

**A VALUE CHAIN ANALYSIS OF CARDBOARD COLLECTION IN
INNER CITY DURBAN, SOUTH AFRICA**

by

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CHAPTER 1: INTRODUCTION

Amidst the hustle and bustle of traffic and commerce in the Central Business District (CBD) of Durban, amidst the breeze from the Indian Ocean that drifts along the boardwalk, messing the hair of tourists who stroll the beachfront shopping for trinkets, across Durban's busy intersections and throughout its quiet suburban neighbourhoods, a common thread exists; the less fortunate residents of Durban rummage through garbage bins or trudge along sidewalks laden with stacks of heavy cardboard balanced on their heads. Everyday these people, mostly women, walk their respective territories collecting waste paper and cardboard, hoping to sell it to one of the many intermediaries on side streets. This is one of the most precarious of informal livelihoods. It is these livelihoods and potential interventions to increase incomes among collectors that this dissertation aims to explore.

A feature of the new South Africa is the increase in informal work. In this light, Durban has been seen as leading other South African cities with respect to its support of the informal economy and those who earn their livelihoods therein.

Much research has been conducted on the nature and workings of economies throughout the world. There has also been significant research on issues of recycling and waste management. Generally, the focus has been on the formal economy (i.e. formal sector jobs, industries in which employees are paid regular wages, receive benefits, and an environment where people pay taxes). In many situations, workers who were employed in the formal economy have been forced to move into the informal economy because of changes in the economic environment that included downsizing or restructuring. These are instances where salaried positions do not exist or have been cut in response to cheaper alternatives such as outsourcing or subcontracting. "Lack of enforcement of labour laws and bargaining council agreements is disenfranchising waste management workers employed to work externalisation contracts, and has pushed them into the informal

economy” (Samson 2004: 42). Studies that focus on activities in the informal economy often focus on figures and percentages that can prove the presence and importance of the informal economy, but rarely do they take an in-depth look at the experience of workers themselves. Developing countries encounter a number of challenges regarding waste management because of limited resources, technology, and infrastructure. Poor workers in the developing world have found ways to earn a subsistence living by doing informal work as waste pickers. Informal workers provide valuable waste collection services by filling a void in the waste management sector.

Unclear definitions in the waste management sector, limited resources, lack of enforcement of labour laws, gender bias, and difficulties organising workers all contribute to the precarious working conditions experienced by cardboard collectors within the waste management sector. The provision of waste management services is interconnected with numerous elements of society including infrastructure, health and safety conditions, the environment, the judicial system, and employment. Waste management officials therefore need to take the abovementioned areas into account as well as understand the nature of the work performed by waste-pickers in the informal economy when devising effective policies.

The broad aim of this study is to understand the relationships and linkages that exist within the waste management sector by conducting a value chain analysis. The focus will be on the roles of numerous stakeholders within the sector, some of those stakeholders falling in the formal economy, some in the informal economy, and some who straddle an imaginary line between the two. Particular attention will be given to the work of cardboard collectors in the informal economy, as well as intermediaries who buy materials from garbage pickers to in turn sell to local industries. A number of techniques have been employed to facilitate an understanding of the dynamics that characterise the formal and informal economies as well as the linkages between them. This dissertation attempts to address these linkages in Durban, South Africa, by using a value chain analysis of one segment of the waste management sector: the activities of cardboard collectors in Durban’s CBD.

To achieve the aforementioned objectives, this thesis is organised into six chapters. Chapter Two defines the informal economy, reviews historical and theoretical concepts of the informal economy, and differentiates between the concepts “informal economy” and “informal sector.” Chapter Two also describes the social construction of gender, defines the value chain, and discusses how value chain analyses can be a useful tool for exposing dynamic relationships and activities within a system such as the waste management sector in Durban. Chapter Three provides a contextual analysis for this study, addressing waste management and recycling issues around the world, previous research on waste collection, interventions aimed at supporting waste collectors, and waste management in South Africa. This chapter sets the framework for research into the work conducted by informal cardboard collectors, intermediaries, and formal industries. Chapter Four will discuss the methods used in this research, which are informed by the theories analysed, and draw from original key informant interview data obtained and analysed. It also discusses potential external and internal biases that could have affected the study. Chapter Five discusses the main themes and findings of the study and provides analysis based on the key informant interviews that were conducted at various levels of the waste management sector. This approach allowed for a better understanding of sector dynamics, the working conditions and personal experiences of cardboard collectors in the informal economy, power/political issues, and opportunities for growth, change, and innovation. Chapter Six concludes by discussing theoretical conclusions, policy implications of the study’s findings, and offers a set of recommendations for the improvement and strengthening of the waste management sector in Durban.

CHAPTER 2:

DEFINITIONS & THEORETICAL REFLECTIONS

Among the many characteristics that make up the composition of global economies are the myriad of informal economic activities often not recorded in official statistical data, government reports or livelihood considerations. Yet every economy has an informal economy out of which many people supplement or obtain their entire income. The aim of this chapter is to define the informal economy, outline the difference between the notion 'informal sector' and 'informal economy,' and explore how ideas have changed over time. This section will also touch on differing perceptions of the informal economy, the structure of the informal economy, discuss some causes and effects of informalisation, and provide information on both historical and current theoretical thinking about the informal economy. This chapter will also define the social construction of gender, value chains, and value chain analysis and explain why each concept is relevant to this study.

Informal Economy – What is it?

Current thinking on how to describe informal economic activities is shifting from one focused solely on formal and informal economies to the concept of informalisation as a process. As an overview of this change, Skinner explains:

Implied in the notion 'in' formal is that there is a formal, a norm, against which these other activities can be compared. As with any norm this will be time and context specific. With respect to the labour market Eapen (2001: 2390) points out how previously authors (e.g. Papola, 1980; Banerjee 1985) defined informality in terms of the absence of characteristics that belong to 'formal' activities like security/regularity of work, better earnings, existence of non wage and long term benefits, protective legislation and union protection. She goes on to point out that in a situation in which a number of activities within the formal sector are getting 'informalised' and private, small scale processing/manufacturing enterprises are growing 'the borderline becomes blurred'. Considering this issue from another angle, Bromley (1995: 146) asks 'if an enterprise is required to have six official permits, for example, but only has five, should it be considered informal even when the sixth derives from a moribund regulation that most entrepreneurs ignore?' Bromley (1995: 146) goes on to conclude 'formality and informality are really opposite poles of a continuum with many intermediate and mixed cases' (Skinner 2002: 5).

The International Labour Organisation (ILO) in 1972, defined the informal economy as a way of doing things that includes some or all of the following characteristics: “ease of entry, reliance on indigenous resources, family ownership of enterprises, small-scale operation, labour intensive and adapted technology, skills acquired outside of formal school system, and unregulated and competitive markets” (ILO in Moser 1994: 16-17).

Over time, different definitions of the informal economy have formed as has the language used to describe it. Some definitions are based upon beliefs that informal activities are merely survivalist in nature i.e. a means of getting by until one can obtain employment in the formal sector, to others whose standpoint emphasizes its ability to foster innovation, competition and self-sufficiency. Yet other definitions stress the presence or lack of institutional regulation. Castells and Portes provide what they believed to be the most accurate definition and characteristic of the informal economy, one that focuses on regulation:

The informal economy is thus not an individual condition but a process of income-generation characterised by one central feature: *it is unregulated by the institution of society, in a legal and social environment in which similar activities are regulated* [italics in original] (1989: 12).

Researchers and academics have constantly strived to more accurately represent the activities and the life of the informal economy. As a result, numerous terms have been used in attempts to convey its breadth and complexity. Table 1 reveals the variety of terms used to describe the informal economy.

The Informal Economy by some Other Names	
TERM	AUTHOR
Trade-Service Sector	Reynolds (1969)
Informal Income Opportunities	Hart (1971)
Unenumerated Sector	Weeks (1971)
Informal Sector	ILO (1972)
Intermediate Sector	Child (1973), Steel (1976)
Community of the poor	Rempel (1974), Gutkind (1967)
Unstructured Sector	Emmerij (1974)
Family-Enterprise Sector	Peattie (1974), Mazumdar (1976)
Irregular Sector, Unorganised Sector	Standing (1977), Joshi (1976), Harriss (1978), CSO (1980) cited in Chandra and Pratap (2001)
Petty Commodity Production	Moser (1978)
Lower-Circuit of Urban Economy	Santos (1979)
Casual Work	Bromley and Gerry (1979)
Non-Plan Activities	Sarin (1979)
Non-Westernised Sector	Hackenberg (1980)
Urban Subsistence Sector	Cole and Sanders (1985)
Informal Economy	Portes, Castells and Benton (1989), Skinner (2002)
Informals	De Soto (1989)
People's Economy	Sasono and Rofi'ie (1987)
Non-formal Sector	ILO-SAAT and UNDP (1998)

Source: Adapted from Amin, *The Informal Sector in Asia from the Decent Work Perspective*

A distinction must be drawn between the terms *informal economy* and *informal sector*. Increasingly the term informal economy is being used instead of informal sector because informal sector disguises a significant degree of heterogeneity. “The informal economy encompasses such a diversity of situations and activities that it represents a heterogeneous universe, irreducible to any subset of specific rules of economic calculation” (Castells and Portes 1989: 25-26). The heterogeneity of the informal economy can make it appear impossible to create meaningful policy interventions. Upon closer examination, however, it is possible to make many different classifications within the informal economy by using its diversity (Amin 2002: 23). While the term “informal economy” expresses the different types of economic activities, employment relations and activities with different economic potential the term “sector” is used in reference to different industries that exist such as clothing, chemicals or sanitation services. Each sector or industry is then comprised of formal and informal activities. The term informal economy was chosen for this study because as stated in Skinner (2002: 5), “The term economy implies a greater range of activities than sector. If both formal and

informal activities are seen as part of the economy we are better able to see the linkages between the two.”

Therefore, the term informal economy refers to more overarching ideas that include labour relations, working conditions and economic possibilities. The term “informal sector” refers to specific activities within an industry (Skinner 2002: 5). The term informal economy implies a greater range of activities and is something that can be seen as an important component of the overall economy. The informal economy is not an object; instead it is better understood as a historical process (Castells and Portes 1989: 11). Understanding informal economy in this manner exposes links between formal and informal activities. The existence of the informal economy is often seen as a reflection of development failures. In short, within both developed and developing countries the informal economy has been simultaneously a solution to and symptom of economic problems.

The reasons for the existence and persistence of informal activities have been much debated. Castells and Portes note that those who look to the period of economic stagflation during the 1970s to define the informal economy and its related activities provide much too simple of an explanation. Castells and Portes explain that informal activities have existed for hundreds perhaps even thousands of years despite the phrase “informal sector” having not yet been coined. They rejected the idea of 1970s stagflation as the sole reason for informal economy emergence articulating:

Such a statement is both too limited and too general – too limited because some of the processes at work, particularly in the Third World and in countries like Italy, were in place before the 1970s; too general because it does not clarify precisely how this restructuring is taking place or identify the specific targets of the process” (Castells and Portes 1989: 27).

A number of misconceptions exist about the nature of the informal economy and the people who are involved in informal activities. The informal economy is not merely a set of survival activities performed and experienced by only impoverished people who live on the periphery of society. Although it is true that many people making a living in the informal economy do so because it is a way of gaining subsistence.

Understanding the informal economy as a process allows us to see how changes in the regulatory, economic or social environment in the formal economy have a direct affect on changes in the informal economy. When activities and situations in the formal economy change, so too does the informal economy as it realigns itself to absorb the new information or shifting regulations (Castells and Portes 1989: 12). In addition to the regulatory and economic impact, shifting social dynamics can also cause change in the informal economy. Norms and values in the mainstream can lead to changing perceptions of the value or morality of activities in various areas of the informal economy. What is considered socially unacceptable in one society may be a very commonplace idea in another society.

The work process is perhaps most affected by the unregulated character of the informal economy. The status of labour, working conditions and type of management practices are examples of aspects of the work process. The status of labour includes activities such as whether a labourer is declared as an employee of a particular person or business, which in turn would entitle her/him to certain health and employment benefits, wages, and work circumstances. The conditions of work encompass issues like the health and safety of the employee while at work, the location of the workplace and public hygiene. Forms of management can include whether accurate records are kept, if unrecorded cash payments are made, money laundering or other types of fiscal fraud (Castells and Portes 1989: 13).

Perspectives on the Informal Economy

Attempts to describe the nature of the informal economy and the reasons for its emergence have appeared over the years. The most prominent theoretical positions on informal economy include the neo-liberal, structuralist and legalist views although academics and policy makers have frequently used the theories in combination with each other. Each theory addresses three main issues namely social dynamics, the role of the state and the challenge of measurement. At times the theories indicate paradoxes within the informal economy.

Early neo-liberal and Marxist theorists shared many of the same views on the informal economy. Early neo-liberals at work during the 1950s and 60s as well as Marxists from the 1970s thought that the informal economy was made up of survivalist activities, traditional in nature, and that this phenomenon of informal activity only occurred in developing countries among people living in the “margins” of society. These theorists saw no potential in the informal economy for independent growth. They saw the informal economy as a transitory state, which would eventually change when a country developed into a fully capitalist society (Meagher 1995: 261). The viewpoint of “marginalism” held by the early neo-liberals and Marxists is reminiscent of dependency theorist Prebisch’s centre-periphery theory. In this theory the developed countries constitute the centre or core of trade and industry while the developing countries make up the periphery and are dependent on the centre.

In the 1970s, the new neo-liberal theory emerged. Their perspective was influenced by writings by the ILO (1972). The new neo-liberal theory represented a shift in which marginalism was replaced with the recognition of the informal economy’s capability of “entrepreneurial dynamism suggesting a potential for employment creation and growth” (Meagher 1995: 262). According to Meagher, the informal economy began to appear in the eyes of theorists not as a “victim of excessive intervention” but instead as a “product of incomplete intervention” (1995: 262). This new perspective saw the informal economy no longer as something residual but rather as an aspect of the overall economy that could and does play a central role. They also held that the linkages existing between formal and informal economies tended to be benign.

The new neo-liberal theory eventually branched in two positions. On the one side the World Bank and development theorists like Hernando De Soto viewed the informal economy as already having the skills needed for economic take-off. The other position, held by the ILO, believed that the informal economy possessed inherent weaknesses that could only be remedied through enlightened state intervention. The ILO theory has been criticised for being “politically utopian” (Leys in Moser 1978: 1045) in its recommendations for development reform in addition to being somewhat arbitrary in its analysis of growth rates in

employment (Moser 1978: 1045). Additionally, the ILO's definition of the informal economy has been criticised for being overly-static in its definition of what the term encompasses. The ILO's definition relies on regulations, or rather the lack thereof, in conjunction with other business characteristics, to define activities as formal or informal.

The overwhelmingly negative perception of several characterisations made within this definition, many of which portray informal activities as beneath and/or excluded from the formal economy, has caused other authors to develop a more widely-encompassing approach to defining the informal economy. One example of this is the combined writings of neo-Marxist authors.

Neo-Marxists of the early 1980s placed emphasis on better analysis of concepts and social networks. They saw social networks as significant because they could provide organisational structure and a framework for recruitment of new workers. They also had a better understanding of capitalism and how capitalism often goes through periods of crisis and expansion. Meagher (1995) drew on the research of Bernstein and Gerry to explain how new Marxists moved away from older ideas focused on production:

Marxist thinkers have turned to a more concrete analysis of informal actors as involved in a variety of capital/labour relationships, as employers, owner-operators and various forms of waged and unwaged labourers (Meagher 1995: 263).

While the neo-Marxist viewpoint expands the definition of the informal economy to account for relationships and interactions left out of the ILO's definition, it is still dependant on a base definition of the formal and informal economies that view each as a separate entity, with the formal economy dominating the informal economy and its actors. As a result, this approach also focuses on defining the informal economy in a negative light.

Another theoretical position was set forth in legalism. As denoted by the title, researchers who subscribed to this theory believe that the best definition of the informal and formal economies can be found through a strict analysis of the laws, regulations, and bureaucracies that often encourage the growth and expansion of informal activities and, in turn, the informal economy. Unlike either of the two aforementioned theories that often view states as culpable for the

growth of the informal economy through an over-emphasis on the formal economy, this viewpoint assumes that the state is responsible for encouraging informal economic growth by placing added costs and regulations on informal actors, thereby causing them to resort to further illegal activities in order to survive. Hernando De Soto, a leading advocate of this theory, "...advocates deregulation, decriminalisation, and accelerated legalisation as the solution to most illegal business operations and squatting, arguing that the poor are the victims of an over-zealous bureaucracy and a hopelessly inefficient legal system..." (Bromley 1990: 332). While this approach embraces the entrepreneurial spirit of many within the informal economy, it fails to account for the heterogeneity that other researchers (several of which are mentioned throughout this section) have pointed to as a hallmark of the informal economy. Instead, De Soto and others within this approach view the poor as a collective mass, operating illegally and outside of formal structures. The inability for this approach to incorporate ideas of economic synergies between the formal and informal economies undermines its ability to effectively reflect the true nature of informal work and, in turn, the informal economy.

Interpretations of the informal economy's place in society have differed over time depending on the angle at which various theorists have chosen to view it. For some the informal economy is an important politico-economic process, as it links to under-the-table activities of large scale corporations who wield a great deal of power and contribute to the creation and perpetuation of informal activities (Castells and Portes 1989: 15). For others the informal economy is viewed on a sort of continuum of criminality. Obviously, however, levels of criminality are subject to a particular society's current laws and norms and have the ability to change over time and across cultures or regions.

The informal economy is paradoxical. At once the informal economy can create and perpetuate exploitation through illicit and unregulated activities as well as open up avenues for new business and livelihood opportunities. The necessity of finding employment, additional income or escaping restrictive regulations, and the result of globalising forces including the downsizing of firms have led to the invention of the informal economy. These terms are not just a matter of semantics

rather they direct us to deal with informal economy challenges economically regarding possible interventions, understanding of social relationships, economic dynamics, and resulting policy recommendations.

The Social Construction of Gender

As Sethuraman (1998) demonstrates, there are a high proportion of women working in the informal economy. Further, Sethuraman (1998:78), having gone through substantial country specific data, concludes:

The evidence reviewed suggests that not only are women's incomes lower than that of men [in the informal sector but that]... a greater proportion of women are in lower income categories than men, implying that a larger percentage of female employment in the informal sector is of inferior quality. This finding holds good across all countries in Asia, Africa, and Latin America from which evidence is drawn. Such gender bias exists even within specific categories of employment status and activities.

