

**Linking Inclusive Green Growth and the Informal Economy:  
Relationship Between Small-Scale Farming and  
Informal Vending in South Africa**

By

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## **Abstract**

With help from international agencies like the World Bank and OECD, the 'inclusive green growth' agenda has entered many national development plans since the 2012 UN Conference on Sustainable Development. It is difficult to envision a model of an inclusive green economy without some overlapping elements with the informal economy, which supports about two-thirds of the world's labor. And yet, there has been sparse discussion and empirical evidence on the linkages between the two. In order to investigate some aspects of this relationship and test the hypothesis that informal economic activities can contribute towards achieving inclusive green growth in developing countries, this research combines a literature overview with an exploratory case study on fresh produce vending at Warwick Junction (Durban, South Africa), all with a particular focus on how urban informal markets can provide and expand business opportunities for small-scale farmers in the region.

While the majority of the fresh produce vendors at Warwick Junction relies on formal producers and distribution centers, the purposive stratified sampling methodology in this study led to the identification of several cases in which vendors work directly with family-operated farms or loosely organized community cooperatives in neighboring towns. The results highlight examples of symbiotic linkages in this overlooked local food system that can increase employment opportunities and lower growth barriers for emergent farmers, who are important actors in developing a green economy based on sustainable agriculture practices. Lastly, findings are translated into recommendations for the eThekweni Municipality to act within the recently authorized Inner-City Local Area Plan, which offers guidelines for more inclusive and sustainable urban regeneration in the city of Durban.

Thesis Supervisor: Bishwapriya Sanyal

Title: Ford International Professor of Urban Development and Planning

## Biographical Note

Ha (Haily) Tran is a native of Ho Chi Minh City, Vietnam, where she grew up surrounded by the bustling urban environment as well as the tropical natural landscapes. The themes of globalization, urbanization, environmentalism, and sustainable development in developing countries are threaded throughout her academic and professional pursuits. She received a Bachelor of Science degree in Environmental Science in 2016 from Brown University, where she was an active member of the campus sustainability network. She was at MIT D-Lab practicing hands-on engineering skills and exploring inclusive design techniques in the context of rural livelihoods generation and economic development before entering the Master in City Planning program at MIT Department of Urban Studies and Planning in 2017. After completing the Master degree, she hopes to continue pursuing further research within the nexus of environmental sustainability and international development, as well as putting her training to practice in the non-profit sector.

## Acknowledgements

My journey at MIT was a mixture of pleasant serendipity and the guidance of much wiser minds than my own. The first note of appreciation has to go to Amy Smith, founder of MIT D-Lab, who inspired me with a talk on inclusive design & development when I was still in my last year at Brown University. One thing led to another, I found myself in a month-long design summit in Botswana's Kalahari Desert with Amy and then moving to Cambridge to continue learning from her. Working with D-Lab helped me cultivate a healthy mode of critical thinking that is coupled with a sense of optimism about the power of genuine co-creation, which offers a balance to the oft-dominant cynicism in this field. While at D-Lab I was lucky to have met my now advisor, Bish Sanyal, who encouraged me to apply to DUSP when I felt highly underqualified. His way of combining criticality and practicality influenced how I learned about planning and sharpened my perspective on development. Bish's guidance pushed the boundaries of this thesis and I am thankful to be challenged by someone who always had my best interest at heart.

This entire project would not be possible without my other advisor – and intellectual sister – Kate Mytty, who brought me to Durban after my first semester and introduced me to the world of urban informality research. Kate definitely trusts me more than I trust myself, and I can always count on her to lift me up in my lowest moments. I can't express enough gratitude in a few lines, so thank you for everything. I also owe the success of this research to my gracious hosts and wonderful friends at Asiye eTafuleni – Patrick Ndlovu, Richard Dobson, Tasmu Quazi, and Phume Mkhize. Their work at Warwick Junction was inspiring and captivating, which explains why I came back to Durban three times within 12 months. I am humbled by what I learned while a part of this team, as they constantly showed me ways to be a better person.

My role models in this domain also include Marty Chen, who is an exemplary combination of a leading intellectual, a highly productive practitioner, an advocate for women and the marginalized, a teacher, and an all-around warmhearted person. I want to grow up to be Marty – but for now, I'm thankful to have been in her class, and even more appreciative of our conversations and the friendship that I hope to keep after I stop being a student. Lastly, I wouldn't have made it through this whole process with my sanity intact if it weren't for the smiling faces of my friends from Brown, Harvard, and MIT. If I hadn't already done so, the last few weeks of my time in Cambridge will be spent expressing my gratitude for these friendships to each individual in person.

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## CHAPTER 1. INTRODUCTION

### 1.1 MOTIVATION

The term “sustainable development” entered the international agenda in 1984 by way of the World Conference on Environment and Development’s Report, “Our Common Future.” The concept was disseminated, promoted, contested, debated for years until 1992 when the Rio Earth Summit convened national government representatives and non-governmental organizations from 178 countries to agree on some common goals and actions towards sustainability and prosperity. Many of the key goals from the Rio Declaration on Environment and Development (Agenda 21) are still being discussed today, as they continue to evolve through numerous iterations of non-binding international agreements. The global community of researchers and practitioners are still grappling with the complex interdependencies of environmental, social, and economic development, which piqued my interest in taking a more critical look at the solution pathway that promises to solve it all: ‘inclusive green growth’.

The notion of green economic activities appeared in Agenda 21 under the chapter about encouraging urban development, which recommends that “green-work programs should be activated to create self-sustaining human development activities and both formal and informal employment opportunities for low-income urban residents (UNCED, 1992).” Even in the early days of its conception, the idea acknowledges its connection to both formal and informal economic spheres. 20 years later at the 2012 UN Conference on Sustainable Development, participants adopted a more mature and more ambitious vision:

“[The] green economy in the context of sustainable development and poverty eradication [is] one of the important tools available for achieving sustainable development; [...] it could provide options for policymaking but should not be a rigid set of rules. We emphasize that it should contribute to eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the Earth's ecosystems (UN, 2012).”

This vision does not draw explicit links to or make distinction between the formal and informal economy. One interpretation is that the connections were absorbed by the emphasis on economic growth, social inclusion, and employment opportunities for all. The latest ILO (2018) statistical report indicates that more than 61% of the world’s labor, around 2 billion workers, make a living in the informal economy. Globally, 63% of male workers and 58.1% of female workers are engaged in some form of informal employment (ILO, 2018). With these numbers in mind, it is hard to envision a model of an inclusive green economy without some overlapping elements with the informal economy. However, literature pertaining to the green economy and the informal economy indicate that the latter is generally undervalued or ignored in discussions on the former (Smit & Musango, 2015; Dawa & Kinyanjui, 2012; Brown, McGranahan, & Dodman, 2014).

There are many definitions and interpretations of the ‘green economy’. The term was not clearly defined when it was first coined in 1989 (Pearce et al.), thus leaving the task to governments and scholars to debate and transform the concept. In his exploration of how the green economy discourse manifests in actual examples of national strategies in the global South, Death (2015) concluded that there are four branches that claim to be theoretically distinct, but practically similar with many overlaps: green resilience, green growth, green transformation, and green revolution. In the context of developing countries, some argues that any structural transformation of the economy would require elements of growth in order to be adopted and sustained (Swilling, Musango, & Wakeford, 2016). Such sentiment is echoed by dominant development agencies like the OECD, World Bank, UN Economic Commission, who are often partial to development policies that promote growth. Juxtaposing the definition of the green economy and its evolution into green growth, one can see a familiar trend where the focus is less about people and more about the desired state of the economy in relation to natural resources.

Green economy: one that results in “improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities (UNEP)”

Green growth: condition that “fosters economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. It focuses on the synergies and tradeoffs between the environmental and economic pillars of sustainable development (Green Growth Knowledge Platform)”

Nebulous definitions aside<sup>1</sup>, the idea of “inclusive green growth” has captured a lot of attention in developing and emerging countries. The term was popularized by the World Bank in 2012 as a progressive sustainable development pathway (Fay, 2012). One can interpret the addition of the modifier, inclusive, as the attempt to absorb all social and political dimensions that were left out in the previous definition from the Green Growth Knowledge Platform. With blessing from agencies like the World Bank and OECD, “green growth” and “inclusive green growth” strategies started to appear quickly in national development plans.<sup>2</sup>

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<sup>1</sup> Other definitions of green growth: “Green growth means fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies (OECD, 2011)”; “Growth that emphasizes environmentally sustainable economic progress to foster low-carbon, socially inclusive development (UN ESCAP, 2012)”; “Growth that is efficient in its use of natural resources, clean in that it minimizes pollution and environmental impacts, and resilient in that it accounts for natural hazards and the role of environmental management and natural capital in preventing physical disasters (World Bank, 2012)”.

<sup>2</sup> For documents guiding governments towards green growth, see OECD (2014), "Mainstreaming green growth into national development planning", in *Towards Green Growth in Southeast Asia*, OECD Publishing, and Fay, M. (2012). Inclusive green growth: the pathway to sustainable development. World Bank Publications.

I have not come across literature that provides an overview on the extent to which countries have adopted these strategies, but the UN Sustainable Development Knowledge Platform indicates that 12 countries (Brazil, Cambodia, Ethiopia, Indonesia, Kazakhstan, Thailand, UAE, China, Mongolia,

The trickle-down effect from these national strategic plans is that city governments and urban planners are also invested in the green growth challenge. I can pinpoint the exact moment when this research idea caught my attention. It was during a daylong workshop on urban informal workers in Durban, South Africa, when a city official raised the question: “Sustainability and green economy should be an important part of the discussion, how do we connect these informal workers to green growth? (Workshop note, 2018)” First, this question confirmed the fact that green growth is the dominant concern in South Africa (Death, 2014; 2015). Second, it redirects attention to a forgotten linkage between the informal economy and the green economy. With so much ambiguity and debates surrounding the terminologies and operational strategies, over time some elements got left behind like the consideration for informal employment opportunities in the green-work directive mentioned in 1992 (Agenda 21).

Other participants in the workshop agreed with the question, and the interesting insight here is that they seemed to agree on the fact that informality is the reality, the observed state, and that green growth is the desired state. There was more interest in discussing the transcendence of the observed state, solving the urban informality issues to arrive at a green economy, than addressing the needs of informal workers for their own sake. Though, with the inverse and less cynical viewpoint, the question posed exemplify the spirit of inclusive green growth, which promotes a specific trajectory for development while trying to include the marginalized majority that is the population engaged in informal employment.

My personal agenda is to promote the latter, the pathway that emphasizes social inclusion and human welfare alongside environmental sustainability and growth. The purpose of this research is to explore further the question I heard in 2018 of “how do we connect these informal workers to green growth” in the context of Durban, specifically in Warwick Junction where there is a historic, vibrant market complex that supports around 8000 informal workers of various professions. More detailed background on the study site and the analytical boundaries of this inquiry will be provided in subsequent sections; but in brief, I chose to ground my study in Warwick Junction because of the dynamic complexities in and around the markets that make them indispensable nodes in the regional social and economic networks. I also owe my inspiration to my friends at Asiye eTafuleni (AeT), the local NGO who has been deeply committed to protecting workers’ rights and promoting inclusive development of Warwick Junction for more than a decade.<sup>3</sup>

Fully aware that by asking the question of ‘what is to be done and how’ in urban planning, I am standing on the shoulders of giants. The foundation of this research draws upon keystones from

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Philippines, Rwanda, and Vietnam) are working with the Global Green Growth Institute and many more have submitted their own green growth national development plans (Nigeria, Zambia, Egypt, South Africa, etc.)

<sup>3</sup> More than 2 decades if we count from the time they started working with the community before the NGO was officially formed.



development and urban theories to guide the framework for inquiry. The literature review will go over the intellectual landscape and orient the discussion in the direction that is relevant to the context of South Africa and informal markets. While there is extensive work on the informal economy and on environmentally-sustainable growth in developing countries, the analysis will focus on the linkages between those fields to identify which connections are worth leveraging in practice. However, the ultimate goal is to contribute meaningful information to advance the ongoing deliberation in Durban about the development path for Warwick; thus, the essential insights must come from the markets themselves. In addition to presenting the spatial, social, and political context of Warwick Junction, this research will feature an exploratory case study to uncover local knowledge and practices that can 1) illustrate or add to the theories, and 2) inform decision makers what is to be done and how. The hypothesis being tested here is that informal workers at Warwick Junction already can contribute positive impacts towards the city's goal for inclusive green growth, though those impacts have not yet been fully recognized and the latent capacity can still be uncovered if effectively supported.

## 1.2 ANALYTICAL BOUNDARIES

Given the centrality of the inclusive green growth paradigm, it would be beneficial to conduct a critical review of the concept. Each of these disaggregated terms, “inclusive”, “green”, and “growth” carries a lot of implications in urban planning and development discourses. Tackling them individually in full breadth is beyond the scope of this paper, and arguably not entirely useful for the intended purposes. This section draws some boundaries around the terms and their association to the research context in order to produce meaningful analysis going forward.

Regarding inclusivity, the discussion about the informal economy is an essential element, especially in a developing country like South Africa where 34% of workers are informally employed (ILO, 2018). The proportion of urban workers in informal employment is 29.3%; that number rises to 48.1% in the rural workforce including those in the agriculture sector (ILO, 2018).<sup>4</sup> In an essay on the roles of different actors in *Cities for People, not for Profit* (ed. Neil Brenner et al., 2012), Harvey & Wachsmuth (2012) recognized that “those working in the informal sector<sup>5</sup> [...] cannot be treated as

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<sup>4</sup> It would be wrong to assume that agriculture is the primary force driving up the share of informal labor in the rural regions. When only accounting for non-agricultural employment, informal labor makes up 50.5% of the rural work force (ILO, 2018).

<sup>5</sup> Chen (2012) expressed concern that many writers use the terms *informal sector* and *informal employment* interchangeably and imprecisely. They are official statistical terms that describe different elements of the informal economy: *informal sector* refers to the production and employment that takes place in unincorporated small or unregistered enterprises (ICLS, 1993); *informal employment* refers to employment without legal and social protection—both inside and outside the informal sector (ICLS, 2003); and *the informal economy* refers to all units, activities, and workers so defined and the output from them.

I believe that Harvey & Wachsmuth were referring to those working in the *informal economy*, or those workers engaged in *informal employment*, which would be more inclusive of the precariat in both formal and informal sector.

secondary actor [...] because they have always accounted for a large segment of the total labor force, and they have always played a crucial role in the production of urbanization (pg.265).” They termed these workers the ‘precariat’, a subset of the modern proletariat with more unstable employment, and stressed the importance of including them in the collective movement for progressive development. In the context of Durban, the city government estimated that a third of economically active adults were in the informal sector<sup>6</sup> in the late 1990s and the pace of growth there has been exceeding the formal sector by a huge margin (Rogan 2012), therefore, focusing the concern about inclusivity around the inclusion of informal workers in urban policies is both valid and important.

My interest in growth is coupled with poverty reduction, which was found to have the strongest positive correlation with growth in agriculture compared to other sectors (Haddad, 2012). Cross-country econometric data reported in the 2008 World Development Report shows that a 1% gain in GDP originating in agriculture generated a 6% increase in overall expenditures for the poorest 10% of the population, then 4% for the next poorest, and 3% for the subsequent decile. In contrast, GDP growth originating in non-agriculture sectors generated zero growth for the poorest decile of the population, and only 1% for the next (Ligon & Sadoulet, 2007). This insight strongly supports Machehe, Reardon, & Mead’s (1997) argument that the development of small farms and small agro-industrial businesses in South Africa could increase employment and income for the poor.

This research will explore the overlapping intersection between the agriculture sector and the informal economy – more specifically the small-scale farms that can be categorized as informal or micro enterprises, all the workers who fit the description of informally employed (contributing family workers, casual wage labor, members of informal cooperatives, etc.), and the flow of produce between small farms and informal vendors. I am more interested in the labor-centric dimensions of growth rather than the capital-oriented indicators; thus, the discussion on growth potential will primarily focus on job creation and labor absorption rather than quantitative data on GDP, income, or expenditure.

Third, green-ness. This term has been used synonymously with environmental sustainability in literature, though in common language, it can also be interpreted as healthy, organic, efficient, or simply the opposite of ‘brown’<sup>7</sup> development. Within the parameters of the green economy and growth, the connotation of the word becomes more limited as it is influenced by the framework of the discourse, which constitutes certain subjectivity and conceal others (Death, 2015). The foundation of green growth rests on neoclassical economics (Benson, Bass, & Greenfield, 2014), which promise environmental sustainability through the commodification of ecosystems services and the financialization of natural resources (Goodman & Salleh, 2013; Tienhaara, 2014) to promote cleaner

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<sup>6</sup> Similar issue here with the terminology. I wasn’t able to find the original document with the statistics so was unable to verify if the estimate refers to the number of workers employed in small, informal enterprises (informal sector) or number of informally employed workers over all.

<sup>7</sup> Brown growth describes economic development that relies heavily on fossil fuels and does not consider the negative side effects that economic production and consumption have on the environment (Deichmann, U., & Zhang, F. (2013)

and more ‘cost-effective’ consumption of natural resources. In this view, being green is reduced to being efficient and low-carbon. Death (2015) cautioned developing countries against adopting the same path of “ecological modernization” that is dominant in the global North before understanding the range of opportunities and constraints at home because there are other dimensions of environmental sustainability worth considering within the social-environment-economy nexus.

Green growth is an important discourse in South Africa so the analysis of the green elements in this research will address the system efficiency and carbon emission of informal vending and small-scale agriculture. However, in the context of the food system bounded within the flow of produce from farmers to consumers through informal vendors, it would be sensible to consider the merits of organic farming practices and the accessible supply of healthy produce as dimensions of a green society. There are many ways in which elements of the food system, ranging from land-use to the transportation network to the quality of products, can be green; so, for the purpose of comprehensive exploration, I would like to keep the parameters of greenness flexible. Unlike the other two cases for which the goal is to determine whether certain pathways contribute to inclusivity or growth, the flexible boundaries here allow for a wider view of the extent to which the practices afforded by linking small-scale farmers and informal vendors are green.

Within these boundaries, the primary research questions here are:

1. How are produce vendors in Warwick Junction connected to the regional agri-food network?
2. In which of these cases do informal vendors support inclusive green growth in the agriculture sector?
3. What could be done to strengthen the valuable linkages & who should be involved?

### 1.3 BACKGROUND ON DURBAN & WARWICK JUNCTION

Warwick precinct lies on the western edge of the Durban’s inner city and it is centered around the busiest passenger railway station in the whole metropolitan area. Warwick Junction is the name given to the area around the transportation hub and the market center. The attraction for traders is the fact that thousands of commuters come through the area each day as they make use of the railway station, 5 bus terminals, and 19 taxi ranks (Dobson, Skinner, & Nicholson, 2009, pg 5).<sup>8</sup> Formal and informal trading in Warwick precinct could be traced back to 1872 when Indian immigrants started setting up shops around Grey Street area and later opened a bazaar. The burgeoning economic hub attracted African immigrants from the outskirts to Warwick, which conveniently served as the gateway between the rural West and Durban metro, and by the 1930s Warwick Junction and Grey Street area was the dominant shopping, trading, and business destination for a large portion of Durban’s population (Dobson et al., 2009, pg. 43).

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<sup>8</sup> The authors also gave some estimates of average foot traffic in 2009 to indicate the scale of activity in the area: 460 000 pedestrians, 300 buses, 1 550 mini bus taxis, and around 166 000 public transit passengers pass by Warwick Junction every day.

The period of mid to late 1900s was a battle of survival for informal workers in Durban when the National Party and the apartheid ideology was in power. Black African enterprises and workers were pushed out of the city due to “the most sophisticated sets of anti-street trader measures anywhere in the developing world (Rogerson & Hart, 1989, pg. 32)”. The Warwick area was declared a slum and local authority began a campaign to clear the area and divide the community. By the 1960s, street trading was declared illegal in Durban and the police force could punish and evict traders from the city if caught (Dobson et al., 2009). The apartheid-era legal and regulatory framework was hostile towards informal vendors – even with the Natal Ordinance that decriminalized street trading in 1973, very few people were issued permits and the rest were not allowed to remain in one place for more than 30 minutes (Mkhize, Dube, & Skinner, 2013). Until the late 1980s, local authorities kept a tight rein on informal trading, and street vendors were often violently harassed (Lund & Skinner, 2004).



**Figure 1.1:** Bird’s eye view of Warwick Junction (source: Dobson et al., 2009)

With the dismantling of apartheid ideology and the election of the first democratic government in 1994, South African cities began to take actions towards urban transformation. Skinner (2000) studied local policies regarding informal workers in Cape Town, Durban, Johannesburg, Pretoria, and concluded that Durban was the most progressive in terms of supporting street traders and integrating them into city plans. The Warwick Junction Urban Renewal Project was initiated in 1995 to revitalize this economic hub on the principals of coordinated area-based management and strong commitment to community participation (Dobson et al., 2009). The mixed success and lessons learned from the Project is detailed in later chapters because the interventions left many important footprints and legacies in the community.

Currently, Warwick Junction is a combination of indoor and outdoor markets connected by strips of curbside vending that all together support between 5000-8000<sup>9</sup> informal workers (both traders and non-retail workers). The products being sold vary from beadwork, traditional arts and crafts, traditional cuisine, fresh produce, music and entertainment merchandise, clothing, accessories and traditional medicine. The community of traders are extremely heterogeneous, and the only visible segregation in Warwick is spatial grouping by product type. The Bovine Head Market specializes in traditional cuisine. The Herb Market sells traditional medicine. Clothing and beadwork are sold at Brook Street Market. And, the Early Morning Market is the hub for fresh groceries. Curbside traders arrange themselves near the appropriate markets to capitalize on the cluster effects, though there is no strict regulation of what must be sold where. Some traders choose to set up near the bus platforms and taxi ranks to capitalize on the heavy foot traffic.

Within the legal purview, the level of informality of the different markets in Warwick Junction varies from one another. Several of them, such as the Early Morning Market and Bovine Head Market, are managed by the Municipality and traders pay rent for the space. One of the markets, Berea Station, occupies an area that belong to the state-owned Passenger Rail Agency of South Africa so rent is paid differently and they are more organized as tenants. Some outdoor vending spaces are demarcated and controlled by the city, whereas some are ad hoc and considered illegal. And nearby, there are privately owned infrastructures like the English Market and Victoria Street Market that host formal businesses inside and informal street vendors outside. Most of Warwick Junction sits on public land owned by the Municipality, and this mixture of formal and informal usage of the space is a layer of complexity that the planners have to resolve in the future.

The working population is diverse with many types of informal employment. Chen (2012) summarized that in most vibrant informal economy, there are informal self-employed workers (employers running informal enterprises, own account workers, contributing family workers, and members of informal producers' cooperatives) as well as informal wage-workers (employees of informal enterprises, casual or temporary laborers, paid domestic workers, dependent contractors, industrial homeworkers, and unregistered or undeclared workers), all with varying degree of informality, protection, and power. The case is true for Warwick, though some workers are more visible than others. In a small sample survey, Mkhize et al. (2013) found that when asked the first time, all the traders said that they were own account workers, and later in the questionnaire, 28% reported at least one paid employee and another 16% reported receiving help from at least one unpaid family member, meaning more than 1/3 of the sample was an employer at some point. In conversation, Richard Dobson, the co-founder of AeT, mentioned they have estimated that each visible vendor at the market supports or employs 3-5 'invisible workers' in the ecosystem. This point about the invisible

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<sup>9</sup> There hasn't been an updated count since 2009, but this range is still useful in conveying the scale of the population. StreetNet International (2010) found an overall average population of 49 739 in the whole metropolitan area, which means Warwick Junction was responsible for hosting 10-16% of all street-based informal workers in Durban at the time.

jobs will become relevant again in later discussion about the potential for job growth in the informal economy.

The desire to regenerate and recapture the value of Warwick persists in policy discussions within the city. In 2017, the eThekweni City Council<sup>10</sup> voted to approve the “2040 eThekweni Inner City Local Area Plan (LAP) and Regeneration Strategy”, which is a design document that is meant to guide the revitalization of Warwick and neighboring precincts. The comprehensive vision for the development strategies is that “by 2040 the Inner City of Durban will be Africa’s leading, most vibrant, liveable, walkable City Centre, providing economic, residential, sporting and leisure opportunities for all (eThekweni Municipality, 2017).” The LAP is the city’s response to the macroeconomic trends of falling economic growth, jobless growth, and increasing unemployment in South Africa, coupled with the local reality of a sprawling metropolitan footprint with a decaying urban core.

