wages and social standing—the opposite is true. However, once they have achieved basic cooperative status, they must attempt to work with an eye to the future or at least with openness to new opportunities and expectations.

While social movements can offer significant advances in the success of garbage scavenger cooperatives, change often do not happen instantly. One study suggests that they in fact may be incomplete attempts—while scavengers gained enough power to negotiate with the government of Cali, Colombia after nine years of alliance with Fundación Social, their plight remains “extremely difficult.”²⁷⁷ Health concerns are still significant, as relationships with government organizations are often tenuous.

Throughout these experiences in Colombia and Brazil, one can consider these garbage cooperatives to have advanced as far as they can, as part of the “informal sector.” While many cooperatives have agreements with municipalities, these are often agreements that can rapidly change, often depending on the interpretation of the law (i.e. who owns the municipal garbage) or the influence of a governor either in favor or against the activities of Colombian scavengers. What will occur after this point?

²⁷⁷ Rodríguez-Garavito.

A significant portion of the scholarship casts doubt on the ability of Colombian garbage scavenger cooperatives to interest themselves in the formal waste management systems of municipalities. While some of these concerns are logistical and training concerns—scavengers are currently too ill-educated to efficiently manage a SWM for hundreds of thousands of residents—other concerns question the feasibility of their gaining contracts. A significant number of municipal officials are still reluctant to contract co-operatives, instead putting their trust in larger companies with more modern technology.²⁷⁸

Some cooperatives have been able to increase their access to increased technology and education through self-investment, or what scholars refer to as “social profit.” However, the vast disparity in knowledge levels between the original management of some cooperatives, such as that of Rescatar, and those members that have little to no education has created “a clear-cut division between ‘the bosses and us laborers.’”²⁷⁹ While training opportunities through the ANR and even the cooperative’s own lessons are available, many members have already given up on the possibility of moving up in the hierarchy. A cooperative explicitly demands member participation, and if either there is a lack of member participation, or the upper echelon of the cooperative administration unilaterally makes decisions, the cooperative will fail. These cooperatives need to make efforts to rejuvenate workers’ faith in their leadership capabilities.

While the above efforts of contractual agreements with the municipality and education have at least been marginally successful, one of the most significant obstacles to cooperatives’ success—intermediaries—is still present. While cooperatives such as

²⁷⁸ Medina, *The World's Scavengers*, 166.

²⁷⁹ Rodríguez-Garavito, 60.

Rescatar or Recuperar have amassed significant resources, including modern machinery and warehouses, they must still often deal with intermediaries, who pay them at a significant decrease than they sell to industries. Scholarship suggests two key reasons. First, while cooperatives are members of political recycling networks, these networks focus significantly less on alleviating technical and monetary needs. While the theoretical background of this paper indeed emphasizes the need for both political and monetary help, waste pickers must attempt to gain them in tandem. By focusing too much on political power, and political networks, and the expense of increasing the amount of loaning and technical support (while present, is less supported than other activities), cooperatives are politically strong, but financially weak.

The second problem, as mentioned above, is that cooperatives struggle in maintaining constant state and non-governmental actor support. Fundación Social withdrew from assisting garbage cooperatives in 1997—depending on the source,²⁸⁰ this was either due to lack of funding, or because it desired to promote “self-sufficiency” by the cooperatives (I believe that, given the constant obstacles that Colombian scavengers continue to confront, it was likely the first reason). While other nonprofits have stepped in to increase assistance to garbage recyclers, these nonprofits often have different goals, and different styles of management that does not coincide as well with Colombian co-op institutional goals. This constant changing of strategy is problematic for cooperatives, especially when they are attempting to create a stable organization.

Relations between management and individual recyclers are important, especially to maintain cohesion of message, as well as support by both sides for that message. To

²⁸⁰ *ibid.*, 56; Medina, *The World's Scavengers*.

increase this trust and support, administrators and representatives should emphasize their positions in a horizontal, rather than vertical, relation to the ordinary recycler. As the experiences of the recyclers of Rescatar illustrated, normal cooperative members often fail to trust the members of the administration due to perceived disparities in education and power. Distrust is deleterious in all organizations, but especially in cooperatives that inherently need to emphasize communal (i.e. equal) ownership of the organization. Strategies to improve cooperation and increase trust in these instances will likely not occur immediately. Relations need cultivation, as well as openness. Rodríguez-Garavito mentions that there is complete trust between ordinary members of the cooperative.²⁸¹ This trust—like any trust—is a result of multiple instances of other cooperative members making the “right” decision. Administrative members can equally gain trust, by constantly making efforts in favor of openness, providing opportunities for increased “upward” mobility, and in allowing opportunities for members to have more of a voice.