Sex and gender is thus relevant to any study of the informal economy. It is not unusual to find the words "sex" and "gender" used synonymously. They are, however, very different in the strict definitional sense. "Sex" is a term that refers to biological distinctions related to reproductive organs, allowing for categorisation as a male or female (Bates 1995: 169-170). A biological "woman" is female and a biological "man" is male. "Gender" is a term that describes the socially constructed roles that individuals play within their given society. Gender roles can vary from society to society based on the different cultural values and mores held by the society. As a result, societal behaviors or perceptions that may characterise masculinity or femininity in one place may not in another. Beliefs about men and women based on gender can affect how they are treated and opportunities for which they are given or excluded. Understanding that gender is a social construction is a necessary starting point for analysing the issues that will be discussed within this paper.

Value Chains & Value Chain Analysis

The aim of this section is to answer several important questions including: What is a value chain; What is a value chain analysis; Why is value chain analysis important and useful to researchers and to this study; Where and how does

conducting a value chain analysis fit into informal economic theoretical debates and activities; and how will the concept of the value chain be used to inform this paper on waste collection in Durban?

A value chain describes the range of activities that follows a product or a service from its inception to final consumption (Kaplinsky and Morris 2000: 4). A value chain looks at the entire process a product/service within a sector undergoes from its creation or inception all the way through its production, marketing, delivery, consumption, and eventual disposal or recycling. Another, slightly different definition defines value chains as, “the set of value-adding activities through which a product passes from the design to consumption stages. The worth of the product increases at each point of the process, hence the term value chain” (McCormick and Schmitz 2002: 207).

Value chain analysis has been used for a number of years to understand different sectors within the formal economy, particularly with respect to identifying constraints to growth and possible areas of intervention. In South Africa, for example, the value chain approach has been used to analyse the motor, clothing, and furniture sectors (see Barnes, 1999, 1998; Dunne and Harrison, 1999; and Dunne, 1999 respectively). Increasingly this research technique is being applied to understanding dynamics in the informal economy and identifying policy interventions. See for example the research listed under the global markets programme within the research and activist network – Women in Informal Employment Globalising and Organising or WIEGO – www.wiego.org.

Kaplinsky and Morris (2000: 2) identify a number of reasons why value chain analyses are useful and important. First they argue that studies of value chains go beyond the firm-specific analysis of much of the innovation literature. Second, value chain analysis uncovers the flow of activities in a sector whether those activities are economic, organisational or coercive. Third, value chain analyses are helpful to researchers and policy makers for understanding the policy environment on the local, national and international/global levels. Fourth, in as far as value chain analysis allows for easier comprehension of the dynamic factors within the whole chain facilitating more informed decision making, this form of analysis holds the potential for maximising the potential gains from globalisation.

Better decision-making enables better policy creation and hopefully results in positive economic growth.

Value chain analysis is an investigation that is concerned with the “dynamics of inter-linkages within the productive sector” (Kaplinsky and Morris 2000: 2). Value chain analyses function to draw out both the obvious and the more subtle activities and relationships that reside in working environments. Activities in a value chain can flow two ways and the flow is not always a vertical one, i.e. top-down with relationships only coming from upper tiers of management. Often intermediaries play a significant role in connecting upper and lower levels of the chain and linking formal and informal activities. Intermediaries are sometimes involved in multiple value chains within the same or even different sectors.

Value chain analyses are a micro economic level tool that can be used with a macro economic perspective. The macro economic perspective would then take into consideration factors such as capital flows, political issues, investment, and social capital (Kaplinsky and Morris 2000: 2). Value chain analyses expose the inter-linkages within and between the formal and informal economy. They also reveal the elements of power, control and governance imbedded in sectoral economic relations. This power element indicates the presence of a political dynamic in value chain analysis, not merely a production element. In industrial sectors such as the waste management sector, power normally falls into the hands of either the buyers or the producers (Kaplinsky and Morris 2000: 8).

Where and how do value chain analyses fit into informal economic theoretical debates and activities? The concept of value chain analysis was originally developed as a way to better understand production processes in the formal economy. In recent years, however, researchers and policy makers have recognised its increasing usefulness in policy analysis of the informal economy (Carr et al, 2000; McCormick and Schmitz, 2001; Skinner, 2002). The value chain approach has at times been criticised for its apparent tendency to ignore the importance of labour issues (Skinner 2002; Ramamurthy 2000; Dunaway 2001); however, researchers have since adjusted the model accordingly in order to fit the purpose of informal economic and labour analysis by addressing factors such as

gender, organisations, working conditions, and workers' links to both domestic and localised markets. Value chain analysis can help the situation of informal workers. Sectoral studies performed using the value chain analysis method are able to inform policy makers to reach better decisions and make better choices. Policy makers can more fully understand the impact of new policies on various links within the chain that may be threatened. They can also facilitate the “upgrading of other links in order to generate greater returns” (Kaplinsky and Morris 2000: 22).

McCormick and Schmitz (2002) provide a useful outline of the characteristics of value chains. They highlight three – the input-output structure, the geographical spread, and control and governance. The input-output structure refers to the actual flow of work along the chain. The geographical spread encompasses the numerous locations where any stage of the chain takes place. Control and governance as a characteristic of value chains focus on the various patterns of power via direct and indirect means. Control and governance are exerted through methods and measures such as the market, social and/or business networks, or more traditional hierarchies created as a result of vertically integrated enterprises. Market transactions occur between buyers and sellers or producers and typically are considered as business, which takes place at an arms length. For instance, the buyer need only place an order to have some control over the flow of the chain. Hierarchies on the other hand represent the opposite approach in that they possess much more control as they may own and operate some or all parts of the value chain. “These firms control chain activities through their own decision-making hierarchy” (McCormick and Schmitz 2002: 44). These characteristics will be examined in this case study.

It is useful to use value chain analyses because they focus on labour and production as well as the many interrelationships between the various parts of a particular sector or manufacturing process. The concept of the value chain will be used in this paper to analyse the dynamics and linkages between the formal and informal economy in the waste management sector of Durban, South Africa. The value chain analysis will focus on the tail end of the value chain cycle within the sector by examining what happens after waste is thrown away. This study is

concerned with the activities occurring from the waste disposal and collection stage through the reuse and recycling stage. Workers in the informal economy in Durban, and indeed around the world, have found ways to use the waste management sector in its final stages of the value chain as a source of income.

Informal economic activities embody links and processes that span over and cut across societies. It is necessary to see the role of the informal economy as an entity and process that reaches forward and back, up and down as well as paving paths in new directions. It is important to recognise the social construction of gender and how it impacts stakeholders within the informal economy and value chains. Value chains and value chain analysis share with the informal economy the idea of inter-linkages as well as a focus on issues of labour and production.

CHAPTER 3: CONTEXTUAL ANALYSIS

Waste collection occurs around the world in a multitude of ways. This chapter provides a context for understanding: how waste management, including collection and recycling, is handled in various countries; what previous research has been done on the subject; interventions aimed at supporting waste collectors; and waste management in the South African context.

International Context - Waste Management, Collection, & Recycling Worldwide

Waste management is an issue that all countries around the globe must address. Regardless of a country's wealth or development status all people consume and hence create waste and that waste needs removal. The World Bank has estimated that up to 2 percent of the population in developing countries survives by recovering materials from waste (Medina-Martinez 2000: 9). One critical issue involves how solid waste removal is undertaken in various parts of the world. Developing countries require different methods for the removal and disposal of their municipal solid waste (MSW) as do highly industrialised countries. MSW can be defined as:

The materials discarded in the urban areas for which municipalities are usually held responsible for collection, transport and final disposal. MSW encompasses household refuse, institutional wastes, street sweepings, commercial wastes, as well as construction and demolition debris. In developing countries, MSW also contains varying amounts of industrial wastes from small industries, as well as dead animals, and fecal matter (Medina-Martinez 2000: 3).

Waste picking in developing countries can be attributed to a number of causes, which in and of themselves expose the vast differences between the developed and developing worlds. The existence of scavenging is due to problems with the structure of developing countries. Some structural causes of informal waste collection are "underdevelopment, poverty, unemployment, the lack of a safety net for the poor, as well as industrial demand for inexpensive raw materials" (Medina-Martinez 2000: 23).

In wealthy, developed countries waste collection, removal and disposal is highly technological and is conducted by wage-employees in the formal sector. Sophisticated technology is used to collect and separate the many different types of garbage. In contrast, poorer developing countries often do not have the resources or infrastructure to provide such waste management services. Waste collection is left to a combination of municipal and private companies as well as to individual citizens in the informal economy.

Four major differences exist between developed and developing cities with regard to MSW according to Medina-Martinez (2000). These differences are important because they affect what policies are used to cope with service needs of the respective populations. First, industrialised countries and the cities within them tend to have money, capital and high labour costs. In comparison, developing countries and their cities have scarce capital and many labourers who are unskilled and inexpensive to employ. For rich countries, it is easier to develop waste management policies that include the use of expensive technology and less labour. Poor countries on the other hand require low-cost solutions to waste management, ones that will be able to effectively use the abundance of unskilled labour, in order to lower unemployment and alleviate poverty. A second difference between developed and developing cities appears in their physical characteristics. Cities in developing countries have large slum/township settlements with poor roads and rough, hilly, unmarked terrain. The land that the slum areas are on is not owned by the people living there; they are squatters. Cities refuse to collect the waste of the squatters because the squatters do not pay taxes. Those cities who do attempt to collect waste from slums often find their equipment unable to reach difficult areas or in need of repair from rough roads. Developed and developing cities also differ in the amount and type of waste that is produced. While the developed countries produce a large amount of waste that is inorganic, the developing world produces more organic waste. Developed countries also generate more waste. There is a positive correlation between income and waste generation, i.e. the richer a household the more waste they produce (Medina-Martinez 2000: 6-7). The same pattern can be seen at a larger scale. For example, “in Mexico City, low-income households generate 2.6

kilograms a day, middle-income households produce 2.7 kilograms a day, and upper-income households, 3.7 kilograms a day” (Medina-Martinez 2000: 7). Lastly, a key difference between developed and developing cities is that, “Third World cities have a dynamic informal sector that has evolved around wastes, which provides income opportunities for recent migrants, unemployed, children, women, elderly and handicapped individuals” (Medina-Martinez 2000: 8).

The lack of waste management technology in developing countries allows for a niche where people in the informal economy can make a living. Similar practices are conducted worldwide in the informal economy whether the garbage pickers are in Latin America, Southern Asia or Africa. In some areas, informal workers pick up garbage for a large percentage of the population. “In Santa Cruz, Bolivia, for example, informal refuse collectors serve about 37 percent of the population” (Medina-Martinez 2000: 8).

Pickers collect domestic and industrial waste by hand or by other means. “In many Latin American cities, informal refuse collectors using pushcarts, tricycles, donkey carts, horse carts, and pick up trucks serve the poor and retrieve the recyclables contained in the garbage before disposing of the remainder of the waste” (Medina-Martinez 2000: 8). Informal collectors separate waste and sell it to buyers who then sell the materials back to industries for reuse or recycling. Garbage pickers spend their time wading through landfill sites, scouring city streets and negotiating with shop owners. Materials collected by waste-pickers include cardboard and paper, plastic, scrap metal and glass. In some cases they also collect bone and discarded food leftovers to feed to their animals, especially pigs and goats.

What is not often recognised is that while informal waste pickers make a living they also provide an important public service. “Waste-pickers are engaged in socially useful, economically productive and environmentally beneficial work,” however, despite their crucial activities it is common for outsiders and even for the pickers themselves to not view their activities as work (Chikarmane 2001: 3). While they work they also clean up their surroundings by removing any waste materials that can be recycled or reused. According to Medina-Martinez, “scavenging can also save foreign currency by reducing imports of raw materials”

that need to be purchased from outsiders (2000: 22). Furthermore, they reduce the number of contaminants in organic waste by sorting out the inorganic waste from dump sites (Medina-Martinez 2000: 12).

Solid waste management, while not often a top priority of local and national governments represents a huge portion of Third World cities' budget expenditures. It is normal in most Third World cities for "waste management to account for 30-50 percent of municipal operational budgets" (Medina-Martinez 2000: 3). These expenses are shockingly high when put into perspective because the high expenditures do not include all of the garbage that is generated.

...cities collect only 50-80 percent of the refuse generated. In India for instance, about 50 percent of the refuse generated is collected, 33 percent in Karachi, 40 percent in Yangon, and 50 percent in Cairo. And disposal receives less attention: as much as 90 percent of the MSW collected in Asian cities end up in open dumps (Medina-Martinez 2000: 3).

Rapid urbanisation and population growth in the Third World puts strain on the resources of cities and the cities' ability to handle important services including water, sanitation and solid waste management. According to Medina-Martinez, the growth of cities in the Third World implies the growth of slum areas and also the appearance of new slums. In most cases these slum areas are not provided with waste management services, which ultimately hurts the urban environment (2000: 2). Most often in low-income areas the lack of service results in residents dumping their waste in vacant lots and public spaces, water sources like rivers and creeks or burning garbage in their yards (Medina-Martinez 2000: 3). Waste that is not properly collected and disposed of ends up polluting as, "worldwide, over two-thirds of human wastes are released to the environment as sewage, often polluting surface waters and posing significant risks to human health" (Medina-Martinez 2000: 2).

In Asia, there are a number of different causes of why the poor are involved in waste picking. In parts of South Asia such as India and Bangladesh, the poor are involved in waste picking because of caste, orphanhood and natural disasters (Amin 2002: 27). "A Bangalore study reports of 20,000-30,000 waste pickers in Bangalore, the majority of whom are reportedly women and children from the lower classes" (Hunt in Amin 2002: 27). India's caste structure forces the members of the lowest castes to live in poverty and perform undervalued

work. Women and children from the “untouchable” caste make up the majority of waste pickers. Specifically, these “untouchables” are of the Mahar and Matang castes. . According to Chikarmane, “the total population of such workers in Pune is estimated to be 6,000, of which waste-pickers constitute 66 per cent and itinerant buyers, 34 per cent. The proportion of women in the sector is 73 percent” (Chikarmane 2001: 1). Most of the waste-pickers in Pune are women; they make up 92% of all pickers in the municipality.

As in other areas of Asia and around the world, informal work in general as well as waste disposal, collection, and management are highly relevant issues. In Manila alone there are approximately 12,000 waste-pickers living and working (Medina-Martinez 2000: 12). Waste collection by scavengers in Southeast Asian countries significantly reduces the percentage of garbage that ends up at landfill sites while also improving the environment. Notable monetary savings are also evident in Southeast Asia because of waste-pickers’ activities.

In Bangkok, Jakarta, Kanpur, Karachi and Manila, scavenging saves each city at least U.S. \$23 million a year in lower imports of raw materials, and reduced need for collection, transport and disposal equipment, personnel and facilities. According to some estimates, Indonesian scavengers reduce the amount of wastes that need final disposal by one third, which has significant environmental and economic benefits (Medina-Martinez 2000: 13).

Factors like sewage can be both the cause of waste problems and another potential source of income for waste collectors. Raw sewage materials are dangerous because they pollute water supplies and contribute to the spread of dangerous diseases. “In Manila, a city of over 10 million people, only 10 percent of the population is served by sewers. Raw sewage generated by Manila residents regularly pollutes water supplies, canals, lagoons, the Pasig River (which runs through the city), and Manila Bay” (Medina-Martinez 2000: 2). On the other hand, useable materials can often be found on surface water in areas with poor sewage systems. In the Philippines and Thailand it is common for people to dispose of waste in rivers. Often waste pickers will use small boats to skim garbage and recyclable materials off the surface. They also use the water to aid them in the transport of the materials they’ve collected. This method of collecting

is more profitable during the rainy seasons when added runoff water and the resulting overflow washes waste onto the streets (2000: 11).

In Southeast Asia, countries like Indonesia rely at times on the efforts of international organisations such as the ILO to step in and encourage solidarity and unionising by informal workers (Amin 2002: 68) while others have made progress locally. Some local organisations have appeared through workers' cooperatives. In Indonesia, the Indonesian Workers' union has formed. In the Philippines there is the Trade Union Congress of the Philippines (TUCP) and the Filipino Workers' Development Fund (FWDF). In Thailand less has been done within the informal economy, however there are larger institutions that have pushed for the formation of community-based organisations to offer leadership within community households. For instance, "The United Slums Development Association (40 communities), the Community Development Group (33 communities), and the Klong Luang Slum Federation (20 communities) help individual communities to connect with others and contribute to finding solutions to similar problems" (Douglass and Zoghlin in Amin 2002: 69).

Although there are efforts to organise informal workers and the attitude of the Chinese government has been increasingly cognisant and supportive of informal economic activities, attempts by workers to organise independent unions remains a challenge. The informal economy in China is no longer viewed only as a "way out" but also as an area that can create new jobs and security according to Ministry of Labour and Social Services (Amin 2002: 70). But while encouraging news such as this supports the idea that the informal economy in China will continue to grow there is no evidence that people will be urged to form independent organisations that may potentially challenge the status quo.

In East Asian countries such as China, men who were previously farmers often make up the majority of waste pickers as they have migrated from rural areas to urban areas in search of work. Their involvement in waste picking activities is for a number of reasons such as "inadequate education and skills, low social status or family tradition" (Zhao in Amin 2002: 26). In certain cities in China dumping at landfills is the only method available for getting rid of garbage. So it is logical that in a country with a growing informal economy there would be

waste-pickers at every landfill. Most of the individuals who work at landfills collecting waste live in nearby slums or at the actual dumpsite. Poor living conditions serve to increase health conditions including injury and disease from exposure to harmful toxins, pollution and objects. This is the case at landfills in Wuhan, a city in the Hubei Province of China. “At present, there are seven landfills in the city. Waste pickers are observed in all of these sites. They are poor people who search through refuse for recyclables in landfills from early morning to late evening. Almost all of these dumpsites’ workers migrated from poor rural areas of Hubei province or other neighboring provinces” (Zhao in Amin 2002: 26).

Previous Research on Waste Collection

There are two seminal studies on waste collection. The first is Birkbeck’s study conducted in the late 1970’s in Cali Columbia. Birkbeck argues that, life at the Cali, Columbia garbage dump represented an economic microcosm. Pickers needed capital in order to become dealers/buyers and they faced competition with other buyers and that competition increased as the number of buyers increased. The success of the buyers was also linked to the many pickers/collectors that remained relatively static in their work and income. The pickers did possess skills and a work ethic but most could not rise above their careers as waste collectors because they were not involved in work that allowed them to escape their poverty (Birkbeck 1978: 1181, 1184). Birkbeck summed up the situation in two crucial sentences by saying, “The work that takes place on the garbage dump is quite highly organised, yet at the same time precarious. It is efficient and productive, yet based upon the continued poverty of the majority of the workers” (1978: 1178).

In Cali, Columbia the poor who collect waste at the local landfill are referred to as vultures because they find value in what has been discarded by others; they are the scavengers, Birkbeck argues these people are really not much different from formally employed factory workers. They may merely collect materials such as paper, bottles, scrap metal, and bone but similar to formal sector workers they arrive at their place of employment each day and work fairly fixed hours. According to Birkbeck, garbage pickers in Cali “are part of a recycling

network, which feeds some large factories and a few small industries in Cali and elsewhere” (Birkbeck 1978: 1174).