The LAP recognizes the challenge of working with a concentrated and diverse population who engages in a complex network of formal and informal activities that are not completely legible to the state. However, the eThekweni Municipality upholds its reputation for being more progressive than other cities in its policies regarding the informal economy.<sup>11</sup> Several action items outlined in the Plan are meant to achieve the ambitious goal of promoting sustainable livelihoods by expanding the opportunities for informal trade and improving access to adequate infrastructure.

“The improved connectivity networks, wider pavements and active market spaces will provide space for 80% more registered informal traders, increasing from approximately 8,000 in 2016 to 14,400, promoting sustainable local livelihoods through access to larger markets, smart city infrastructure and business support. All registered traders will have easy access to adequate facilities including clean ablutions, waste management and lockers for their goods (eThekweni Municipality, 2017).”

In the summer of 2018, I participated in a workshop with city officials across several departments, local architects and planners involved in drafting the LAP, the co-founders of AeT, students from Durban University of Technology, and several DUSP colleagues to talk about the implementation of this guiding document and the future of Warwick. As expected, there was a mixture of support and doubts, but one key takeaway from the event was that this LAP is significant because it provides the authorizing environment for change.<sup>12</sup> There were a few champions for the informal workers within the Municipality, but we wouldn’t have been able to convene a diverse group of city officials to talk about the vendors in Warwick if the directive hadn’t been mentioned in the officially

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<sup>10</sup> Durban was officially renamed as eThekweni in 2001 when 48 apartheid-era administrative zones were combined into an expanded metropolitan area under one municipality. I will always refer to the official Municipality using its proper Zulu name, but will continue to use Durban to refer to the city (as they do in official documents like the Local Area Plan).

<sup>11</sup> Skinner (2008);

<sup>12</sup> Andrews, Pritchett, & Woolcock, M. (2016) offers an exposition on the importance of an authorizing environment for government agents and how to navigate it to maximize capacity for action.

approved Local Area Plan. I will offer a more in-depth reflection of the Inner City Local Area Plan and the history of urban renewal in Durban in later chapters, but here I would like to acknowledge the benefit of having a ‘sympathetic space’ to ask my research questions and the privilege to contribute recommendations to a real planning conversation.

#### 1.4 FOUR ELEMENTS OF CRITICAL URBAN THEORY

Reflecting back on my observation at the workshop with Durban city officials, I sensed that their objective was to transcend the observed state, the disorderly manifestations of urban informality in the inner city. On top of the unknowns about the challenges and feasibility of intervention, there is much to unpack about the power imbalance between the state and the precariat on this particular front. This level of complexity requires a systemic organization of relevant theoretical and practical knowledge for critical analysis within the social and political reality of the problem.<sup>13</sup> In order to map the possible pathways of transformation, planners must understand the nature of contemporary patterns of urban restructuring, and then, on that basis, analyzing their implications for action. (Brenner, Marcuse, & Mayer, 2012). In today’s world, urban and economic restructuring is often influenced by increasingly globalized market forces and political climate, but the conviction behind a critical analysis approach at the city level is rooted in the genuine belief that local agents and governments still have more capacity to forge their own success than they have been willing to consider (Logan & Swanstrom, 2005). The observation is clear that informality is a ubiquitous mode of urbanization (Roy, 2005), though the nature of its patterns and organizing logic still holds many layers of complexity primed for investigation.

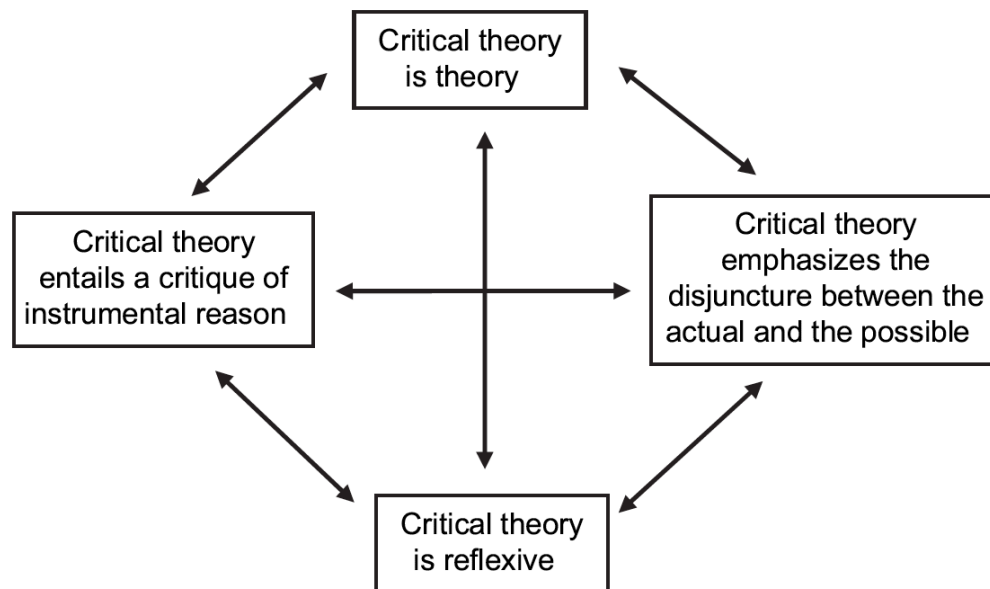
The framework that inspired my approach for this research is Neil Brenner’s formulation of Critical Urban Theory (2009), which builds on the modern idea of critique as developed by Frankfurt School political philosophers of the 20th century, one that encourages criticism as a contribution to transcend the status quo (pg. 199). The foundation of this approach is critical of inherited urban knowledge and existing urban formation. It insists that another, more democratic, socially just, and suitable form of urbanization is possible, even if such possibilities are currently being suppressed through dominant institutional arrangements, practices, and ideologies (pg. 198). I appreciate the

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<sup>13</sup> Nason, R. (2017) provides a full explanation on the difference between complex versus complicated problems, and he argues that the prior is at best managed, not solved, because the unknown elements in such complex situations shift constantly to produce new challenges and opportunities to which one must react. For example, the challenge of integrating informal economic activities into formal institutional control mechanisms is complex rather than complicated because the set of informal activities, stakeholders, and the capacity of the formal institutions – amongst other things – are rarely known constants. Andrews, M., Pritchett, L., & Woolcock, M. (2013) expand on how government agents can best manage complex problems by focusing on local capacity rather than mimicking best practices. Their framework for Problem-Driven Iterative Adaptation overlaps with Critical Urban Theory (introduced in the next paragraph) on the basis that both rejects inherited knowledge and emphasizes the rigorously excavation of local possibilities.



ideology for its attitude towards social change, but more importantly it is the framework for pragmatic inquiry that I find most constructive.



**Figure 1.2:** Four mutually constitutive propositions of critical urban theory (Brenner, 2009)

The Critical Urban Theory framework consists of four interconnected elements: theoretical, reflexive, critical of instrumental reason, and expressive of the disjuncture between the actual and the possible. Each element corresponds to a chapter of the analysis.

First, the theoretical element focuses on epistemological and philosophical reflections; development of formal concepts, generalizations about historical trends; deductive and inductive modes of argumentation (p. 201). That chapter will be a review of theories and concepts relating to urban informal economy and pathways for green development with the goal to identify some co-beneficial relationship between them. It serves as a “moment of abstraction (p. 202)” to survey what the literature already says about how informal vending and small-scale agriculture can promote inclusive green growth.

The reflexive element drives the subsequent chapter, which analyzes proposals regarding Warwick Junction in the eThekweni 2040 Inner City Local Area Plan against the history of state-led urban renewal projects in the city. The story will include instances of community-led responses in order to provide a background on the tension, collaboration, and power relations that influenced parts of this new document. The critique of instrumental reason is featured in the section that asks ‘what is being planned and why’ in order to gain clarity on the means-ends proposition being presented. It is important to determine whether the Local Area Plan is set up to promote allocative or innovative planning, which will influence the recommendations in the final chapter.



The exploratory case study in Warwick Junction provides insights to inform the discussion about the disjuncture between the actual and the possible. In terms of describing the ‘actual’, the field research presented in this chapter aims to illustrate how informal vendors in Warwick are connected to the regional agri-food system. The result is then compared with the commonly-accepted, conventional model of the fresh produce distribution network in South Africa to find similarities and contrasts. As for presenting the ‘possible’ scenarios, the narrative will feature a few cases in which the vendors have strong partnerships with regional farmers that exhibits potential for inclusive green growth. The argument rests on the word “potential” because this study can only provide qualitative evidence of beneficial linkages, not substantial quantitative data to prove correlation and effects.

Transitioning from what is possible to what is to be done, the discussion returns to Brenner’s (2009) belief that a critical approach will lead to useful knowledge for planners to “excavate the emancipatory opportunities (pg.203)” in the system. From the perspective of the city officials, I take the word “emancipatory” to mean supportive of the agents in the system – vendors, farmers, consumers – as much as possible to unlock the latent potential for inclusive green growth. I understand that critical urban theorists are often critical of governments for perpetuating power imbalance, but here I’d like to respectfully use their approach to imagine ways in which government agents could take the first steps towards reducing the disparities to create room for future substantive democracy. This chapter will reiterate findings from the case study in order to inform the section on ideas for intervention. The recommendations will first be directed by comments from interviewees at the market, then international best practices second. Lastly, I will conclude by reflecting upon my experience from this project and how this critical approach has influenced my own development within the field of urban planning.

## CHAPTER 2. THEORETICAL ABSTRACTION

### 2.1 LOCAL AGRICULTURE & INCLUSIVE GROWTH

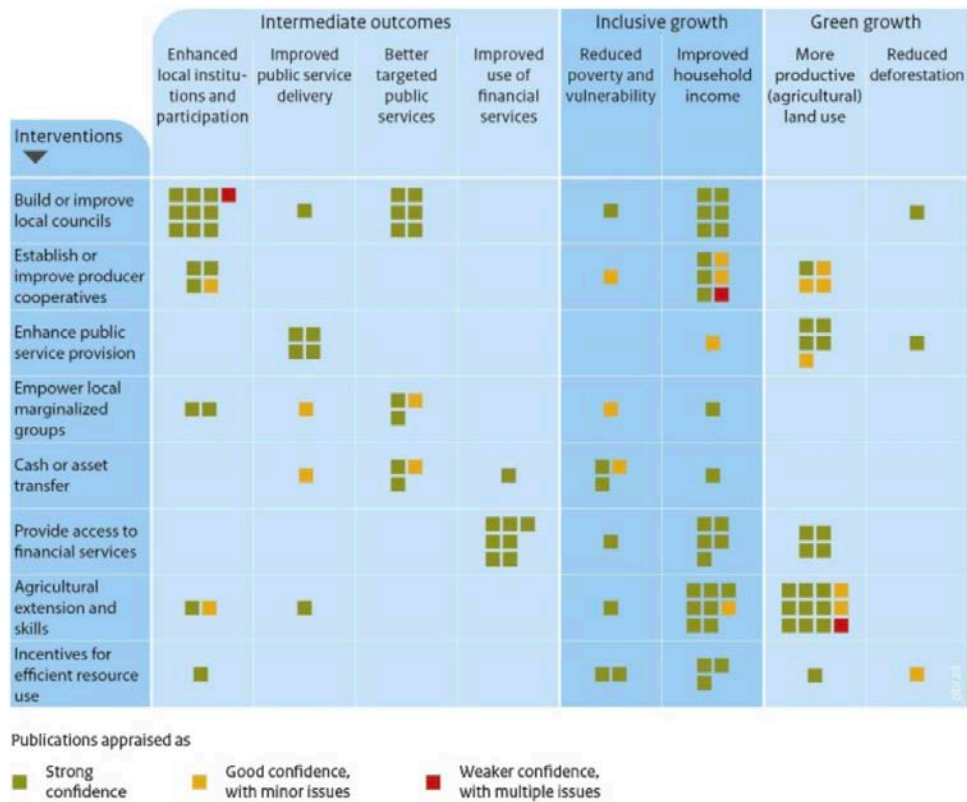
The Asia Development Bank (2004) put agriculture at the core of inclusive growth because this sector has more direct impact on the income and expenditure of the lowest earners. This finding was confirmed by Ligon & Sadoulet (2007) who were analyzing global data, and then distributed by the 2008 World Development Report. Haddad returned to this idea in his summary of the ‘Five Assumptions of Dominant Thinking in International Development (2012)’, the first point in which sought to dispel the assumption that all growth was equal by providing evidence that growth in agriculture was more inclusive for the bottom of the pyramid. These insights strongly support Machethe, Reardon, & Mead’s (1997) argument that the development of small farms and small agro-industrial businesses in South Africa could increase employment and income for the poor. They provided a background paper urging for domestic policies to support a strong local food system and agri-food network (food processing, vending, etc.), which was believed to be better for distributing economic gains within the low earners as opposed to the streamlined global food chain that is more “efficient” but controlled by a few firms.

The importance of agriculture as a driver of inclusive green growth is understood by many, but there are very few papers that directly address this overlap. Berkhout et al. (2018) recently conducted a systematic search of 10 databases for studies with empirical evidence on this relationship and only found a handful. Figure 2.1 is their resulting Evidence Gap Map<sup>14</sup> in which they show the 66 studies out of almost 50,000 records that mention both domains. The scope of their research was on policies that aimed at strengthening institutional capacities in rural agricultural development, so slightly different from the scope of this project, but their thorough literature review is still useful for qualitative purposes. In the last 4 columns, one can see that inclusive growth is a more frequently cited concern than green growth. Within the first agenda, the primary dimensions of inclusive economic development are on decreasing vulnerability and increasing household income, both of which shall be incorporated in the fieldwork result portion of this thesis. It seems that there’s been some strong evidence on the correlation between agriculture extension and improved household income. As expected, agriculture policies also have some correlation with more productive land use. Both of these findings align neatly with the parameters and assumptions of this research. In South Africa, a lot of land is left under-utilized. As the country is still considering land reform and redistribution, many argues that small farmers should be at the center of this conversation because those agents will be able

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<sup>14</sup> An Evidence Gap Map synthesizes the available information on certain policy domains to facilitate the development of evidence-based policies. In addition, EGMs show where evidence is lacking setting the agenda for future research. Clusters on the map suggest that these relations have been investigated with greater frequency, irrespective of the actual impact documented.

to unlock the economic potential of the land and contribute to a healthy local food system (Lahiff & Cousins, 2005).



**Figure 2.1** Evidence Gap Map of institutional policies within agriculture to address inclusive green growth (Berkhout et al. 2018)

Most literature on the merit of local food systems are around the role the urban agriculture in building an inclusive & resilient food system in developing countries (De Zeeuw, Van Veenhuizen, & Dubbeling, 2011). The dominant arguments are that urban agriculture can excavate the value of less valuable real estate in cities, often in lower-middle income communities, and reduce food prices for those consumers (Lovell, 2010). Orsini at al. (2013) conducted a review of examples in East Asia, South America, East Africa, and found that urban agriculture favors social improvement since the poor urban consumers spend upwards of 85 % of their income in food purchase. Sociologically urban farming favors both social inclusion and reduction of gender inequalities, as 65 % of urban farmers in those case studies were women. Urban agriculture also has ecological benefits by reducing the city waste, improving urban biodiversity and air quality, and overall reducing the environmental impact related to both food transport and storage.

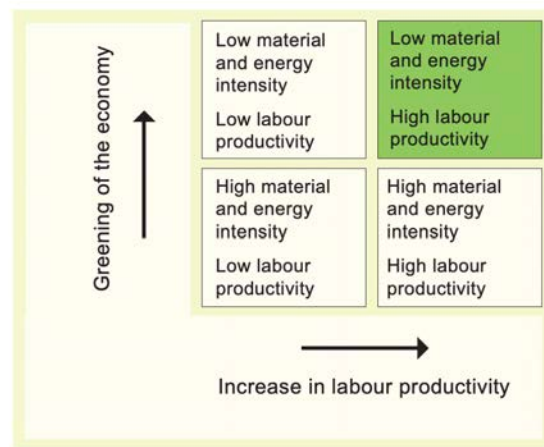
In South Africa, the advocacy of urban agriculture as a means of supporting the urban poor has been a major theme in the literature since the early 1990s, though until now there hasn't been an accepted consensus on the merit of this form of farming in South African cities (Webb, 2011). Back

then it was believed that the ‘poorest of the poor’ would be the main beneficiaries of urban farming, especially as far as food security is concerned. Yet, there was data showing that a greater prevalence of urban agriculture was among the less marginalized (May & Rogerson, 1995). Concurrent to this debate, planners have come to see a need to support peri-urban farming specifically, as the urban periphery is always a prime location for development that also has potential to contribute to urban services such as shaping urban growth and supplying food to growing populations (Brinkley, 2012).

Not just urban growth, there is ample international evidence that small-scale agriculture has the potential to generate employment and income opportunities in rural areas. It is argued that small-scale farmers are potentially competitive in certain activities and that, with proactive policy support, these opportunities could be developed into “viable niches” for a future smallholder sector (Kirsten & van Zyl, 1998, Ngqangweni et al., 1997). Machette (2004) agreed that the poverty problem in South Africa is largely rural and promoting smallholder agricultural growth can be an effective strategy to reduce rural poverty and income inequality. An empirical analysis of income and expenditure data in black South African households in 2010/11 by Aliber & Mdoda (2015) found that small-scale agriculture has significant direct and indirect expenditure-saving effects for black farmers and neighbors, which they suggested was indicative of the fact that small-scale farmers could indeed become niche producers that serve their communities – however large that is – without being connected to the formal supply chain.

## 2.2 SMALL-SCALE AGRICULTURE & GREEN ECONOMY

The foundation of green growth rests on neoclassical economics (Benson, Bass, & Greenfield, 2014), which promise environmental sustainability through a cleaner and more ‘cost-effective’ consumption model of resources (Goodman & Salleh, 2013; Tienhaara, 2014). Therefore, the dominant metric for the green economy in this sense is based on the system efficiency of material and labor input versus product output. Figure 2.2 is a simplified matrix from the UN’s Green Economy Initiative that captures these dimensions in the green economy. Evidently, the efficiency of material, energy, and labor is the common measurement in this framework.



**Figure 2.2:** Green economy matrix (UNEP, 2011)

The labor productivity in this sense was meant to be interpreted as higher output per worker, but in the context of developing countries, I find it useful to also think about labor productivity as getting more output out of the overall labor pool. In that case, tapping into unemployed workers or unremunerated workers can be a way to increase the overall economy's productivity. Amartya Sen (1962) had argued that family owned, small-scale farming could be considered more "efficient" with higher labor productivity because the cost to productivity ratio is higher than waged-base labor. This form of farming also has some efficiency advantage in a context with high structural unemployment like India and South Africa.<sup>15</sup> There are other papers with evidence that family farms are generally more efficient and superior to other types of farming because of the way in which labor relations are organized (Berry & Cline, 1979; Binswanger et al, 1995; cited from Kirsten & van Zyl, 1998). The higher level of productivity is also sometimes argued with a presumption that family members are willing to put more time and energy into their enterprise than would be justified at full market wage rates, since there's higher incentive and more to gain from hard work (Delgado, 1996).

As for production, Prosterman and Riedinger (1987) found from reviewing agriculture output of 117 countries that 11 of the top 14 countries in terms of grain yields per hectare were those in which small-scale, family farming was the dominant mode of agriculture. Bele, Norderhaug, & Sickel (2018) did an empirical quantitative study on the beef production in Norway and found that localized agri-food production based on low resource-intensive agriculture systems was able to produce as high-quality products compared to conventional farming practices, but had major positive impact on resource conservation. Additionally, Rodda, Carden, Armitage, & du Plessis (2011) found that small farms and family-owned farms in South Africa were more willing and were better set up for greywater irrigation system that uses recycled water for their growing process. As climate change has intensified the risk of drought in South Africa, this practice has a major ecological impact by reducing water consumption of a highly water-intensive industry.<sup>16</sup>

Not all small-scale or family-operated farms exhibit these characteristics. Graeub et al. (2016) did a review of the state of family farms in the world for the UN and found a wide variety of practices within this global phenomenon. The efficiency factor and 'green' characteristics must be evaluated case by case, which will be done using information gathered from the case study in chapter 4. D'Souza and Ikerd (1996) found that within the farming system in the US, small farms were not always more efficient (they lack the economy of scale and often did not adopt the latest technology), but "the

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<sup>15</sup> According to the 2016 SA Community Survey, unemployment was the most commonly cited reason for urban and rural poverty. The unemployment rate in South Africa is at the highest it's been in the last 10 years at around 27% (Trading Economics Database). Kingdon & Knight (2004) pointed out that the unemployment rate and the informal employment rate in South Africa in 2002 came to a 0.7 ratio, meaning not all of unemployment is absorbed into the informal economy. That number does not negate the fact that the informal economy, specifically small-scale agriculture in this case, had the capacity to absorb unemployed labor; if anything, it either suggests that there might be some under-accounting of informal workers (home-based work is often neglected) or that labor productivity in South Africa can be increased if more unemployed adults could join the informal economy.

<sup>16</sup> See Appendix G for a map of the worsening drought situation in South Africa.

potential ‘benefits’ of small farms appear to outweigh the potential ‘cost’ when viewed in a sustainable development context.” On other dimensions of green-ness, the characteristics of small farm seem to most closely resemble those of sustainable systems.

**Table 2.1:** Properties of Sustainable Systems and Consistency with the Goals of Small-Scale Farming and “Industrialized” Farming (D ‘Souza and Ikerd ,1996)

Properties of Sustainable Systems <sup>a</sup>	Consistent with Goals of Small-Scale Farming?	Consistent with Goals of Industrialized Farming?
Maintenance of intergenerational economic welfare	yes	no
Maintenance of existence of human species indefinitely	?	no
Sustainability of production and economic systems in terms of their resilience	yes	no
Sustainability of community	yes	no
Maintenance of biodiversity	yes	no

<sup>a</sup> Properties as defined by Tisdell.

Though, not all subsistence farmers lack technological innovation. Smit & Musango (2015) visited several small farmers in South African townships and found that renewable energy, rainwater harvesters, bio digesters, construction through eco-design, and bio-mimicry for solid and waste water treatment were all projects that had been done by the community. All these strategies were designed to conserve and recycle resources, which would make these farms comparatively more ‘resource efficient’ than the conventional conception of a rudimentary rural farm. Despite the achievements of small-scale agriculture in developing countries, the fact is that economic conditions for smallholder farming in Sub-Saharan Africa are especially tough. Those challenges had shaped smallholder behavior in a way that prevented them from growing and increasing incomes. Missing or incomplete input and output markets are still some of the structural constraints small-scale farmers have to cope with. These structural constraints manifest themselves in high and often prohibitive transaction costs (Kirsten & van Zyl, 1998).

### 2.3 URBAN INFORMAL ECONOMY & GREEN DEVELOPMENT

Brown, McGranahan, & Dodman (2014) argue that a more environmentally minded and equitable engagement with the informal economy is critical if low-income countries are to become more inclusive and more sustainable. The urban informal economy is growing and how it evolves will be critical to the possibilities of a transition to a more inclusive, resilient and green economy. Informal activities contribute positively to urban environmental management whenever the state fails, wittingly or unwittingly, to do so. Romanos and Chifos (1996), amongst others, offer examples from third world

countries where informal workers engaged in garbage collection, disposal and recycling, water provision, light vehicle transport services, and urban agriculture, thus helping cities eradicate unhealthy living conditions and relieving governments of the related management burden (Briassoulis, 1999). Acey & Culhane (2013) found that a number of households and communities in Africa were implementing green livelihood strategies, which included the adoption of household-scale renewable energy technologies, organic waste management, and urban farming. Along with the challenges faced by small-scale farmers identified above, the informal channels could also act as a way to support those marginalized by the formal system. A thorough case study by Shackleton et al. (2010) identified informal vendors in Durban as the ones who facilitated the trade of African indigenous vegetables from rural and peri-urban farmer into the urban market.

Besides some case studies on the waste and recycling segment of the informal economy, the discussion in this intersection is quite sparse. There are a few researchers that focus on different economic activities like the Acey & Culhanes's (2013) paper on off-grid renewable energy, but it is oftentimes in conjunction with the discussion about non-profits or NGOs support in South Africa. The few pieces of literature in this domain conclude that an aggregate assessment of the environmental effects of the informal sector is not possible because critical information is missing. Briassoulis (1999) suggested that the scale was tipping towards negative impact rather than positive. She cited evidence that dense concentrations of small, informal manufacturing enterprises within the urban fabric usually produce haphazard housing developments and cause adverse physical and environmental problems in urban areas (Sassen-Koob, 1989; Vaiou & Hadjimichalis, 1997). The papers reviewed by Brown, McGranahan, & Dodman (2014) are neutral, with the caution that the informal sector must be incorporated in the planning framework for green development or else the negative externalities of informal activities will outweigh the potential positives. The lack of consensus in the literature serves as a partial motivator for this research, which hopes to contribute to the debate by presenting a case study that ties together small-scale agriculture, the urban informal economy, and the potential for green development.