However, these relations are not just a result of unbalanced relations between scavengers and their representatives—it is also likely a result of their significant experiences in the past with political mobilization. Many members have had zero democratic or political experience before participating in the cooperative organization.²⁸² As laws have become supportive of scavengers, scavengers have more opportunities to participate in citizenship experiences. Through cultivation of political participation within the public political arena, they can become better members of the cooperative.

Importantly, the leader of Recuperar remarked that the idea of being able to belong to a nationally recognized quality organization was a significant driving force for

²⁸¹ Rodríguez-Garavito, 59.

²⁸² Rodríguez-Garavito, 59.

garbage scavengers.²⁸³ Indeed, this emphasizes that hope is an essential component for the success of garbage scavengers. First, garbage scavenger must believe that they are deserving of increased dignity, of increased community support. To borrow a recent phrase from American politics, scavengers need "change they can believe in"—otherwise, there is little incentive for them to work towards increased dignity, if they believe society will again reject them. Ethos and hope are both essential components.

These organizations again highlight the importance of external events in cooperative formation. Much like the experiences of the scavengers of Bariloche, government and nongovernmental action to an extent only occurs when deleterious events affect the scavengers, or the government. Just as the scavengers of Bariloche often gain increased assistance from the government in response to fires breaking out, or to their marches, many of the scavengers in Colombia only received help when the dumps in which they were working in were about to be closed. In other cases, such as Rescatar, the cooperative only gained governmental grants to take over parts of its SWM when the private company EDIS went out of business.²⁸⁴ While this was a significant success for Rescatar, especially given the semi legal nature of scavengers at this time, the government subsequently took away this contract from Rescatar because it did not trust Rescatar.²⁸⁵

Therefore, governmental contracts are the first step in continuing improvement of recyclers' socioeconomic situations. However, in order to compete consistently with multinational waste management organizations, garbage-recycling cooperatives must be

²⁸³ Montoya and Tobon, 42-44.

²⁸⁴ Rodríguez-Garavito, 55.

²⁸⁵ *ibid.*, 55.

able to offer compelling reasons to replace these organizations. While this immediately means that they must be able to provide compelling service, they must also be willing to adapt to changing waste management practices and realities. There are compelling social and humanitarian reasons to assisting garbage scavengers; however, waste management for an entire city is extremely important and difficult, and governmental officials would be remiss in their duties if they do not provide their constituents with the best possible SWM provisions.

Importantly, there is significant room for recycling cooperatives to assist a city in waste management. Potential drawbacks to working with recycling cooperatives—such as lack of modern technology and their more informal structures—are real, but so are the multiple drawbacks to utilizing private companies. For municipalities, both of these considerations are real, but the ultimately care more about the success of waste collection efforts, rather than about who does them. Therefore, if a waste cooperative is able to collect waste more efficiently (and especially cheaper) than private waste collection companies, it stands a much higher chance of gaining municipal waste collection contracts. Education and training is an essential part of this improvement.

Scavengers can achieve this education and training in a few ways: cooperative-led initiatives, social movement-led initiatives, or a mix of the two. The nature of Recuperar's cooperative-led initiative to gain ISO 9000 status allowed it to tailor the education for its specific members. It was also more familiar with the different members' skills and abilities, and thus increased its efficiency, rather than if it had outsourced its education to classes elsewhere. However, educational classes provided by organizations such as the ANR and Fundación Social are able to utilize significantly more resources

than an individual cooperative is. They also have an increased social network, allowing them to invite contacts or functionaries that are skilled in particular skills to the classes. Therefore, cooperative educational systems should seek to incorporate aspects of both locally controlled educational systems, and those of greater organizations.

Chapter VI: Conclusion

Scavenging is a historically universal act. While waste pickers were common throughout the Industrial Revolution and early 20th century in the United States and other Western nations, the majority of garbage scavenging in modern times has occurred within developing countries. These waste pickers collect recoverable materials—such as cardboard, plastics, metals, glass—generally from a municipal open dump, or at the source. Along with serious negative health effects that can debilitate or even kill garbage scavengers, they often come less-educated and lower-income backgrounds in the literature. Combined with this lower starting net worth, intermediaries, or intermediaries, often exploit scavengers by buying their recovered materials for only paying a fraction of the price that they subsequently sell them to industries. Even though solid waste management systems in developing cities are often woefully inept, society relegates scavengers towards the periphery. Given these harsh realities, this essay has attempted to determine manners of improving scavengers' socioeconomic position. Rather than relying primarily on external donations of charity, or government programs, solutions to scavengers' harsh realities originate out of self-organization.