Cali’s garbage pickers exist in a paradoxical position in that the nature of their work possesses seemingly contradictory qualities that are all true. Such paradoxes are reflected in the terms, or rather non-terms, of their employment. How their work is classified depends greatly upon the perspective one takes when analysing activities and relationships at the Cali dump.

Because of the nature of their relationship with the industrial market for recuperated materials, the garbage pickers in effect work for the factories but are not employed by them. They are little more than casual industrial outworkers, yet with the illusion of being self-employed. They may be in a position to decide when to work and when not to, but the critical factor is control over the prices of recuperated materials, and that control very definitely lies with the industrial consumers... They are self-employed yet in reality sell their labour power (Birkbeck 1174).

For this reason, Birkbeck calls the garbage pickers ‘self-employed proletarians’ to reflect what he refers to as “the contradictory nature of their class location” (Birkbeck 1978: 1174).

How is the work of the self-employed garbage pickers like that of a factory worker? They are similar in that they both go to their jobs based on a regular schedule and have set activities that make up their work. In addition, both factory workers and garbage pickers are subject to workplace hierarchies. Garbage pickers arrive at the Cali dump everyday between the hours of 6am and 8am in order to sift through any garbage left over from the day before. Then between 8am and 2pm garbage trucks that have been collecting waste in various areas of the city arrive at the site to unload. The peak of the pickers’ activity happens when the trucks arrive at the dump site, as everyone scrambles to collect the best of the garbage. Whatever items have value are placed in sacks. Workers collect until the garbage trucks stop coming for the day and then the focus shifts from collecting to sorting and selling.

There is no division of labour between those who pick through the site, however there is a separation and hierarchy between the pickers and the buyers. Pickers are paid for their collected waste based on the weight or volume of the items. Buyers at the Cali garbage dump normally specialise in one type of waste. For instance, the pickers might sell their paper goods to one buyer and then bring

their scrap metal to another. The pickers have come up with a number of clever ways to get more money for their materials. One method pickers use to add weight to waste paper is to wet it with water and place the dampened paper between dry sheets.

Paper wetting is a practice used by workers in the informal economy throughout the world. Another method used by garbage pickers at the Cali dump is to put stones in the sacks before they are weighed. Pickers resort to underhanded methods because they are paid so little for their collected materials. It is not uncommon for buyers to take advantage of the garbage pickers. Typically those who collect on the dump are illiterate which makes them vulnerable to manipulation by buyers who cheat garbage pickers out of money when their materials are being weighed. Pickers are not able to read the scale not to mention check it for accuracy. It is well known that buyers rob the pickers out of as much as 20% of the appropriate pay however the economic dependence of the garbage pickers forces them to continue business with unscrupulous people (Birkbeck 1978: 1178).

Different buyers on the dump compete with each other over price setting and territory. The competition is strong because for the buyers there is potential to become quite rich. Many of the buyers wish to control the entire dump by running all the buying activities and setting the prices of materials sold by the garbage pickers. The competition between buyers is to the advantage of the garbage pickers in the Cali case because it prevents the buyers from exploiting the pickers by creating a monopoly.

Characteristics of actual workers on the Cali dump varied, although there were a few common threads evident. While the age ranges of the pickers were large, encompassing children younger than 15 to middle-aged adults over the age of 46, most had little or no education. None of the individuals interviewed by Birkbeck had a secondary education and most had never gone beyond the fourth or fifth grade with the majority of individuals having attended zero to two years of Primary school. Garbage pickers also varied in the length of time that they had been working on the dump. While some had recently entered the occupation, i.e. within the previous three years, a large number had been working there for more

than ten years with some working there as many as 25 years (Birkbeck 1978: 1178-1179). The extended length of time that some have spent working on the Cali dump points to the fact that there are not very many opportunities outside the dump. The large number of newcomers to the dump suggested that waste picking was also a “refuge occupation” in that it could “support people when they have no other opportunities for earning” (Birkbeck 1978: 1178).

Young males that worked as garbage pickers on the Cali dump were often referred to as *voladores*, or flyers, because of their speed and focus when the trucks arrived with a new load of garbage. The *voladores* typically made the most money because of their ability and willingness to compete against each other and the women and children who worked on the dump, whom they often pushed or kicked out of the way in their rush to reach the best waste first. It was also said that the young men often had greater physical strength and could endure the harshness of the sun’s rays as well as driving rains and the constant odor of the garbage on the dump (Birkbeck 1978: 1179).

Attitudes and outlooks of the pickers also varied depending upon a number of factors. The length of time they had spent working on the dump, hardships they had faced, their individual psychology, and their ability to innovate or use their ingenuity all played a role in the perspectives of the workers (Birkbeck 1978: 1182). Young male pickers may have had a more positive outlook if they saw work on the dump as an opportunity to obtain mobility regarding status and income by eventually gaining enough capital to become a buyer instead of a picker. In this case, as Birkbeck pointed out, “they do not, in general, view themselves as exploited” (1978: 1184). In fact they often viewed attaining buyer status as success. And in times of a perceived threat to the garbage picking community as a whole, they effectively organised to protect their right to work on the dump. Conversely, an older woman who had worked on the dump for many years and had a physical disability may have seen her plight as hopeless in the face of her many daily challenges.

The second study that concentrated on waste collectors focused in the Indian city Pune, which is located in the state of Maharashtra. In 1992 a project was started to question whether literacy was really a necessary and desirable

requirement for certain poor communities to experience development. The Project for the Empowerment of Women Waste-pickers suspected that other forms of education, excluding literacy, could also make an impact in the lives of women waste-pickers.

Education was believed to be an empowering process that does not restrict itself to literacy, but one that needed to explore alternate modes of 'seeing' and 'doing' that are meaningful and relevant to the illiterate masses. Empowerment in the context of education was seen to be a process through which women learn to critically reflect upon their life situation, analyse it and experience a sense of confidence and self-worth through the building of a collective identity and then exercise the power to make, influence or control decisions that effect their lives (Chikarmane 2001: 3).

The analysis of this research is continued below in order to enable particular consideration of its focus on informal economy interventions.

Interventions Aimed at Supporting Waste Collectors

In Pune, India, a project called Kagad Kach Patra Kashtakari Panchayat (KKPKP), an Association of Scrap Collectors, was created to empower women waste-pickers. KKPKP is a membership-based organisation with approximately 4,600 registered members. Membership in the association is open to both women and men collectors. Members pay an annual fee and are given an identity card with their photo on it (Chikarmane 2001: 8). Initially the formation of the KKPKP was broadly divided and organised (with significant overlap) into three main phases with the intention that this would focus energies on the most significant issues. Phase one focused on helping the waste-pickers to develop a collective identity with the very creation of the association, create a system in which waste-pickers could issue grievances, and a plan for enrolling the children of waste-pickers in school. The second phase concerned itself with issues of sustainability and centralising the activities of the association. The last phase concentrated on areas such as research, advocacy and lobbying, and developing networks (Chikarmane 2001: 4).

According to Chikarmane, the waste-pickers identified certain critical issues affecting their work (4-6). Not surprisingly, these issues are similar to ones

found in other areas of the developing world in the waste management sector. Lack of occupational identity, harassment by state authorities, health hazards, exploitation by scrap/waste traders, lack of legitimacy, social security and worker benefits, social marginalisation, and threats to their livelihood were all cited as significant factors impacting daily activities as well as long term goals. Many of the waste-pickers in Pune did not view their daily activities as work, therefore organisers often found it difficult to get collectors to view themselves as a group. Harassment by authorities occurred frequently as police accused waste-pickers of stealing municipal waste from waste bins and sidewalks or loitering in public areas. Waste-pickers usually had to resort to bribery in order to obtain release from police and even then their collected materials were often not returned to them. Rummaging through waste exposed waste-pickers to health hazards through their contact with toxic chemicals, rotting waste, and animal remains. “Tuberculosis, scabies, asthma and other respiratory infections, cuts and injuries are common. As are animal bites from pigs, dogs and rodents that they have to contend with” (Chikarmane 2001: 5). Unscrupulous traders/buyers caused numerous problems for collectors by intentionally tampering with weights, prices and under-weighting materials. The classification of waste-pickers as self-employed left them devoid of worker benefits which would assist them with insurance, paid leave, a minimum wage, social security, and credit. Waste-pickers continue to be socially marginalised because of their belonging to low castes as well as having no rest from regular domestic chores such as child bearing. The increase of waste management technologies and requests by elite citizens to privatise waste collection threaten to displace the waste-pickers by eliminating their means of income (Chikarmane 2001: 6).

Women that work in certain areas of the informal economy such as waste-picking are visible because they are out on the streets daily. The KKPKP Association in India stands as a success story of how both research and organisation working at local and international levels can address informal work issues and improve the situation of the poor. India has a history of social movements and union organising. India’s legal and policy-making systems have made attempts to reform current policies and create new policies that are

accountable to all the people, not just the elite. The Indian Supreme Court, the media, and the Self-Employed Women's Association (SEWA) are examples of institutions demonstrating progressive thinking.

The Indian Supreme Court's verdict upholding hawkers' rights has greatly influenced hawkers' management approach to the city authorities in the region. Similarly, the work of the Self-Employed Women's Association (SEWA) and the Working Women's Forum (WWF) in India has been pivotal in the progress made in protecting the rights of working women in the informal sector (Amin 2002: xiii).

Since KKPKP's creation the situation of the waste-pickers in Pune has improved. They now have representatives who are in touch with collectors and are able to help them with their grievances, more of the collectors' children are enrolled in schools, a number of social safety nets including insurance have been put in place, the media and local government have played positive roles by helping to transform the image of waste collectors by notifying the public of the waste-pickers' "role in environmental conservation and as service providers" as well as incorporating recommendations made by the association into new policies (Chikarmane 2001: 24). Furthermore, the KKPKP is now a financially sustainable association with staff and continuing support from various groups (Chikarmane 2001: 24-27).

Other important organisations, particularly SEWA, have played a revolutionary role in Indian society by assisting in the creation of unity, identity, advocacy and representation for self-employed women in the informal economy. "SEWA began organising self-employed women workers of Ahmedabad three decades ago. It developed largely through the campaign approach, whereby workers of the main trade groups participated in and developed their own issue-based campaigns to improve their working conditions and wages or earnings. SEWA is involved in organising vendors, home-based workers (Beedi workers, ready-made garment workers, agarbaty workers), manual labourers and service providers (construction workers, paper pickers, head-loaders, small factory workers)" (Amin 2002: 67). SEWA helps defend members against harassment by city industries, police and local shop owners. It also works with members to help protect them against policies that affect their work and in compensation suits where a worker may have been injured on the job and has been refused a wage.

In the Cali case examined by Birkbeck (1978), buyers who wish to obtain all rights to the dump spend time in negotiations with the public entity that owns the dump, EMSIRVA. Renting the rights to the dump is possible but the party must pay EMSIRVA a fee as well as provide services to the garbage pickers including free medical care and work clothes. These requirements have made renting the dump less attractive because of the added responsibilities involved. Inability or unwillingness on the part of buyers to rent exclusive rights to the Cali dump does not prevent them from earning significant amounts. Buyers in Cali become rich by working as intermediaries. Buyers purchase waste materials from the garbage pickers at extremely low prices and then resell them to the factories in the area. The prices received for the materials depend upon which factories offer the better prices and where the demand is highest.

The South African Context

The year 1994 signified a turning point in South African and indeed in World history. The end of apartheid and the transition to a democratic government in South Africa exposed its people to new opportunities and challenges. The new South African government, led by the African National Congress (ANC), has faced a multitude of challenges both exogenous and historical. On the one hand, South Africa experiences pressure to globalise; to become more internationally competitive and obtain quick economic growth through trade liberalisation and export-oriented policies. Evidence of informalisation has been revealed by a number of social scientists while at the same time exposing the complexities of defining the informal economy.

On the other hand, the ANC led government has attempted to address internal challenges including the legacy of colonial rule and apartheid, which created vast inequalities, discrimination and poverty as well as the need for development. Land reform, housing provision, labour market issues (such as unemployment and informal economy), lack of infrastructure and basic services (such as the provision of water, electricity, communications and waste management), health care, education, and the relatively recent crisis of HIV/AIDS are all examples of development challenges that require attention.

Since 1994 unemployment in South Africa has grown from 17% to 30%. This figure does not include those South Africans who have given up looking for work because they feel the search for a job is hopeless. When all who are out of work, both those actively seeking a job and those who have given up searching for work, are taken into account the number reaches a staggering 42%. According to findings of a Human Sciences Research Council (HSRC) study, “Only 29% of the South African workforce is formally employed compared to 69% a decade ago, while the informal sector has grown from 14% to 21%” (Robinson 2003: 23). In another study (Skinner 2002: 33), statistics from 2001 showed the Official Unemployment Rate at 26.4% and the Expanded Unemployment Rate at 37%. Statistics also showed that of those unemployed in 1999, “unemployment rates are much higher for African workers compared to other races and for women compared to men” (2002: 33). High levels of unemployment have meant that many South Africans have had to find work in the informal economy doing casual and part-time work. Jobs that previously existed as part of the formal economy are now in the informal economy as workers are forced to do the same work with little or no benefits. Job protection formerly provided to workers by labour laws and regulations no longer apply to them and when they do the workers’ ability to access their rights is stifled by their inability to prove false allegations or demonstrate proof of work with a pay receipt.

In South Africa, waste removal like other services was previously a luxury only experienced by the rich White population. Waste management in the Bantustans and townships was not addressed and as a result residents either burned their garbage, which produces harmful toxins, or it was not removed at all. In many cases, people found ways to turn waste into cash and provide subsistence for themselves and their families.

According to Samson, there is little information on the waste management sector and the workers within the sector in South Africa. Limited statistical data on the size and make up of the industry, conditions of work, the number of workers, the gender break-down, wages, and types of service providers makes it difficult for the state and unions to act. Samson argues what information there is on such activities has focused primarily on the Gauteng Province which includes

Johannesburg and surrounding municipalities. Furthermore, no relevant legislation exists that defines terms such as “waste”, “refuse”, “disposal” or “cleansing.” South African businesses and local governments have been left to determine the meanings on their own. The lack of uniform definitions allows for a wide variety of interpretations regarding responsibilities, requirements and the quality of service within the waste management sector.

In South Africa, waste management is the responsibility of local government according to the Constitution. Municipalities are responsible for making waste management services happen but they are not mandated to do it themselves. Cities can contract out to other companies and organisations to provide waste management services. Samson argues that there is evidence of externalisation in waste management in South Africa – whereby waste management is contracted out through municipal service partnerships (MSPs). “Whereas in the past municipalities were the sole employers of municipal waste management workers, a range of economic actors including private companies, non-governmental organisations (NGOs), community-based organisations (CBOs), ward councilors/committees and short term provincial poverty alleviation projects now employ and/or control labour within the sector. Some of these employers are informal” (Samson 2004: vii).

Although the creation of these forms of externalisation allows for more workers to be eligible for coverage by labour laws, because workers can claim that they are in fact employed by someone, in reality the working relationships are frequently manipulated by employers/managers to avoid provision of benefits. Externalisation has led to an increase in informal or casual work and has created a formal-informal continuum in the sector (Samson 2004: 5). Another result of externalisation is that private companies have found legal loopholes in which they can avoid paying higher wages and offering benefits to unregistered workers.

The Constitution designated waste management to the local governments because local governments are in better tune with the needs of their individual citizens, however many cities do not have the resources to pay for waste management services. The inability of cities to pay for and implement waste management systems has led to unfunded mandates or fiscal imbalances. In these

cases, the cost of waste management services is more than the available revenue, yet cities are mandated to provide the service. Cities then contract the work out to private companies at low prices which in turn negatively affects the workers who receive little or no job security or benefits.

One of the greatest challenges in South Africa's current waste management sector is organising workers in order to collectively bargain for their rights. Various legislation such as the Basic Conditions of Employment Act of 1997 (BCEA), the Unemployment Insurance Fund Act (UIF) and the Labour Relations Amendment Act of 2002 were created to help support labourers in the sector by clarifying what criteria of work allows for a person to be classified as an employee as well as set guidelines for working conditions and benefits to which the workers are entitled. Despite the legislation, enforcement of labour laws and regulations has become increasingly difficult as employment relationships become harder to define. Many workers are in the informal economy and have no way of accessing their benefits because they are being denied their rights by managers.

For instance:

“In Johannesburg workers employed by the company contracted to do night shift street cleaning in the inner city reported that they did not receive the minimum weekly rest period set out in the BCEA. They worked seven nights a week, 365 nights a year, and were responsible for finding and paying their own replacement if they missed a night of work. Many workers who participated in the Johannesburg focus groups reported that they did not even get payslips” (Samson 2004: 40).

Labour laws are being ignored by private companies and managers who feel it is not their responsibility to enforce existing regulations. Union organisers who wish to bring workers together under these circumstances are facing difficulties. Workers fear fighting for their rights because of the threat of termination. Union organisers have difficulties enrolling new waste management workers for a number of reasons ranging from organisational problems to external pressure not to organise.

Working conditions in the waste management sector vary based on three main factors: employer, type of work, and gender. In South Africa, waste management employees who work directly for municipalities tend to report better working conditions than those who work as staff of contractors. Wage

inequalities are present in the sector with private company workers earning less money and receiving fewer benefits than municipal workers. “This proximity and frequency of interaction intensifies the sense of injustice and inequality experienced by the private company workers. In the minds of many, privatisation and externalisation have become the new apartheid” (Samson 2004: 28).

The type of work that is done in the sector is largely influenced by gender. Male jobs frequently involve driving trucks and operating machinery. Many of the men who fill these positions are covered by the Road Freight Bargaining Council (RFBC). On the other hand, the majority of street cleaning and waste-picking jobs are filled by women who do not receive any protection or benefits from any organisation. Gender composition in the sector is significant because the type of labour is not only different for different people, but determined according to prevailing stereotypes about men and women. Due to stereotypes based on women’s supposed physical weakness and natural talent for sweeping, women workers are almost exclusively confined to jobs in cleansing (street sweeping, litter picking and cleaning of open spaces)” (Samson 2004: 30).

Gender bias against women in the waste management industry prevents them from accessing opportunities that could lift them out of poverty. Some women believe the stereotypes about “women’s work” while others strongly disagree but have no power to change the circumstances of their employment. According to Samson’s study, women reported regularly being given work that was similar to what they do at home (2004: 32). Men who were questioned agreed that work such as street sweeping was appropriate for women and not for men and that it would be disgraceful for a man to be bested at activities that he perceived as “men’s work.” In most cases the jobs considered to be “men’s work” do not require any additional strength or skill that a woman could not do.