## CHAPTER 3. CRITICAL REFLEXIVITY

### 3.1 REFLEXIVITY FOR CRITICAL PURPOSES

Chapter 2 left off with a brief overview of the literature on some possible linkages between informal markets, growth in small-scale agriculture, and green development. It was meant to substantiate some postulations regarding the existence of those linkages in Durban, and more specifically in Warwick Junction. That chapter provided an abstracted view of how the informal economy can have a role in a cohesive strategy for inclusive green growth, which in many ways could already provide useful information for the curious planners at the eThekweni Municipality. However, two years in a planning program and countless times re-reading Critical Urban Theory led me to an automatic response that an abstraction via theories and related literature was insufficient for practical actions. The theoretical guidance is valuable because it was compiled from the collective thinking and learning in those fields over time; but a critical analysis must be cautious of inherited knowledge (Brenner, 2009).

“Because context matters”. That is the mantra that we were taught as planning students. To accept the proposition that “all social knowledge [...] is endemically contextual (Brenner, 2009, pg. 202)” is to accept that a complete understanding of any development framework or any models of society – more concretely of cities for the purpose of this discussion – requires an overview of its specific historical conditions and context. Reflexivity challenges planners to confront how models, plans, and theories were conceived. The point in Critical Urban Theory is that one should reject “positivist, transcendental” claims about urban development (Brenner, 2009, pg. 202), but since the intention was never about translating ideas from the literature review into policy recommendations, I will not spend a lot of time critiquing those works.

However, reflexivity remains an important part of this chapter. The purpose of this research is to contribute meaningful input for the city planners in Durban during this window of opportunity afforded by Local Area Plan; therefore, instead of being critical about the conditions in which other ideas were developed, it is more beneficial to be reflexive about the historical and present conditions around government interventions in informal spaces in Durban. Looking into the past offers a critical view of the foundation on which the Inner City Local Area Plan was created, which is most helpful as a learning exercise for myself and as background information for readers who are unfamiliar with the context. Looking at the past in relation to the present conditions offers the eThekweni city planners a reflexive view on the relationships between the Municipality and the Warwick community, which will underline existing tensions as well as potential opportunities that must be recognized before proposing new plans and policies.

Investigating the contextual elements is only one part in fulfilling the research objectives. In his reflection on ‘criticality in planning’, Sanyal (2008) raised a very sensible point that there are differences between questioning a problem, understanding a problem, and solving it. Criticality is



foundational for a good planning education, but a practical planner has to ultimately go beyond asking fundamental questions and respond to the pragmatic question of: what is to be done (pg. 153).<sup>17</sup> That question serves as the primary motivation for this research, but the overarching point helps firm the specific intention for this chapter: reflexive critical thinking for practical purposes. Many scholars have written about the state of urban informality in Durban,<sup>18</sup> so this reflection will brief over the questions of ‘what is the problem’ and ‘why’. Instead, it will focus on who should be involved, their relationship to one another, and the existing environment in which they must work.

The LAP remains at the center of the analysis because it is the authorizing document for future projects. The functional value of this master plan is to provide a set of vision and guidelines for government agents to follow, but its second order role as the authority to support problem-solving initiatives is much more important. In a highly individualized and bureaucratic organization like municipal governments, the agents – in this case, those at the eThekweni City Planning Commission – often need a champion or a reason to give them the legitimacy to breach beyond the departmental boundaries in order to coordinate plans and implementation with other essential partners (Andrews, Pritchett, & Woolcock, 2016).<sup>19</sup> The language in the authorizing document also informs the set of priorities and the type of approach that would engender the most support. A close read is necessary to complete the understanding of the conditions in which change can happen. This section also provides the chance to examine some projects proposed in the LAP and end-goals relating to the urban informal economy to identify instances of instrumental reason that exists in this master plan.

This chapter incorporates the critique of instrumental reason<sup>20</sup> very lightly because it is not featured here to condemn the practice of rational planning, but to further interrogate the process through which these goals and plans were set – an extension of the exercise on reflexivity. Though, with some aspect of the critique in mind, the last section touches upon how the planners should navigate towards designing and implementing projects that are informed by those working in the informal economy rather than striving to meet target goals that may not be beneficial for the targeted population.

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<sup>17</sup> An extension of that question is one raised by Harvey & Wachsmuth’s essay, “What is to be done? And who the hell is going to do it” in *Cities for People, Not for Profit: Critical Urban Theory and the Right to the City* (2012, eds. Brenner, Marcuse, Mayer)

<sup>18</sup> See: Hart & Rogerson (1989) for a discussion on deregulation; Grest (2002) for a case study on urban citizenship; Popke & Ballard (2004) for a discussion on identify of informality in urban space; Nesvag (2000) for a case study on forms of repression and expression; Skinner (2008) and Nesvag (2000) for a review of street trading policies; Valodia & Devey (2012) for a list of comprehensive references on debates, issues, and policies regarding the informal economy in SA.

<sup>19</sup> The supporting evidence is that the we were able to convene a group of city officials (City Architects, Planners, Area-based City Managers, Business Support Unit, Police Force, etc.) together to discuss strategies regarding the informal vendors in Warwick in July 2018 only because the Local Area Plan had stated ‘supporting informal trade in the inner-city’ as one of its goals.

<sup>20</sup> I’m using the word critique to be consistent with the language of Critical Urban Theory, but it is more of a discussion at this point.

### 3.2 HISTORY OF STATE-LED URBAN RENEWAL IN WARWICK JUNCTION

Warwick Junction, part of the historical Warwick Area Triangle (WAT), holds a special place in South African history as one of the few places in the country that remained “mixed” during Apartheid, and by extension serves as a symbol of persistence for the urban poor in Durban. Citing from official government reports, records of the Durban City Council, memoranda prepared by civic organizations and newspaper articles, Maharaj (1999) pieced together stories of organized opposition from the community in the early 1940s to late 1980s resisting countless policies of racial segregation and relocation forced upon them under the guise of urban renewal.<sup>21</sup> On one hand there was the apartheid state’s pushing to rezone the area for white-only residential and commercial uses, which “would go hand in hand with clearance, renovation, and demolition of affected properties belonging to disqualified persons (Durban Department of Community Development, 1963, pg. 6)”. On the other hand, the residents of Warwick Triangle – whites, Indians, ‘coloureds’, who had been living together in an integrated community for decades – responded with a shared belief that racially based planning would curb its organic development as a flourishing working-class area in the inner city (Durban Central Residents’ Association Records, cited from Maharaj, 1999, pg. 250).

During this time, Warwick Junction was developing its foothold as the main alternative economic hub, right next to the white-controlled Central Business District. The establishment of the Warwick Avenue “squatters’ market”, predecessor to the contemporary Early Morning Market, in 1934 increased the desirability of the area for residential and business purposes. Business premises accounted for 25% of the WAT in 1940 and 44% in 1970 (Maharaj, 1999, pg. 253), most of them concentrated around Warwick Avenue.<sup>22</sup> Street traders, in particular, undermined the government’s vision of a modern, sanitized inner-city with their ‘informal’ operating style and traditional goods like African beer and herbal medicine (Nesvag, 2000). This successful, integrated community and thriving economic zone challenged the ideology and authority of the apartheid system so much that the municipality kept trying a variety of tactics repeatedly to impose segregation via racial zoning<sup>23</sup>, which eventually failed because the social roots kept people in Warwick against the legal oppression.

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<sup>21</sup> The City Engineers used the argument of urban development to propose slum clearance in the WAT. One line in the ‘1946 Outline Plan for the City’ reads: “this area is a conglomeration of mixed uses which has been very badly planned in the past and it seems essential that at some stage the whole area should be acquired and redeveloped to satisfactory standards” (Maharaj, 1999, pg. 256).

<sup>22</sup> Warwick Avenue runs parallel to the study sites of this research and is one edge of Warwick Junction

<sup>23</sup> Declaring businesses as ‘slum and blight’ to expropriate properties under the Slum Act (1934); imposing other controls on permitting and land tenure under the Indian Land Tenure and Representation Act (1946) and the Group Areas Act (1950); appealing to city planning regulations for more ‘efficient zoning’ and ‘infrastructure upgrades’. Refer to Maharaj (1999) for more details about each tactic. In terms of economic regulations, the Group Areas Act (1950) and the Black (Urban Areas) Consolidation Act (No. 25 of 1945) were used to disallow black South Africans from accessing the more viable trading or manufacturing points and impose restrictions on economic activities in so-called ‘black areas’ (Skinner, 2008).

After the political reform in 1976,<sup>24</sup> community resistance was able to become louder and more organized. The Durban Central Residents Association (DCRA) led the movement to protest residential relocation with mass protests, negotiations with City Council, and legal actions in court (Maharaj, 1999). To fight for street trade, the Hawkers' Action Committee was formed to campaign against the city's harassment of hawkers in the Warwick Area.<sup>25</sup> Besides the common goal of resisting state-sanctioned oppression, these grassroots movements shared a goal of demanding recognition and respect. The residents and workers of Warwick Triangle wanted the rest of the city to recognize their way of living and working, as well as respect them as rightful citizens and active contributors. Those desires were illustrated in the DCRA demands to the Durban City Council and their proposals for joint redevelopment programs:

- “(i) The WAT must be recognised and proclaimed as an integrated residential area;
  - (ii) Slum improvement and re-development plans must be immediately introduced in consultation with the Association and local residents, taking cognisance of the socio-economic background of the community; and
  - (iii) There should be a clear understanding and consensus between the residents, the state and the DCC about the redevelopment of the area.
- (DCRA, Warwick Avenue Discussion Document, (n.d.), cited in Maharaj, 1999)”

The late 1980s saw a lag period between resistance and progress. During that period, the City withdrew eviction notices but didn't move forward with any redevelopment plans, so the entire Warwick Area Triangle fell into further blight. The first ever survey on street traders in Durban was commissioned around the same time by the Progressive Federal Party – then had taken over power in city government – who finally recognized these informal workers as contributors to the local economy (Dobson et al. 2009). The new City Council “recognized the need to make allowance for the economic needs of at least [a portion] of the more than 100 000 people flocking to the peripheries of the city every year in the hope of finding work in a shrinking urban job market (The Daily News, 1987, cited in Skinner, 2008),” but they were also daunted by the prospect of managing such population.

When the national and local politics caught up to the reality of its people, there was a change in attitude regarding ‘urban informality.’ As the democratic initiatives of the early 1990s gained momentum, urban planners in South Africa attempted to reconstruct apartheid cities by pursuing initiatives to reverse the effects of racial planning. The Warwick Area Triangle was recognized as a place of vibrant ethnicity that was sorely lacking in the South African multi-cultural city (Maharaj, 1999). In 1990, Durban found that the philosophy of reasonableness towards informal workers had been fairly successful, and that street trading was then firmly entrenched in the CBD's economic

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<sup>24</sup> See Morris & Padayacee (1988) for history of the political reform that introduced a tri-cameral parliament in South Africa

<sup>25</sup> Rogerson and Hart (1989) accounted that South African urban authorities fashioned and refined some of the most sophisticated sets of oppressive measures against street traders compared to anywhere else in the developing world. They point out that until the early 1980s hawkers in South Africa were subject to “a well-entrenched tradition of repression, persecution and prosecution”.

structure (Nesvag, 2000, pg. 45). The 1991 Businesses Act removed layers of restriction on businesses and made it a legal offense to impose the notorious ‘move-on laws’.<sup>26</sup> In Durban, the Department of Informal Trade and Small Business Opportunities was established to manage these new progression developments (Skinner, 2008).<sup>27</sup>

The Warwick Junction Urban Renewal Project was initiated by the City in 1995 to capitalize on the forward momentum of change in the post-Apartheid era. The Project Team built upon the findings of the Warwick Market Survey (1983) and the Hawker Report (1984), both of which recognized the significance of this particular location and recommended that it become a flexible ‘immune zone’ with a fair regulatory system for informal trading in the inner city (Dobson et al., 2009; Nesvag, 2000). They also prioritized working with street traders, who became more organized in various groups like the Self-Employed Women’s Union (SEWU) and the Informal Traders Management Board (ITMB). Covering the details of this project would be a book project on its own,<sup>28</sup> so I will borrow Caroline Skinner’s description as she was a close colleague of the Project Team:

“The project was mandated to focus on, among other issues, safety, cleanliness, trading and employment opportunities and the efficiency of public transport. The area-based team initiated substantial capital works and established a number of operations teams to deal with issues as diverse as curbside cleaning, ablution facilities, childcare facilities and people sleeping on the pavement. [In 3 years, 1997-2000], the project delivered in excess of R40 million in capital works. These included the upgrading of public transport facilities, and street lighting, landscaping and environmental improvements. Of particular relevance to street traders were the provision of street trading facilities, particularly shelters, the establishment of a dedicated market for the traditional medicine traders, and renovations to the fresh-produce market building – the Early Morning Market. Early on in the project an old warehouse located in the area was renovated to house the project office and serve as a community centre. This project has been lauded by many commentators<sup>29</sup> and has won a number of awards<sup>30</sup> (Skinner, 2008, pg. 234).”

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<sup>26</sup> The ‘move on’ laws were the result of the 1973 Natal Ordinance that allowed very few street trading permits, but also restricted hawking of goods within 100m of a fixed formal business prevented traders from taking up fixed stands by allowing them to occupy a spot for only 15 minutes at a time (Skinner, 2008).

<sup>27</sup> Local authorities were granted the right to design their own by-laws for street vending regulations by the Amended Business Act passed in 1993. Durban City Council introduced a new regime of re-regulation that continues today. See Skinner (2008) and Nesvag (2000) for more detailed explanations on the rules regarding informal trading in Durban.

<sup>28</sup> It was documented by the Project Leader, Richard Dobson, and colleagues in the book titled *Working in Warwick: Including Street Traders in Urban Plans* (2009).

<sup>29</sup> Grest (2002); Saunders (2004); Horn (2004)

<sup>30</sup> The Mail and Guardian Green Trust Award (2000) and the KwaZulu-Natal Institute of Architects Heritage Award (2000); nominated for the IBM Innovations in Government Award (2007); South African Institute of Architects’ President’s Award (2008); and the UN Habitat/Dubai International Award for Good Practice (2008).

Fully aware of the turbulent past between the city government and the communities at Warwick, this urban renewal project was respectful of the demands that residents and traders put forth in the 70s and 80s. They believed that recognition and genuine consultation were the key elements to successfully co-create this space with the community. Pat Horn of the Durban-based StreetNet International confirmed that “the manner in which informal traders and other key stakeholders were engaged was qualitatively different from the type of consultation that is more often seen when project managers try to secure buy-in from stakeholder (Horn, 2004, pg. 211).” The Project Team worked with the informal traders consistently and based discussions on concrete projects,<sup>31</sup> which created a consultative forum that engaged lots of ideas and high levels of volunteerism. The Traders Against Crime initiative was a voluntary organization, similar to what the Durban Central Residents Association had proposed in the 80s, that effectively reduced the number of murder from 50 to 1 within the first 18 months of operation (Skinner, 2008).

There were some critiques regarding the level and nature of the consultation, as some informal trader complained that they were simply informed and not given resources to participate effectively (Khosa & Naido, 1998). Though, the authors conducting those interviews acknowledged that their research took place during the Project and before the District Work Groups were established to form partnerships with traders. Khosa (1996) was also concerned that even though one major strategy for economic development was using local labor for infrastructure upgrade, most of the money would effectively end up in the hands of consultants and contractors. These papers provided valuable recommendations regarding strategies for project implementation and confronting inequality within the community, but I have not found others that criticize the Warwick Junction Urban Renewal Project post-completion. I must admit there’s some personal bias because I have great respect for the Project Team (the Leader, Richard Dobson, is a co-founder of Asiye eTafuleni) and what they’ve accomplished. This version of urban renewal was the polar opposite of what had been carried out in Durban prior to 1990s. There were valuable lessons to be learned about the potential of and how to cultivate positive relationships between government agencies, government agents, and the informal traders in the city.

First and foremost, the Warwick Junction Urban Renewal Project placed “commitment to participation and consultation” at the center of their operation. As documented in Dobson et al. (2009, pg. 60), consultation occurred at various levels – area-wide, in specific working groups, and with individuals. The District Working Group consisted of council officials and councilors, along with representatives from formal businesses, informal enterprises, and residents in Warwick. Traders were actively involved in the inception of each project, and there were sessions dedicated to developing negotiation skills so they could amplify their voices once at the table. The commitment to participation came in the form of engaging stakeholders in the actual design process or pilot programs in order to solicit real feedback. Comparing to the apartheid-style governing mechanisms, this Project exhibited a clear transition (Grest, 2002). They engaged with the residents and traders at Warwick in ways that

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<sup>31</sup> See timeline of project milestones in Appendix A

were demanded of the government in the 70s and 80s. Through this process, the Project Team was able to create a more positive image of state's presence in this space by treating the community with respect.

Secondly – a related point – meaningful collaborative experience with the stakeholders led the Project Team to appreciate the ecosystem of Warwick Junction in addition to the individuals within. Some development projects might be pleased with their participatory process if they were able to consult individuals within the community, but this one in particular was successful because they internalized early on that “Warwick is a living organism. There is relationship between the walking distance between different modes of transport, the number of taxis, the proportion of formal retail to informal retail, and the density and composition of traders. The detailed consultation and careful project interventions have led to an equilibrium that works. If any of these factors is changed without involving the traders, this could impact negatively on the viability of trader business (Dobson et al., 2009, pg. 130).” This insight reinforced their strategy of involving as many trader organizations and types of informal workers as possible in the process.

Lastly, the types of interventions and the amount of impact the project was able to deliver in such 7 short years could be attributed to the supportive and progressive political climate. A government report from 1995 expressed that the success of the report was dependent upon a high level of political commitment’ from government at all levels (Maharaj, 1999). The innovative project structure, authorized by the City Council, allowed the Project Team to build task-specific working groups that drew from a range of departments within the Municipality. Systematic change requires the buy-in of more government agencies than one small project delivery unit. Deeper reflections on this project structure is offered in an interview by Grest (2002). This type of project implementation structure is might be possible under the authorizing environment of the current LAP.



**Figure 3.1:** The structure of the Warwick Junction Urban Renewal Project (Dobson et al. 2009)

The Warwick Junction Project was widely recognized as a success for Durban, but its legacy of being a positive government project was tarnished soon after, in 2009, by the City Council’s decision to demolish the historic Early Morning Market to make way for a new mall serving the 2010 World Cup. This was prompted by the desire to join the ranks of “World Class Cities” after proving itself as a capable host as well as an international destination for tourism and foreign investment.<sup>32</sup> It’s been well documented that a “World Class City” creation process usually includes the eviction of street traders, accompanied by slum clearance programs where they might be visible (Çelik, 2011). Warwick Junction, in this case, stood out as an eyesore because of its prime location in the inner city. The traders organized a protest as soon as they were notified of imminent relocation, but since the Early Morning Market was managed by the Municipality, the fight also had to take place in the High Court (Dobson, 2011).

The tactics used by the Municipality during that period created a lot of tension and distrust with the community that still has not been fully resolved. In public, city officials made sweeping claim about having “more than enough consultation (Palitza, 2009)”; but in private, they completely ignored request for meeting (Pat Horn, quoted by Palitza, 2009) and engaged in various harassment strategies to threaten community leaders (Dobson, 2011). It was unfortunate to see another version of the apartheid-era sanitization tactics being used by a democratically-elected government. Traders in and around the Early Morning Market, effectively most of Warwick Junction, would have had to be relocated to a new designated site that wasn’t even big enough to accommodate them.<sup>33</sup> Everyone – traders, academics, lawyers, civil societies, local residents – continued to protest but also exerted pressure on the Municipality with litigations (Dobson, 2011).



**Figure 3.2:** Pictures from the ‘World Class Cities For All’ protests  
(sources: K. Palitza for Inter Press Service (left), R. Douglas for WIEGO (right))

<sup>32</sup> The mall was a better accessory for Durban’s new identity because leisure and consumption had become so important in the new global service economy that cities of widely varied sizes and geographical locations are seeking to rebuild their post-industrial economies around shopping and entertainment (Rowe & Stevenson, 1994).

<sup>33</sup> At that time, there were 674 traders inside the Early Morning Market, not counting those in the periphery, while the new site only had space for 150 stalls (Palitza, 2009).

In April 2009, the City Council rescinded its 2009 resolution to lease the EMM site to Warwick Mall. Bond (2014) wrote about it as the most successful World Cup protest story amongst many that happened all over the country against “World Class City” projects during that time. Were it not for sustained resistance over a year-long period, including a pitched battle with police in mid-2009, the ‘mother market’ and historic landmark that was the Early Morning Market would have disappeared from Durban’s inner city.

The final takeaway from reviewing the history of urban renewal in Warwick is that the community of residents and traders here are highly resilient against oppressive tactics and unwanted change. Regardless of the implicit and explicit intentions of the government in power, they demanded the same level of recognition and respect. There were multiple factors at play for different resistance movements, but the fact that this community remained non-segregated during Apartheid and that they resisted the ‘cleansing wipe’ of the 2010 World Cup when others failed<sup>34</sup> must be attributed to the strength of deep roots at Warwick.<sup>35</sup> Wonderful results can happen when the community is properly engaged (Appendix A), but surface level consultation would only lead to resistance and inefficiencies, not to mention a suboptimal result for everyone involved. In the subsequent sections, I shall take a closer look at the goals and strategies outlines in the new Local Area Plan to then provide some thoughts on what the planners at the Municipality should consider as they navigate towards implementation.

### 3.3 READING THE INNER CITY LOCAL AREA PLAN

The eThekweni City Council had recently approved a Local Area Plan for Durban’s Inner City – the first in 30 years – which outlined the goals and steps to develop this area into “Africa’s leading, most vibrant, liveable, walkable City Centre, providing economic, residential, sporting and leisure opportunities for all (eThekweni Municipality, 2017).” A closer read of this document is necessary because it is the official mandate for future projects in Warwick. Politically, the path of least resistance is to follow the general guidelines of the LAP Regeneration Strategy. The main task here is to better understand the reasoning and the language in order to gain clarity on the priorities and parameters of this authorizing document, within which new ideas can be proposed.

The principles, and goals of this local master plan were designed to align with policy ideas set forth by the UN Sustainable Development Goals, the SA National Development Goals, the SA Spatial Planning and Land Use Management Act, and the eThekweni Integrated Development Plan. The distillation process arrived at three cross cutting themes: 1) learning from the past, 2) regeneration

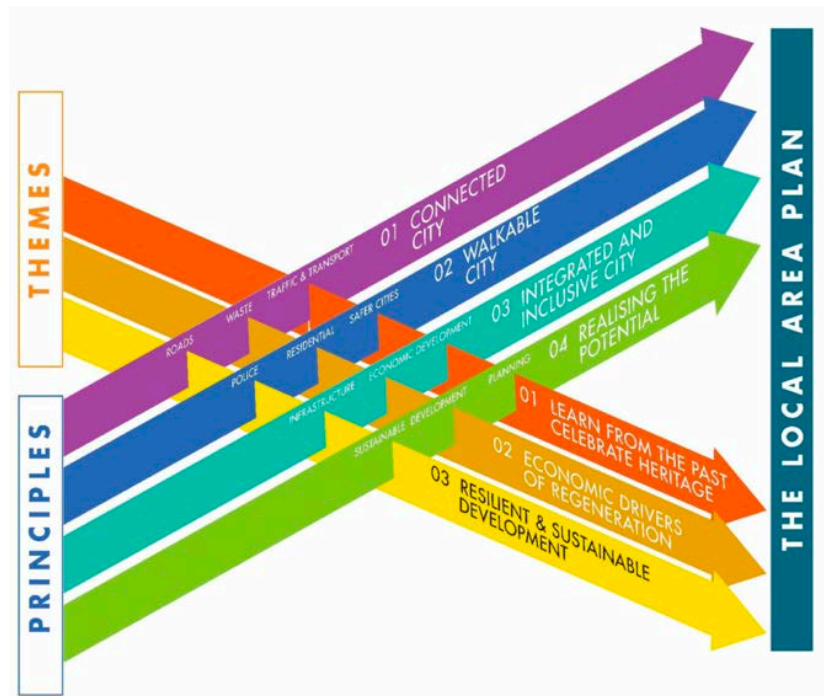
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<sup>34</sup> See Çelik (2011) for accounts of projects in other cities

<sup>35</sup> During the apartheid-era relocation projects, the DCRA acknowledged that the mobilization was only possible at such scale because most of the residents have lived in the area for more than 20 years (Maharaj, 1999). Dobson (2011) acknowledged that the Early Morning Market protest engendered so much support because it was considered by many the ‘mother market’ of Warwick Junction and most vendors have been there for decades.



through economic growth, and 3) climate resilience and environmental sustainability. Even though the exact term “inclusive green growth” doesn’t appear in the text, the ideologies are present throughout the framework. This, along with the policy review by Smit & Musango (2015), confirms that the desire for an inclusive and sustainable economy is currently at the heart of national and local development plans in South Africa.