External organizations, such as nonprofits or businesses, are essential for the formation of cooperatives. These organizations can provide assistance in creating efficient organizational structures, and have the ability to strongly affect cooperatives' philosophical foundations. CEDHA, in the case of scavengers in Bariloche, emphasized

both environmental responsibility, as well as exercise of human rights among the scavengers in the workshops before the formation of the ARB. These characteristics still permeate the organization and individual members' decision-making in the present day.

External organization decision-making concerning cooperative formation assistance needs to be measured and thoughtful. Successful intervention by these outside organizations necessitates in-depth knowledge of scavengers' obstacles and needs. After this preliminary research, organizations, in conjunction with waste pickers, should organize workshops and discussion groups, in order to gauge scavengers' interest in forming a cooperative. Importantly, these organizations should present cooperative formation only as *one option*, not the only option; while this study considers cooperative formation a very wise and powerful tool in advancing scavenger interests; it is by no means the *only way*. Self-decision making must be at the core of scavenger cooperative organizations.

Both before and after cooperative formation, local governments can be powerful allies and enemies. Laws that expressly forbid scavenging can present steep obstacles for scavengers that will engage in scavenging activities, whether legal or not. While some aspects of the governments' attitude towards scavengers may ultimately be out of their control, there are several things that they can do to mitigate the effects of a "repressive," "collusive," or "neglectful" government.

First, waste pickers should actively attempt to create support networks. From an epistemological perspective, these networks can provide them with valuable, concrete information on other scavenger cooperative experiences. While there is increased scholarship about scavenger mobilization in recent years, there is still a dearth of

information focusing on specific, successful strategies. Through increased dissemination of success stories, scavengers can gain increased knowledge about successful and unsuccessful tactics. At the same time, these networks can result in immediate and tangible benefits. Whether it is the educational systems organized through the ANR of Colombia, or the microfinance investments in Brazil, further “cooperativization of cooperatives into larger organizations can grant them even more resources. Importantly, these networks must emphasize both political and economic solidarity—focusing on one exclusively, as has occurred in Colombia, has made cooperatives politically strong, but financially weak.

As waste picker organizations become more mobilized and organized, they have a greater ability to affect change on a political scale—this is especially true in the global South where poor interests may often go unheard. Through mass mobilizations, such as the demonstrations by the ARB demanding answers to its questions about the recycling plant in Bariloche, scavengers can increase their publicity and put more pressure on governments.

Community publicity is also an important tool of waste picker organizations. The Linis Ganda program in the Philippines emphasized community outreach, in order to make waste pickers’ collection duties simpler and more efficient. The ARB organized a “festival” for the community, which promoted recycling and environmental responsibility. Strategies will depend on societal and cultural situations, but given the general problem of waste management throughout the developing world, it is almost certain that any group—scavenger or not—that approaches community members and offers waste alternatives will gain community support.

Community outreach by scavengers, then, serves three purposes. First, it helps to demarginalize scavengers. The organization of a cooperative and its economic impact can be quite impressive, and community members exposed to this can rapidly begin to see scavengers as dignified workers, rather than as “dirty” scroungers. Second, it can lead to community efforts to collect recyclables and have them ready for scavengers, which can drastically cut down on scavenger recuperation times. Third, increased community support can mean increased political support, which can again lead back to creating positive government attitudes towards scavengers.

Through their interactions with governments, scavengers should also attempt to make specific political allies. Recently elected politicians, or those running for election, will often be more likely to offer scavenger assistance, in order to appear more supportive of the poor. Scavengers that can take advantage of this inclination can gain concessions. Additionally, these leaders, such as President Lula da Silva in Brazil, can use their political capital to persuade other politicians to support scavenger activities.