CHAPTER 4: RESEARCH METHODOLOGY

As Morris, Kaplinsky, Schmitz and McCormick have noted, the concept of the value chain can be used to inform social and economic dynamics as well as production. In the past the value chain analysis was used primarily to understand the steps taken within a production or manufacturing setting. For instance, a value chain in the production setting might be used to follow the workings of a lumber mill from the stages of felling trees through the processing of wood and eventual marketing and sale of paper products. A value chain analysis focuses on each step within the chain of activities and notes each particular step's links to the steps proceeding and following it. With this idea in mind, the value chain may be looked upon from two different perspectives.

In this study the value chain exists in two forms. One view of the value chain, the production view, exists as a cross-section of a chain of activities occurring in the waste management industry starting after waste has been initially disposed of and ending after this waste has been recollected, sold and recycled or reused. The second view, the socio-economic view of the value chain, exists in the chain of people within the sector taking into account their working conditions, interactions, and their relationships to each other. This chain runs from the informal workers in the informal economy who collect cardboard and other waste paper, to intermediaries/agents, to recycling company directors/administrators in the formal economy, to union organisers, NGO workers, and the state. The intent behind using both perspectives of the value chain is that the key informant interviews and examination of the working relationships will inform the production value chain. The combination of value chain approaches will expose the formal-informal economy linkages and reveal the activities performed therein.

Key informant interviews were conducted with the following individuals: ten cardboard collectors, one fruit and vegetable street trader, one union administrator/organiser, one NGO worker, three industry administrators – one

each from Lothlorien, Mondi and Nampak respectively, one intermediary/agent, and three individuals from DSW. All of these individuals were chosen for interviews in order to obtain a sampling of information from various stakeholders within the waste management and recycling value chain. These individuals were chosen because they participated in work activities in the formal and/or informal economies. By interviewing them it was possible to learn how their working relationships were linked with the others in the value chain.

Interviews were conducted with cardboard collectors working in the Central Business District (CBD) of Durban, South Africa in December 2003. Cardboard collectors were approached on the street as they carried cardboard bundles or as they waited on sidewalks for intermediaries. The only criteria used for choosing an interviewee was that the collector carried or was standing next to their own pile of cardboard. In the case of collectors recruited by the SEWU administrator, the administrator was asked only to choose several cardboard collectors for interviews. No other clarification was provided.

While all of the women interviewed were currently living in or near Durban, most also identified their permanent home was somewhere in KwaZulu-Natal. A few came from the Eastern Cape Province and Lesotho. The interview with the union administrator also took place in Durban in December 2003. The interview with the NGO organiser/activist took place in the organiser's home in December 2003. The industry administrators were interviewed at their respective company offices (Lothlorien and Mondi) in December 2003. The intermediary/agent interview was conducted in December 2003 at the agent's office. Interviews with DSW employees were conducted in November 2003 at the Waste Minimisation and Recycling Office and also at two buy back centres, the Brook Street buy back centre and the Northcoast buy back centre. In addition to the key informant interviews a council meeting of stakeholders was observed and this meeting took place in November 2003 at DSW's Waste Minimisation and Recycling office. All interviews except the cardboard collectors' were recorded, using a digital hand-held recorder, with consent from the informants.

Interview questions for the various stakeholders in Durban's waste management industry were devised with the intention of finding out certain key

pieces of information. It was important to get a sense of: the history of the various companies or individuals, their daily, weekly and/or monthly activities, basic monetary earnings or weight of cardboard in tons that they accumulated, who they thought important stakeholders were at both the formal and informal ends of the spectrum, their understanding of the role of intermediaries/agents to the sector, what their knowledge of buy back centres was, changes over time that they observed within the industry, challenges they faced in their work, and any strengths and/or weaknesses they perceived in the sector. Interviewees were also given the opportunity to add anything that they felt was significant to understanding the nature of their work or the sector. Interviews were also conducted with the intention of understanding what types of interventions have been made in the sector so far and by whom. A sample of the interview protocol used for all interviewees with the exception of cardboard collectors can be found in Appendix B.

Questions directed toward the cardboard collectors encompassed the same themes as the questions asked to the interviewees working in the formal economy but were framed differently in order to better communicate. Many of the questions were framed in such a manner that they could be asked more than once to ensure clarity of understanding and to allow for flexibility in the life situations of the collectors. For instance, cardboard collectors were asked where they consider home and in a different question asked where they live. In most cases we received different answers because the women considered where they consider home to mean where they were born or spent most of their years whereas they considered the question where do you live to refer to their current residence. A sample of the cardboard collector interview protocol used can be found in Appendix C.

The cardboard collectors were approached with the assistance of a male Zulu speaking translator who informed them that the interviewer was a researcher pursuing her masters degree and wanted to talk to them about their work activities to that end. Each collector was asked whether she could spare time to answer questions about the nature of her work. Interviews took place on the streets in which the women worked. The translator asked the questions in Zulu offering

clarification to the collectors when necessary. The answers were then translated into English and recorded onto a questionnaire with as close to exact translation as the languages would allow. Cardboard collectors who are members of SEWU were interviewed in the SEWU office and asked to speak about the geographical location of their activities. The women were not informed when initially approached for questioning that they would be given a gift of R50 at the end of the interview, as a thank you for sharing information with us during their business hours. The reason for the R50 gift was that the time the women took away from work was money lost by them.

Potential sources of bias could be categorised as both external and internal depending on whether they originated within the population studied or from within the research design, respectively. In some cases, a potential external bias could best be described as strategic misrepresentation – interviewees may have intentionally presented information in a way that portrayed themselves, their actions, or their business in a preferable light. In the cases of the industry administrators from Lothlorien, Mondi, and Nampak as well as the intermediary/agent interviewed, potential misrepresentation could have occurred as a result of these individuals' desire to look out for their companies' business interests, which are market driven, when faced with difficult or potentially embarrassing questions. Their views could also reflect their position in society, including level of education, relative affluence, and/or race/ethnicity. In the case of interviews conducted with DSW, potential misrepresentation could have occurred as a result of these individuals' desire to appear progressive, helpful, and accountable to the public and also as effective, informed leaders in the eyes of both the public and private stakeholders. These biases could prevent the state from seeing faults in their own policies.

Potential biases arising from interviews with representatives from NGOs and unions could have occurred as a result of their distrust and resentment of industry activities combined with their compassion for the current plight of informal workers. These interviewees' desire to promote the interests of cardboard collectors through skills training, resource support, and service

provision could potentially cause them to overlook problems caused by the cardboard collectors within the larger picture of waste collection in Durban.

If there existed potential biases of misrepresentation among cardboard collectors, they were most likely based in a perceived fear of retaliation for participating in the study by either those to whom they sell their cardboard or metro police. In each potential case, the cardboard collectors could reasonably be expected to fear that if they spoke honestly and openly about problems they experienced that those in positions of power against whom they spoke would retaliate and threaten their livelihood. If this did exist, then the potential for “qualified” answers also would exist. This study worked to minimise and eliminate this type of bias by agreeing to never identify any of the cardboard collectors interviewed in any way that could link their comments back to a specific individual. As a result, the incentive to misrepresent in this case was avoided as much as possible.

It should be noted that only a small group of cardboard collectors were interviewed and interviewees were randomly selected. It is not being claimed that the findings from this can be generalised to all cardboard collectors in Durban. The claim is simply that the findings hold true for those interviewed. Also, the same fear of repercussion that could have encouraged qualified answers as explained above could also have discouraged certain collectors from participating, thereby removing interviewees that could have provided a more critical viewpoint of waste collection in Durban. The interviews with NGO and union representatives were undertaken, in part, to control for this bias; their viewpoints are assumed to be in greater alignment with the majority of the cardboard collectors in Durban, and thereby help to fill in gaps of understanding that were left after analysing the cardboard collector interviews.

CHAPTER 5: THEMES & ANALYSIS

This chapter starts by reflecting on the Durban context and briefly analyses the city Council's approach to this issue. Following this, the analyses of the findings are grouped under seven main themes. The themes are: *Applying the Value Chain*, *Social Demographic Factors of Cardboard Collectors*, *Informalisation and Formal-Informal Synergies*, *Organising Cardboard Collectors*, *Key Interventions to Support Cardboard Collectors in Durban*, *Gender Dynamics*, and *Current Problems: The Issue of Cardboard Wetting*. The section *Applying the Value Chain* focuses on how and where the stakeholders in the waste management and recycling sector in Durban fit into the value chain. *The Social Demographic Factors of Cardboard Collectors* section focuses on variables such as migration, income, health, education, and race and their effect on cardboard collectors. The section *Informalisation and Formal-Informal Synergies* focuses on changes in employment and the macro economy in South Africa over time, the nature of informal work (i.e. whether people are being pushed into informal work or if they are doing it willingly), and the idea of informalisation as a process in which the formal and informal economies are closely intertwined and linked with each other. The *Organising Cardboard Collectors* section focuses on activities undertaken by NGOs, and specifically StreetNet, in supporting cardboard collectors and informal workers in the Durban area. The *Key Interventions to Support Cardboard Collectors in Durban* section focuses on ways in which the state (DSW), organisations, and private actors have worked to improve conditions for informal workers in Durban. *Gender Dynamics* are given their own section due to the strong cross-cutting relationship between gender and the previous themes being analysed. Special attention and analysis are provided to demonstrate how gender-based dynamics and issues uniquely impact the waste management and recycling sector. *Current Problems: The Issue of Cardboard Wetting* examines a common problem being faced within this section of the informal economy and analyses its impact both on the cardboard collectors as well as upper levels of the value chain. These chapters taken together draw from key informant interview data, both qualitative and quantitative, as a way to explain

and expose the linkages and relationships between the formal and informal economy within the waste management and recycling industry in Durban and the impact it has on the men and women who work within it.

The Durban Context

The StreetNet informant provided a useful context to this study. She described the similarities and differences between the informal economy in Durban and other countries and how these differences have been processed on the ground through work activities, working relationships and policy. “The workings of the informal economy in Durban are not different than in other places but the policies on how to manage it are,” she said, “the rate of urbanisation was faster in Durban than in other parts of South Africa during the ‘80s and ‘90s because of floods, droughts and political violence that destroyed people’s livelihoods. Durban has a large informal economy compared to other parts of South Africa, this created greater urgency of how to deal with the informal economy as it grew so fast” (Interview December 13, 2003). She explained that the ILO and SEWU began to talk to the municipality about the informal economy in order to create a systematic policy response. The city of Durban began developing a policy approach after feeling pressure from SEWU about people sleeping on the streets. “SEWU got lawyers involved and threatened to sue the municipality. Now there is a very workable policy, a sustainable policy but still at times difficult to implement.”

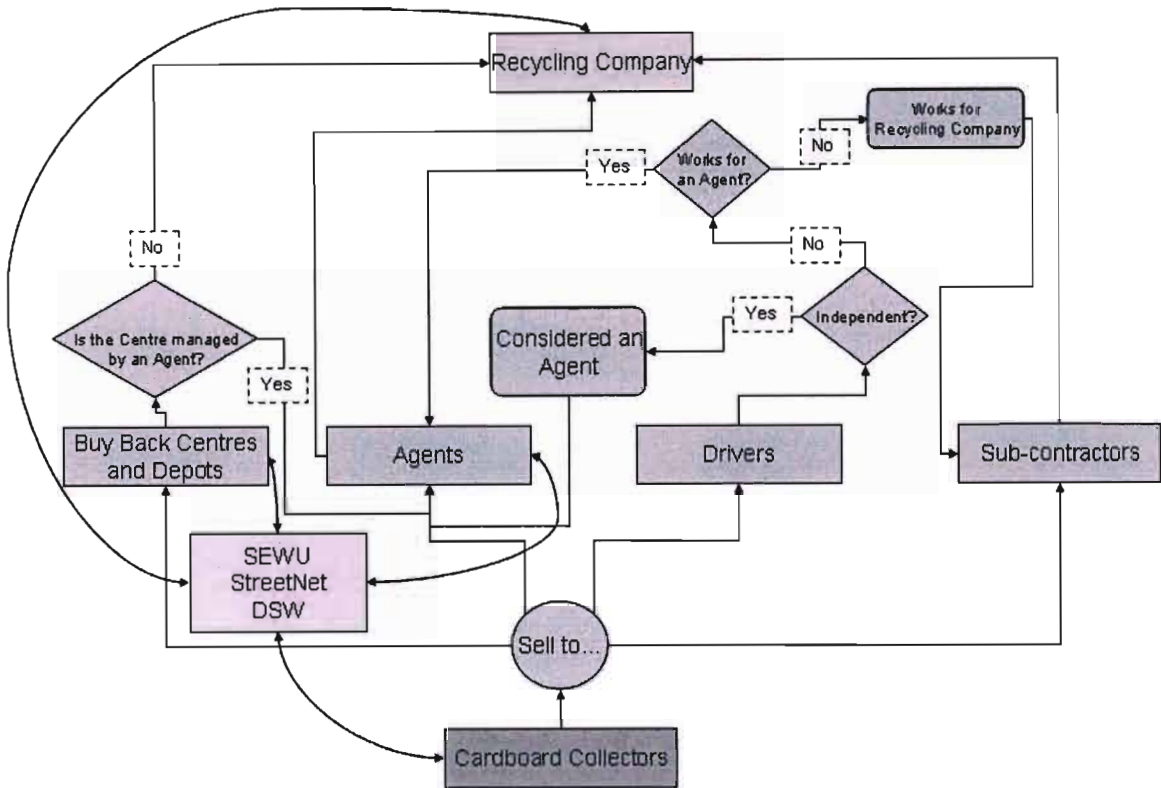
The informant indicated that Durban has been fortunate regarding policy. She explained, “When elections happened in 2001 Durban kept a lot of the same leadership for instance the same party and same mayor. This provided the city with continuity regarding its informal economy policies.” She then added, “From 1990-94 there [were] almost no laws made in Durban because current lawmakers knew they were on the way out due to the fall of apartheid, so they saw no point. New lawmakers weren’t in office yet and not able to make new laws” (Interview December 13, 2003). She did indicate that a problem that has since arisen is not having good representational systems in place in the informal economy setting. This problem has made it harder for people working in the informal economy to organise and push for the changes they see fit.

A number of strengths and weaknesses of the informal economy and waste management/recycling sector in Durban were identified by the StreetNet informant. “I think a strength is the buy back centre initiative because those involved didn’t leave it solely to the market forces. I also think that the city’s policy approach to the informal economy has been good. They are able to play it by ear. It is a flexible yet continuous policy. The ability for people to organise, SEWU is an example, is also a strength” (Interview December 13, 2003). A number of weaknesses were also cited. “There is a lot of blame shifting and internal contradictions,” she admitted, explaining that people point fingers at others and look for scapegoats (Interview December 13, 2003). Finally, the NGO informant stated her opinion that additional problems are created when market forces are given too big a role, suggesting that a balance needs to be found between free market forces and informed state intervention.

Applying the Value Chain

The value chain has previously been discussed in a general sense. This section operationalises the value chain as it was used in the study. From a production standpoint, the value chain in this study begins when cardboard is disposed of and collected by workers in the informal economy. Businesses purchase products and eventually dispose of the waste paper and boxes in which they were packaged. It is at this stage that cardboard collectors locate and collect the waste paper for resale. Next, the paper reaches recycling companies where it is pressed to extract any excess water and then processed into pulp. Any remaining, unusable material is sent to landfills.

Figure 1: The Value Chain of Cardboard Collection in Durban's CBD



As demonstrated in Figure 1, the value chain for cardboard collection in Durban's CBD is particularly complicated, with each level of the chain overlapping, interacting, and linking both horizontally and vertically in multiple ways. Starting at the bottom with the cardboard collectors (denoted in purple), we see that they have the option of selling their cardboard to one of four intermediaries (denoted in peach): buy back centres and depots; agents; drivers; or sub-contractors. If they sell to buy back centres and depots, the cardboard is then either sold directly to the recycling company (denoted in green) without any additional steps (if the centre is not managed by an agent), or sold to a recycling company via a managing agent, thereby adding a step in the chain. If the cardboard collectors sell directly to an agent, the cardboard is then in turn sold directly to a recycling company. In this situation, the agent reaps the highest profits by avoiding additional steps and intermediaries that would cut into profits. If the cardboard collectors sell to drivers, the route of their cardboard is determined by whether or not the driver in question is independent (i.e., self-

employed) or, if not, by whom the driver is employed. If a cardboard collector sells to a recycling company sub-contractor, then the next step for their cardboard is the recycling company itself, as demonstrated in the figure. The unique and complementary roles of SEWU, StreetNet, and DSW are represented by a series of multidirectional relationships between cardboard collectors; buy back centres and depots; agents; and the recycling companies. While understanding the flow of the interactions within this value chain is important, being able to understand more about the people, groups, and businesses that the labels represent is crucial to understanding the true nature of waste paper and cardboard collection in Durban. It is therefore necessary to take a socio-economic viewpoint of the value chain to better reveal the linkages between the stakeholders. While more detailed accounts of each stakeholder and their interactions will be provided later in this chapter, this section will give a brief introduction to each level of the value chain, including identifying many of the key players.

As demonstrated above, at the bottom of the value chain are the cardboard collectors. These collectors hold the lowest level because they exist at the beginning stage of the chain; they are compensated the least for their labour and, although their work is vital to the process, it adds the least measurable monetary value to the waste paper and cardboard. The cardboard collectors have no control or power over other levels within the value chain; if they stop selling cardboard altogether (for instance, by going on strike), they are likely to starve because they cannot survive without the meagre wage their work provides. Even without the threat of their lost wages, collective action against the large industries at the top of the value chain would likely have little effect. Despite the industries' large profits via the cardboard that starts with the collectors, they would not go out of business if the collectors were no longer in the equation. While collective action on the part of the cardboard collectors could have a measurable impact on the intermediaries with whom they have the most contact, the outcome for the cardboard collectors would still be negative due to the industries' ultimate position of power and the collectors' dependency on their sole source of income.

In interviews, cardboard collectors noted that on an average good day, cardboard collectors in the CBD may earn as much as R40. On a bad day they

may typically earn within a range of zero to R15. As demonstrated in Figure 1, cardboard collectors have relationships with a number of stakeholders in the value chain including intermediaries, Durban Solid Waste (DSW), the Self-Employed Women's Union (SEWU), and StreetNet. Their most consistent working relationship, however, is with intermediaries who purchase their collected cardboard.

Intermediaries possess a unique position as the second level of the value chain; their activities and interactions are with stakeholders at every level (Figure 1). As the buyers of cardboard, intermediaries regularly transact with cardboard collectors on the streets of the CBD and through buy back centres. The intermediaries also conduct business with the large waste paper recycling companies such as Mondi, Nampak, and Lothlorien, reselling the cardboard purchased from the collectors. The intermediaries are able to make a living by negotiating prices on both ends of the value chain. They pay the cardboard collectors little for their labour and then charge more to the industries. Intermediaries earn a wide ranging incomes depending upon whether they work only for themselves or if they employ others as drivers. Intermediaries can exert power and control to some extent at both ends of the value chain. On the bottom of the value chain, the intermediaries often intimidate cardboard collectors, making it easier for them to cheat collectors out of fair compensation. As the primary source from which industries purchase their cardboard, intermediaries control most of the supply of cardboard received through the informal economy. This position enables intermediaries to exert influence on the top of the value chain through their ability to drive up the prices that industry members pay for the cardboard. As demonstrated in Figure 1, this power and influence can easily be concentrated in one or a few key agents through their involvement with or ownership of other intermediaries, in essence enabling an oligopoly within this section of the informal economy and further concentrating the power that can be exerted both up and down the value chain.