**Figure 3.3:** Cross-cutting themes and principles of the “2040 Inner City Local Area Plan” (eThekweni Municipality, 2016)

The goal that directly authorized new initiatives regarding informal traders is number 4, ‘trade’, which states that:

“The improved connectivity networks, wider pavements and active market spaces will **provide space for 80% more registered informal traders, increasing from approximately 8,000 in 2016 to 14,400, promoting sustainable local livelihoods through access to larger markets, smart city infrastructure and business support.** All registered traders will have easy access to adequate facilities including clean ablutions, waste management and lockers for their goods (eThekweni Municipality, 2016, pg. 20).”

The first clause acknowledges that the city needs to accommodate the growing informal economy by providing them legitimacy and space. The following shifts to a broader scope which is promoting sustainable livelihoods through infrastructure and business support. Along these lines, four out of 22 priority projects proposed by the planning team were targeted towards spatial interventions (#4 & 5) and engagement with informal workers (#15 & 22) in Warwick Junction. Projects number #4 and #5 plan to upgrade the infrastructure of the Early Morning Market and also turn a section the

adjacent through-road into a pedestrian walkway with spaces designated for street vending. Projects number #15 and #22 are about stakeholder engagement to create an “informal trader strategy” and to obtain buy-in for the Warwick Precinct Plan.

The LAP Regeneration Plan does not mention anything about the green economy and the local food system, but its proposal to redevelop parts of the Early Morning Market (#5) and the adjacent street (#4) justifies this research focus on fresh produce vendors and the surrounding ecosystem. Even though the inclusive green growth model is present in the motivation as well as the cross cutting themes for this Regeneration Strategy, those elements are not explicitly mentioned in the implementation plan of the project. The language strongly indicates a mode of allocative-planning to distribute new resources among the vendors rather than innovative-planning to use this infrastructure upgrade to achieve the high-level visions of the LAP.<sup>36</sup> It’s also slightly concerning that the “desired outcome” for this project is a “world-class market facility”, designed with stakeholder consultation to ensure that the “history, cultural, and tourism potential are protected (eThekweni Municipality, 2016, pg. 21)” – a perspective that treats the Early Morning Market as a historical landmark as opposed to a functional workplace that hosts a complex network of vendors whose livelihoods depend on it.

The rationale for this Early Morning Market upgrade is to “rebuild a valuable asset and at the same time rebuild trust with this community”, but I noticed a lot of contradiction between the desired outcome and proposed implementation plan. The level of stakeholder engagement commitment in this plan is as shallow as consulting with all stakeholders to “review of allocations and management arrangements (eThekweni Municipality, 2016, pg. 21).” Recalling the three design paradigms that I learned from MIT D-Lab, this project is squarely in the category of “designing for” a community rather than “with”, which is not very effective at fostering trust. Additionally, the framework for partnership in the LAP relies too heavily on formal organizations and community representatives, which may exclude the most marginalized who do not belong to any organized factions.

The decision to upgrade the Early Morning Market is completely valid because it is an important symbol of the city, but there is much to understand about this space and the ecosystem that it fosters before proposing any changes. Sihlongonyane (2015) heightened my awareness for “empty signifiers in participatory planning” in South Africa, and the Inner-City LAP is not immune from them. In order for the LAP to be truly inclusive and progressive, it has to confront the fact that the “stakeholders” are highly diverse, and that design consultation is not an adequate method for learning from a heterogeneous community.

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<sup>36</sup> Friedmann (1993) drew the black and white distinction between the two modes of planning, but my advisor, Bish Sanyal, contended that planning has progressed to a point where allocative planning can be innovation. The spirit of this research sides with the latter because I was motivated to figure out how an allocation-centric master plan could be captured for innovative projects that truly serve the intended community.

**Partnership developed in a collaborative process between the stakeholders**



**Figure 3.4:** The list of stakeholders identified by the LAP Regeneration Strategy (eThekweni Municipality, 2017)

The Early Morning Market is truly a valuable asset, but not just because of the infrastructure or real estate, but because of how it functions and the economy it supports. A deeper investigation into the role of this community in the regional economy will provide a chance for innovative planning that can meaningfully contribute to the economic regeneration of the area. Fortunately, it is in accordance with the visions and approach set forth by the LAP Regeneration Strategy to suggest a deeper analysis regarding the role of the Early Morning Market in advancing ‘inclusive green growth’ in Durban. Furthermore, the LAP acknowledges that SDG Goal 2 (end hunger, achieve food security and improved nutrition and promote sustainable agriculture) is part of the overall vision – which justifies this research’s particular focus on the relationship with small farmers and the local food system.

### 3.4 NAVIGATING TOWARDS IMPLEMENTATION

The language in the outlines of those four priority projects are all similar in the way that proposed interventions are abstracted from the people whom they’re meant to serve. Each of those plans have a “stakeholder engagement process & a participatory design process”, but sequentially that comes after the intervention has already been decided. The plan is presented as: (1) intervention, (2) rationale, and (3) desired outcome. Critical Urban Theory encourages the questioning of instrumental reason, and in this case, I think it is essential to revisit this concern of rationalizing without proper stakeholder engagement because the eThekweni Municipality had been known for spending money on failed project because they relied on rational design instead of users’ insights.

In 2017, the Municipality invested billions in the renovation of the mealie (corn) cooking facility in Warwick Junction because the vendors used to boil corn in large steel drums in an open area

that was unaesthetically pleasing to outsiders. The cooks were relocated to another location where there was an open structure with a roof, as well as surrounding fences to formally demarcate the perimeter of this new market facility. The Municipality advertised this project as a major success because the operation became centralized and the vendors were allocated “legal” spots, a toilet facility, and electricity connection. One month later, the roof caved in and the electrical wires all melted because the structure wasn’t designed to withstand the amount of heat coming from dozens of open fires pits. The toilet became defunct due to lack of water, and the electricity was useless as the site is only used in the morning. The most harmful consequence was from the thick smoke trapped under the metal roof, which turned the whole facility into a major health hazard.



**Figure 3.5:** Mealie facility after a few months of operation - the result of a bad design process  
(source: author’s own photo)

This was the result of a project designed for a group of users whose operation was so far off from what the architects had assumed as standard for ‘informal workers’. These mealie cooks did not need a physical structure because it was better for them to cook in open air. Additionally, they had to pay rent to use the site but were not given permits to sell the mealies elsewhere. The planners did not account for the fact that the cooking of mealies and the vending process took place in separate places – the latter mostly on the street – which effectively still made the operation illegal.

These are some reasons why I am concerned about the ways in which the LAP priority projects were conceived. There could be serious harm from designing a new ‘world class facility’ for the sake of infrastructure upgrade. Even though the Early Morning Market does not have the same concerns regarding fire and smoke like the mealie cooks, the argument remains. Redesigning a place without holistic planning runs a risk of displacing essential parts of a healthy ecosystem. The concern of the Warwick Triangle protests in the 60s and 70s rings true, as any forced reform in this area would disrupt the organic prosperity of the market. We need to be more critical about rationalizing the means to an end when the ‘end’ might not be the appropriate objective. Furthermore, innovative planning, or innovative allocative planning, requires more active learning from the community compared to static rational planning; and it is important to engage them with genuine intentions because history has shown that the community is highly sensitive and resistant to unwanted change when it comes to urban renewal in Warwick.

Seeing that “learning from the past” is one cross-cutting theme of the Local Area Plan, this Project Team should internalize the lessons imparted from the previous Warwick Junction Urban Renewal Project: 1) appreciate and take into account the whole ecosystem that will be affected by the decisions, and 2) learn from the community first before proposing any alterations in their routine and surrounding. That project was a success because they “worked with the dynamism on the street” rather than against it. Chapter 4 will touch upon the importance of learning from the informal vendors and the case study will illustrate how the right methodology could uncover over looked actors and relationships in the community.

## CHAPTER 4. DISJUNCTURE BETWEEN THE ACTUAL & THE POSSIBLE

### 4.1 READING & LEARNING FROM URBAN INFORMALITY

In her seminal paper, Anaya Roy (2005) had proclaimed that informality is not just an isolated sector as suggested by the Dualist school of Keith Hart (1973) or the Legalist school of deSoto (2000), but rather a mode of metropolitan urbanization comprised of a series of transactions that connect different economies and spaces to one another across sectoral divides (pg. 148). Other major works have highlighted the transactive and relational nature between the ‘formal’ and ‘informal’ – both regarding land use (e.g. Roy, 2005; Porter, 2011; Shatkins, 2016) and the economy (e.g. Guha-Khasnobis & Kanbur, 2006, Chen, 2007). The point is not to argue that informality deserves deliberate scholarship because it is connected to formal forms of urbanization, but because it is rich with its own organizing logic and norms that are – together with the formal sphere – interconnected elements in the process of urban transformation itself (Roy & AlSayyad, 2004).

Roy (2005) remarked on an observation that “the relationship between informality and planners is complicated. On the one hand, informal spaces have been perceived as unplannable; on the other hand, there has been a series of attempts to improve and integrate such spaces (pg. 150).” Chapter 3 had touched upon that same ‘complicated relationship’ in the conception of the eThekweni Local Area Plan and the opinions around urban upgrading in Durban. As students in urban studies, my peers and I have also revisited that discussion many times throughout the course of our engagement with planning in practice. We have progressed beyond the ‘perception of unplannable’ when something cannot be described using formal planning vernacular, but we are still daunted by the complexity it entails. I think the challenge now is not the attitude towards informality but rather, its ineligibility.

Remnants of what Scott (1998) termed “high modernism” still exists in urban studies, a canon in which visual order is equated with functional order (Roy, 2005, pg. 150). The inverse is applied to informal settlement and informal markets, where visual disorder leads to presumption of functional disorder. This is not true in all cases, but I submit that the lack of immediate legibility can provoke discomfort and biases that paint informality as “the other to planning’s ordered, neat spaces and thereby [as] a policy problem (Porter, 2011, pg. 116)”. In response, many scholars have argued that policy makers and development practitioners should, in fact, learn from the other. Decades ago, Sanyal (1990) drew attention to the ‘new’ reality that rich and poor countries were experiencing similar problem symptoms in their cities, and he demonstrated that knowledge originating from less-developed nations could be useful in addressing issues in their more-developed counterparts. That paradigm shift in knowledge transfer – learning from the global South, from the poor, and from informality to address contemporary issues globally – continues to be an important discussion in international development and urban planning today (e.g. Bradlow, 2015; Robinson, 2011; Carolini, 2018).



Learning from previously overlooked places and communities can contribute knowledge to a more dynamic study of ‘global urbanism’, which embraces “numerous practical and creative interventions, [as well as] styles of producing and performing the urban (Robinson & Roy, 2016, pg. 182).” Some of those practical and creative interventions are currently labelled as manifestation of urban informality and dismissed as such. Critical Urban Theory reminds us to be vigilant of difference in order to discover the disjuncture between the actual and the possible within our own society (Brenner, 2009). Robinson & Roy (2016), borrowing from Jane Jacobs (2012), remind us “to open up possibilities to speak from somewhere else, to think otherwise and, to subtract from dominant narratives by seeking the limits to their force rather than feeding them with conforming data (pg. 184)”. This research is my attempt to create my own learning opportunity, and perhaps discover something beyond the dominant narrative.

Mukhija & Loukaitou-Sideris (2015) claimed that case studies can be a worthwhile avenue for learning to read the city and uncovering the complexity of urban informality. My case study follows their recommendations, aiming to contribute to a practical discussion on alternative planning responses by 1) making the invisible visible, 2) exploring the scale and nature of the informal economy, 3) reaching unconventional stakeholders, and 4) advancing nuanced understanding of regulations. I was lucky to have had prior exposure to the community and the general context from previous projects with Asiye eTafuleni (AeT), but this research had allowed me to gain a much deeper appreciation of the ecosystem. This chapter is a summary of my findings and reflections on the functional organization of the fresh produce distribution system at Warwick Junction, which will serve as the basis for discussion and policy recommendations in Chapter 5.

## 4.2 LEAN RESEARCH METHODOLOGIES

The exploratory case study at Warwick Junction was designed and conducted according to the Lean Research Framework, which was developed by a team of researchers at MIT D-Lab and the Fletcher School of Law & Diplomacy at Tufts University to guide the practice of field research with human subjects in the context of international development and humanitarian work.<sup>37</sup>

“[This framework offers a guide] for conducting research and evaluation built upon four principles of good research practice. In order for research to reduce burden on participants and maximize value for stakeholders, it should be:

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<sup>37</sup> Responding to literature about the ethics of extracting data from vulnerable communities as well as the industry-wide acknowledgement of the “trade-off between publish-ability and relevance”, Lean Research practitioners seek to increase the quality of information gathered through fieldwork by asking the right questions, relevant to both the community of interest and the stakeholders in power, while creating a respectful and enjoyable experience for the research subject (Moreno et al. 2015). Instead of prescribing a rigid set of methodologies, the framework provides a set of question for researchers to scrutinize their own on how well they’ve met the four core principles (Appendix B).

See the Lean Research Framework Working Paper for background literature:

<https://d-lab.mit.edu/resources/publications/lean-research-working-paper>

- 1) Rigorous, regardless of methodologies employed;
- 2) Respectful towards research subjects, implementing partners, and others engaged in the research process;
- 3) Relevant to research subjects, partners, and decision-makers; and
- 4) Right-sized, in terms of protocols and costs compared to the potential usefulness and impact of the study (Moreno, Keith, & Wilson, 2015, pg. 1)”

This research is a mixture of hypothesis-testing and exploratory. The hypothesis here is that informal vendors at Warwick Junction have the capacity to contribute positive impacts towards the city’s goal for inclusive green growth. Stating this expectation upfront grounds the questions and help to identify the types of data that can support or falsify the claim. Within the analytical boundaries drawn in Chapter 1, the primary analysis in this chapter is on the observable relationships between the supply of fresh produce through Warwick and the green growth potential of small-scale farms in the region.

However, the strict focus on a hypothesis can restrict the research’s perspective and obscure other important elements in the observed data. To address that concern, the qualitative case study was designed to be exploratory rather than explanatory or pattern seeking. This is necessary because there is much to learn about the organizing logic of informal vending in this space and the manifestations of environmental sustainability in this context. The survey is mostly comprised of descriptive questions and only a few binary questions (yes/no) when they can lead to a discussion. The exploratory and qualitative nature of the research poses some challenges regarding ‘rigor’ because it is difficult to prove reliability and validity. In terms of construct validity, I’ve covered in chapter 2 how the ‘green dimensions’ of growth and the economy can be observed in the practice of food production and supply. One limitation of my study at this stage is that I was unable to visit and interview farmers at the source. As for internal validity, I believe that focusing on the supply chain will provide a good representation of linkages between farmers and vendors. However, this representation is incomplete because the network linkages are described only from the perspective of the vendors and not the farmers or transport operators.

One element that I tried to control in order to improve replicability is the sampling technique. A core principle built into this entire research is that the informal economy is extremely diverse and that must be reflected in the cross section of workers. After the initial walk-through of Warwick Junction and seeing the range of operation that exists, I decided upon purposive sampling<sup>38</sup> to only focus on fresh produce vendors (fruits, vegetables, flowers, and seedlings), and then stratified them into groups based on location and scale of business for maximum variation.<sup>39</sup> The choice to group by

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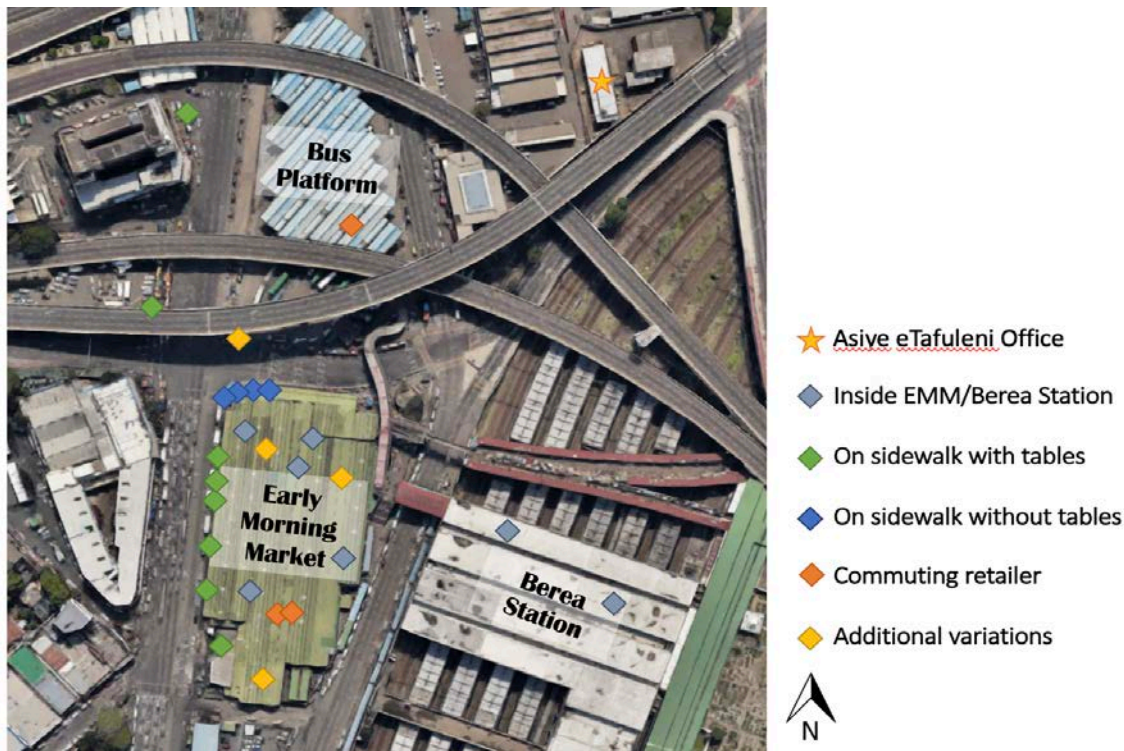
<sup>38</sup> Maxwell (2008) defined purposive sampling as a type of sampling in which particular people and settings are deliberately selected for the particular information that only they can provide.

<sup>39</sup> Maximum variation sampling covers the spectrum of perspectives in relation to the fresh produce supply chain, looking for both extreme and typical cases, plus any other variations that can be identified (Palys, 2008)



location was informed by previous insight about vendors' preference to trade in cluster, which means those in similar settings often have the same characteristics.<sup>40</sup> The last category includes all the unique cases that stand out due to their location, type of operation, or type of product. Many social research papers have used stratified purposive sampling to perform in-depth studies of a population using a relatively small sample size (see examples in Teddlie & Yu, 2007). This approach does not establish external validity, but it ensures that the results represent a truly diverse typology of vendors and not just the most visible majority.

Table 4.1 and Figure 4.1 shows the location of the 26 interviewees at Warwick Junction. The interviewee selection process was not entirely random. The different locations were chosen due to their varying levels of informality. Early Morning Market and Berea Station are indoor spaces that are formally managed, the prior by the Municipality and the latter by a state-owned private company. Traders on the sidewalk with tables for their product are usually those with permits to trade within demarcated spaces. The tables indicate that they also have access to storage space somewhere close by. Sidewalk spaces not marked for trading are considered more informal under the eye of the law. The commuting vendors who come to Warwick to buy fresh produce for retail in the townships and the last category, 'additional variation', are not location-specific.



**Figure 4.1:** Locations of interviews (image source: Google Map satellite view)

<sup>40</sup> The population of interest is the fresh produce vendors and most of them trade in or around the Early Morning Market, but there are some who occupy space near the transit stations and on the sidewalks along major roads.

At each location, 3-4 interviewees were chosen at random to avoid information saturation.<sup>41</sup> Kruger & Casey (2000) suggested a rule of thumb, which is to plan for 3-4 subjects per category and then only add more if the responses are noticeably different. The only exception to random selection was the vendors selected for ‘additional variation’, which includes a flower retailer, a seedling vendor, and 2 wholesalers, whose products and operations were slightly different from the rest at the market. To protect their identity, the locations shown on the map are not exact and their names are not reported. Every interviewee except one gave permission for audio recording and photographs, but identifiable pictures will not be used if they are on the more informal half of the spectrum.

**Table 4.1:** List of interviews and their locations

<b>Inside EMM/Berea</b>	<b>On sidewalk (without table)</b>	<b>On sidewalk (with table)</b>	<b>Commuting retailers</b>	<b>Additional Variation</b>
Interview #2	Interview #13	Interview #5	Interview #11	Interview #1
Interview #10	Interview #22	Interview #21	Interview #25	Interview #3
Interview #14	Interview #23	Interview #6	Interview #26	Interview #4
Interview #17	Interview #24	Interview #7		Interview #12
Interview #18		Interview #8		
Interview #19		Interview #9		
Interview #20		Interview #15		
		Interview #16		

The relative degree of formality and vulnerability assigned to each interviewee was determined using WIEGO’s Model of Informal Employment: Hierarchy of Earnings & Poverty Risk by Employment Status & Sex (Chen, 2012). Determining vulnerability is a sensitive task, and the purpose here is to provide an additional dimension so the reader can better picture the sample. The factors used are directly related to the type and location of vending at the market and not any person details about the worker. All 26 interviewees were informal workers, but their status differed as some were employers and some were own account workers. Paid employees and contributing family members were not interviewed because they did not make decisions about product sourcing. The other determining factor was whether or not their vending location is a fixed designated space. At Warwick,

<sup>41</sup> Information saturation has always been an issue in qualitative research (Glaser & Strauss, 1967; Strauss & Corbin, 1998). The Lean Research Framework didn’t use the same language but the same concern is reflected in the principle of conducting “right-sized” research.

Mkhize et al. (2013) also found that vendors trading outside in the open were more vulnerable than those inside the covered markets. In a class discussion with Marty Chen, co-founder of WIEGO, she mentioned three additional dimensions – promotion, protection, and regulation – to look for in order to understand a worker’s degree of informality (Appendix E). We did not ask specific questions regarding those in order to keep the interviews brief, but some details came through in conversation and some came from AeT’s extensive knowledge about the workers at the market. The subsequent section will provide more detailed descriptions of the sample, their vending locations, and the various business models.