Finally, scavengers can gain governmental support simply through doing their work well. Scavengers are flexible actors that can help address many of the solid waste management problems that governments face. For example, they are able to reduce waste in poor areas, have more of a stake in recycling, and have the ability (and inclination) to engage in work such as composting that private companies may not be able to do. By engaging governments, and showing that they are capable of helping solve their solid waste management problems, governments will be more likely to actively support them. While health and economic concerns may also play into the equation, governments often just want *anyone* to handle waste management. By improving their education,

formulating new strategies, and engaging community members, scavengers can gain the technical abilities and experience to compete with more organized, private industries. Furthermore, through their lobbying efforts, they can gain explicit government support that can reduce many of the health risks and other obstacles that they face

Whatever the result of governments' activities, cooperative formation can exceptionally improve scavengers' socioeconomic status. While they may still struggle with severe obstacles, cooperative structures provide a foundation from which scavengers can continue to improve their lives. These benefits ultimately have long-lasting impacts. Perhaps Fernando del Campo, a social worker who used to work with the ARB, illustrates the impact of a cooperative the best: "Before [their organization, scavengers] were invisible, now they are not. Now [the public and politicians] know about them, and now they must respect them."²⁸⁶ Therefore, cooperative formation foundation ultimately provides scavengers the opportunity to "disturb dirt" with dignity, rather than under either society's censure, or their self-condemnation.

²⁸⁶ Fernando del Campo, Municipal social worker, Interview by Author, Bariloche, Argentina, 11.24.08.

Appendix

Photos of the Recyclers' Association of Bariloche



Picture 1. Scavengers search through the municipal dump in Bariloche, Argentina pre-ARB formation.
(Courtesy Elena Durón)



Picture 2. An elderly scavenger in Bariloche, Argentina before the formation of the ARB.
(Courtesy Elena Durón)



Picture 3. Before the ban of child labor, children could be found searching within the dump for recyclable materials. (Courtesy Elena Durón)



Picture 4. The fire of 2006, due to the municipality's lack of security, consumed the recyclable material that the ARB had recuperated from the dump, representing a significant lost of potential income. (Courtesy Elena Durón)



Pictures 5 & 6. ARB members and supporters celebrate the first anniversary of the ARB.
(Courtesy Elena Durón)



Picture 7. For effective shipment, the ARB utilizes presses that compact their recovered recyclables.
(Author's Photo)

Bibliography

- Agencia de Noticias Bariloche. "Controlan El Incendio en el Vertedero (05-04-2010)."
<http://www.anbariloche.com.ar/noticia.php?nota=13722> (accessed 4/16/2010, 2010).
- ANBariloche. "Rechazan Tratar Residuos Patógenos En El Vertedero e Insisten Con El Cierre Definitivo."