Buy back centres and depots can also be placed at the same level as the intermediaries within the value chain. Buy back centres and depots are a way to connect cardboard collectors to legitimate intermediaries, as well as larger

companies, in a manner that allows for closer monitoring of business transactions and pricing. These centres can also accept a greater volume of waste paper by virtue of cardboard collectors taking their stacks to a single location and thus minimising the effort required by companies to obtain a larger amount of cardboard. The buy back centres are also unique because they bring together a variety of stakeholders through their development and management. In addition to the efforts of cardboard collectors, intermediaries, and large companies, buy back centres – such as the one located at Brook Street – have developed as the result of cooperation between the municipal solid waste company, DSW, and SEWU. These groups act as watchdogs to protect the interests of the cardboard collectors.

At the top of the value chain are the large waste paper and recycling companies such as Mondi, Nampak, and Lothlorien. These companies obtain a substantial amount of their cardboard supply from doing business with intermediaries, buy back centres, and depots. The recycling industries are extremely prosperous: according to the company's website, it is common for Mondi to accumulate 340,000 tons of waste paper in South Africa per year. While no precise numbers are available on what percentage of this waste paper is received via a value chain similar to this one, let us assume that only five percent of all the waste paper collected by Mondi nationwide is collected in this manner; a figure that is probably much lower than actual, but sufficient for the purpose of this demonstration. This assumption would mean that approximately 17,000,000 kilos of cardboard and waste paper are collected every year in South Africa via a value chain similar to the one above. Depending on the market, if one kilogram of cardboard is sold to Mondi for approximately 50 cents, as estimated by the intermediary informant interviewed (Interview December 17, 2003), then that means the company spends approximately R8,500,000 every year just to obtain the waste paper and cardboard that started at the street level being collected by workers in the informal economy. Even if Durban and the CBD only account for a fraction of that total, a clear difference can be seen in what the cardboard is worth to recycling companies like Mondi, as compared to what cardboard collectors are paid on the street. This figure does not take into account how much

Mondi would profit from the products it makes from those purchases, which can safely be assumed to be above and beyond any cost incurred. By the time the top of this value chain is reached, the value of the cardboard and waste paper with which we started has clearly increased, and with it the prosperity of those at each subsequent level.

The recycling companies wield the most power and control over the value chain (Figure 1) by virtue of being the ultimate drivers of demand for the cardboard. When large companies make decisions, the affects are felt by everyone beneath them on the value chain. For instance, an industry-wide decision to purchase less cardboard would cause ripple effects down the value chain; every lower level would see demand decrease, and with it the value of the cardboard collected. While this decrease would cut into the profits made by intermediaries, the larger agents at this level of the chain would survive due to the large volume nature of their business. In contrast, the cardboard collectors would likely be the hardest hit – forced to collect the same amount of cardboard and exert the same amount of effort, only doing so for less money.

Social Demographic Factors of Cardboard Collectors

Social demographic factors are important variables to this study because they not only help to describe the characteristics of the cardboard collectors interviewed but they have played a role in the current situations of cardboard collectors. When taken into consideration, social demographic factors can impact the focus of policy and possible resulting interventions. In this section a number of social demographic factors are briefly discussed in relation to the cardboard collectors in Durban and they are: migration, income, health, education, and race. Although gender can also be considered a social demographic factor it will be discussed in the following section because of its cross-cutting and unique importance to all the themes within the study.

In the context of the informal economy in South Africa questions about where a person is from and where that person currently lives is an important distinction because migration among informal workers is common. All of the women interviewed were born and/or grew up in other areas of the province or country but migrated to the Durban area and resided on the streets of the CBD or

in nearby townships located on the outskirts of the city. Migrating to areas closer to the city allowed them to find work in the informal economy collecting cardboard. “Most of them are from rural areas, Eastern Cape or surrounding areas of Durban in KwaZulu-Natal. Many of them live in squatter camps or on the streets or in townships like Umlazi, KwaMashu, Inanda, Cato Manor, and other places,” a DSW informant explained, “And some sleep on street corners” (Interview November 24, 2003). Migration for many of these women has not only meant moving from their place of origin to the metro area of Durban but also a migration from their current residences to the CBD. For some cardboard collectors, this daily commute represents a large portion of their day, up to four hours.

The women interviewed had been working as cardboard collectors for a range of time periods. Some had been collecting for as long as seven years while others for as short as three weeks. All of the women interviewed except one worked from Monday to Saturday. Working hours varied slightly, the women tended to work from the time businesses opened, between the hours of 7am and 9am, and until the time of their closing, between the hours of 4pm and 6pm. These working hours exclude any time needed for transportation, i.e. time used to travel to and from their current residences to the CBD. While some of them live on the streets within the CBD, others reside in townships outside of Durban and require an additional two hours for travel each way. Travel time is lengthened for those in townships because it is necessary to wait for an available combi (minibus taxi) which makes stops along the way to pickup or drop off passengers.

Income is a second factor that should be considered in order to understand the lives of the cardboard collectors. For most, the income that is earned by cardboard collecting is the sole income for their household in which they are not only supporting themselves but a number of children or grandchildren. Some of their responses were, “There are no other incomes” (Interviewee 8, 2003), and, “I have no other income, only cardboard collection” (Interviewee 2, 2003). Two of the women mentioned that there was another income earner in the household, but claimed that the money earned by that person did not go toward the care of the rest of the family. One of their responses was, “Some of my brothers are working

but they don't support [the family]" (Interviewee 5, 2003). In one case, one of the cardboard collectors was also using her father's pension to support the family. "My father is a pensioner so we use that money also because I live with my father and my children" (Interviewee 6, 2003).

For all of the women, daily earnings depended on a number of issues such as whether they had relationships with shop owners who were willing to supply them with cardboard, how many hours they were able to work that day, competition with other cardboard collectors and informal workers, and the distance that they could cover in a particular day. For many, earnings on a bad day were within the range of zero to R15. On a good day, based on the interviews, typical earnings did not exceed R40. It is important to note that interviews with other stakeholders within the value chain reported many cardboard collectors as frequently making over R100 per day in some areas (DSW Informant Interview, November 24, 2003; Intermediary Informant Interview, December 17, 2003; NGO Informant Interview, December 13, 2003). Some responses to questions about their income regarding territory, competition, earnings use, and what they liked and/or disliked about collecting cardboard are below:

I only cover Bond Street. What worries me is people who sell vegetables because they have also started collecting cardboard. Also some of the security guys from shops are collecting and want us to pay them for the cardboard (Interviewee 4, 2003).

I am stationed in Victoria but when it is quiet I collect as far as Workshop. The other women are sometimes rude. And when you've collected the cardboard some people take it. And sometimes the municipality takes the cardboard and throw them away (Interviewee 5, 2003).

I dislike when someone steals what I have collected and when I think I will get so much and then when it's on the scale it doesn't make as much. These 'table people' are competing with us now, they are also selling cardboard (Interviewee 6, 2003).

Sometimes when I am trying to collect someone says, 'No, that is my place,' and won't let me collect. I also do not like the distance (Interviewee 7, 2003).

I like that I do get some income instead of nothing. I don't like that I do not have a specific area to collect. I just get it off the street (Interviewee 8, 2003).

I like that when I make good income I can buy bread for my kids. I do not like when I am not able to make income in a day and I cannot buy bread (Interviewee 10, 2003).

It was not unusual for income factors to overlap with other issues such as health. Occupational health problems were often mentioned by cardboard collectors as contributing to hardships. Age-related morbidity tended to be the most frequent complaint as they referred to arthritis, sore feet and legs, back problems, and high blood pressure. In some instances it was difficult to distinguish whether sickness and/or injury, for instance sore feet, were due to the nature of the work or their age. The cardboard collectors cover quite a distance during their working hours which has contributed to injuries. “On average it is about 10-20 kilometers. But it is sometimes difficult to say because they do not always have an idea about distance,” a DSW informant explained. “But they can tell us that in a day they walked to this point and to this point and then back again and from that we can figure out an average” (Interview November 24, 2003).

Some examples of cardboard collector responses were:

I like that with the money I can buy mealie for children. I dislike that my injury prevents me from collecting as much as I would like (Interviewee 9, 2003).

I walk a lot and I once was admitted to hospital because of high blood pressure and my left foot used to swell, as you can notice my feet are not the same size (Interviewee 3, 2003).

In other instances, sickness was clearly caused by their work as the StreetNet informant explained (Interview December 13, 2003). Some cardboard collectors who had been instructed to dunk cardboard in water had developed sickness from exposure to germs in stagnant pools and sustained injuries from the added weight of carrying the heavier, wet paper. These types of work-related illnesses are similar to those that were mentioned in Chapter 3 when discussing the work conditions of Pune, India (Chikarmane 2001: 5).

Cardboard collectors have also been affected both directly and indirectly by significant health issues such as HIV/AIDS, rape and assault, and political violence. A DSW informant told how cardboard collectors' pasts have contributed to their current situations. He explained:

Some of them have the problem of the HIV/AIDS. For example...I mean to give you context, some of the cardboard collectors are here because

some of their family members have died of AIDS. You see many of these women are elderly. Many times their sons or daughters who were supporting them die of AIDS and then these women have to find another means of survival and they find themselves here on the streets. And also if you look at their background, some of them have become victims of crime on the streets or have been injured in the past from political violence. And then others are just affected by age. They work very long hours and they do a lot of strenuous physical work which affects their muscles and their joints and makes them ache. Some of them have arthritis...and sometimes you will find instances where one just dies, you know. Some say it is from natural causes but I'm sure the hard work from the collecting also contributed (Interview November 24, 2003).

The DSW informant's claim that elderly cardboard collectors have lost children to HIV/AIDS has been consistent with current research on the topic. A report released in April of 2002 suggested that almost 25% of South Africans are HIV positive and that "the most economically active group (25-49 year-olds) are the hardest hit by AIDS-related deaths" (COSATU in Skinner 2002: 33).

Two other social demographic factors, education and race, were important to understanding cardboard collectors in Durban. None of the interviewees had above a primary school education. Two of the interviewees had no schooling at all. All of the interviewees were black Africans, two were from Lesotho and the rest from South Africa.

Informalisation and Formal-Informal Synergies

Since the 1980s, the concept of the informal economy has undergone changes that have begun to alter people's perception of it. Once viewed as a polarised concept with formal economy on one end and informal economy on the other, today the concept of informality is seen less as a sector than as a process of informalisation (Skinner 2002: 6). According to Skinner,

The term informal economy still implies a static rather than dynamic analysis. Not only is the borderline between the formal and informal economies blurred but also it is constantly shifting. Informalisation captures a sense of a dynamic and moves the debate away from trying to find where formal becomes informal and visa versa (Skinner 2002: 6).

If this perspective is taken, it becomes easier to see how intertwined the economy is with both formal and informal activities.

A look at intermediaries in the waste management and recycling sector in Durban provides examples of how formal and informal activities are intertwined within the local economy. Intermediaries or agents are employed in a number of ways and can be called any number of names which may or may not better describe their work activities. Many of these workers are subcontractors or drivers for larger waste management or recycling companies such as Lothlorien, Reclamation Group, Cardboard King, or Babs' Waste Paper. Other agents are self-employed and drive around the city with privately owned trucks or bakkies negotiating transactions based on working relationships they have developed on their own.

One very active agent has worked in his family owned cardboard-buying business for 19 years. He began as a young man going around after school on a truck that his father owned, buying cardboard from women on the street. Eventually he attended the University of Natal at Westville to study Business Communication with the goal of becoming an accountant. During his second year his father fell ill and passed away, at which point he took over the business completely. Since then the business has grown and today he owns a large factory building, eight trucks, and employs eight drivers. He also has numerous employees who work at the factory building. He no longer goes out to the streets to do the buying himself but instead works from the management office in his waste paper company's building. The building runs 24 hours a day, seven days a week with day and night shift crews. He explained that one reason the business is going at all times is because of the danger of fire. "With all of this paper, someone needs to be here," he explained (Interview December 17, 2003).

Despite the many formal aspects of his business, this same agent still operates largely in what is more commonly considered the informal economy. Many of his workers are only employed informally, not enjoying the many labour protections of formal employees and helping the agent save money by avoiding the taxes he would otherwise be forced to pay for formally-employed workers. While his business is a formally registered entity, it operates and profits through work conducted informally. Without the formal existence of the company, the agent would not be able to operate; without the informal supply of labour, the

agent would not be able to profit. The synergy of formal and informal business practices has enabled this agent, and many intermediaries like him, to survive and prosper in a way that he could not have if limited to only formal or informal approaches.

Changes in the waste management and recycling sector in Durban can be both fast paced and slow moving according to the agent interviewed. According to the agent, “In the past, unemployment was not as high. Competition was not as high back then. There were only a handful of people working in collection.” From the late 1990s forward there were rapid changes due to market fluctuations, increased competition from new people entering the sector, and changes in the political climate. “Now every single person who gets retrenched, when they get that final lump sum they buy a bakkie and start collecting cardboard,” he explained, “This is not just an option for the poorest of the poor, this is work taken up by people who have lost jobs in the formal sector” (Interview December 17, 2003). This informant’s comment begs certain questions: Are there people who are involved in the informal economy out of choice? Could these retrenched individuals to whom he referred prefer to work in the informal economy rather than seek new employment in the formal economy?

The cardboard collectors interviewed did not share the agent informant’s point of view and provided interesting answers to the questions raised by his assertions. Prior to cardboard collecting, work experience among the women interviewed varied. Women participated in a range of activities including being housewives, working as domestics, building Zulu huts for other women, washing cars, farming/agricultural work in rural areas, selling fruit and vegetables, and training to be a security guard. When asked about how they came to work as cardboard collectors, none of the interviewees indicated that they had chosen it because they preferred informal work. Some of their specific responses are below:

I used to work in the farms and my life was not good and I was forced to consider collecting cardboard. I do not like this job at all but I am forced to do it because I cannot do anything else. I walk long distance so sometimes I have sore feet (Interviewee 1, 2003).

I used to be a housewife and then my husband passed away in 1992 and I was forced to look for work in town and I ended up collecting cardboard (Interviewee 6, 2003).

I used to do the washing for a white family in Amanzimtoti and when they left for Johannesburg they left me behind. That is when I started doing the cardboard collection (Interviewee 7, 2003).

The agent and cardboard collectors' different perspectives on entering the informal economy reflect the presence of a class system within this economy in Durban. The agent's ability to profit from the work of cardboard collectors who are without the protections or structures present in typical industry-related businesses, places his position in a grey area when defining it as part of the formal or informal economies. While many stakeholders within the sector view the agent as an informal intermediary, the manner in which his business has grown and his perception of himself seems to indicate that he has become more formal in practice. This is an example of the synergy between definitions and interactions within both the formal and informal economies. Despite the presence of formal or informal economic activities, the individual (in this case, the agent) can still find advantageous reasons to be defined as a part of both economies. In this way, his position can perhaps best be defined as a combination of a high-status informal worker and a low-status formal worker.

There are also large, formal companies who benefit from the informal activities of their drivers and related informal workers. Lothlorien is one of a number of large waste paper and recycling companies that use the materials collected by informal workers to produce items such as toilet paper, office supply paper, and cardboard boxes. Other companies like Lothlorien include Reclamation Group, Cardboard King, Lee Scrap, and Mondi. "We have 19 vehicles. We maintain them in-house," explained the Lothlorien informant, "Part of my function is I [move] the finished goods from Durban to Cape Town [in order to sell them there]." The goods that the informant sells in Cape Town remain in the South African market. "At the moment we solely supply to the local market," he said, "... of course, we would eventually like to get into the export market" (Interview December 3, 2003).

The Lothlorien informant was asked about his relationships and knowledge of the drivers that work for him as well as the sorters and cardboard

collectors. When asked how much time he devotes to issues of cardboard on a scale of one to 100 he replied, “Cardboard is not our only focus. We are in the waste paper business of which cardboard is a part, a large part, 60%.” He continued saying, “My relationship with my agents...we have quite a good relationship. I don’t think I have any enemies. Our drivers get paid in Rands per ton. So, whatever they collect they get paid for.” That same informant indicated during his interview that Lothlorien drivers are not considered independent contractors despite having to rent the trucks from Lothlorien and having their earnings based on the amount of waste they are able to collect in lieu of a fixed salary. “Yes, we own [the trucks] and we charge the drivers a rental fee and an insurance fee,” he stated. The informant saw his relationship with the sorters and cardboard collectors as a managerial one but indicated pride in employee retention.

People who have been here with Lothlorien have been here for a long time. Most of my staff here who work on the floor are sorters. There are very few who have been here for 10 years or less. So that’s largely our success, and I think that is because we keep an interest in the people and we try to keep them going within the company, you know (Interview December 3, 2003).

These workers provide yet another example of formal/informal synergies within the waste management sector. Despite working within a setting that has all the characteristics of a contractor/subcontractor relationship, the drivers, for example, are still viewed as informal workers and devoid of any formal economy labour rights and protections. In this case, the synergy is created though the inability to clearly define the line between workers who are formal and those who are employed informally; these workers in many ways are both formal and informal employees, demonstrating overlapping connections to both economies that come together in their work.

The Lothlorien informant also explained that the drivers and cardboard collectors form unique relationships. The drivers benefit from these relationships because they are able to obtain more cardboard through normalised business with specific cardboard collectors.

They have relationships with hawkers, and people they collect from and take to depots and so they are very much interested in building up relationships because whatever they collect and bring back they get paid

for. For every ton they collect they get paid for it. I mean for example, here, this is what this guy earns in a month...over R3,000. That's a lot of money, 53 tons (Interview December 3, 2003).

To put this one driver's amount into context, the Durban Lothlorien depots accumulate an average of 2,000 tons of waste paper per month, due in large part to these types of formalised relationships within the informal economy.

This research also found that cardboard collectors often sell to a single or few agents on a regular basis, but several of the women interviewed did not know the names of the agents who regularly purchased cardboard from them; even those women who had been selling for more than four years. These women most commonly identified their regular buyers by physical appearance or by the appearances of their respective collection vehicles. Few of the women recognised a particular agent's name when questioned whether they sold their cardboard to him, however it was later discovered upon interviewing the intermediary informant that the agents' names that were mentioned by the cardboard collectors all worked for him. To offer examples of this, the following statements were made by some of the women when asked to whom they sell their cardboard:

I sell to everyone who comes but mainly I sell to Mr. Dlamini, Rasta, and another Indian man who don't know his name (Interviewee 7, 2003).