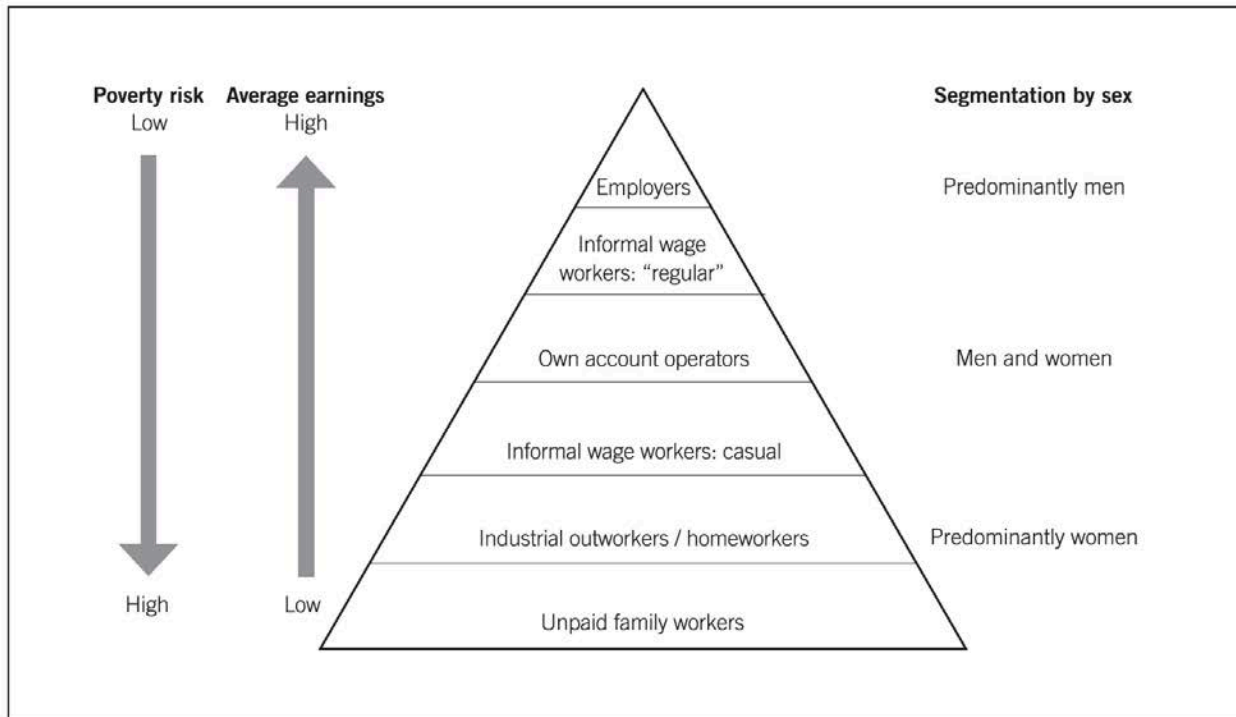


**Figure 4.2:** The Early Morning Market at Warwick hosts a range of informal vending, from rent-paying vendors inside to transitory small-scale vendors on the sidewalk.

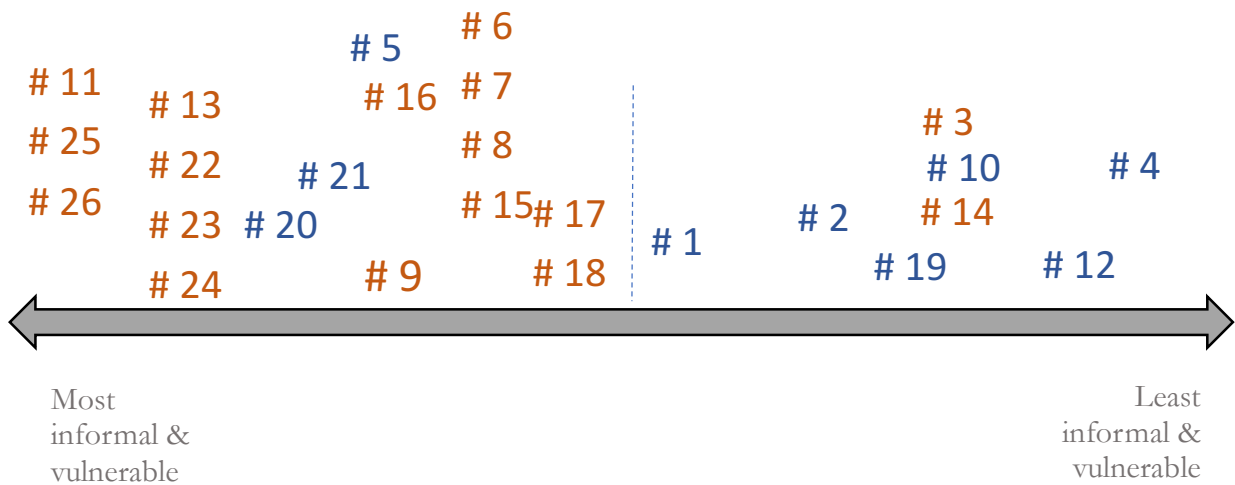
(source: author’s own photo)

This method is also lean because it is right-sized and respectful. First, there was an extensive literature review to determine that an original study was necessary to provide information at the local scale and in this specific context (Moreno et al., 2015). Second, purposive sampling leads to greater depth of information from a smaller number of carefully selected cases compared to probabilistic sampling (Patton, 2002). And, the semi-structured interview questions were designed to take less than 10 minutes (Appendix D). The actual time spent per person varies based on their willingness to engage. We kept the conversations brief because we were intruding on their working hours and the appearance of talking to researchers with clipboards was not necessarily inviting to customers. Most of my interviews were conducted with the help of Patrick Ndlovu, co-founder of AeT and whom people

referred to as the “mayor of Warwick” because of his amazingly broad yet genuinely deep connections within the community.



**Figure 4.3:** WIEGO Model of Informal Employment: Hierarchy of Earnings & Poverty Risk by Employment Status & Sex (Chen, 2012)



**Figure 4.4:** Relative degree of informality and vulnerability of the 26 interviewees (Midline separates those with employees (right) and those without (left); Orange indicates female vendors, and blue indicates male.)

We tried to create an amiable space for the interviewee by Patrick introducing the research first, then I introduced myself and my intentions. Before asking any of the questions on the survey, I asked them how and when they started trading at Warwick. This set the tone as us getting to know each other and put the interviewee at the center of the conversation, which provided an easier entry into asking about their experience (Moreno et al., 2015). I also had a discussion with Patrick about the type of information we needed so that he could lead them through the questions in a fluid manner without my interruption. He translated the responses right after they were given, but I waited until the end to ask more clarifying questions. Here I will acknowledge my own confirmation bias as most of my follow up questions were influenced by the desire to tease out connections with small scale farmers even when it didn't come up in the interviewee's response.

Finally, to address the concern about relevance, I intentionally based my research on questions raised in the workshop with the eThekweni Municipality officials in July 2018. AeT supported this case study because it could provide additional evidence for them to advocate for the inclusion of informal vendors in the city's 'sustainable development' plans. The next step is to condense these findings into a shorter executive summary to be distributed to city officials and on the organization's website. All the stakeholders who attended the workshop in 2018 will also receive a copy. One question remains is how to turn this discussion about green growth potential into practically useable information for the vendors and farmers in this ecosystem.

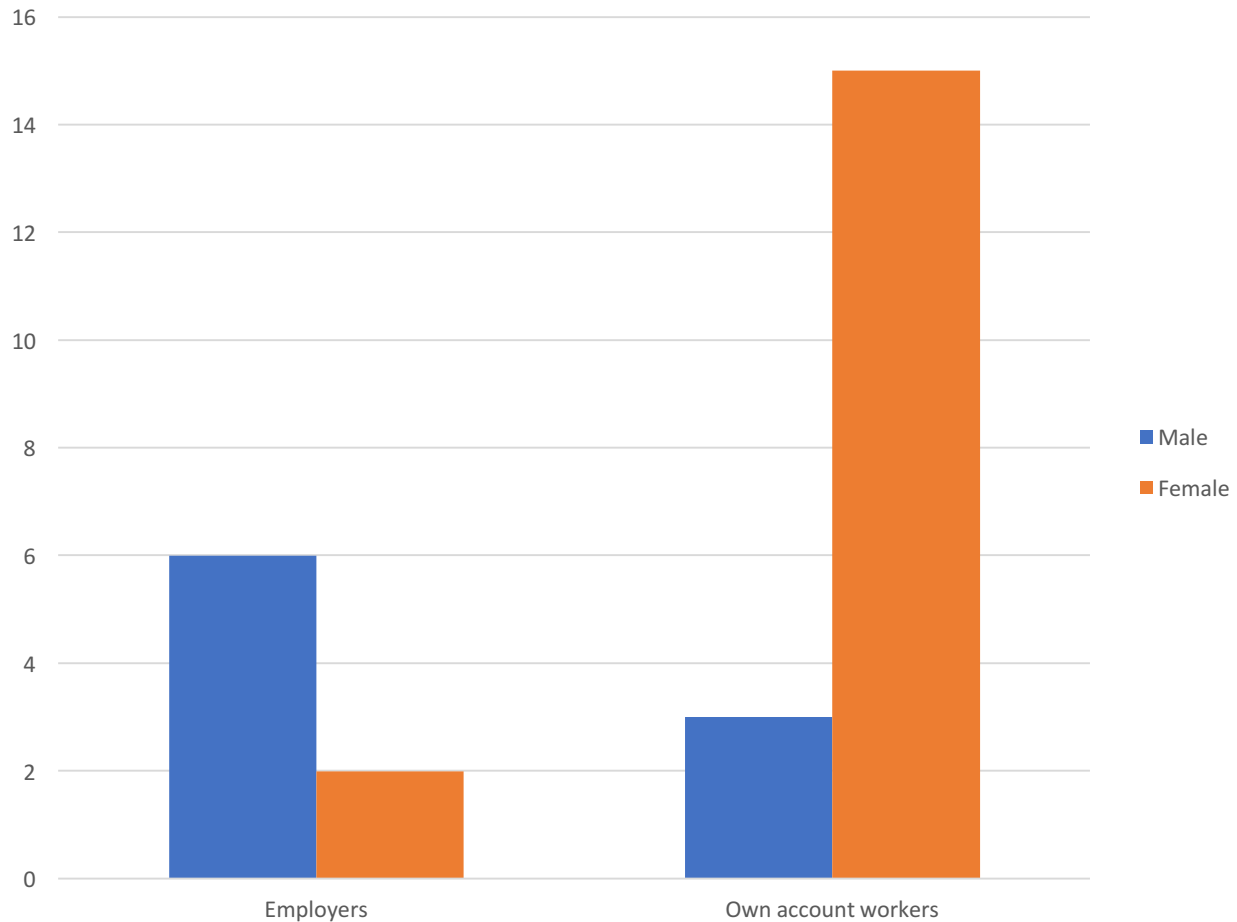
#### 4.3 SAMPLE DESCRIPTIONS

The survey sample consists of 26 produce vendors at Warwick Junction. Most of them was trading in or around the Early Morning Market, which has been a central location for fresh food supplies in Durban since 1934. Specifically, eight vendors had stalls inside, six were trading with display tables on the pavement around the perimeter, and four did not have tables but positioned themselves on the ground in front of the main entrance to the Early Morning Market. We spoke to two vendors in Berea Station, which is a train station that hosts both formal and informal vending on the upper platform. Of those two interviewees, one had a large display table at a constant location and the other one was selling out of a moveable shopping cart. Besides those two main locations, there were vendors selling fresh produce in mixed-trading strips along the main roads. In our sample, two people had vending tables in these sidewalk strips and one person was displaying goods on the pavement across the street from the Early Morning Market. The three commuting retailers did not have a specific location, but we spoke to one while she was waiting at the bus station and two others while they were sorting goods inside the market.

As for gender composition, there were more women than men because the majority of produce vendors at Warwick were women (Dobson et al., 2009, Mkhize et al., 2013). However, of the 16 women interviewed, only two were employers whereas the rest were own account workers minding their stations without hired help. We encountered more men who were employers and proportionally, those made up the majority of the men in the sample. This result substantiates the WIEGO model,



which delineates that the employers on top of the pyramid are predominantly men and the more vulnerable workers below are predominantly women. Of the nine employers, six of them had stalls inside Early Morning Market and one had a large table in Berea Station. This observation supports my previous statement about those two spaces being less informal than the rest of Warwick and the vendors there are relatively less vulnerable.



**Figure 4.5:** Breakdown of gender and employment status in the sample

The scale of vending ranges from wholesale to very small retail. When asked, most interviewees indicated that they do both wholesale and retail, but upon clarification, it was clear that many of them had interpreted the prior as selling a larger-than-usual quantity at a reduced price, which often happened at the end of the day and not on a regular basis. For the purpose of explicit categorization, a vendor was labelled a wholesaler if that was the predominant part of her business model. Retailers were those who stocked in bulk and mostly sold smaller quantities to casual customers. Micro-retailers were those who bought small quantities from other retailers then divide them further for re-sale. In this sample, the three commuting vendors were categorized as micro-retailers. 17 out of 26 interviewees were operating as mostly retail, and six were wholesalers.



**Figure 4.6:** Outdoor space in the mixed-trading strip (left) and indoor stall in the Early Morning Market (right); (source: author's own photos)



**Figure 4.7:** Vending tables around the perimeter of the Early Morning Market (source: author's photo)





**Figure 4.8:** Scales of vending  
(source: author's photos)

Top: Wholesale in bulk  
Location: Early Morning Market



Middle: Retail table  
Location: Mixed-trading area



Bottom: Micro-retail operation  
Location: Commuting retailer dividing her goods inside the Early Morning Market



#### 4.4 SUPPLY NETWORK & CONSUMER BASE: OBSERVATIONS

The first research question asks: how are produce vendors at Warwick Junction connected to the regional agri-food network? Data collected from the interviews demonstrate that Warwick Junction, and the Early Morning Market in particular, is a major distribution hub connecting agriculture producers of all sizes, across the formality spectrum, to low income consumers in and outside of Durban.

First – to elaborate on the supply chain – vendors were asked to pinpoint the location at which they purchased the produce and then backtrack all the way to the farmers at the source if possible. Figure 4.9 shows the list of procurement locations and how many times they were mentioned by the interviewees. Some vendors sourced through multiple avenues so the total tally is larger than 26. The results show a diversity that range from the city-owned Bulk Market to the family-operated farms in the surrounding townships. Here, it seems appropriate to note again that the results found from the interviews do not reflect estimated proportions in the total population since interviewees were not selected by random probabilistic sampling. For instance, the fact that relatively the same number of retailers mentioned sourcing from the Bulk Market as from wholesalers or home-based farms does not mean that the three are equally prevalent at Warwick Junction. The case study was designed to identify maximum variation and with enough interviewees to provide more granular details from different perspectives. However, the sampling categories were determined by vending location without any consideration for the supply chain, so it was interesting to find such even distribution.

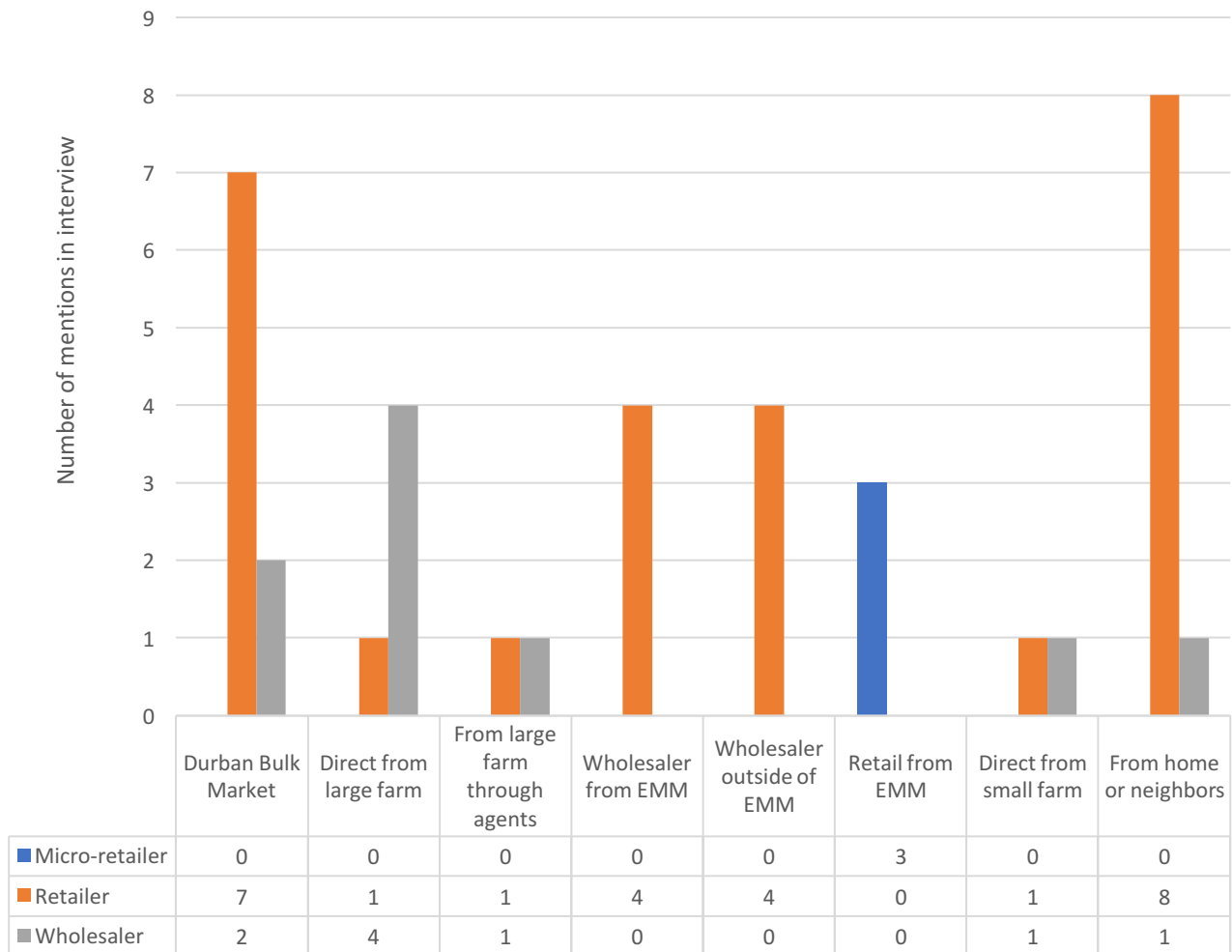
Another interesting detail is that the two most popular options are those at opposite ends of the formality-informality spectrum. The Durban Bulk Market, also called the Clairwood Market, is the third largest National Fresh Produce Market in South Africa and is entirely owned by the eThekweni Municipality. It operates on a commission basis, through which producers could consign large quantities to market agents who would then get a 5% cut of the revenue. It is the most formal because the entire process of vetting farmers and registering buyers are regulated by the city. All transactions between those parties are conducted through the market agents and via electronic payments.<sup>42</sup> On the other hand, sourcing ‘from home or neighbors’ is the most informal on the spectrum because the scale of production is between family-run subsistence farms (interviews #13, 23) and very loosely organized neighborhood cooperatives (interviews #6, 13, 16, 22). These small farms are technically ‘informal’ because their operation scale is outside the ambit of formal business regulation in the first place (Kanbur, 2009).

Wholesalers were more likely to purchase directly from farmers than market retailers. This is consistent with conventional wisdom because their business models rely on being able to buy in bulk

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<sup>42</sup> The Buyer Card Application requires a certified copy of the person’s Identity Document and proof of residential address. All transactions are done with the Buyer Card, which functions as a debit card that can be recharged via cash deposit at the Market or electronic wire through a bank (eThekweni Municipality official website).

at the lowest price possible. A major factor in wholesalers' comparative advantage is vehicle ownership because both commercial and local farms are located quite far from Warwick (interviews #1, 4, 12, 14). Besides lower cost, some vendors chose to go directly to the source because their products, like seedlings and spinach, were not available at the Bulk Market (interviews #1, 14). The seedling vendor (interview #1) also mentioned that she was able to pick better quality products at the farm. This advantage was not a major consideration for other wholesalers, possibly because they were buying more conventional products at a larger scale, but they did mention having developed trust with long term partners from whom they could expect good quality at a good price (interviews #14, 4).



**Figure 4.9:** Various sources of fresh produce that supply to vendors at Warwick Junction

Wholesalers without any relationship to farmers or any means of transportation for long-distance pickup had to rely on the Durban Fresh Produce Market or middle agents. Interviewees #2 & #10 explained that commercial farmers would only sell in extremely large quantities, often measured in truck-loads, that would be too much for their turnover rate; whereas the Bulk Market allowed them

the flexibility of dictating the quantity while still benefiting from bulk pricing. Furthermore, it was preferable because the Municipality takes commission from the supplier, not the customers. Interviewee #2 further went on to say that there was “no other option” because her family did not own a truck and paying for third-party transportation service from the farms did not make economic sense. They made their sourcing decision based on convenience because the Bulk Market is only 9km away from Warwick and there are many cheap options to hire short-distance transportation from one to the other.

Besides those at the Durban Fresh Produce Market, there were private agents who facilitate transactions between commercial suppliers and vendors at Warwick. Interviewee #4, a wholesaler, sourced corn and cabbages from several farms in the region when they are in season, but got his tomatoes through an agent<sup>43</sup> because local tomatoes were more expensive and of worse quality.<sup>44</sup> Interviewee #3, a retailer, switched from purchasing at the source to working with an agent because her turnover had slowed down significantly over the years, making it less viable to buy a large amount from farmers. Furthermore, her sourcing options were limited because she primarily sold fresh flowers and the local farms had gone out of business. Her husbands used to travel as far as Johannesburg to place orders with growers, but in their old age, they found the agents to be more convenient.<sup>45</sup>

Retailers at Warwick also had the options of buying from the producers, from the Bulk Market, or from other wholesalers. Their decisions depended on various factors, such as the types of products, price, market accessibility, quality control, and transportation cost. Many chose to go to the Fresh Produce Market because it is convenient and there is some level of quality assurance for products at a low price. Product prices are updated daily on the city’s official website, and customers simply contact the market agents to place order. Customers are not able to choose which farms their produce came from; but for most vendors I spoke to, that was not a problem. Though, after having done most of the interviews, I found out that there were slight differences between different parts of the Bulk Market that I was not able to capture in my questionnaire. Besides the standard procedure of buying from market agents, there are two other satellite operations that take place to serve different types of customers. Fortunately, I was able to visit the market in Clairwood to see the whole operation for myself (Appendix F).

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<sup>43</sup> One type of private agent is a “speculator” who trades commodity crops like stocks in the financial market, and this works because some like potatoes and tomatoes have a longer than average shelf life, during which prices can fluctuate.

<sup>44</sup> Tomatoes is the second most popular commodity crop in South Africa and they are produced all over the country. In 2016, the Department of Agriculture, Forestry, and Fisheries reported that the commercial sector contributes 95% of the total produce while the emerging sector contributes only 5% (DoAFF, 2016). Therefore, we can assume that the private agents mostly work with large commercial farms.

<sup>45</sup> Though, interviewee #1 offered the opposite story, that of her switching from relying on an agent for the first few years to working directly with a seedling farm for better products at a better price.

The advantage of the Fresh Produce Market is the low prices and central location, but it is not accessible to everyone. Even though only 9km from Warwick Junction, the only way to get there is by car. Additionally, some informal traders might not be able to apply for a Buyer ID if they didn't have a formal form of identification or proof of registered residential address. This might explain why many traders in the interview sample relied on other sources or buy from the Bulk Market indirectly. Seven of the retailers indicated that they purchase produce from a wholesaler. Many of these wholesalers are based around the Early Morning Market, like interviewees #2, 4, 10, 12, 14. Others drive around with pick-up trucks – colloquially called “bakkie” – to supply produce to street vendors from various sources.<sup>46</sup> Interviewees #17 & 21 get supplies from “bakkie traders” that came from the Bulk Market, whereas interviewees #7 & 8 get supplies from trucks that came directly from the farms.

The vendors who sourced from home or from neighbors were mostly women selling vegetables around the perimeter of the Early Morning Market. They sold an eclectic mix of herbs and leafy greens like spinach or pumpkin shoots that were not available at the Bulk Market. Several mentioned that the greens came from small farms in the south-western region of KwaZulu-Natal (interviews #6, 7, 8, 16, 22, 23, 24). These farms were much smaller operations than the commercial farms, and the labor involved were primarily contributing family members (interviews # 6, 7, 16, 22). The first assumption that each person was selling products from her own family plot, but that was quickly dispelled. Interviewee #6 recounted that her business originally started with vegetables sourced from neighbors and in 2001 her family was finally able to expand their subsistence farm to produce surplus. Now, pooling from her own plots and from neighbors, she was able to stock herself and supply a few others at the Early Morning Market. Another vendor was still sourcing from her neighbors and relied on her sister to courier the greens from their township to Warwick every day (interview #16). She described herself as representing her neighbors at the market, which evoked a vague notion of a farmers' collective.

One common characteristic between all these vendors selling green vegetables outside the Early Morning Market was that they stock their tables with produce from many different sources. Their products reflected the growing season, but also the specialty of different farms. One example is Figure 4.10, which shows: mangoes, herbs and pumpkin shoots from her neighbors, spinach (chopped & bagged) bought from a wholesaler inside the Early Morning Market, and cabbage from a commercial farm (interview #15). This was the most visually diverse table at the Market that day. Others had fewer items, but during the interviews they confirmed that the supplies came from a mixture of home-based farms and wholesalers (interviews #7 & 8). Interviewee #16 attributed her sparse product to the season and said that in a few months, she would be able to buy spinach, carrots, and beetroots from various neighbors in her township. One vendor in particular mentioned that she had started supplementing spinach from a small “emerging” farm just 50km outside of Durban because the farmer offered delivery to Warwick (interview #6). That was a rare case because no one else in this group had mentioned being able to work directly with farmers who weren't their neighbors.