<http://www.anbariloche.com.ar/noticia.php?nota=13017> (accessed 3/5/2010, 2010).
- Anonymous. "Un Cartonero Halló 50 Mil Dólares y Se Los Reclaman Judicialmente." *Página 12*, June 4, 2004, 2004.
- Assaad, Ragui. "Formalizing the Informal? The Transformation of Cairo's Refuse Collection System." *Journal of Planning Education and Research* 16, no. 2 (December 1, 1996): 115-26.
- Assaad, Ragui and Lili Buj. "La Transformación Del Sistema de Recolección de Basura de El Cairo." *Revista Mexicana De Sociología* 57, no. 1, Orden jurídico y espacio urbano (Jan. - Mar., 1995): 167-82.
- Aziz, Hossam. *Improving the Livelihood of Child Waste Pickers: Experiences with the 'Zabbaleen' in Cairo, Egypt*. Gouda, The Netherlands: WASTE, 2004.
- Bartone, Carl R., Luiz Leite, Thelma Triche, and Roland Schertenleib. "Private Sector Participation in Municipal Solid Waste Service: Experiences in Latin America." *Waste Management & Research* 9, no. 1 (January 1, 1991): 495-509.
- Been, Vicki. "What's Fairness Got to do with it? Environmental Justice and the Sitting of Locally Undesirable Land Uses." *Cornell Law Review* 78, no. 6 (1993): 1001.
- Berthier, Hector F. Castillo. *La Sociedad De La Basura. Caciquismo Urbano En La Ciudad De Mexico*. 2nd ed. Mexico: Universidad Nacional Autonoma de Mexico, 1990.
- Birkbeck, Chris. "Self-Employed Proletarians in an Informal Factory: The Case of Cali's Garbage Dump." *World Development* 6, no. 9-10 (10, 1978): 1173-85.
- Bloom, Jonathan. *Paper before Print: The History and Impact of Paper in the Islamic World*. New Haven: Yale University Press, 2001.
- Blumenshine, R. J. and J. A. Cavallo. "Scavenging and Human Evolution." *Scientific American* 267, no. 4 (Oct, 1992): 90-6.
- (CEMPRE), Brazilian Recycling Commitment. "Educational Kit for the Promotion of Recycling Cooperatives in Brazil." Cairo, UMP/SDC Collaborative Programme on MSWM in Low-income Countries, 1996.
- Chen, Martha, Renana Jhabvala, Ravi Kanbur, and Carol Richards. "Membership-Based Organizations of the Poor." In *Membership-Based Organizations of the Poor*, edited by Martha Chen, Renana Jhabvala, Ravi Kanbur and Carol Richards, 3-20. New York: Routledge Studies in Development Economics, 2007.
- Christensen-Szalanski, Solon. "Deseos, Promesas y Decisiones: Una Investigación de la Relación Entre la Asociación de Recicladores de Bariloche (ARB) y la Municipalidad de Bariloche." School of International Training Independent Study Project, Buenos Aires, Argentina.
- Colon, Marine and Ben Fawcett. "Community-Based Household Waste Management: Lessons Learnt from EXNORA's 'zero Waste Management' Scheme in Two South Indian Cities." *Habitat International* 30, no. 4 (12, 2006): 916-31.
- DiGregorio, Michael, Trinh Thi Tien, Nguyen Thi Hoang lan, and Nguyen Thu ha. *Linking Community and Small Enterprise Activities with Urban Waste Management: Hanoi Case Study*. Netherlands: WASTE, 1998.
- Dolan, J. R. *The Yankee Peddlers of Early America: An Affectionate History of Life and Commerce in the Developing Colonies and the Young Republic*. New York: Clarkson N. Potter, Inc, 1964.
- Drackner, Mikael. "What is Waste? To Whom?: An Anthropological Perspective on Garbage." *Waste Management & Research* 23, no. 3 (June 1, 2005): 175-81.