Someone picks it up from me. I do not know his name. He is an African guy (Interviewee 9, 2003).

I sell to a lot but I only remember Mr. Dlamini (Interviewee 8, 2003).

I sell to an agent with a bakkie, an African (Interviewee 10, 2003)

While these relationships are formal in so far as they are standardised and reoccurring, they are informal to the point that many of the participants, both collectors and agents, do not even know each others' names despite constant and expected interaction.

In addition to the women who depend upon cardboard collection as their sole means of income, there are also street vendors and local business owners within the CBD who have discovered cardboard collection as a way to recoup expenses or earn additional income. These vendors often save the cardboard boxes they used to carry produce and sell them to the same intermediaries as the cardboard collectors. In a rare case, one vendor allows cardboard collectors to come and pick up the left over fruit and vegetable boxes for free that have

accumulated during the day from successful sales. He saw his relationship with the cardboard collectors as mutually beneficial. The cardboard collectors benefit him by clearing up his business area regularly and the cardboard collectors benefit from their ability to sell the empty boxes.

I am just trying to recoup money from buying boxes to carry my fruit and veg. Sometimes I sell to agents on the street who want my cardboard boxes. But most times the cardboard collectors, the women, come and pick up the boxes. It is good because my space is clean and the women can make money (Interviewee 11, 2003).

In either case, whether street vendors sell the cardboard themselves or allow cardboard collectors to profit from its sale, the standardised interaction and economic decision-making processes between actors within the informal economy demonstrate characteristics typically seen within the formal economy. These relationships demonstrate yet another way in which formal/informal synergies dominate the waste management sector in Durban.

A joint interview with employees from Mondi and Nampak, two large companies that deal with wastepaper and recycling, provided information about the nature of their work and how they fit into the value chain. Nampak manufactures packaging products using materials such as plastic, metal, glass and paper. Nampak has initiated programs focused on reducing solid waste, for instance the Collect-a-Can program, and is involved in selected recycling projects intended to limit the amount of litter created by their own packaging activities. According to the Nampak website, Nampak manufactures products such as: toilet tissue, corrugated cartons and trays, baby nappies, feminine products, plastic bags, tablecloths, facial tissues, towels and serviettes, drapes, non-stick cooking and baking papers, and foil.

The Nampak informant spoke about his activities at Nampak Recycling and its link to Mondi. “Nampak Recycling collects paper to recycle into tissue paper. I sort out where there are loads to be collected like in Transkei, East London, and Maputu. I also work with transporters [drivers], with Mondi, and with partners in Joburg,” he said. “Nampak Recycling is a separate entity but works within Mondi’s offices” (Interview December 15, 2003). In addition to these activities, the informant regularly attends council meetings held by DSW in which industry stakeholders gather to discuss issues affecting the sector.

The findings within this paper seem to indicate that there is a lot of interaction between the formal and informal economies in Durban that deal with the collection and recycling of waste paper and cardboard. Large, formal companies and successful intermediaries thrive, in part, because of the informal workers that supply them. It is also evident that the intermediaries do particularly well when there is little or no direct communication between the informal cardboard collectors and the large formal industries. Intermediaries and drivers are able to use that space to create employment for themselves.

Organising Cardboard Collectors

Non governmental organisations (NGOs) also play a role in the waste management and cardboard collection sector through their focused interventions. In many cases, they have helped to assess needs and problems as well as address them through their skills at organising and brokering relationships between businesses, the community and informal workers. Sometimes NGOs also play a role as negotiator or as a third party in conflicts that require a mediator. At other times they have offered or arranged training opportunities for informal workers. While working at the grassroots level, the presence of NGOs in communities is particularly significant in the development of policies that answer to informal workers and traders who often do not have a voice.

StreetNet, an international federation, is an NGO that helps affiliates organise and protect the rights of street traders in their area. StreetNet's affiliates are around the world in Africa, Asia, and Latin America. Objectives of StreetNet include: expanding networks at all levels from local to international, building an information base about street traders around the world, strengthening and organising advocacy efforts and campaigns to promote and influence policy changes that will improve the lives of street traders. StreetNet facilitates the work of their affiliates by advising them, negotiating with governments and helping them to find or properly manage their funds. StreetNet also promotes policy dialogue between organisations and authorities and municipalities. In addition, StreetNet helps affiliates to meet accountability requirements in order for the affiliates to become and remain sustainable.

As the founder of both SEWU and StreetNet, the NGO informant has accumulated valuable work experience and an institutional memory, which revealed much about the chronology of events and activities in the sector. Observations based on her experiences in the field have led her to realise that waste collectors are limited both because of their lack of skills but also because of their perception that they cannot do anything else. “In India the recycling industry is quite a lot more advanced and there is a greater number of things that can be recycled,” she explained, “It has a lot to do with the thinking of the people who give money for recyclable materials” (Interview December 13, 2003).

When asked about her past involvement with SEWU and cardboard collectors the NGO informant explained that her role had been one of an organiser and at times a representative although she made a point of assisting them in ways that would allow the cardboard collectors themselves take on leadership roles. Below is her explanation of activities at the Isipingo taxi station and collection site.

I helped the Isipingo women organise to pressure Babs by threatening to take their business to a Sapi agent after Babs did not want to pay them [the women] on a Friday. Not being paid on a Friday for these women meant no food on the weekend. We pressured Mondi to train women how to read the scales and to send someone around to monitor the work of the agents. We gave them Mondi t-shirts, which frightened Babs because he knew they'd had contact with Mondi directly. Babs had counted on being the go-between. SEWU and the cardboard collectors made a list of issues that needed to be fixed and Babs met every one of them without attending a scheduled meeting. After these changes the money level to the cardboard collectors went up drastically because of fairer weighing and pricing. Now Babs pays more and his trucks arrive with a scale (Interview December 13, 2003).

She further related that out of such organising developed the notion of cardboard collection as an occupation, which requires work space like buy back centres or recycling yards.

In that same interview she was asked to reflect on how her current organisation, StreetNet, is linked to activities in the waste management sector in Durban, such as cardboard collection. She was also asked what interests she had regarding activities in the sector and who she thought were key players in the sector.

StreetNet is connected to waste management where activities are going on in the street in Durban. We are interested in the cardboard collectors because they are a part of the informal economy and we are trying to learn more about the informal economy and how it works. I think the key players are the paper and recycling companies, the middlemen/agents, the cardboard collectors, and SEWU (Interview December 13, 2003).

She also expressed interest in learning about whether the various stakeholders, particularly the intermediaries, were creating employment or exploiting cheap labour. Based on her memory, she indicated that in her opinion matters have shifted over time from high exploitation to increased job creation although there are still many problems. According to the NGO informant, this shift has occurred in part because of pressure from other groups like SEWU who have been able to bring together cardboard collectors to lobby for their rights. SEWU has been critical as their organising has stood as an example of a gender focused intervention. More information on SEWU's activities will be addressed in a later section.

Key Interventions to Support Cardboard Collectors in Durban

A number of key interventions have been undertaken in Durban to address many of the issues surrounding workers in the informal economy, particularly cardboard collectors. This section focuses on the informed interventions made by various stakeholders, the development of those interventions, and the challenges, strengths, and weaknesses of the interventions. This section will also address whether the interventions have been over-arching or gender specific in their focus and assesses their effectiveness.

Interventions in the Durban waste management and recycling sector have appeared as buy back centres, depots, contractual obligations, and in organising efforts. Buy back centres, although spearheaded by DSW and SEWU, have been the result of partnerships and cooperation between numerous stakeholders. Two specific buy back centres are discussed in this section, the Brook Street buy back centre and the Northcoast buy back centre. Depots function similar to the buy back centres with the exception that they were established solely by Lothlorien and not through partnerships. The buy back centres and depots have been established as over-arching interventions because they help all cardboard

collectors while DSW's contractual obligations for entrepreneurial projects and the organising efforts of SEWU have been much more gender specific in their focus on women.

In 1995, DSW created the Waste Minimisation and Recycling division, evidence of the many changes occurring as the newly formed South African government organised and assessed the needs of the country's provinces and cities. The purpose of the Waste Minimisation Office "...was to spearhead and encourage recycling initiatives within the eThekweni Municipality areas in order to minimise waste that goes into the landfill site and promote job creation" (Mgingqizana 2002: 373). A primary focus of the new office was to create buy back centres and drop-off centres where residents and street collectors, community groups and the private sector could work together to improve the environment and limit space taken up by landfill sites. Another goal is to develop programs that standardise the cardboard collection sector so that working conditions for cardboard collectors will be fairer and working relationships and activities can be better regulated, understood and analysed. The creation of buy back centres in the Central Business District (CBD) has been one of the primary ideas for how to standardise the waste management and cardboard collection sector.

In 2000, an initiative by DSW was started to create a buy back centre for informal workers in the CBD in response to perceived price rip-offs reported by the collectors. In addition, complaints to the city about cardboard collectors crowding the sidewalks with their stacks of paper that they sell to agents on the street encouraged brainstorming about how to offer work space for collectors while reducing crowding in the CBD. DSW's solution led to the formation of a partnership between various relevant groups including Babs Waste Paper, Mondi Recycling, Informal Trade Department for the city council, Warwick Junction Urban Renewal Project, the Self-Employed Women's Union (SEWU), and the informal cardboard collectors to open the Brook Street buy back centre. Each partner contributed something to the formation of the buy back centre. Babs and Mondi provided the cash float, the container for storing the collected paper, a scale, a container to serve as an administrative office space, trolleys/carts to

transport collected cardboard, and the appropriate signage that would designate the area for the buy back centre. The Warwick Junction Urban Renewal Project provided the land for the centre as well as fencing to demarcate the buy back centre boundaries. DSW and Babs provided the necessary training to the SEWU representative (a cardboard collector) as well as monitored the centre's operation. And the Informal Trade Department provided the legal council needed to set up the centre. Later, other partners were added to the project. Collect-a-Can and the Glass Recycling Services joined by offering containers for collectors to store metal cans and recyclable glass (Freeman and Mgingqizana 2002: 361-362).

A DSW informant explained a bit of history from his perspective surrounding the Brook Street buy back centre intervention by saying, "How it started, they used to collect and put their stacks of cardboard along side the street corners. And we felt that that was not the right way to do it. We need to develop this concept of buy back centres so that they would come here, weigh it in a place like this with scales" (Interview November 24, 2003). He explained about the formation of the Brook Street buy back centre and the stakeholders involved.

We formed a partnership. It was the council, ourselves, and then we invited the Warwick Junction Urban Renewal Project. So we invited them and they assisted us by providing land. They put a slab on it and then they put this concrete fence so then it was secure. Then we got Mondi...Mondi Recycling involved and Babs. Babs' Waste Paper is a Mondi agent. We got Babs because for many years he was the one who has been working with the collectors. They've been collecting and selling their stuff to him. So we then thought, 'Ok, let's involve him in the project.' So then Mondi provided us with some of the resources for the project that you see here. They put up signage and they gave us that container which is used to hold cardboards and the waste paper and also the container that is used to do the administration (Interview November 24, 2003).

The DSW informant explained that from the cardboard collectors one woman was chosen for training on how to run the project. They taught her how to read the scale and do the calculations. She worked closely with Babs. "Babs was sort of like the managing agent and under him was this lady," he said, "This lady was getting training from Babs on how to run a recycling business enterprise. And she was getting her salary from Babs" (Interview November 24, 2003).

It can take a long time for administrative and industry changes to occur. For instance, the agent applied to the municipality for a site at Brook Street 15

years ago because he already collected/purchased cardboard in that area of the CBD. He wished to have a depot site at Brook Street before his competition did. A site was granted to him five years ago, ten years after the original request was placed. “And so when they [the city] got it together finally they got others involved. It was not just a one man band. There was Mondi and SEWU and DSW,” he said. As plans were formulating for the site at Brook Street, the agent approached Mondi and asked them to “come in” with him. According to the agent, the site was given to him to run but he did not have the finances to provide the container, scale and office space. “So that’s how Mondi came in,” he said, “It was myself, Mondi and SEWU” (Interview December 17, 2003).

Establishing new centres depends on a number of important criteria including: accessibility, location, security, training for the entrepreneur, size of the site, waste stream analysis, viability, and monitoring of the site (Mgingqizana 2002: 375). The Brook Street Buy Back Centre fit all of these criteria and a pilot period was put into place to test the viability of the function and location. In the case of the Brook Street centre, cardboard collectors collect waste paper and take it to the centre where they sell it to the SEWU representative for approximately 40 cents per kilogram. The SEWU representative was herself a cardboard collector and has been trained by DSW and Mondi. Next, the intermediary at the site buys the cardboard from the SEWU representative at 45 cents per kilo. The agent then sells the cardboard to Mondi for approximately 50 cents per kilo. In most cases these prices are based on market fluctuations but because the Brook Street centre is overseen by DSW (the state) they are able to hold the prices at a more stable price than in other areas of the city.

According to the DSW informant, Babs received his Brook Street salary from what he was able to sell to Mondi. “On average an amount of about R10,000...8,000 to 10,000 Rands is generated every month here. And from that money about 70% [approximately R7,000] of it goes to the ladies who are collecting,” shared the informant, “And the rest, which is usually between 2,000 and 3,000 Rands, is split between Babs and the operator” (Interview November 24, 2003). Table two below reflects the average monthly and annual numbers at the Brook Street buy back centre based on the pilot period.

Average Earnings at Brook St. Buy Back Centre during Pilot Period

BREAKDOWN	MONTHLY	ANNUALLY
Tons	30	360
Total Rand per month	R 10,000	R 120,000
Rand to CBCs	R 7,000	R 84,000
Rand to Babs & SEWU	R 3,000	R 36,000

Based on the numbers during the pilot period, it was clear that a significant amount of money was earned and accumulated at this single buy back centre, even though the centre was not being used as much as the partners had hoped. It is important to recognise that although 75% of the money went to the cardboard collectors, the cardboard collectors did not actually bring away very much. The average price for 1kilogram of cardboard is 30- 40 cents. To put this into perspective, a cardboard collector would have to find, collect, and sell approximately 50 kilograms a day in order to earn just R 15-20.

In 2001, the Keep Durban Beautiful Association (KDBA) and Durban Solid Waste (DSW) conducted a survey in the Durban CBD and found that, "...on the average a total volume of 7,491.1 kilograms of cardboard is collected per day. Informal waste paper collection does not only save businesses R1,866.10 per day as removal and disposal costs of that volume of waste but on the other hand promotes recycling of waste and on the other saves space in the landfill" (Makhetha et al. 2001: 3). Over time the savings to businesses and income to cardboard collectors adds up. In a summary of savings benefits for businesses or income for collectors it was estimated that 7,491.1 kilograms equates to a savings of R2,247 per day, R15,731.31 per week, R67,419.90 per month, and R820,275.45 per year (Makhetha et al. 2001: 6).

Upon further investigation, the survey revealed that the Brook Street buy back centre has not been used to its full potential. "In Warwick Junction District where there is the majority of the cardboard collectors there is a buy back centre in Brook Street. However, only 9.4% of the collectors use this centre" (Makhetha, et al. 2001: 8-9). Most cardboard collectors are older in age and not willing to walk far distances out of their way to the centre when they could just as easily sell to an agent on the street.

The average age of the majority of informal collectors in the entire city being between the 41 and 70 they were unwilling to walk distances of more than 1 kilometer to the centre with heavy loads as trucks from recycling companies buy from them at street corners; most collectors do not have trolleys to carry their cardboard to the centre (Freeman and Mgingqizana 2002: 362).

The KDBA/DSW survey indicated other reasons cardboard collectors have not used the Brook Street buy back centre including that the women were not aware of its existence, that the cardboard collectors' loyalty was to Babs and not to the buy back centre, distrust of the buy back centre operator who was supposed to pay them, and some cardboard collectors did not see the need to use the centre as they had been collecting and selling fine on their own for a long time with no hassles (Makhetha, et al. 2001: 9). Other reasons for underutilisation of the centre include vagrancy and traffic congestion.

The process of removing the waste that is brought to the buy back centre is taken care of by Mondi. During his interview, the DSW informant noted, "The recycling companies, they come here. Like, it is full now, this container," he said as he pointed to a large metal container the size of a train box car, "It has been full now and they have got to come and collect. They were supposed to come on Friday but they have not come yet" (Interview November 24, 2003). The informant's comment about the late pick-up of the cardboard spurred questions about what problems he has noticed and any possible solutions he could offer. He said that often when the recycling companies arrive with their large trucks to collect the waste they are not able to enter the buy back centre area because the entrance is blocked by cars, people, and piles of waste debris. If they have too much difficulty because of traffic congestion they leave and try again on another day or on the following week, which causes the waste paper to build up. "Another problem we have here with the project is parking," he said pointing to a vehicle blocking his own car, "Some people just come here and park in the entrance. Then the trucks cannot get in to empty the containers. You can see now that someone is parked behind us." Another problem the informant has noticed is a lack of storage facilities for the belongings of the cardboard collectors. "Most of them when they are out there collecting they find it difficult to store their belongings anywhere. So if we can help them with a lockable storage facility..."

he trailed off for a moment, “So, more storage facilities, more trolleys and also incentives.” Another problem he described was the design of the trolleys used to push medium loads of cardboard from collection points to the buy back centre. After conferring with an operator he explained, “He is just saying that the wheels...they used to be a different design before this one here. He says that the old trolleys the wheels were better because they were not as soft as these ones. The old wheels were larger and stronger but you see these ones are rubber” (Interview November 24, 2003).

When asked to elaborate on his idea of incentives the informant explained that he felt a need for incentives as a way to draw attention and increase usage of the buy back centre. He believes that if the cardboard collectors were rewarded for using the centre then their use of it would go up and would result in less selling of cardboard on the street corners. Less interaction on street corners would pressure recycling companies to conduct business with collectors in a buy back centre setting. The DSW informant would like to see a setting where business transactions between cardboard collectors and agents/recycling companies occurred only at centres. It would serve as a way to promote standardisation. “Once I suggested that maybe Mondi could provide some kind of incentive scheme in order to promote this project because at the moment it is competing with trucks from other recycling companies who buy cardboard from street corners,” he said. “Lothlorien, Reclamation Group, and even Babs himself has been forced to get into the street and compete with this project because he’s trying to make sure that he does not lose out to Lothlorien and other groups.” The informant’s specific incentive idea was to offer extra money to cardboard collectors who met a particular goal in kilos of cardboard. For instance he said, “Things like if you bring so many weight in kilos waste paper maybe you get 5 cents more” (Interview November 24, 2003).

None of the women interviewed for this study were familiar with the Brook Street buy back centre despite working within the same general area. This fact suggests that DSW has perhaps exaggerated the efficacy of buy back centres. Cardboard collectors were interviewed in various areas of the CBD, all near the Brook Street buy back centre, and none of the women encountered had ever heard

of the centre or used it to help them sell their bundles. The Brook Street buy back centre which was originally set up to help out cardboard collectors, particularly women who were being cheated, is no longer being run by a SEWU member but by a man named Dumosane, who was appointed by Babs.