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<sup>46</sup> Sometimes the wholesalers might own the truck, but more often, they hire a third-party for transportation and the driver charges 1 Rand per box.



**Figure 4.10:** Different types of green vegetables being sold outside the Early Morning Market  
(source: author's photo)

At a smaller vending scale, the transitory vendors on the sidewalk outside the Early Morning Market were more likely to only sell products from their own farms or from neighbors (interviews #13, 22, 23, 24). The types of products sold were similar to those listed above. Herbs, green vegetables, and mangoes were in season, but there were also lime, avocados, and chilies. Interesting to note that when asked to list their products, all four of these women emphasized that their vegetables were completely organic. These products came from the same plots that feed their families, so everything was grown at the highest quality possible. I'm cautious about claiming that these were the only organic farmers around and that was one reason why they only bought from family and friends; but it is important to acknowledge the sense of pride in the interviewees' deliberate language.

My assumption that all were subsistence farms was challenged when I spoke to a vendor who had been tilling a 50m<sup>2</sup> plot and selling to wholesale agents for 40 years. Just last year, she realized she could make more profit by cutting out the middlemen and coming to Warwick (interviewee #24). On the day we met, she was selling organic chilies but revealed that she also produced herbs and pumpkins at scale. Talking to her confirmed a suspicion that there were small farmers who had the capacity to produce large quantities from their land, but had difficulties accessing a consumer market. This vendor expressed regret that she didn't find out about vending opportunities at Warwick Junction sooner because her earnings had increased significantly since. Interviewee #14, a wholesaler inside the Early Morning Market, expressed a similar sentiment about missed opportunities when recounted how she only started selling eggs from her own chickens very recently and wished she had captured that unmet demands sooner. She described her decision as an innovation because no one else was selling eggs at the Market – mostly because there were no accessible wholesale sources. These stories presented small acts of divergence from the common pathways; and these women illustrated evidence that though possible, it required a lot of time and activation energy to overcome the inertia of the status quo.



There was one person in particular who had been charting his own paths and meticulously building his own supply network over the last 2 decades. At Warwick, interviewee #12 was well known for having an almost monopoly on yams (madumbes) and sweet potatoes. He was able to secure that status because he had been recruiting and working with rural farmers for the past 22 years to help them grow beyond subsistence farming. He spoke about it with pride, “[my farmers] in the rural areas are making a living from growing madumbies. Some of their neighbors have started to copy the same process because they see that these farmers are building houses from [cultivating] their extra land for profit.” He didn’t give an estimate for the number of farmers he sourced from because it varied by year and by growing season. The estimate he did provide was that all of the rural farmers combined could provide six months’ worth of produce while the few commercial farms he knew could only produce half that amount. In his network of suppliers, commercial farmers serve as the supplementary rather than the primary partners. Between November and January, the off-season for madumbes, he relied on the small farmers for sweet potatoes and mangoes.



**Figure 4.11:** The hub for yams (madumbies) & sweet potatoes at Warwick Junction (source: author’s own photo; the interviewee wanted to use a full-frontal photo because he was proud to show off his business and indicated he had no need for anonymity)

His recruitment strategy involved driving to the townships and offering subsistence farmers a chance to grow at reduced risk. According to him, the first few years were crucial because that was the trust-building period. He identified the willing farmers and provided training to help them produce better quality crops at higher efficiency.<sup>47</sup> Though, sometimes he would make intentional decision to purchase poor quality crop from new farmers because “word of mouth would spread that [he is] teaching them, and [both] have to compromise to keep the trust going.” Another major advantage for farmers was that he could dispatch his own trucks to pick-up from the townships. Through training and transportation support, this wholesaler was able to lower cost, as well as risk, for small-scale farmers to expand and enter the market. Their relationship resembles that between an employer and independent contractors, one through which the wholesaler benefits from a secure supply chain and the farmers benefit from having some level of assurance for returns on investment. I was unable to interview his farmers, but from speaking to other vendors at Warwick, it was clear that the wholesaler’s investment in this network of small farmers paid off because every madumbes retailer at the market preferred him as their primary supplier (interviews #9 & 26).

Even though the consumer side is not within the primary scope of this research on green growth, I believe it is an important addendum to illustrate the importance of Warwick Junction in the regional agri-food network. There’s some agreement in the literature that informal food markets are essential in the urban food system, especially for poor households (Kessides, 2005; Crush & Frayne, 2011; Figuié & Moustier, 2009).<sup>48</sup> Even though global expansion of processed food is pushing the diet of low-income consumers further towards the low-quality, energy-dense but cheap options (Kennedy, Nantel, & Shetty, 2003), urban residents can still rely on informal vendors to provide access to fresh produce at convenient locations and reasonable prices (Crush & Frayne, 2011). A study in South Africa’s Western Cape found that consumers valued quality, accessibility, and variety over price (Roos, Ruthven, Lombard, McLachlan, 2013), all of which could explain why the Early Morning Market and peripheral street traders were still able to compete with the two nearby supermarkets.<sup>49</sup>

Warwick Junction is a prime location in the Central Business District, situated at the intersection of a major railway station, 5 bus terminals, and 19 taxi ranks altogether serving more than 200,000 transit riders every day, which makes the markets highly accessible to customers in and outside of the city (Dobson et al., 2009). The products offered are particularly attractive for Zulu and Indian consumers because there is enough variety to cater to different cuisines. Besides the commodity

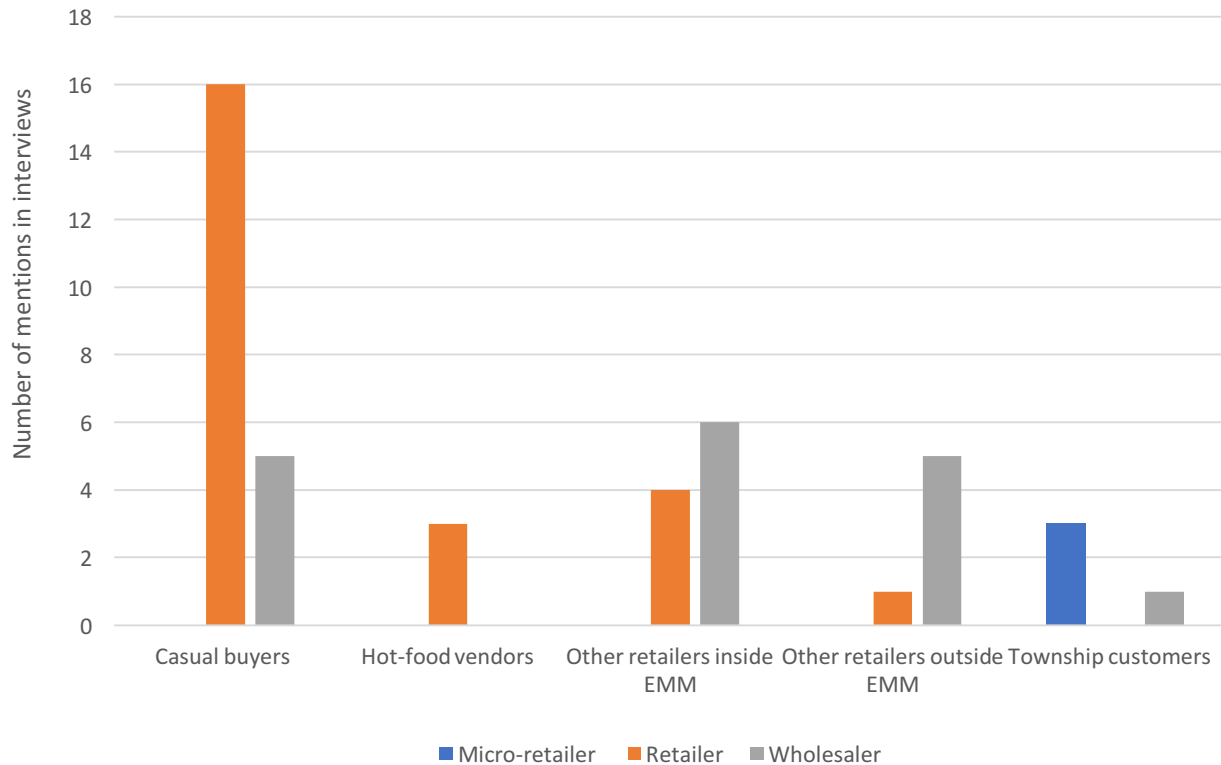
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<sup>47</sup> I can verify that the quality of his yams was much better than what I had seen from commercial farmers at the Fresh Produce Market.

<sup>48</sup> The African Food Security Urban Network (AFSUN) survey undertaken across 11 cities in 9 southern African countries in 2008 found that in the sampled low-income areas, 76% of households were moderately to severely food insecure (Crush et al. 2014).

<sup>49</sup> One supermarket is located inside Berea Station, surrounded by informal stalls, and the other is across the street from the Early Morning Market, also surrounded by street vendors. Madevu (2006) and Abrahams (2007) observed the same resilience from informal traders in Tshwane & Johannesburg, where super markets were putting corner stores and small grocers out of business.

crops<sup>50</sup> that are sold inside the Early Morning Market, customers also have access to green herbs, local fruits, and vegetables (pumpkin shoots, spinach, etc.) that aren't available or as affordable in conventional supermarkets.<sup>51</sup>



**Figure 4.12:** Types of customers buying fresh produce from vendors at Warwick Junction

Besides the casual passerby that one would expect to shop at informal markets, there are other types of customers who rely on wholesalers and retailers at Warwick. When vendors were asked to elaborate on their supply chains, I took the opportunity to inquire about the customer base. As expected, there were internal trading between those at Warwick. Most of the wholesalers also supplied to retailers elsewhere in Durban. Many of them were able to expand their client base due to the extensive network of porters who provided cheap transport from the market to other vendors in the inner city (interviews #2 & 12). Going beyond Durban, products sold through Warwick would travel as far as the neighboring towns 20km away. Interviewee #12 controlled a large market share of

<sup>50</sup> According to the National Agriculture Marketing Council, the main products sold at the National Fresh Produce Markets are: onions, tomatoes, melons, citrus, berries, subtropical fruits, carrots, green peas, cabbage, beetroot, green beans, cauliflower, pumpkins, corn, and sweet potatoes.

<sup>51</sup> The disconnect between commercial farmers and the population of black South African consumers was apparent when interviewee #14 explained that some of her herbs came from a large farm but only because she offered to remove them as part of a 'weeding service'.



wholesale yams & sweet potatoes so retailers from other major urban markets<sup>52</sup> would come to him for supplies. Additionally, the commuting micro-retailers were bringing fresh produce from the market to food deserts in the peripheral townships<sup>53</sup> (interviews #11, 25, 26), which provides further evidence that informal produce markets can play a major role in providing and maintaining healthy food access for low-income consumers.

Lastly, the case study also found connections to other businesses in the informal economy, more specifically hot food vendors in the inner city. None of the interviewees mentioned that they were supplying to formal restaurants, but the connection to the formal sphere is not unimaginable. Historically, the Early Morning Market got its name because it was the central hub selling fresh produce to restaurants and hotels in Durban, and the early mornings before 6am were the busiest times as all the cooks were trying to shop for the day (Vahed, 1999). Now, the hot food vendors are mostly street-side enterprises that primarily serve the population around Warwick, which is neat because they source from informal vendors to serve other informal workers like barbers, porters, and waste-pickers. And, another interesting linkage in that supply and consumer chain is that the hot food stalls mostly buy herbs and green vegetables from street vendors outside Early Morning Market (interviews # 7, 8, 16), some of whom grow their own crops using seedlings purchased from interviewee #1. Looking into the consumer base connected to Warwick Junction provided more evidence of the multifaceted nature of these informal agri-food network. The next section shall engage in a discussion that compares these case study findings with contemporary models of the food system in South Africa.

#### 4.5 SUPPLY NETWORK & CONSUMER BASE: DISCUSSION

The information collected from vendors at Warwick Junction painted a different picture from the commonly accepted model of market duality in South Africa's agroindustry, which juxtaposes a highly sophisticated formal food distribution system on one hand and an organized informal food vending system on the other (Machette, 1997; Weatherspoon & Reardon, 2003; Chikazunga, Joordan, Biénabe, & Louw, 2008). This conception of the fresh produce supply chain is commonly depicted like that in Figure 4.13, which models a different reality in which the informal vendors are not linked to producers, nor to other types of consumers like contract buyers and cooked-food businesses. This simplification downplays the complexity in reality because it puts all informal traders in a homogenous "black box", which misses out on the diversity of vending operations within the informal economy and how they relate to different types of producers

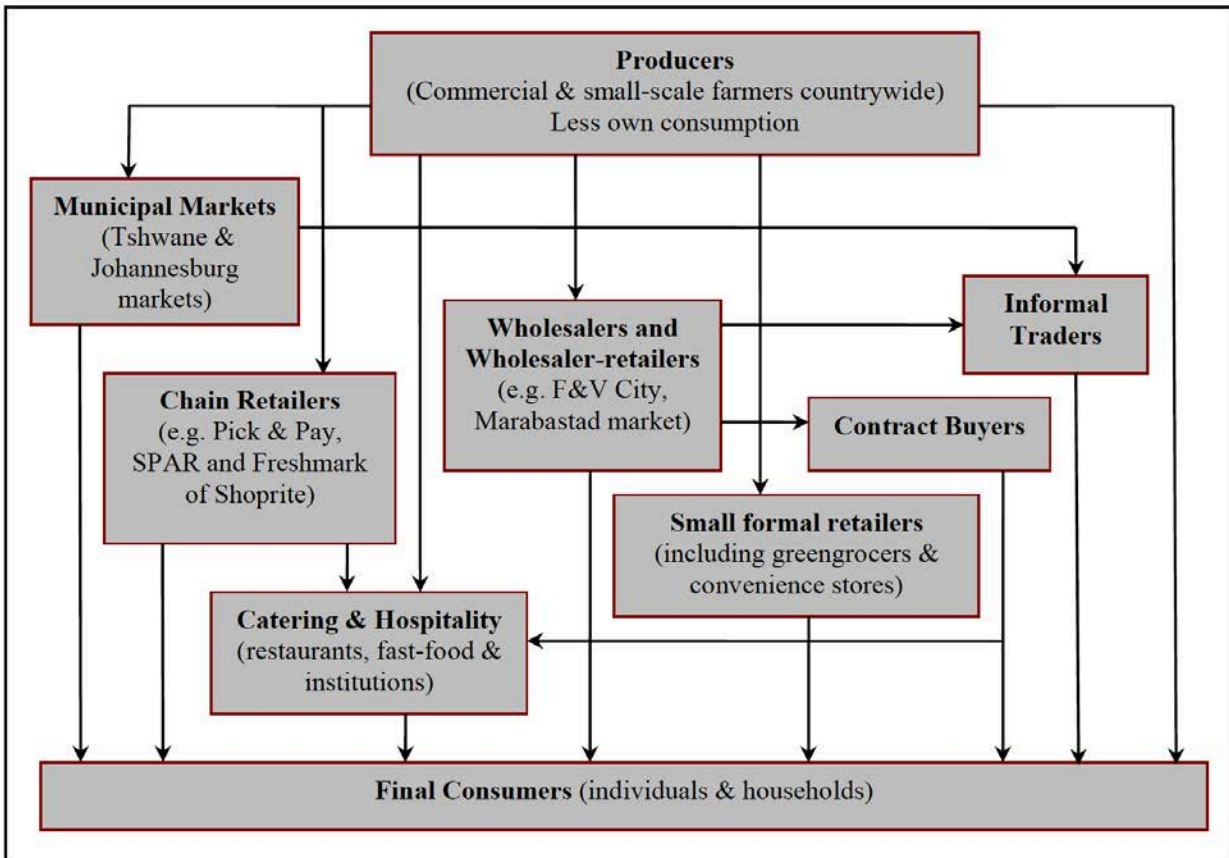
Furthermore, this model treats commercial and small-scale farmers equally, but in South Africa these two types of production are vastly different. South Africans typically judge a farm's viability on its land size without necessarily considering other attributes, for example the specific farming

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<sup>52</sup> One in Isipingo, about 19m south of Durban, and one in Pinetown, about 21km west.

<sup>53</sup> The ones they mentioned were: Isipingo, Pinetown, Umlazi, 23km away, and Chatsworth, 28km away.

enterprise or managerial ability (Kirsten & van Zyl, 1998). Small-scale farming in South Africa had always been regarded as inefficient and ‘backwards’, and now they are disadvantaged as the food supply chain becomes increasingly global and vertical. Though in reality, small farmers are at least as viable, profitable and efficient as their large-scale counterparts (Ngqangweni et al., 1997), their foothold in the food market is more volatile as major retailers<sup>54</sup> continue to transition towards streamlined procurement from a few selected commercial producers (Chikazunga, Joordan, Biénabe, & Louw, 2008).



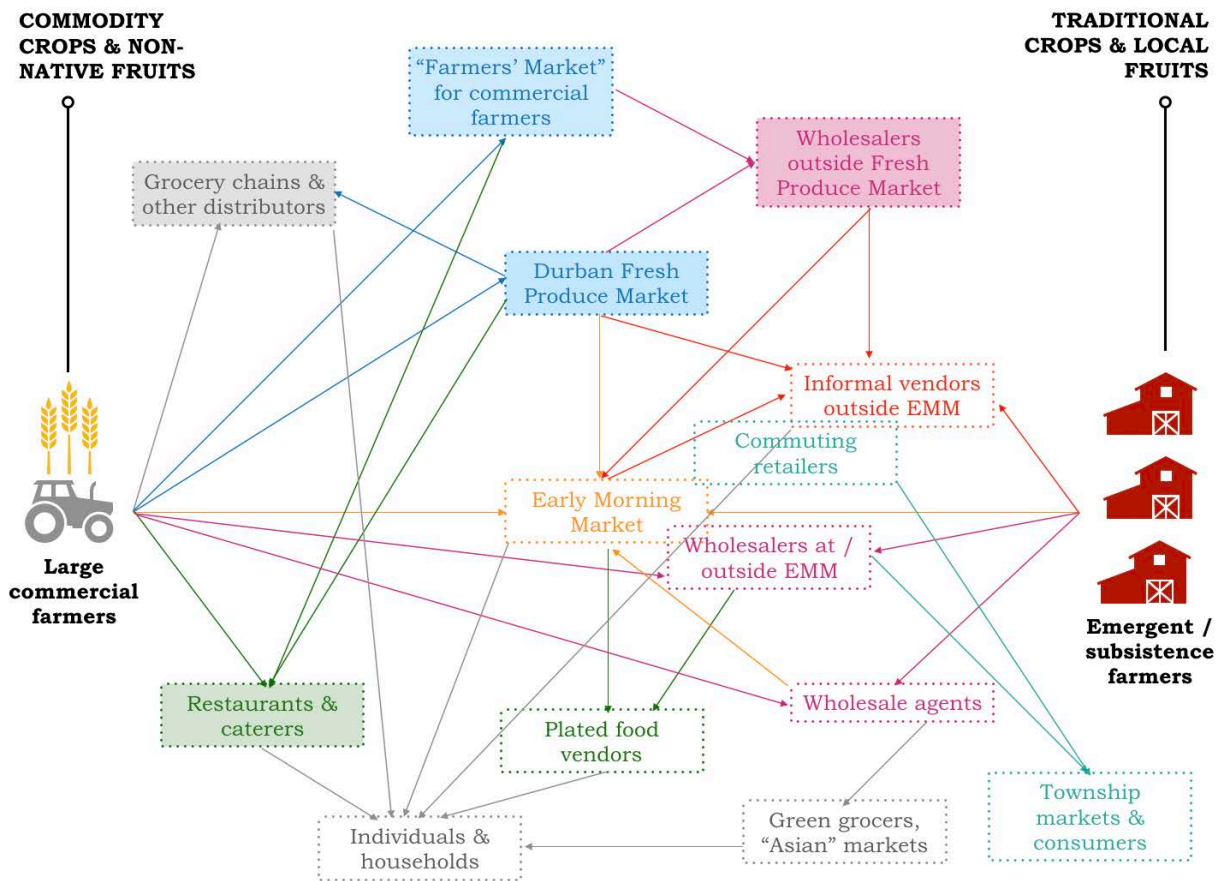
**Figure 4.13:** Model of supply chains for fresh fruit and vegetables in South Africa (sources: Madevu, Louw & Ndanga, 2007)<sup>55</sup>

After mapping all the linkages mentioned from the 26 interviews, I found a significantly different model of the food production and distribution network centered around the Early Morning Market. Figure 4.14 shows a much more complex set of relationships between large commercial farms

<sup>54</sup> Botha and van Schalkwyk (2006) concluded that the South African food retail industry is characterized by an extremely tight oligopoly of a few formal supermarket chains. This is why vertical integration of their supply chain will have a drastic negative impact on small farmers.

<sup>55</sup> The authors combined their findings with data from the Tshwane Market Economic Development Department and the Bureau of Market Research for the City of Tshwane Metropolitan Municipality.

and the smaller, family-operated farms. The first major difference between this ecosystem and the one depicted above is that the formal and informal are intricately linked. Vendors in and around the Early Morning Market source produce from many different channels, not just from the Fresh Produce Markets. The details of their sourcing practice and customer base have already been covered in the previous sections. This visualization of the information is primarily meant to illustrate the contrast between what was found at Warwick and what is commonly believed to be the norm. This intricate network might not be representative of all informal markets in South Africa – though I would venture a guess that it is more common than not – but it does highlight the point that the reality on the ground might not be as simple as the models that planners often rely on.



**Figure 4.14:** Supply chain of fresh produce through the Early Morning Market in Warwick (shaded boxes are considered “formal” and the non-shaded boxes are “informal”)

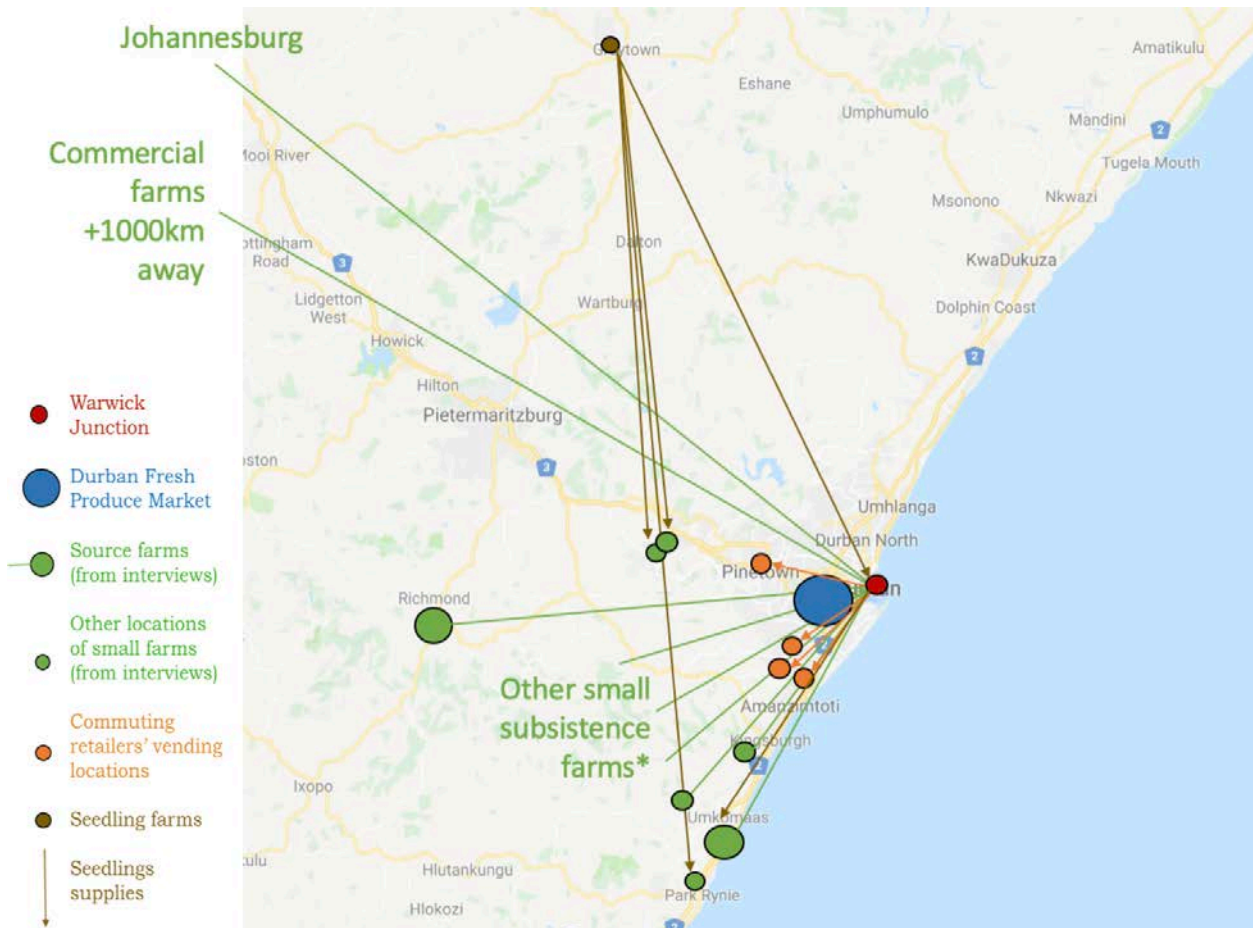
An interesting finding from the interviews is that commercial farms and the smallholder farms usually specialize in different types of goods. What I noticed at the Early Morning Market was that they supplied complimentary goods to the market. The common produce grown by large farms were: tomatoes, potatoes, cabbages, onions, carrots, bell peppers, eggplants, spinach, butternuts, off-climate fruits. The local and traditional produce offered by regional farmers were: mangoes, lemons, chilies, herbs, pumpkins, pumpkin greens, local greens, herbs, ground nuts, yams, sweet potatoes, avocados,

beets. The vendors, both inside and on the street outside the Early Morning Market, were likely to benefit from having such diversity of products being sold in one central location. The convenience factor and variety of options could attract more customers to the Market, which in turns would benefit both types of producers.