- Ethelston, Sally. "Gender, Population, Environment." *Middle East Report*, no. 190, Gender, Population, Environment (Sep. - Oct., 1994): 2-5.
- Faccinni, Benedict. *Recycled Rags, Renewed Lives. Education to Fight Exclusion Project. Innovations for Youth no. 3*. Paris, France: United Nations Educational, Scientific, and Cultural Organization, 1999.
- Fahmi, Wael Salah and Keith Sutton. "Cairo's Zabaleen Garbage Recyclers: Multi-Nationals' Takeover and State Relocation Plans." *Habitat International* 30, no. 4 (12, 2006): 809-37.
- Freire, Paulo. *Pedagogy of the Oppressed*. 30th ed. New York: Continuum, 2000.
- "Fundación Social " <http://www.fundacion-social.com.co/> (accessed 3/23/2010, 2010).
- "GTZ. Partnerships in Recycling Management." <http://www.gtz.de/en/praxis/2196.htm> (accessed 4/5/2010, 2010).
- Goldstein, Joshua. "The Remains of the Everyday: One Hundred Years of Recycling in Beijing." In *Everyday Modernity in China*, edited by Madeline Yue Dong and Joshua Goldstein, 260-302. Seattle: University of Washington Press, 2006.
- Gonzales, Eugenio. "From Wastes to Assets: The Scavengers of Payatas Conference Paper Series no. 7." Political Economy Research Institute and Centre for Science and the Environment, 2003.
- Gunn, Susan E. and Zenaida Ostos. "Dilemmas in Tackling Child Labour: The Case of Scavenger Children in the Philippines." *International Labour Review* 131, no. 6 (1992): 629-47.
- Gutberlet, Jutta. "Solidarity Economy and Recycling Co-Ops in São Paulo: Micro-Credit to Alleviate Poverty." *Development in Practice* 19, no. 6 (2009): 737.
- . Gutberlet, Jutta. *Recovering Resources - Recycling Citizenship: Urban Poverty Reduction in Latin America*. Aldershot, England; Burlington, VT: Ashgate, 2008.
- . "Micro-Credit and Recycling Co-Ops: Grassroots Initiatives to Alleviate Poverty." Paper presented at the 1. International CIRIEC Research Conference on the Social Economy.
- Gutberlet, Jutta and Angela M. Baeder. "Informal Recycling and Occupational Health in Santo André, Brazil." *International Journal of Environmental Health Research* 18, no. 1 (02, 2008): 1-15.
- Hamed, M. M. and Y. El Mahgary. "Outline of a National Strategy for Cleaner Production: The Case of Egypt." *Journal of Cleaner Production* 12, no. 4 (5, 2004): 327-36.
- Hardoy, J. and D. Satterthwaite. "Housing Policies: A Review of Changing Government Attitudes and Responses to City Housing Policies in the Third World." In *Urban Management: Policies and Innovations in Developing Countries*, edited by G. Shabbir Cheema and Sandra E. Ward, 111-60. Westport, Conn.: Praeger, 1993.
- Hirschman, Albert O. *Getting Ahead Collectively: Grassroots Experiences in Latin America* Pergamon Pr, 1984.
- Horen, Basil. "Fragmented Coherence: Solid Waste Management in Colombo." *International Journal of Urban and Regional Research* 28, no. 4 (2004): 757-73.
- Hughes, J. Donald. *Pan's Travail: Environmental Problems of the Ancient Greeks and Romans (Ancient Society and History)* The Johns Hopkins University Press, 1996.
- Iiliffe, John. *The African Poor: A History (African Studies)* Cambridge University Press, 1987.
- Isaacs, Harold Robert. *India's Ex-Untouchables*. 1st ed. New York: Harper Torchbook, 1974.
- Khatib, Imad and Nader Al-Khateeb. "Solid Waste Treatment Opportunities in the Palestinian Authority Areas." *Waste Management* 29, no. 5 (5, 2009): 1680-4.
- Langenhoven, Belinda and Michael Dyssel. "The Recycling Industry and Subsistence Waste Collectors: A Case Study of Mitchell's Plain." *Urban Forum* 18, no. 1 (01, 2007): 114-32.
- Mabogune, A. L. "A New Paradigm for Development." In *Proceedings of the World Bank Conference on Developing Economics*, 191-219. Washington D.C.: The World Bank, 1991.
- Madsen, Catherine A. "Feminizing Waste: Waste-Picking as an Empowerment Opportunity for Women and Children in Impoverished Communities." *Colorado Journal of International Environmental Law & Policy* 17, no. 1 (Winter, 2006): 165-200.
- McAuslan, P. "The Role of Law in Urban Planning." In *Managing Fast Growing Cities*, edited by Nick Devas and Carole Rakodi, 236-64. New York: Longman, 1993 (accessed 3/19/2010).
- Medina, Martin. *The World's Scavengers: Salvaging for Sustainable Consumption and Production*. Salvaging for Sustainable Consumption and Production. Lanham: AltaMira Press, 2007.
- . "Collecting Recyclables in Metro Manila." *BioCycle* 34, no. 6 (1993): 51-4.