When it was first conceived, the Brook Street buy back centre had the potential for reducing the exploitation of cardboard collectors, while still ensuring their value within the informal economy. If fully realised, this and other buy back centres should have minimised the roles of other intermediaries within the value chain who were capitalising on the limitations of cardboard collectors for their own gain. Instead, buy back centres have had only a limited impact on waste paper collection in the Durban CBD and, in turn, on the cardboard collectors themselves. In the instances where these centres have been successful, it is often because an agent or other intermediary intervened, undermining the ideal of an independent buy back centre that is protective of the cardboard collectors' interests. As demonstrated in Figure 1 previously in the Chapter, the buy back centres had the potential to provide an outlet around the exploitive process faced by many cardboard collectors; as they have developed, they have become little more than another type of intermediary that has had little impact on the agent-driven aspects of the chain.

At the Northcoast buy back centre there were clear differences from the onset. The biggest difference is that it was set up as a commercial entity. The DSW informant explained, "When we started this project we wanted to get people from previously disadvantaged backgrounds to actually get involved into the mainstream recycling business immediately, not like in the case of operators at Brook Street" (Interview November 24, 2003). Unlike the Brook Street buy back centre, the Northcoast project searched for a person who DSW could contract from the start to run the project on his own, as an entrepreneur. This entrepreneur was then free to form partnerships on his own with other partners or recycling businesses. The purpose of this project was to create employment for a previously disadvantaged person who could then provide employment to others, independent from large companies. The informant explained that there were certain guidelines that the contracted entrepreneur was to uphold by signing the contract, which

would ensure fair treatment of employees, advancement opportunities and a labour intensive environment that would spur new employment. The informant said:

There is a contract with each and every entrepreneur who is running a project that he signs, to be in charge of this project for 36 months, after which he will have the purchase option...to purchase the entire business from the council. So these projects, basically, from the onset use the money from the government which was made available to promote recycling but also to create employment and at the same time to create that opportunity of empowerment. It's a project that is supposed to be self-sustainable. Once you run it you take care of expenses. They have to pay rates. They have to pay rentals. They have to pay full-time staff salaries. We negotiated with the council for some concessions with regard to the rentals and the rates that they must pay because you know they are just entered the business (Interview November 24, 2003).

DSW has shown its awareness of the significance of gender dynamics to making their interventions successful. The informant indicated that part of the Northcoast buy back centre's contract stipulated that the entrepreneur create as many jobs as possible, particularly for women. "And also they must look at, for example, for ways they can uplift women from the level of a collector maybe to someone who is an entrepreneur or maybe someone who is a manager," he said, "You will find that for example, there was this lady who was a sorter here and maybe that lady she has got such potential to be upgraded or promoted to site operator or site manager. So we are monitoring that closely, but at the moment most women are just collectors and sorters" (Interview November 24, 2003).

The Mondi informant also attends the monthly council meetings held by DSW. She indicated that Mondi owned approximately 12 buy back centres. "Mondi has quite a few buy back centres and Lothlorien also does, which works to take volume away from the Brook Street centre. But the Brook Street centre is run reasonably well," she said (Interview December 15, 2003).

Informants were asked to speak a bit about what successes they have observed within the waste management and recycling sector. The Mondi informant expressed the opinion that waste is collected well in Durban and hinted that general recycling could be seen as an intervention in its own right. Over time they have seen an increase in the amount of recycling and educational efforts about recycling and the environment. As it was stated on the Mondi website, "It

is estimated that every ton of recycled waste paper saves 17 pine trees and three cubic metres of valuable landfill space” (Mondi 2004). That is significant as Mondi alone is capable of converting 80,000 tons of waste newspapers and magazines each year. Another success cited by the Mondi informant related to training of cardboard collectors. “If they require training we will bring them here on site [to Mondi] to do training, teach them how to read the scale,” she explained. In response to questions about how the sector could be improved both informants agreed that it would be useful to have a SEWU representative present at the monthly council meetings. The Mondi informant stated, “It’s a good idea to have a representative to take info back to the cardboard collectors” (Interview December 15, 2003). The Lothlorien informant was asked about what successes he has seen in the waste paper industry. “People have seen a way of earning money by collecting...there are a lot of jobless people around,” he remarked, “and collectors who used to be living on the streets are actually making a living. They may be right on the bread line but they are making a living” (Interview December 3, 2003).

Gender Dynamics

This section focuses on gender (and the social construction of gender) by analysing the role of the Self-Employed Women’s Union (SEWU) in working for female cardboard collectors (including skills development and empowerment), the gender dynamic of positions held within the waste management and recycling sector in Durban, and health and personal security-related gender issues that impact the day-to-day lives of the women within this sector.

During an interview and field trip to collection areas in Durban, a DSW informant shared his knowledge and experience of working with cardboard collectors. “Mostly it’s women,” he said, “I would say about 95% of the collectors who are servicing this area around the Brook Street centre are women. And there are about 30-40 of them total” (Interview November 24, 2003). He also indicated that female cardboard collectors were typically older. This study has backed up his claim. The majority of the women interviewed for the study were older than 40. All but one of the women interviewed were the sole income

supporters for their families and, on average, six individuals depend on each of their incomes. Out of the ten interviews, eight women supported at least six dependents and six were supporting more than six dependents. These dependents were typically children and grandchildren.

Although the interventions of other groups have previously been discussed within previous sections of this chapter, SEWU will be discussed in this section because of its unique focus on the challenges and opportunities experienced by female cardboard collectors in the informal economy. According to SEWU, a woman is eligible to join the union if she meets any of the membership criteria. A woman may join if she is working for herself and not employing more than three people herself, if she is working for people who do not employ her permanently, if she is doing work that is not covered by any other trade union, or if she is doing casual work. SEWU aims to do the following, according to their informational brochure: build unity between women who do similar work, help members develop negotiating skills, assist them with legal advice, develop lobbying and leadership skills, and provide members with access to other organisations that may be able to help them such as credit and loan facilities and counselling for victims of violent attacks or rape.

Gaining information about SEWU beyond the surface level required interviews with the founder of SEWU (who also founded StreetNet), as well as with a current administrator at SEWU. Their insight and institutional memory shed light on the challenges of organising cardboard collectors as well as the successes. On a daily basis the SEWU administrator is in constant contact with cardboard collectors who need assistance. She helps the women to find legal counsel if needed, she helps with language translation problems on the street, she helps resolve disputes, as well as a long list of ad hoc duties. “Sometimes they call here and say there is a problem. They call if there is a problem at the beachfront, police harassment who arrest them and take their goods. And we help them get legal assistance” (Interview December 11, 2003). The SEWU administrator highlighted her biggest challenges as those involving harassment by police, exclusion from relevant discourse on the waste management and cardboard collection sector, and funding problems relating to membership fees and resources

that would enable her to provide better service. “Our members are harassed in the streets by the police,” she says, “They have membership cards but police disregard them and if they arrest them [the women] they take the cards away” (Interview December 11, 2003). The membership cards serve several purposes, one of which is to remind municipal authorities that the women have a legitimate right to collect cardboard within the CBD, per negotiations with city leaders. The fact that metro police have continued to harass and arrest cardboard collectors could be an indication that police see the women as easy targets, providing a safe outlet for the police to exert their power and aggression.

Another concern she expressed was at not being included in relevant council meetings and discussions about activities and policies within the sector.

[The industries] don’t invite the cardboard collectors to fix [or] to give ideas about how to solve problems like wetting the cardboard. I think it [would be] interesting if SEWU [went] to council meeting[s] and listen[ed] to what they are talking about, but we are not told about these meetings. We need someone to sit in and tell all those stakeholders the problems of collecting this cardboard (Interview December 11, 2003).

Another problem at SEWU is obtaining appropriate funding to support the services they wish to offer to informal workers. She explained that because the members of SEWU are so poor they are frequently unable to pay their dues or the joining fee, which goes toward running the union and providing services. The joining fee is R10 and the monthly subscription after a woman has joined is R8. The joining fee and dues are at times adjusted in order to accommodate women with little or no money. She noted that it is also difficult to recruit new members who are distrusting and are not willing to give up any of their earnings.

To join SEWU [there is] a R2 fee. We are a union, we need to collect subscriptions for them but they fail to pay subscription. They willing to pay but they fail because this money from cardboard is not a lot of money. It is not a big amount and to pay R5 a month or R8 a month is for food for their children. That they fail to pay, that is my worry about them. If we have enough funds, if we have a donor from overseas to help us at SEWU then we can better train us, the women, and create jobs for that women. They could form a group and start their own project. This is my concern for these women. I think if we had more funds we would give women empowerment to do the projects themselves (Interview December 11, 2003).

Money could be just one of the problems preventing more far-reaching SEWU membership. The SEWU administrator was able to find and recruit women cardboard collectors to interview for this study, roughly half of which were conducted within the SEWU offices. Despite some of these women not being members, none had been recruited for membership in such a way that helped them to understand the benefits of union protection. Some were members but did not seem to realise it; when asked if they were members of SEWU, answers varied:

Yes, I am in SEWU. I would join a group as long as it comes with clear objectives (Interviewee 4, 2003).

I have heard of SEWU and a mama was going to show me the office but the mama could not because her baby got sick. Now I know where it is (Interviewee 5, 2003).

I do not know of any organisations. I can definitely join because I would like to see how the organisation can help me (Interviewee 8, 2003).

I am not in a organisation. If I could hear of one I would join but only if it is going to help me (Interviewee 10, 2003).

The fact that several of the interviewees were being interviewed within the SEWU offices, yet had still not heard of SEWU or been encouraged to join, reflects a possible problem with SEWU's capacity to effectively enlist new members.

Like any organisation, SEWU has problems that arise even after members are recruited. The NGO informant emphasised the importance of groups like SEWU staying active in order to maintain influence and services. Using SEWU as an example she explained that, "Eventually SEWU stopped focusing on the cardboard collectors because things seemed to be going so well. It was a weakness on their part not to continue reminding the women about the importance of staying involved" (Interview December 13, 2003). She also pointed to a lack of training despite a consistently demonstrated need for more investment within this area for SEWU's members.

As noted by at least one stakeholder interviewed outside of SEWU, the solidarity offered by the union has its limits when its members are working so hard for so little on which to survive. Although SEWU exists to help bring the cardboard collectors together there is still competition between the women. This

competition sometimes causes conflicts between them over territory and working relationships. The DSW informant provided an example:

If you have obviously made a relationship with a particular shop and then I go ahead and take that cardboard from that shop then there is a conflict. Or if one person collects their cardboard and places it on the street corner while they go and collect more and another person comes and takes it then there are conflicts (Interview November 24, 2003).

Occasionally, DSW employees have to act as mediators when conflicts cannot be resolved between collectors. Other times SEWU is called upon to mediate because of its close and previously established relationships with the cardboard collectors involved.

Despite the difficulty and frustrations that she often experiences at SEWU, the SEWU administrator noted, “We have achieved because [the SEWU members] have a container and we have people who are trained now by Mondi.” This is a rather large success owing to the fact that Mondi belonged to the partnership at the Brook Street buy back centre through which they provided containers in which to place collected cardboard as well as training cardboard collectors to read the scale properly without assistance.

Today, there are cardboard collectors who turn away agents they feel are not offering a fair price for their paper – a new development within the sector. In the past, feelings of insecurity stemming from a lack of training on how to read scales combined with a fear of the agents meant that cardboard collectors felt obligated to sell their cardboard to specific people even when aware they were being cheated. In February 1996, SEWU began organising cardboard collectors in the Durban CBD and Isipingo as a way to combat exploitation by pressuring intermediaries to pay appropriate and timely compensation for collected cardboard (SEWU News 1996: 1-2). “Back then Babs had a monopoly,” explained the NGO informant. “Cardboard collectors had fear of Babs finding out that they sold to another agent. They feared wrath or scolding and this increased their feelings of insecurity.” In conversations she had with the women, she found that even though the women knew they were not employees of Babs, they considered their relationship with him a permanent working relationship. “They would almost always refer to themselves as ‘working for Babs’” (Interview December 13, 2003). The knowledge, confidence, and collective identity gained by these same

women through their involvement with SEWU has empowered them to take greater control of their wage-earning potential and, in turn, force agents to impart a more fair and balanced approach to compensating them for their work.

The gender dynamic of positions held within the waste management and recycling sector in Durban has affected the cardboard collectors' access to opportunities in several ways. As Sethuraman (1998) demonstrated in Chapter 2, women often occupy the lower quality and lower paying jobs as compared to their male counterparts. With specific reference to this study, perceptions and opinions of individuals in the value chain have at times worked both for and against female cardboard collectors. For instance, an interview with the Lothlorien informant revealed that his perception of women as reliable workers with a strong work ethic has resulted in his hiring of more women as sorters in the factories and as managers at depots. He claimed that most sorters were women because, "They are better at it. They pay more attention to detail and are hard-working" (Interview December 3, 2003). According to the Lothlorien informant, women who work as cardboard collectors or paper sorters at the mill are given chances for advancement. "We are growing at a rapid rate but we still have the ability to mix with the people. I'd say 97% of my depots [are] managed by a black female who used to work as a sorter on the floor. So, they are depot managers," he said (Interview December 3, 2003). To illustrate his point, the Lothlorien informant provided the opportunity to see one of the depots. The Umgeni Depot, owned by Lothlorien, is managed by a woman who formerly collected cardboard herself. She has managed this depot for 18 years, running the centre independently, balancing books, and testing money for authenticity. This woman estimated that she oversaw approximately 100 tons of cardboard and other waste paper per month.

Soon after expressing his pride in women depot managers the Lothlorien informant contradicted himself through his stance on unions. In describing the Lothlorien plant and providing the tour he seemed very pro-worker in that he was proud of the sorters' work, of Lothlorien's management of the sorters, and of Lothlorien's willingness to provide women with work. He seemed extremely ambivalent and guarded, however, when asked whether he had heard of SEWU

and if his employees were unionised. He emphatically stated that there were no unions at Lothlorien and said it in a way as to imply that they were not allowed and he would not hire someone who belonged to a union. It is possible however, that the informant saw unions as a threat to business while he saw promoting women as simply the fair thing to do.

While the case of the female manager noted above is encouraging, it may remain more of an exception than a rule of how operations are managed within the waste recycling sector in Durban. An interview with an intermediary not associated with Lothlorien revealed that his perception of women cardboard collectors' reliability caused him to replace female operators at the Brook Street buy back centre with a male appointee of his choosing. This action demonstrated his gender bias; instead of looking at this situation as one in which individuals who happened to be women had stole from him due to their extreme poverty, he chose to assume they took the money simply because they were women and thereby less reliable. His reaction was to appoint a man as the new operator, basing his decision on his belief that men were more reliable with money and less prone to the pressures of poverty.

Current Problems: The Issue of Cardboard Wetting

A significant problem that came up during most of the interviews was the issue of cardboard wetting. The cardboard wetting problem was also discussed at the monthly council meeting held by DSW and attended by a number of companies including Lothlorien, Nampak, and Mondi. The cardboard wetting problem is important because it affects all levels of the value chain. Cardboard collectors dampen or wet cardboard in order to make their bundles heavier. When their bundles weigh heavier, they are able to make more money. As a drawback, the wet cardboard is heavier and has caused cardboard collectors to sustain injuries due to the weight as well as sickness from exposure to the germs present in stagnant pools of water where dunking has taken place. Furthermore, when cardboard has been dunked in water it becomes practically unusable to companies. Industries that receive wet cardboard lose money because they are not able to use the wet cardboard to make their products. Wet cardboard and waste paper

requires special machines to probe for water levels and extract extra water, which cost money and take additional time. No machine is able to remove all the water.

The Lothlorien informant expressed frustration about cardboard wetting regarding the activity of the actual wetting and also the industry's inability to eliminate it. He explained why cardboard wetting is so bad for business:

Well, when the customer brings in wet waste he gets paid more because it's heavier...we do deduct it, but we still lose. For example, we can use a figure...let's say the wet waste paper is 100% wet. We put it into a machine that compresses it and remove 60% of the water out, now we get 40%...but we bought 100%, so we actually are on the losing end all the time. When it goes down to the paper mills they use a probe and test, they then deduct another 20%. So at the end of the day the waste paper dealers are losing. We are all for not buying wet waste paper. It is in our interest not to. But I mean it is not in our interest to police the people who are wetting cardboard in rivers and ponds. I don't think it's our job (Interview December 3, 2003).

Another result of the cardboard wetting problem has been disagreements over how to police the waste management and recycling sector regarding the issue. Some believe it should be DSW's responsibility, others believe it should be the responsibility of both the industries and DSW. Others indicate a lack of resources or proper initiative. The Lothlorien informant expressed his concern and indicated that he had been harassed by "customers," or in other words cardboard collectors, who collect waste paper and sell it to his drivers. He spoke about DSW's role in policing cardboard wetting, questioning their ability. He described what happened after he stopped buying wet cardboard the day after a monthly Monday council meeting, at which all parties in attendance agreed to stop purchasing wet cardboard.

On Tuesday I stopped buying wet waste paper. And then I had 50 angry customers there who assaulted my driver, threatened to burn my [trap pit] down. I phoned DSW and said, 'How can you help me, now that I am doing what you asked me to do?' And she said she can't help me. She doesn't have the resources. So that pretty much sums up my relationship with DSW. They want everybody in big business to help them but they are not prepared to get off their butts and help themselves. And I don't think that the policing issue of wetting cardboard in rivers is the work of big business. It should be policed by DSW, especially if companies pay a huge amount of rates and spend a lot of money for levies and all these kinds of things just to be asked to do the job of DSW because they have the political clout, or whatever they want to call it (Interview December 3, 2003).

Informants from Mondi and Nampak agreed with the Lothlorien informant and admitted to challenges in the industry with regard to the collection and recycling of wastepaper products such as cardboard. The biggest problem pointed to was cardboard wetting. “Things have just gotten out of hand here,” said the Nampak informant, “It used to be just a little bit and now...” (Interview December 15, 2003). Both interviewees expressed the need for the large companies like Mondi, Nampak and others to not purchase wet cardboard as a way to discourage the wetting. They indicated that the responsibility was up to the industry and the mills to monitor and not buy dampened paper. “It’s a huge problem,” commented the Mondi informant, “because it affects the quality and usability of the paper” (Interview December 15, 2003).

Intermediaries have perpetuated the problem by encouraging cardboard collectors to wet cardboard. During her work at Isipingo, the NGO informant discovered that Babs had instructed the women to give him wet cardboard. As a result, the women were dunking their collected paper in water. The cardboard wetting by the women allowed Babs to receive more money from Mondi, his buyer, because he was able to blame the wet cardboard on the women and claimed he had no control over what they did to earn more cash. “Babs lied to Mondi about how much he was paying the cardboard collectors,” she claimed, “in order to drive up the Mondi price” (Interview December 13, 2003).