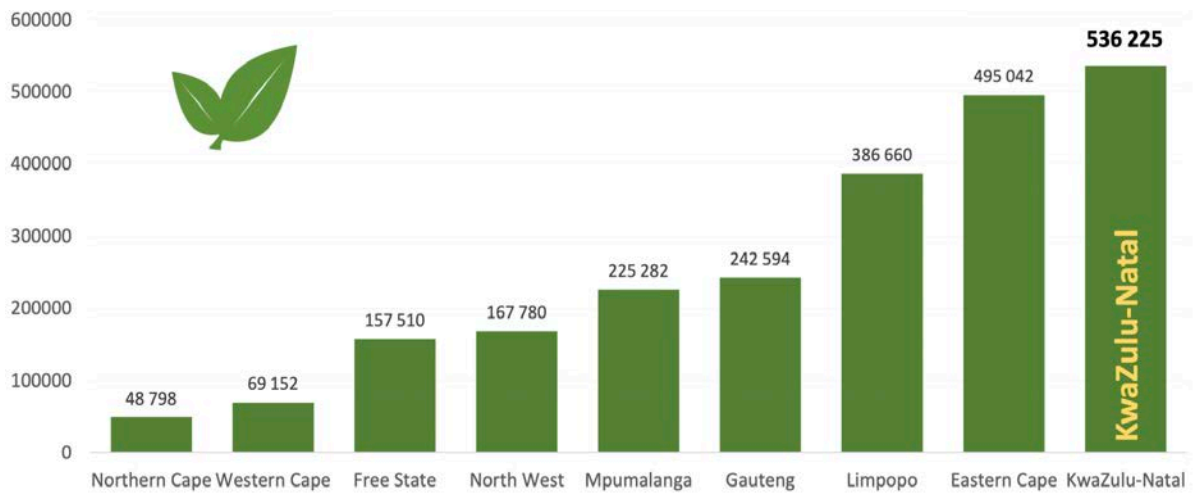
Furthermore, I found that this complimentary relationship had some positive influence on the cooperative nature of the vendors at the market. There was one case where an established vendor inside the Early Morning Market started to purchase herbs from the informal vendors on the sidewalk because she realized that there were demands for those products. As a result, the informal vendor was able to expand her consumer base and started to cultivate more from her land because there was an incentive to scale up. Another form of cooperation is the sharing of storage space between vendors inside the Market and those vending outside. Interviewee #13 said that she had made some friends inside the Market who offered temporary storage without demanding rent, which was hugely helpful because then she wouldn't have to pay for an extra seat to carry unsold produce back on the bus. There was really no sign of hostility between the vendors inside the Early Morning Market and those selling informally outside. Interviewee #17 denied any competition between them and said that they had been losing customers not because of the informal vendors but because the management had let the Market degenerated to a point of being undesirable to customers. This may be a topic for further qualitative research, but I posit that because the vendors offered such different products – as a direct consequence from the types of crops grown by different types of farmers – they were more likely to cooperate because there was less incentive to compete.

Besides the structure of this network, it's important to look at the spatial dimension to appreciate how the vendors at Warwick Junction are connected to the regional food system. Figure 4.15 shows a rough sketch constructed from the locations of food sources and destinations mentioned by vendors in the interviews. Even though the Durban Fresh Produce Market is a major hub of distribution, it does not serve as a node the way Warwick Junction does. The Fresh Produce Market aggregates produce from large farms from very far away, most of them from a different province, and then distribute to other retailing hubs like Warwick Junction and supermarkets. In contrast, vendors at Warwick are connected to many producers and consumers in KwaZulu-Natal; and if we use the European Commission's definition for 'local food', which is produced within 20-100km from the point of consumption, then Warwick Junction is better at supporting small, local agriculture producers than the Bulk Market.

The sketch only shows the location of a few peri-urban farms that were mentioned in the interviews. It is not a complete list because some vendors did not want to disclose the source locations, and some did not know where the farms were located. However, the 2016 South Africa Community Survey found that KwaZulu-Natal has the highest number of 'agriculture households' in the country, which is a good indicator that there are many more family-operated farmers that could benefit from having access to a more 'informal' distribution hub like Early Morning Market at Warwick Junction.



**Figure 4.15:** Sketch of regional food system around Durban (data source: interviews; image source: Google Map)

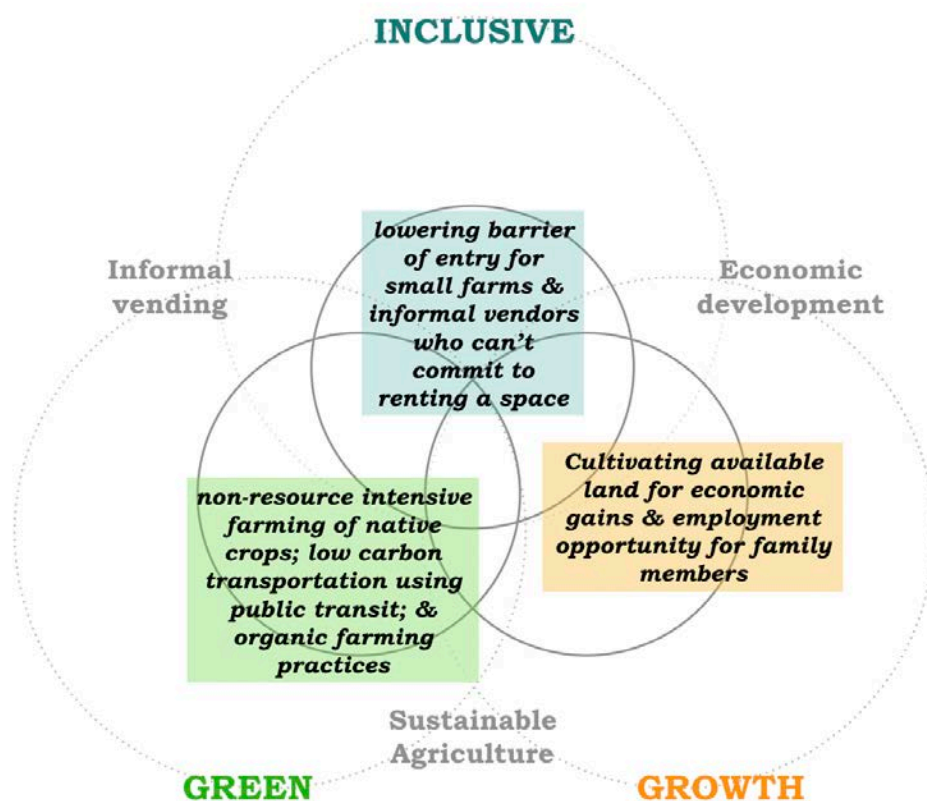


**Figure 4.16:** Number of agriculture households by province (source: Stats SA Community Survey 2016)



## 4.6 EVIDENCE OF GREEN PRACTICES & GROWTH POTENTIAL

The second research question asks: in which of these cases do informal vendors support inclusive green growth in the agriculture sector? Stories from interviewees and an analysis of the supply network illustrate that the informal vending space, both literally and figuratively, at Warwick helped lower the barrier of entry for emerging farmers to enter this urban consumer market, which allowed them to expand their farming operations. The growth potential in this system is rooted in the farmer's ability to cultivate land for profit, and to provide employment opportunities for others who might have been excluded from the formal jobs. The green characteristics of this local food production were highlighted by interviewees who, both by necessity and preference, relied on low resource intensive farming practices and public transportation to supply a diversity of crops to the market. The raw findings were previously described in the observation section. Here, I will return to three specific cases to highlight some evidence for the factors of inclusive green growth found in the interviews.



**Figure 4.17:** Factors of inclusive green growth found in case study

First, the spirit of inclusive economic opportunities was exemplified by the partnerships between the madumbes wholesaler and his rural suppliers. The wholesaler acted as a contract buyer – albeit social contract – or an employer to the farmers who were his independent contractors. This sourcing practice was inclusive of subsistence farmers in rural areas who had the land and capacity to grow but did not have the knowledge or means of transportation to capture the economic

opportunities. The wholesaler lowered the barrier of entry by providing them with training, transportation, and some level of security that their efforts would not go to waste. Expanding from subsistence farming to producing profitable surplus required a large amount of activation energy, which would be a major inhibiting factor for those most vulnerable with the most risks. The wholesaler's commitment in strengthening relationships with his farmers came through when he claimed to be willing to purchase subpar quality crops in the first few years as a way to support farmers through the learning curve. Both the wholesaler and the rural farmers benefit from having access to Warwick Junction because it has always been the distribution hub for these kinds of "local" produce, even for township retailers, so the demand was always available. This form of inclusion is extremely important in South Africa's contemporary agri-food network because the requirement for entrance into the formal food supply chain is very high, as most supermarkets have almost fully transitioned into a vertical supply chain through which they only source from a handful of select producers.

For those farmers who had access to public transportation to get to Warwick, the informal nature of the space offered a chance to be included in the market ecosystem without having to commit to renting a formal spot. The sidewalk vendors benefitted from being able to come and go based on their schedule and stock availability. One producer in particular (interviewee #24) cited the convenience location of Warwick right next to the bus ranks and the flexibility of the sidewalk space as the main reason why she was able to cut out the wholesale agent of 40 years and sell her produce directly to customers and other retailers. Because of this access to the urban market, these small farmers were able to earn a larger profit margin for their crops as compared to selling through middlemen or in township communities. That profit would then be used to purchase other food items to diversify their diet, or better yet, invested back into the farm to increase productivity.

Second, the ability to cultivate and invest into a piece of land is a major contributor to economic growth through agriculture. Figure G.2 in Appendix G indicates that most household farms rely on backyard farming rather than owning any farmland. White farmers generally had more access to commercial farm land for this purpose, which makes sense considering the history of land grabbing before and during Apartheid. The descriptions of small farms in the interviews concur with this statistic of backyard farming. The yam wholesaler specifically said that he was actively recruiting subsistence farmers with underdeveloped land at home (interview #12). Figure G.3 shows that 10.4% of those interviewed in the 2016 SA Community Survey cultivated their household plots as the main or additional source of income. Altogether, these numbers tell us that some portion of South Africans do rely on their small agriculture production as a mean for livelihood generation. The examples of these farmers are the vendors selling green vegetables at tables on the side of the Early Morning Market, and the ladies with small bags of produce selling on the sidewalk in front of the entrance.

In terms of employment generation, the answers of those vendors match Sen's (1962) observations from India that family-operated farms had the capacity of absorb unemployed workers in rural communities. Interviewees #7, 16, 22 – those who were selling produce grown from home – revealed that they had 2 or 3 other family members helping at home. Several others mentioned that

they had help from family and neighbors, but it was inconsistent. What stood out for me was that some vendors at the Early Morning Market were connected to loosely coordinated cooperatives in their neighborhood, which was definitely a source of productive work for those unable to access formal jobs. Interviewees #6 & 16 were examples of this sourcing practice. Similar to the madumbes wholesaler, these vendors acted as the connector between the urban consumers and rural farmers, allowing them to turn subsistence labor into profitable work. This type of small-scale agriculture is slightly different from the homebased work that Chen, Sebstad, & O'Connell (1999) wrote about, but I think the argument remains that homebased informal work is an important but undervalued source of employment in developing countries.

Lastly, there were many instances when farmers and retailers mentioned practices that were much more environmentally sustainable than their conventional commercial counterparts. The first point to note was that almost by necessity, these rural and peri-urban growers had to operate with fewer resources. Interviewee #24 explained she owed a 50m<sup>2</sup> plot of land but often decided how much of it to cultivate based on water availability. She and her adjacent neighbors selling on the sidewalk claimed that all their crops were produced organically because they only used natural fertilizers. Though their usage of the term “organic” might not be the exact definition often used in the highly-regulated Western food market, the fact remained that traditional and natural practices were more likely to be accessible and cheaper in these communities. Interviewee #1 did sell chemical fertilizers at her stall, but many of the sidewalk vendors expressed preference for the organic options because they were mainly growing food for own consumption.

The crops being produced by these local farmers tended to be traditional, native crops grown by the seasons. I can speak from experience having been to Warwick Junction 3 times in the span of 12 months that the majority of vendors would sell commodity crops year-round; whereas the informal vendors on the periphery offered different variety based on different time of year. In January, there was a lot of herbs, spinach, young shoots, and chilies. Interviewee #16 said that in the other season, she would get beets and carrots from the neighbors. Interviewee #23 sold mangoes and limes based on the productivity of her trees. Crop rotation was one way to keep their soil healthy without relying on chemical and damaging the environment. Another interesting “sustainable” practice came as a side story when interviewee #14 mentioned that some of her herbs were harvested as weeds at a commercial farm so no additional resource went into growing them. Kamal et al. (2015) claimed that practices rooted in traditional knowledge, when possible, could be more synergistic with the ecological system in which those people are embedded

As for other green dimensions in this supply chain, there is evidence that the system produces less carbon and contributes to a healthy green diet for the poor. Besides the madumbes wholesaler who sent his own bakkie pickup truck to transport produce from the farmers, everyone else who brought goods from their home neighborhood used public buses or the shared taxis as the main modes of transportation. Furthermore, the map in Figure 4.15 shows that the distances between these local producers and consumers were much shorter than between the commercial farms and Durban. The



Durban Fresh Produce Market received shipments by large trucks and then had to keep the bulk produce in climate controlled cold rooms at all times. The frequent trips from rural or peri-urban farms to Warwick Junction might seem like a lot, but the carbon footprint of those local trips by buses is likely smaller than the formal supply routes. This assertion requires an independent quantitative research project to empirically calculate the difference in carbon emission between the two because there are many other components involved in the logistics of transporting food. Edward-Jones et al. (2008) warned that “food miles” is a bad indicator of the environmental impact of food production which also varies based on the location context.

Finally, a green and healthy population depends on access to green and healthy food. The expansion of household farming as well as the expansion of the supply of green vegetables to urban markets and township retailers would allow more people to have healthier supplements to their daily diet. An obvious indicator of this was that informal vendors sourcing from home were selling green vegetables and fruits that were not available through the Durban Bulk Market, hence were not sold by small grocers or most Early Morning Market vendors. The other location to go for green vegetables would be the two formal supermarkets located in Warwick Junction, but the prices would be higher than on the street. Additionally, the fact that there were township retailers coming to Warwick to purchase vegetables for their communities indicated that some peri-urban areas around Durban were food deserts. Knowledge transfer between farmers who come to the market or between the madumbes wholesaler and his independent contractors are great ways to promote sustainable household farming in this region. KwaZulu-Natal has the highest concentration of fertile land and the positive externalities of local, sustainable agriculture should have significant impact on the health and green lifestyles of surrounding communities.



**Figure 4.18:** The welcoming arms of inclusivity at Warwick Junction, plus the public transportation and the vending space for fresh produce (source: author’s own photo)

## CHAPTER 5. RECOMMENDATIONS & REFLECTIONS

### 5.1 WHAT COULD BE DONE?

The third research question asks: what could be done to strengthen this linkage and who should be involved? The first set of answers to this question came from the interviewees who mentioned the importance of vending space and access to public transportation in their success. The second set of answers came from reviewing what I had learned from reading the LAP and other literature on the integration of informal vendors as well as rural homebased workers into a healthy urban economy. The challenge here is to propose ideas that are within the parameters of the Inner City Local Area Plan so that it makes sense to the intended audience of Durban city planners, and unfortunately the Regeneration Strategy focuses more on spatial intervention rather than policies or structural support.

A point that I have and will continue to address over again and again is that the city must conduct a genuine stakeholder analysis related to the proposed projects in the LAP. In order to strengthen the linkages, they must have a good understanding of how these relationships work and where they are most robust or most vulnerable. Particularly relevant to the design aspect to the LAP is the connection between these agents and their surround environment, i.e. the sidewalks, the streets, the taxi ranks, the buses, the hot food vendors. The two things that the interviews kept referring to as important factors for their success is the stability of space – can be interpreted as fewer police harassment – and the access to the transit network that runs through Warwick. The starting point is to protect the existing conditions before executing upon any drastic changes to their work environment.

From the interviews, those who took public transportation were satisfied with the accessibility of Warwick Junction. Their issue is at the ‘first mile’ between home and bust stop rather than the ‘last mile’ between the station and work. Unfortunately, the parameters of the Inner City Local Area Plan are hyper-local so the plan does not have authority to address other segments of the supply chain. I include this here as a note for the planners to be mindful when reviewing other infrastructure project that plans to relocate the bus and taxi services in the Inner City. Project number #4 plans to turn a section of the main boulevard adjacent to the Early Morning Market into a pedestrian zone, which would inevitably affect the transit system. This raises a flag pointing to a possible project that was designed based on instrumental reason, which came from good intentions of wanting to provide more designated space for public use and street vending but might have negative externalities on parts of the community.

There are three components of this synergistic partnership that need to be supported for the whole system to work. If the Municipality wants to harness the societal benefits of this green development pathway, then there must be a commitment to systematically support the vendors, the farmers, and the connection between them. The interviews illustrated that there is a high level of

inertia that perpetuates the status quo at Warwick. Only a few innovators have broken out of the conventional supply chain and allowed more farmers to enter this market. As the managing body of the Early Morning Market, the city government could make intentional decisions to make this transition easier for vendors by helping them with logistics and marketing. Resource allocation is a large part of the LAP, which could be the foundation for innovative-allocative planning. For example, I heard from a few sidewalk vendors that they benefit a lot from being able to share storage space with a stall-owner inside the Early Morning Market. With the new plan for storage facility and cold rooms, the LAP can introduce a system for storage sharing to alleviate some logistical stress on for street vendors. Establishing a norm of sharing would also strengthen the cohesion of the community and potential spark new opportunities for in-group trading.

After gaining a better understanding of the ecosystem and the relationships between different agents, the LAP team and the Municipality's Business Support Unit could conduct a more targeted project to identify the opportunities to support these sidewalk vendors and the vegetable vendors outside the Early Morning Market. It would be helpful to expand their connection to other retailers and hot-food vendors who might be interested in buying traditional crops. A suggestion that I found quite insightful after presenting on this research for the first time was that there must be some assistance to help the community organize and better formulate their priorities to bring to the table. A past example of this was the negotiation workshops hosted by the previous Warwick Junction Urban Renewal Project. Though, I don't think that the local government is the right actor to be tasked with the job of strengthening constructive dissent.

Outside the spatial design aspects of the LAP, there are other ways in which a city government could support the informal economy. Something that I've internalized from the WIEGO advocacy work is that informal workers would like to have representation, protection, and promotion. Within the regulatory framework, this means that informal workers should be acknowledged as contributing members of the urban fabric and should be treated as such. The Business Support Unit should recognize these vendors as fair users of the space and prevent police harassment in this area. The debate about permits is a long standing one without an end in sight, but if the Municipality is serious about promoting inclusive economic development opportunities and green growth, then this is a form of meaningful structural support that will have significance positive impact.

As for supporting farmers in the system, the Local Area Plan does not have any authority outside of the Inner-City Precincts, but the team could suggest that the Municipality incorporates these findings about small-scale farmers and the inclusive green growth agenda into its operation plan for the Durban Fresh Produce Market. As previously noted in the discussion about the globalization and vertical integration of the formal supply chain, the food distribution network in South Africa is going through a period of restructuralization that marginalizes small producers and state-owned operation like the National Fresh Produce Markets. A study in 2008 showed a clear trend of decreasing market share for all the large NFPMs, meaning the Municipalities are no longer making as much profits from commissions. As major retailers are shifting away from bulk market purchases, the primary customers for these wholesale distribution centers are informal vendors and small grocers.

Large farmers also have less incentives to consign with the NFPMs if they could supply directly to retail chains. This is a neat alignment of interest between the small-scale farmers who was unable to access the Fresh Produce Markets facilities, the urban informal vendors who would like to diversity their products without additional logistics, and the Municipality who needs new ways to keep their facilities afloat. A separate research project should investigate this opportunity for government agencies to support both the informal economy and a healthier local agriculture system in their region.

## 5.2 WHO SHOULD BE INVOLVED?

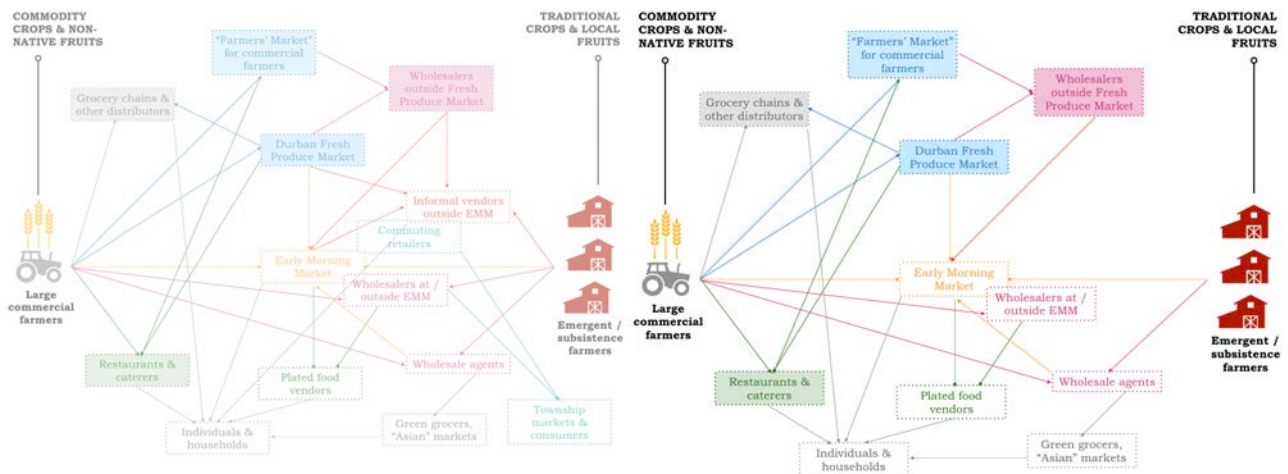
One realization that came to me as I was wrapping up this project was that the foundation on which relationship between the government and the community now stand is highly unstable. Warwick Junction still has many scars from the abrasive treatments from the government, and now it seems too hasty to start jumping into a new set of urban renewal projects. My first recommendation regarding stakeholders is that the LAP Project Team should redesign the engagement process before making any concrete plans to upgrade the Early Morning Market and adjacent street. Currently, the two primary forms of consultation with the vendors are: meetings with market leaders and hosting public design reviews. Neither of these processes are not conducive to getting feedback from the minority demographics of transitory, highly informal vendors at Warwick who do not have any representation on the market leadership board and do not come to market consistent enough to always be notified of public meetings. As I've mentioned in my sample analysis, the level of vulnerability of these vendors highly depends on where they are located at the market and the type of vending. The new engagement process should start from the basic with a thorough stakeholder analysis, which I found to be missing in the LAP project proposal. There seems to be an overly confident reliant on the market representatives to present the vendors, but the “community leaders” at the Early Morning Market are only those who pay rent to the Municipality, which excludes a significant portion of the market users. Those in power should be reminded that the nature of the “precariat” is that they are scattered, transitory, and not always organized (Harvey & Wachsmuth, 2012), so there must be additional effort from the state to include them in the democratic process. The organizers at Asiye eTafuleni naturally came to mind because they have so much experience bridging the chasm between the government and the informal vendors at Warwick. The name, Asiye eTafuleni, is Zulu for “Let us negotiate”, which I think is a powerful reminder at every stage of the urban upgrading process. Other NGOs in Durban like StreetNet International and the Urban Futures Centre at the Durban University of Technology are also amazing partners who are well equipped to assist in this task.