- . "Environmental Education on the U.S.-Mexico Border: Challenges and Opportunities in Tijuana/San Diego." In *Transboundary Policy Challenges in the Pacific Border Regions of North America*, edited by James Loucky and Donald K. Alper, 289-305. University of Calgary Press, 2008.
- . "Waste Picker Cooperatives in Developing Countries." In *Membership-Based Organizations of the Poor*, edited by Martha Chen, Renana Jhabvala, Ravi Kanbur and Carol Richards, 105-21. New York: Routledge Studies in Development Economics, 2007.
- . "The Cardboard Collectors of Nuevo Laredo: How Scavengers Protect the Environment and Benefit the Economy." In *Struggles for Social Rights in Latin America*, edited by Susan Eckstein and Timothy P. Wickham-Crowley, 103-21. New York; London: Routledge, 2003.
- . "Scavenging in America: Back to the Future?" *Resources, Conservation and Recycling* 31, no. 3 (3, 2001): 229-40.
- . "Border Scavenging: A Case Study of Aluminum Recycling in Laredo, TX and Nuevo Laredo, Mexico." *Resources, Conservation and Recycling* 23, no. 3 (8, 1998): 107-26.
- . "Supporting Scavenger Co-Ops." *Biocycle* 38, no. 6 (06, 1997): 45.
- . "Scavenger Cooperatives in Asia and Latin America." *Resources, Conservation and Recycling* 31, no. 1 (12, 2000): 51-69.
- Miller, Robert L. "Hogs and Hygiene." *The Journal of Egyptian Archaeology* 76 (1990): 125-40.
- Miranda, Elena Durón and Zulema Morales. "Excavadores Del Basural De Bariloche. Apuntes De Una Experiencia En Curso." In *Recicloscopio: Miradas Sobre Recuperadores Urbanos De Residuos De América Latina*, edited by Pablo J. Schamber and Francisco M. Suarez, 115-28. Los Polvorines, Argentina: Universidad Nacional de General Sarmiento, 2007.
- Montoya, Armando and Fabio Tobon. "From Waste Collectors to Entrepreneurs with ISO 9000." 2002. 42.
- Moreno-Sanchez, Rocio, Jorge H. Maldonado, and Ian Sheldon. "The Role of Scavengers in a Dynamic Model of Solid-Waste Disposal and Recycling in Developing Countries." Paper presented at the First Latin American and Caribbean Congress on Environmental and Resource Economics, Cartagena de Indias, Colombia.
- Myllayla, Susanna. "NGOs in Urban Environmental Governance: Waste Recycling in Cairo." In *Associational Life in African Cities: Popular Responses to the Urban Crisis*, edited by Arne Tostensen, Inge Tvedten and Mariken Vaa, 198-217. Uppsala: Nordiska Afrikainstitutet, 2001.
- National Association of Recyclers (Fundacion Social). "Case Study: Promotion of Enterprises Supporting Recyclers for the Integrated Management of Urban Solid Waste in Colombia." Paper Presented to the Workshop on Micro-Enterprises Involvement in Municipal Solid Waste Management in Developing Countries, Bogota, Colombia.
- Narayan, Deepa. "Conceptual Framework and Methodological Challenges." In *Measuring Empowerment Cross-Disciplinary Perspectives*, edited by Deepa Narayan, The World Bank, 2005, 3-38.
- Nguyen, H. T. L., C. G. Chalin, T. M. Lam, and V. W. Maclaren. "Health and Social Needs of Waste Pickers in Vietnam." Report for Canadian International Development Agency.
- Nzeadibe, Thaddeus Chidi. "Solid Waste Reforms and Informal Recycling in Enugu Urban Area, Nigeria." *Habitat International* 33, no. 1 (1, 2009): 93-9.
- Palaypay, M. "Epidemiological Study of a Scavenger Community in Metro Manila."
- Parra, Frederico. "Reciclaje Popular y Politicas Publicas Sobre Manejo de Residuos en Bogota." In *Recicloscopio: Miradas Sobre Recuperadores Urbanos De Residuos De America Latina*, edited by Pablo J. Schamber and Francisco M. Suarez, 63-82. Los Polvorines, Argentina: Universidad Nacional de General Sarmiento, 2007.
- Perasso, Jose A. *Los Pobres del Basural*. Asuncion, Paraguay: El Lector, 1987.
- Perry, Stewart E. *Collecting Garbage: Dirty Work, Clean Jobs, Proud People*. New Brunswick, N.J.: Transaction Publishers, 1998.
- Poulsen, Otto M., Niels O. Breum, Niels Ebbenhøj, Åse Marie Hansen, Ulla I. Ivens, Duco van Lelieveld, Per Malmros, Leo Matthiasen, Birgitte H. Nielsen, Eva Møller Nielsen, Bente Schibye, Torsten Skov, Eva I. Stenbaek, and C. Ken Wilkins. "Collection of Domestic Waste. Review of Occupational Health Problems and their Possible Causes." *Science of the Total Environment* 170, no. 1-2 (8/18, 1995): 1-19.
- Psacharopoulos, George. "Child Labor Versus Educational Attainment some Evidence from Latin America." *Journal of Population Economics* 10, no. 4 (Oct., 1997): 377-86.
- Ratti, Camilo. "El Cartonero De La Mala Suerte." *Página 12*, December 6, 2006, 2006.