Conclusion

In this chapter seven themes were discussed as ways to analyse the findings of this study. Taken separately, each section provided a unique insight into the situation of cardboard collectors in Durban and the ways in which they participate within this study’s value chain analysis. Taken together, these sections create a more complete picture of how each level of the value chain interacts with those above and/or below it, and what those relationships mean to the cardboard collectors at the bottom. Throughout this chapter, gender has been a cross-cutting theme of primary significance, impacting nearly every level of the value chain and influencing many of the processes that occur daily within the waste paper management sector in Durban.

CHAPTER 6: RECOMMENDATIONS & CONCLUSIONS

Theoretical Conclusions

The research in this paper has revealed that the concepts of formal and informal economies are not only hard to define, but difficult to articulate. Formal and informal activities and livelihoods can simultaneously be defined as relative points on a socioeconomic continuum and as dynamic and continually changing processes. Past definitions have suggested that regulation and registration are ways of distinguishing between the formal and informal economies. This perspective is not sufficient to capture all of the people involved in informal economic activities, however, many of whom have registered only portions of their business activities because they see an advantage in maintaining an ambiguous economic position. Furthermore, it seems clear that no single approach examined in Chapter 2 can accurately define or explain the nature of the informal economy; issues of labour, production, legality, gender, income, etc. are all critical components to its understanding and cross-cut many of the existing definitions.

The value chain has been a useful tool in working to operationalise the dynamic factors and facets of the informal economy by exposing numerous issues relating to personal and economic interactions; power and governance; organisation; and coercion, to name a few. In the course of this study, the value chain has given particular clarity to issues of power, economics, and gender, as well as how each is related to the others. The recycling companies hold the most power due to their vast economic resources. The cardboard collectors, who are mostly women, are positioned at the lowest level of the value chain where they remain dependent upon intermediaries and large companies for income. The inability of the female cardboard collectors to challenge these power structures given their current situations is given both unique light and description when viewed through the value chain. It becomes clear upon review that the imbalances

of power, wealth, and gender define many of the issues being discussed, and therefore must also be included in any potential solutions that are considered.

Policy Implications

A number of important patterns are apparent upon reflection and review of the informal economy and situation of cardboard collectors in South Africa. First, the activity of waste collection (i.e., the collection of materials such as paper/cardboard, glass, metal, and plastic for the purpose of reuse and recycling), is an arena dominated by women who have little or no formal education and are often illiterate. Second, cardboard collectors live in poverty where they experience a lack of resources, employment opportunities, and mobility, and minimal safety nets such as family, social security, or welfare to protect them in times of emergency or crisis. Third, the majority of buyers or intermediaries are men and represent a crucial synergy within the value chain through their activity in both the informal and formal economies. Fourth, inadequate or underdeveloped waste management systems in developing nations, provinces/states, and/or municipalities contribute significantly to both the problems faced by waste collectors as well as the formation of informal waste collection in the first place. These oppressive conditions under which the world's poorest are living are further perpetuated by a range of issues, including: unemployment, lacking communication skills, neglectful public policy, and legal frameworks that favour actors within the formal economy over those in the informal economy.

Cardboard collectors in the informal economy encounter numerous problems in their day-to-day lives. In addition to cardboard collectors reporting persistent harassment by police and municipal authorities, many also note that they rarely have a secure place to store their belongings while they work during the day or overnight when they are not. With public bathrooms often lacking on or near cardboard collectors' routes, many report that they are not able to use the restroom during the normal course of the day. To add to this, cardboard collectors work extremely long hours, often continuing to work after normal business hours have come to a close. Once these women overcome these problems, they then often fall victim to exploitation by intermediate buyers who purchase their

collected goods for less than they are owed and resell them to industries, keeping the cheated money for themselves as extra profit. The general precariousness of cardboard collectors is added to on top of all these pressures when one considers that their pay is unsteady, they face health and safety dilemmas often without the ability of knowledge of how to protect themselves, and they are not protected by any social safety nets in the event of a life change or emergency.

When evaluating the informed interventions that Durban has undertaken with regard to waste management and cardboard collection, it becomes clear that the city stands as a model of progressive policy-making within a developing country. Extreme disparities persist, however, between the incomes and lifestyles of the cardboard collectors and the range of individuals working at different levels of the value chain within this sector. Individuals in the formal economy who work for large waste paper and recycling companies, as well as intermediaries who run their own businesses, earn far more money than cardboard collectors, with fewer of the challenges and hardships to endure. Despite these shortcomings that need to be addressed, Durban has made strides by accommodating the tide of informal economic growth since the end of apartheid. As such, the city, its groups, and its informal workers represent a strong model of progressive policy, while simultaneously possessing great potential for future improvement.

Recommendations

Improving the lives of people in Durban and South Africa requires multiple policy solutions working simultaneously and reaching across sectors, livelihoods, classes, genders, ages, races, ethnicities, and incomes. Effective policies must be flexible yet focused, to allow for changes in the culture and value systems of society as well as growth. “Public policy and actions for reducing decent work deficits need to be target-specific, occupation-specific, employment status-specific, women-specific, child labour-specific, etc.” (Amin 2002: xvi). This focus should never be so unwavering, however, that changes in policy over time are not made to adapt to the current needs of the communities in question.

This research on cardboard collection and related activities within the waste management sector in Durban presents space for a variety of policy

recommendations. From an industry standpoint, there is a need for new bylaws that address specific problems, such as cardboard wetting and standardisation. New or revised bylaws within industry that address the issues of cardboard and waste paper collection by informal workers, as well as the complicated issue of cardboard wetting, will assist industry in the way forward by providing clearer guidelines that can be enforced with greater accountability and equity. One solution is to provide the industry drivers with training about how to detect the wet cardboard and why it is detrimental to purchase it. Another solution is to have DSW and SEWU communicate with cardboard collectors and explain why wetting cardboard has not been helping them because industries and intermediaries have begun automatically deducting a portion of the cardboard collectors' pay to counter wet cardboard. A third solution is to increase the policing of wet cardboard by DSW and the industry. Lastly, it has been suggested that industry-wide bylaws be created that make purchasing wet cardboard illegal, therefore discouraging the practice.

Broader representation at monthly DSW council meetings is also necessary to more effectively meet the needs of all parties involved with cardboard collection in Durban. Key individuals are needed to attend in addition to industry representatives and DSW officials. These individuals should often include drivers who collect directly from informal workers, NGOs involved in street-level work, and most importantly at least one female cardboard collector. Initially, the presence of a cardboard collector within these meetings would remind others from within the sector that the cardboard collectors play an integral part in the value chain. Greater visibility is therefore necessary to properly acknowledge cardboard collectors' roles as both stakeholders in and contributors to the economy. A representative cardboard collector could also offer clarification to industry stakeholders and the state regarding work patterns, street-level details, and other valuable on-the-job viewpoints that would allow for informed policy interventions. This same informal worker representative could relay information back to other cardboard collectors within the CBD. Cardboard collectors may be more likely to trust information from another informal worker than from an intimidating city or industry official. Those strong, on-the-ground relations can

then be brought to bear at the council meetings, by taking advantage of the opportunities to lobby for their rights directly to the policy-makers that establish most rules and norms for the sector.

Regardless of what other approaches are pursued, increased training is a vital component of any strategy addressing problems within this sector of the informal economy. In order for an informal worker to sit-in and contribute as a representative at council meetings, training must be offered in basic policy and presentations skills, as well as transportation provided. Ideally, the training should be conducted by SEWU, an NGO such as StreetNet, or perhaps by the Warwick Junction Urban Renewal Project, a City Council Initiative. An informal worker representative presents unique challenges and opportunities for the meeting participants. Given that all of the women interviewed possessed a native language as their primary language and none of the women spoke English, there are likely to be language and literacy problems with many representatives. Despite these limitations, the inclusion of such representations could mean better relations between all levels within the value chain, which could in turn mean greater efficiency, and thereby yield more profits at every level. Another challenge of having an informal worker representative is that during the time she is at a council meeting, she is missing valuable work time in which she could be on the street collecting cardboard to make the money necessary to support herself and often her family. A potential problem could arise from having a cardboard collector as a compensated representative in that the collector could loose touch with the routine of street-level work which might unintentionally alienate her from the experiences of her fellow collectors. This problem could easily be mitigated, however, with a strategic balancing of the compensation amount.

Additionally, more training is needed for employees working within the formal industries. As of now, most training is obtained via on-the-job training. The workers often learn how to do their tasks once they begin their jobs and have received no previous training or subsequent instruction. There are few opportunities offered for formal training that would allow for employees to move up within the industry.

The Durban municipality needs to enforce consistent and compassionate policies for the treatment of cardboard collectors within the CBD. Metro police need to be made aware of these policies and police activities should be monitored to prevent harassment of informal workers who are legally collecting cardboard. Although the regional coordinator of SEWU mentioned that belonging to the union included a membership card designating the cardholder as an official member, she admitted that on the whole this identification did little to deter police who were looking for reasons to harass and/or arrest cardboard collectors (Interview December 11, 2003). A representative from the Metro police who appeared at the DSW council meeting expressed that their priorities are focused elsewhere and not on the livelihoods of the cardboard collectors, their plight, or the policies regarding them. In essence, this statement means that without putting into place a mandatory and continually supervised set of policies that better direct police action, little will be done to curb the ongoing abuses of power faced by Durban's cardboard collectors.

Drawing on the case of Pune, India, as described in Chapter 3, Durban should make use of strategic messages publicised through the mass media to help improve the perception of informal waste collectors. As Chikarmane noted in the Indian case, using the media to help portray cardboard collectors as "service providers" and active participants in "environmental conservation" could lead to increased public interest in the sector and offer professional legitimacy to the collectors' work (2001). This greater legitimacy could provide the basis for greater representation of cardboard collectors at the policy-making level and an increased ability of collectors to stand up for their rights, both against intermediaries in terms of business as well as against police abuse on a more personal level.

Additional buy back centres provided by the city could also help to reduce the number of informal collectors selling on street corners. Rising poverty levels and high rates of unemployment force more South Africans into the streets looking for ways to obtain sustenance. New buy back centres would enable fair exchange, consistent buyers, and less need to sell cardboard in settings more prone to abuse and exploitation. Buy back centres would also provide a space for

collectors to convene, discuss, and organise around their collective identity, common experiences, and unique understandings of their workplace best practices/methods, dangers, and opportunities. On the other hand, more buy back centres could increase the competitiveness of cardboard collectors, which could in turn cause conflicts if there were not enough centres for all to use. To alleviate this, KDBA and DSW recommended that no company awarded a buy back centre should be allowed to purchase cardboard from collectors in any other location than at that centre. If enacted properly, however, new centres could easily be demonstrated as comparatively advantageous to the clear majority of cardboard collectors by avoiding many of the more hazardous pitfalls of their line of work while ensuring they are paid what they are due, and not what an agent wants them to believe they have earned.

To add an aspect of formal accounting and oversight to the sector, buy back centres and intermediaries need to issue receipts to cardboard collectors. Recorded proof of past business transactions would significantly improve the collectors' ability to issue grievances and cut down on buyer exploitation. Receipts should supply the collectors with the name of the buy back centre, the individual or intermediary company that purchased the cardboard, contact information for the intermediary, transaction date and time, material type, weight, price, and possibly signature/mark of the collector to indicate that she understands and agrees with the terms of sale. This policy builds upon the previous recommendation of increased cardboard collector training that would enable collectors to confirm that the information on the receipt is accurate given the reading of the scale, the amount they were paid, etc. This policy becomes meaningless if the women who are at the heart of these interventions are not first supported in obtaining the basic skills necessary to self-police the activities of the intermediaries with which they deal.

To address some of the health-related concerns within the sector, protective gear needs to be supplied to informal workers in the waste management sector to reduce health risks and promote occupational safety. Durable shoes, masks, gloves and clothing must be available to protect collectors from touching

or inhaling hazardous, toxic materials as well as to prevent contact with bacteria or animal and insect bites.

Finally, carts used for collecting cardboard on the streets need to be redesigned. After touring the Brook Street buy back centre and questioning one of the workers stationed at the scale about the collection of cardboard and the use of carts, he indicated that the design is not suitable for easy transport of materials. The wheels, which are small and inflexible, make it difficult to steer the carts or get them over curbs and through streets that are littered with debris. He also noted that there were not enough carts for all those who wished to use them. A solution to this problem might be to set up a competition at the local university (University of KwaZulu-Natal), challenging students from various departments to join efforts in redesigning carts. For instance, students from the engineering department could work on an improved design and means of manufacture, while students from the economics department devise a plan for marketing and affordability. The city and/or industries could work with the student groups by agreeing to produce and subsidise the winning design for use throughout the CBD. The students would be rewarded through their experience, reflected as an impressive addition to their resumes, as well as via public recognition. The city and industries would be recognised for their public service and they would benefit from cleaner streets and more cardboard. The cardboard collectors benefit from the competition because there would be more carts available and they would manoeuvre with greater ease.

Conclusion

It has become increasingly evident that creating policies to address developmental issues within South Africa is a complex challenge, amplified through the interconnected nature of many of the existing problems. This reality calls for a multi-faceted approach to policy solutions, which has at its core an understanding that no single policy can provide a solution to South Africa's development obstacles, or even meet the needs of all its cardboard collectors. Policies and understandings must be fostered that account for both the hardships endured and the value created by female cardboard collectors within Durban's

Central Business District. Without starting from this simple point, no policy can even begin to address either the needs or opportunities that are presented within the informal economy or waste management sector.

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Appendix A: Research Photographs



Mondi container filled with cardboard at the Brook Street buy back centre.
(Durban 2003)



Trolley used for moving cardboard from collection points to Brook Street.
(Durban 2003)



Weighing a cardboard bale at the Brook Street buy back centre. (Durban 2003)



Digital scale at the Northcoast centre. (Durban 2003)



Female sorters at the Northcoast centre. (Durban 2003)

Appendix B: Key Informant Interview Protocol

SEWU – Interview Questions

1. Please tell me a bit about your organisation.
 - a. When was it founded?
 - b. What is its purpose?
 - c. Approximately how many members belong to SEWU in Durban?
 - d. What is the structure of SEWU?
 - e. How are members represented?
2. Please tell me about the nature of your work with SEWU.
 - a. How did you get involved?
 - b. What do you do on a daily, weekly and/or monthly basis?
 - c. What type of work did you do before SEWU?
3. How is SEWU connected to the waste management sector in Durban, particularly regarding cardboard collection?
 - a. Are there SEWU members that collect cardboard?
 - b. What are some typical characteristics of cardboard collectors?
 - i. Age? Sex? Race? Education level? Nationality?
 - c. Do they use the buy back centres, like Brook Street?
4. Who do you think are the key stakeholders/players in the waste management sector in Durban on both the formal and informal ends?
 - a. Industries (Mondi, Lothlorien, Reclamation, etc.)?
 - b. The state (DSW)?
 - c. Other NGOs (StreetNet)?
 - d. Agents/Intermediaries (Babs)?
5. What do you know about the role of agents/intermediaries in waste management sector and the buying/selling of cardboard?
 - a. Are the agents useful/needed?
 - b. How do you think cardboard collectors, in the informal economy, view agents?
 - c. What are some typical characteristics of agents?
6. Please tell me about any involvement or knowledge of the buy back centres in Durban, for example the Brook Street buy back centre.
7. What changes have you seen over time regarding informal work, cardboard collection and waste management in Durban?
 - a. How do things work currently?
 - b. How have they worked in the past?
 - c. Do you know about cardboard collection in other cities?
 - d. If invited by DSW, would you or a representative of SEWU attend a monthly council meeting, in which various stakeholders were present, to discuss waste management issues such as cardboard collection?
8. Please describe some of the challenges you face in your job.
 - a. What are some problems or frustrations?
 - b. What do you like about your work?
 - c. What would you change if you could change something?
9. What do you perceive to be strengths and weaknesses of the waste management sector in Durban?
 - a. What is good about cardboard collection as a livelihood?
 - b. What is bad about it?
 - c. What would you change or how could it be improved?
10. Is there anything else you would like to add?

Appendix C: Cardboard Collectors Interview Protocol

Place of Interview:

Date & Time of Interview:

Name (optional):

Gender:

Cardboard Collector Interview Questions

DEMOGRAPHICS

- 1) How old are you? _____
- 2) Where do you currently live _____
- 3) How long have you lived there _____
- 4) Where do you consider home _____
- 5) How many years have you completed at school _____
- 6) How many people depend on your income _____
- 7) Are there other income earners in your household _____
 - a) If yes, how many _____

WORK HISTORY

- 9) How long have you been collecting cardboard _____
- 10) What were you doing before this? _____

CURRENT WORK ACTIVITIES

- 11) Is this your only source of income? _____
 - a) If no, what other income generating activities are you involved in _____

- 13) On an average day, what time do you start working _____
- 14) On an average day, what time of the day do you stop working? _____
- 15) How many days of the week do you work? _____

16) What distance do you cover on the average per day between your collection and selling points?_____

17) Do you collect other materials besides cardboard_____

a) If yes, what materials_____

18) What do you like/dislike about your work?_____

BACKWARD LINKAGES

19) How do you find the cardboard you collect?_____

20) Have you formed any relationships with users of cardboard?_____

FORWARD LINKAGES

21) Where do you sell your cardboard and who to_____

22) Do you use a buy back centre, such as Brook Street_____

a) If yes, how would you improve the buy back centre_____

23) How many other collectors are based at your selling point?_____

PROFITS

24) On average how much do you expect for a kilogram of cardboard?_____

25) On average, how much do you make on a good day _____

26) How much do you make on a bad day? _____

27) Have you suffered from any injuries or illness because of your work _____

a) If yes, what was your injury/illness _____

ORGANISATIONS

28) Are you a member of any organisations that help you in your work activities? _____

a) If yes, which ones and how _____

29) Do you have working relationships with other cardboard collectors _____

a) Please explain these relationships _____

30) If you had the opportunity to join an organisation to help you in your work activities would you join? Why or why not? _____

LINKAGES & BUY BACK CENTRES

31) What was it like before the buy back centre _____

32) What difference has the buy back centre made _____

33) What are the alternatives to buy back centres? Do you sell your cardboard in another place besides the buy back centre _____

34) What is your relationship with agents (such as Babs) _____

35) What is your relationship, if any, with local industries (such as Mondi or
Lothlorien or specific shops in town)? _____

36) What is your relationship, if any, with Durban Solid Waste (DSW)? _____

37) How do you make negotiations for business? For example, does knowing how to
speak English help collectors to secure business with buyers? _____

38) Since you began collecting cardboard have you had opportunities to do something
other than what you are doing at the moment? _____

39) If yes, what other opportunities have you had? _____

40) What do you think are the three most important things that local government
could do to help you with your current activities? _____

Ngiyabonga! Thank You!