- Ravallion, Martin and Quentin Wodon. "Does Child Labour Displace Schooling? Evidence on Behavioural Responses to an Enrollment Subsidy " *The Economic Journal* 110, no. 462 (2000): 158 <last_page> 175.
- Rebong, Jacob and Anthony Ekna. "The Economics of Scavenging: Obscurity within the Recycling Business." *Prisma* 13 (1979): 36-45.
- Ríos, Carlos Julio Castillo. "Elaboración De Compost En Manzanas a Partir De Residuos Orgánicos Urbanos." Presentation, http://lunazul.ucaldas.edu.co/index.php?option=com_content&task=view&id=239&Itemid=231.
- Rodríguez-Garavito, César A. "Solidarity Economy and the Struggle for Social Citizenship in Times of Globalization: A Study of the Cooperatives of Informal Garbage Pickers in Colombia." In *Another Production is Possible: Beyond the Capitalist Canon (Reinventing Social Emancipation: Towards New Manifestoes, Volume 2)*, edited by Boaventura de Sousa Santos, 43-69 Verso, 2006.
- Rogerson, Christian M. "The Waste Sector and Informal Entrepreneurship in Developing World Cities." *Urban Forum* 12, no. 2 (Apr, 2001): 247.
- Roever, Sally. "Informal Governance and Organizational Success: The Effects of Noncompliance among Lima's Street-Vending Organizations." In *Membership-Based Organizations of the Poor*, edited by Martha Chen, Renana Jhabvala, Ravi Kanbur and Carol Richards, 261-78. New York: Routledge Studies in Development Economics, 2007.
- Rouse, John, Pozarny, Pamela, and Genevieve Dionne. "Organizations of the Poor. Conditions for Success." In *Membership-Based Organizations of the Poor*, edited by Martha Chen, Renana Jhabvala, Ravi Kanbur and Carol Richards, 23-42. New York: Routledge Studies in Development Economics, 2007.
- Royse, David. "Homelessness among Trash Pickers." *Psychological Reports*, no. 60 (1987): 808-10.
- Schertenleib, Roland and Werner Meyer. "Municipal Solid Waste Management in DC's: Problems and Issues; Need for Future Research." *IRCWD News* 26 (1992): 2.
- Schubeler, Peter. "Reports and Reviews: International Report: A Conceptual Framework for Municipal Solid Waste Management in Developing Countries." *Waste Management & Research* 15, no. 4 (August 1, 1997): 437-46.
- Sharma, Vinit, Anuragini Sharma, and Hemant Tiwari. "A Medico-Social Profile of Adolescent Rag Pickers Handling Hospital Wastes." *Journal of Adolescent Health* 17, no. 2 (8, 1995): 66-7.
- Sicular, Daniel T. *Scavengers, Recyclers, and Solutions for Solid Waste Management in Indonesia*. Berkeley, CA: Center for Southeast Asia Studies, University of California at Berkeley, 1992.
- . "Pockets of Peasants in Indonesian Cities: The Case of Scavengers." *World Development* 19, no. 2-3 (3, 1991): 137-61.
- Slackman, Michael. "Cleaning Cairo, but Taking a Livelihood." *New York Times*, May 24, 2009, 2009.
- Strasser, Susan. *Waste and Want: A Social History of Trash*. 1st ed. Holt Paperbacks, 2000.
- Teodoro, John Iremeil E. and Jason Christopher Rayos Co. "Community-Driven Land Tenure Strategies: The Experiences of the Homeless People's Federation of the Philippines." *Environment and Urbanization* 21, no. 2 (October 1, 2009): 415-41.
- Tevera, D. S. "Dump Scavenging in Gaborone, Botswana: Anachronism Or Refuge Occupation of the Poor?" *Geografiska Annaler. Series B, Human Geography* 76, no. 1 (1994): 21-32.
- Theron, Jan. "Membership-Based Organisations of the Poor: The South African Tradition." In *Membership-Based Organizations of the Poor*, edited by Martha Chen, Renana Jhabvala, Ravi Kanbur and Carol Richards, 240-60. New York: Routledge Studies in Development Economics, 2007.
- Valls, Oriol. *The History of Paper in Spain*. Madrid: Empresa Nacional de Celulosas, 1978.
- Vincentian Missionaries Social Development Foundation Incorporated (VMSDFI), Manila,. "Meet the Philippines Homeless People's Federation." *Environment and Urbanization* 13, no. 2 (October 1, 2001): 73-84.
- Vincentian Missionaries, . "The Payatas Environmental Development Programme: Microenterprise Promotion and Involvement in Solid Waste Management in Quezon City." *Environment and Urbanization* 10, no. 2 (October 1, 1998): 55-68.
- Wilde, Oscar. *The Soul of Man Under Socialism*. Forgotten Books, 2008.
- Wilson, David C., Costas Velis, and Chris Cheeseman. "Role of Informal Sector Recycling in Waste Management in Developing Countries." *Habitat International* 30, no. 4 (12, 2006): 797-808.

- "Rochdale Principles of Co-Operation 1937 - Section 2 " <http://www.ica.coop/coop/1937-04.html> (accessed 4/12/2010, 2010).
- "Statement on the Co-Operative Identity " <http://www.ica.coop/coop/principles.html> (accessed 3/3/2010, 2010).
- "Urban Poor - Metro Manila Council of Women Balikatan Movement [Balikatan] " <http://www.ncrfw.gov.ph/index.php/directory-women-ngos/67-directory-ngo-client-urban-poor/285-ngo-balikatan> (accessed 3/18/2010, 2010).