Asking for the city planners to find and engage with non-organized members of the community is asking for a deliberate, time consuming endeavor. My hope is that this research was successful in convincing them that such investment is in the city's best interest, as the findings highlighted specific cases in which the most overlooked vendors and linkages are the ones who were the drivers of “inclusive green growth” factors in the network. Furthermore, by representing this whole ecosystem as a network, I meant to make an argument that different actors in this seemingly chaotic cluster had a functional importance in the whole regional food supply chains. Figure 5.1 shows

the area which will be affected by the LAP proposed upgrade at and around the Early Morning Market. It is apparent that the renovation plan will affect a larger set of workers besides those vending inside the market, not to mention the adjacent transportation system of taxis and buses. In the outdated, conventional conception of informal vendors within the regional food distribution chain (Figure 4.13), there wouldn't be much of an impact if a subset of them were to be displaced. The rationality of the LAP is that the Early Morning Market will remain a hub for fresh produce as it has always been, just with better infrastructure and cleaner streets. However, in the more complex representation of reality, as reproduced in Figure 5.2, removing the peripheral, most informal vendors would take away some highly valuable linkages that support the emerging farmers and the potential for green development in the region.



**Figure 5.1:** The area and people that will be affected by the proposed LAP priority projects around the Early Morning Market



**Figure 5.2:** The disruptive impact of removing the most informal vendors from the system



Additionally, I need to return to the satellite view and my research methodologies to make a claim that the stakeholder survey process in this particular site can be done in a one day. The only step that I'm recommending is to encourage city planners who might not be familiar with this community – which I know for a fact is true for many of whom I've met – to re-evaluate their assumptions by testing it with exposure to the reality on the ground. Some of the projects proposed in the LAP were designed with the best intentions in minds, but also many rational assumptions that may not be true in this context. The organizing logic of urban informality is one that requires an open-minded investigation. The two lessons from the previous Warwick Junction Urban Renewal Project still ring true: 1) appreciate and take into account the whole ecosystem that will be affected by the decisions, and 2) learn from the community first before proposing any alterations in their routine and surrounding. I also recommend the planners to take a holistic view of their projects and consider the transportation routes through Warwick to be an active component. Many of the vendors rely on the taxis and buses to transport their goods to and from the townships, and any changes in the location, routes, and frequency might add too much time and money to their commute that makes the whole operation cost-preventative.

### 5.3 REFLECTIONS ON THE RESEARCH PROCESS

This entire research project has been the most stimulating learning experience of my DUSP career. The question comes up again and again, what is the role of “planning” in this particular puzzle beyond drafting and executing plans. I think this is why I latched onto the Critical Urban Theory framework early on. It offered a strategy for questioning that gets at the various components of a good planning process before leading to the ultimate question of what is to be done. As I'm still developing my own brand of criticality, I took the easier route of applying the Critical Urban Theory Framework within my own pre-drawn analytical boundaries and context of the Durban Local Area Plan. The best advice that I got was that I should only rely on theory as far as it makes sense in this process, and it gave me the confidence of building on the shoulders of giants to craft my own way of thinking about these complex issues. To the last day working on this project, I still can't say for certain that I have a complete grasp of what Neil Brenner and colleagues initially meant to achieve when they first conceived of this framework for scholarship, but I can say that I've benefitted from being challenged by their criticality and harnessed it in a successful research project.

One reason why I kept returning to the point about proper exploration and engagement with the community because I was struck by how the sampling technique made a significant difference in the research experience and findings. If I had blindly followed probabilistic sampling, I might have missed the unique cases and the stories that can illustrate different modes of divergence from the status quo. My understanding of the food system would be more similar to the dualistic model of model versus informal rather than the complex network that I found above. On a related note the Lean Research methodology is much more rigorous than I had anticipated, and I don't think I did a good job striking the balance conducting short but detailed surveys. Overall, I wish I had been more

critical about my methodology, which I got away with by calling this an exploratory case study, but I could have pushed myself harder as a research.

Other questions about planning came up along the way. A major unresolved question is whether I was right to frame the foundation of this research as the investigation of informal workers as a mean to support the green economy. I touched upon this concern in Chapter 3 when I explicitly said that the informal economy shouldn't have to be justified as worthwhile of deliberate scholarship because it is linked to the formal system; it should be appreciated as an independent yet ubiquitous mode of logical social and economic organization. And still, I'm embarrassed to say that I slipped into the form of argumentation that keeps using their contribution to green development as an indicator of their worth. On one hand, sometimes one has to choose a way of framing research and rationalization that speaks to the masses. On the other hand, this type of independent, self-driven research projects is the forum to push for emancipating ideas, and the line of scholarship that I wish to contribute to is one that respects the existence of informality for its inherent worth – some of which yet to be discovered – not a mean to an end.

With the previously stated consideration in mind, I'm excited to pursue research in this intersection for as long as I am able. I still think that this overlap between supporting informal work and the pathway for green development is an exciting arena of research. The literature review in Chapter 2 clearly shows that there are huge gaps in contemporary knowledge about this synergy. On the alignment of interest in green development and the informal economy, a question that came up in many of my discussions is that who should be the advocate for this development pathway? The large multilateral development organizations always come to mind when talking about sustainable development and growth, but it's common knowledge that they do not have much impact when it comes to the situations on the city-level like the one explored here. One question that deserves more serious thought is how much do those engaged in local agriculture and informal vending care about "green development"? I've experienced cases where people are only using environmentally-friendly tools and processes out of necessity, but also cases where the rural poor are the most aware of their climate vulnerability and thus truly committed to the cause. My personal belief is that sustainable development must be inclusive, but I'm also aware that the ideology is associated with an air of elitism. This is important as we contemplate how to organize and incentivize collaboration between different stakeholders. Even if the government truly cares about inclusion and green development, it is not necessarily the right first step to engage with vendors and farmers – and especially not with the mindset of using them as means to achieve a goal that might not even be their priority.

At this point in the process, most of my reflections and recommendations are drawn directly from the one-sided interviews with the informal vendors. Without the time to investigate the current political setting at the Municipality, I feel inadequate to provide actionable recommendations beyond what I know about the Local Area Plan. I would like to build upon this exploratory project to engage in both the critical discussions and the practical discussions on this particular intersection of sustainable development and the informal economy with the practitioners in Durban in the future.

# APPENDICES

## A. WARWICK JUNCTION URBAN RENEWAL PROJECT

### An overview of completed projects

Within three years of the Project being set up, the area had changed dramatically. Different Project interventions are dealt with in some depth in the chapters that follow. The timeline below gives an overview of the key Project milestones between 1995 and the present.

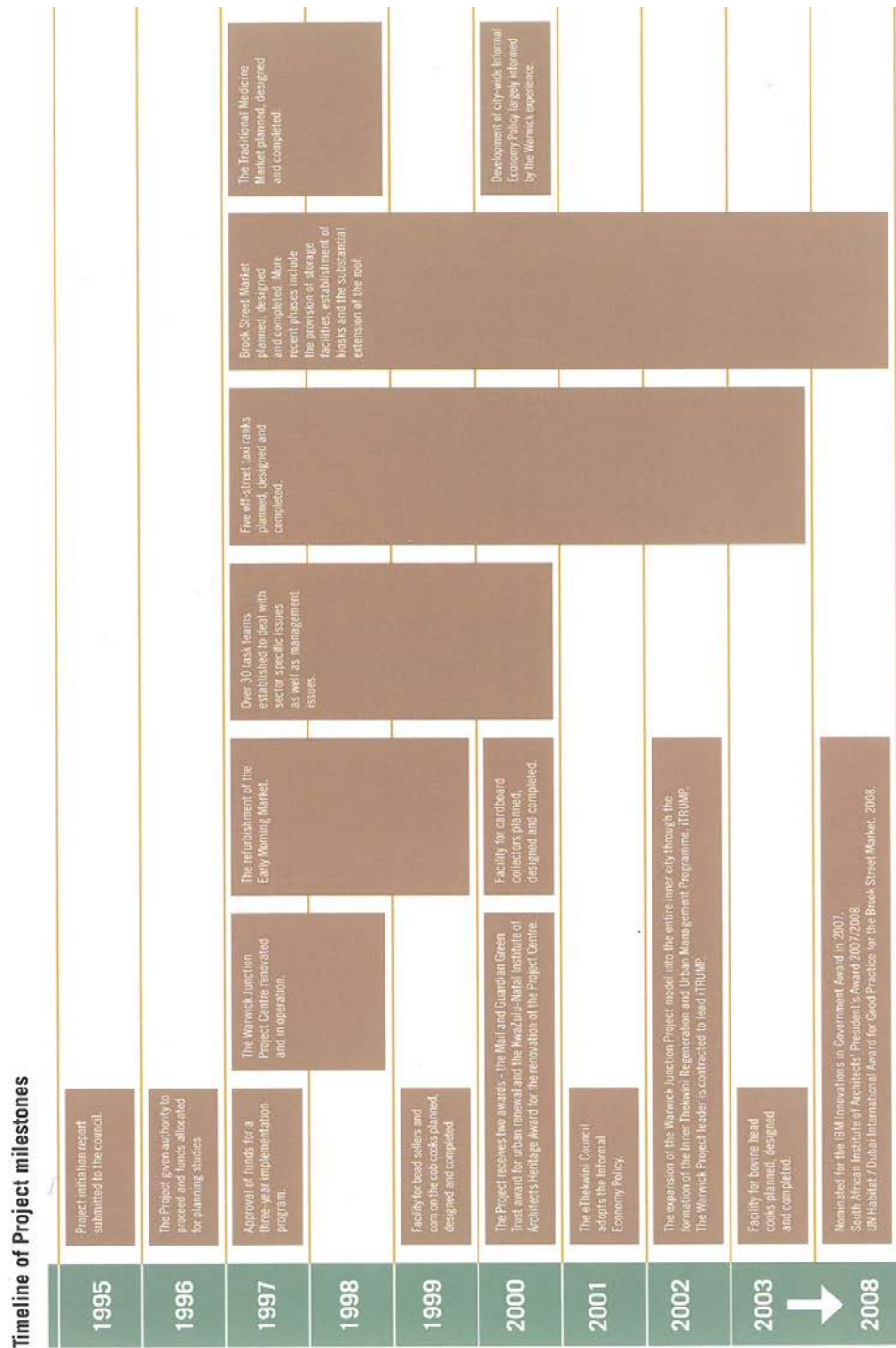


Figure A.1: Timeline and overview of the Warwick Junction Urban Renewal Project (Dobson et al. 2009, pg. 61)



## B. GOALS OF THE INNER CITY LOCAL AREA PLAN

**Table 2: Inner City Local Area Plan Goals**

<p><b>1. DENSIFICATION</b> The Population will have grown from approximately 70,000 in 2016 to 370,000 by 2040, with an ultimate total of 450,000 people.</p>	<p><b>2. JOBS</b> The total number of Jobs would have increased from approximately 100,000 in 2016 to 219,000 by 2040 with an ultimate total 250,000 jobs. This will constitute an increased share in sectors that reflect the City's specialisations, namely finance, advanced business services, health, education services, creative industries and tourism.</p>
<p><b>3. TOURISM</b> Durban will be placed on the map as a world class sporting and leisure destination, receiving 7 million visitors a year, an increase from 5,8 million in 2015<sup>1</sup> with a greater spend in the inner city, contributing to local economic growth and job creation. The City will have successfully hosted the Commonwealth Games and the Inner-City will have played a critical role in providing a range of tourism accommodation, experiences and activities from beach to cultural and heritage offerings.</p>	<p><b>4. TRADE</b> The improved connectivity networks, wider pavements and active market spaces will provide space for 80% more registered informal traders, increasing from approximately 8,000 in 2016 to 14,400, promoting sustainable local livelihoods through access to larger markets, smart city infrastructure and business support. All registered traders will have easy access to adequate facilities including clean ablutions, waste management and lockers for their goods.</p>
<p><b>5. WALKABLE</b> Every resident will be within a five minute (400 m) walk of food markets, childcare, health services and leisure, social, learning, open space and cultural infrastructure as well as public transport routes.</p>	<p><b>6. CONNECTED</b> The Inner City will be connected to the rest of the city via new and reconfigured, pedestrian friendly streets, new pedestrian and cycling networks, improved and varied public transport choices and an upgraded public realm. In 2016 31% of all trips into and out of the CBD were made by Private vehicle, 46% by public transport, 0% by bicycle and 22% walking. By 2040 the IRPTN network will have reached the Inner City and the people mover system will have been expanded to provide an Inner City distribution network which will have reduced the dominance of taxis and cars in the Inner City.</p>
<p><b>7. ACCOMMODATION</b> A well-functioning residential property market will provide a range of accommodation options for people across the socio-economic spectrum. Of all housing in the City, 40% will be a mix of social housing, GAP or affordable housing, delivered by a wide range of developers and partnerships, from the public, private, and not-for-profit sectors. Up to 10% will remain in state ownership, permanently affordable for the poor. New residential forms that accommodate innovative live/work/play arrangements will predominate.</p>	<p><b>8. SUSTAINABILITY</b> By 2040 90% of lighting, heating, ventilation and cooling (HVAC) and water heating equipment used in the Inner City will be energy efficient. By 2040 90% of buildings in the inner city will have grey water recycling systems and have implemented water conservation technologies.</p>

**Figure B.1:** LAP outline the eight broad goals  
(eThekweni Municipality, 2016)

## C. GUIDING QUESTIONS FOR CONDUCTING LEAN RESEARCH

Lean Research does not provide a set of rules to follow, but rather a guiding orientation to encourage innovation and continual improvement in research practice. From the way in which research questions are selected through implementation and dissemination of findings, there are opportunities to better align the research process with principles of rigor, respect, relevance and right-size. While different types of research will call for different implementation strategies, the following questions can be used to help guide an iterative process of incorporating the Lean Research principles into planned and current research activities.

### **Is our research rigorous?**

1. How do we know that our research adheres to the highest standards of our discipline or field of practice with regarding to research and instrument design, data collection, cleaning, and analysis? Who or what resources have we consulted to obtain input on our research design?
2. What steps are we taking to ensure the internal validity of the research?
3. If applicable, what steps are we taking to ensure the external validity of the research?
4. How are we designing and implementing our research process to ensure that the research is reproducible?
5. What steps will we take to clearly, accurately, and transparently report all relevant research results to stakeholders?
6. How are we protecting the data of the people who participate in the research?
7. If the research is an impact evaluation or trial, is it registered with AEA's social science registry? If the research is a Random Control Trial, is it registered with 3ie's RIDIE?
8. Will the research be reproduced or verified by an independent party? If there are no current plans for this, is the research conducted in a way that it can be easily verified?

### **Is our research respectful?**

1. How are we designing the informed consent process to ensure that research subjects receive all the information that they need in a way that is understandable to them in order to decide if they wish to participate in the research or not?
2. What are we doing to engage the research subjects, members of their communities, or similar populations (where appropriate) in the design of our study and our informed consent process?
3. What actions are we taking to ensure that the human subject feels truly free to reject participation in the study or to drop out of a study once it has started without fearing or experiencing negative consequences?
4. What actions are we taking to create an environment in which research subjects can enjoy and find meaning in the experience of participating in research?

5. Are we appropriately using existing information and knowledge that local host institutions may have? How are we helping local host institutions to obtain the information they need about the proposed study to determine if it is to their benefit to participate?
6. Have we determined culturally appropriate forms of compensating subjects and host institutions for their time and expenses, and have we consulted key stakeholders in this process?
7. If the study involves enumerators who are not on the core research team, how are we planning to train and compensate them and have we consulted relevant stakeholders in this plan? In addition to fair compensation, how else are we ensuring that enumerators experience the research process to be respectful, meaningful, and enjoyable?
8. What specific steps will we take to provide study subjects with opportunities to review and refute (if applicable) the study findings? Do we plan to publish any refutations along with our original research findings?

### **Is our research relevant?**

1. What process are we using to identify the research priorities of the research subjects and, if relevant, their communities? What criteria are we using to determine to what extent these priorities should be included in our research?
2. What secondary research have we done in order to assure us that primary research on the topic we are proposing is actually needed?
3. What steps are we taking to understand what aspects of the research local host institutions find most relevant and how are we factoring that into our research design and dissemination strategy?
4. Have we identified stakeholders in advance of the research project who have given input into how they would like to receive and use research findings? How are we incorporating this input into our research design?
5. Are the research subjects and the host institution able to clearly articulate the value of the proposed research study?
6. What steps will we take to communicate and share the research findings in ways that are understandable and accessible to all stakeholders, including research subjects?
7. Have we allocated time and budget to the process of disseminating research results to stakeholders and decision-makers at various levels?
8. Have decision-makers agreed or expressed interest in using research findings in advance of the study? After completion of the study, have decisions been made based on the findings?
9. Are we planning to share de-identified study data, if appropriate? With whom will we share it and how will we identify additional opportunities for the data to be used?
10. What approach will we use to understand the impact that the research has had (for example, on the decision, debate, issue or audience of interest)?

### **Is our research right-sized?**

1. How are we assessing which activities and questions are essential to the research objectives and which ones we can eliminate? Are we eliminating all non-essential protocol and questions?
2. What criteria are we using to assess how large (in terms of people or households involved) and costly it is reasonable for the study to be? Are we considering the relevance of the research question to key stakeholders and the type of decisions that will be informed by research results in making that assessment?
3. With input from various stakeholders, have we determined the length of time that is acceptable for an interview from the perspective of study participants? How are we designing our research protocols and instruments to ensure that interviews do not exceed this length of time?
4. If the research involves sampling, how are we selecting the sample to ensure that it is large enough, but not too large?

## D. QUESTIONNAIRE FOR PRODUCE VENDORS IN WARWICK JUNCTION

\* This questionnaire was used for the purpose of recording data. The interview was conducted as a conversation and recorded when permission was given. The diagram of the supply chain was shown to the interviewee to illustrate the question, which asked them to elaborate on the flow of produce between the farmers and their final vending location.

### Observations:

Male / Female

Retail vendor / Bulk vendor

Single-item inventory / diverse inventory

List of produce:

### Questions:

1. How long have you been trading at this location?
2. Where do you get your produce? Please tell us in as much detail as you can about how you buy your produce. Why do you do it this way?
  - A. Directly from farmers
  - B. From the bulk market
  - C. From the Early Morning Market
  - D. Other

Further details:



*Farmer*

3. What is your preference for selecting the supplier? What are the most difficult things about buying your produce? How did you get connected to the supplier? How do you contact the supplier?
4. Do you get to select your produce at the buying location?      Yes              No
5. Do you know the farms where the produce came from?      Yes              No
6. How does the produce get transported to you? Do you employ anyone to help with transportation?
7. Do you employ anyone to help selling at the stall?

## E. M.A. CHEN'S QUESTION FOR THE 3 DIMENSIONS OF INFORMALITY

Course: "The informal economy: Is the informal normal? Or is formalization the answer?", Harvard Kennedy School, DEV 375

You should then explore the degree of informality of the work by asking the worker/s about the following dimensions of their work, preferably in the following sequence (by increasing degree of sensitivity):

### 1. Promotion

- whether or not the worker/s receive any support services for their work and, if so, from what sources (government, private for-profit, non-profit)
  - financial services
  - business development services
  - marketing services
  - skills training
  - technology development

### 2. Protection

- whether or not the worker/s receive any social protection contributions through their work:
  - health insurance or health care
  - old age pension
  - disability or accident insurance or compensation
  - unemployment insurance
- whether or not the worker/s receive any worker benefits through their work:
  - minimum wage
  - overtime pays
  - paid sick leave
  - child care
  - maternity benefit

### 3. Regulation

- whether or not the unit they work in/for is registered
- whether or not the activities they do are regulated
- what kinds of taxes they pay



## F. OBSERVATIONS FROM THE DURBAN FRESH PRODUCE MARKET

Besides the standard procedure of buying from market agents, there are two other satellite operations that take place to serve different types of customers. First is the “Farmers’ Market”, which is a facility built “for small scale farmers whereby the farmer rents trading space for display and selling purposes. There is no commission levied and there are no market agents as farmers are required to sell their own produce (Durban Fresh Produce Market website).” Though upon speaking to several people, I realized that this Farmers’ Market doesn’t strictly follow the description online. At 9am, four hours before the official closing time, the entire market floor was empty except for a few tables belonging to one trader. She was not a farmer but rented the space to sell wholesale and retail, mostly to restaurants and caterers.<sup>56</sup> Turns out, farmers do use the space but mostly for a few hours early in the morning to sell as much as possible without paying commission before depositing the rest of their inventory with the market agents. When asked whether the farmers were indeed from small-scale farms, she gave an assertive “no”. Wholesalers took advantage of this space to purchase from farmers without any transportation cost and to set up shop at a central location. This woman liked the ability to select the produce herself and negotiate the price directly with farmers, which might be the reason why interviewee #10 explicitly said he preferred to buy at the Farmers’ Market.



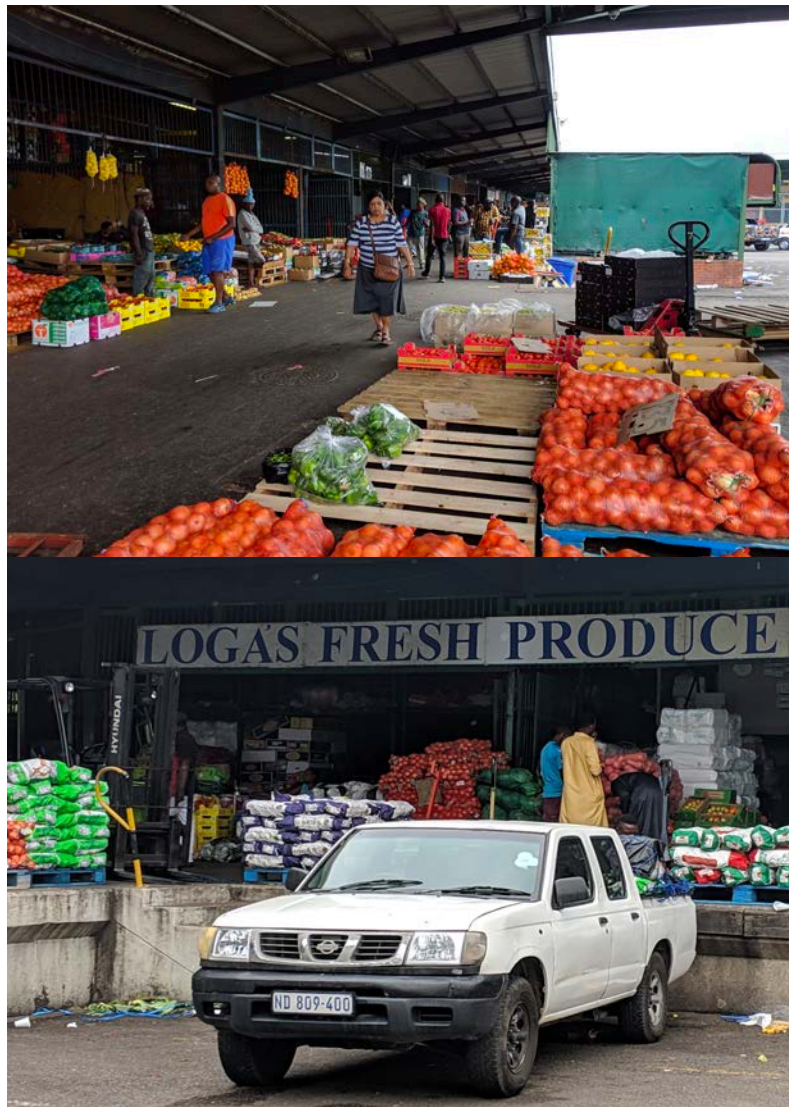
**Figure D.1:** Farmers’ Market at Durban Fresh Produce Market  
(source: eThekweni Municipality’s website)

The other satellite market is right outside of the Bulk Market sales hall. The “platform traders” are those who rent out storage units and turn them into a wholesale distribution center. They offer the same advantage to customers, which is the ability to personally select the products and dictate the

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<sup>56</sup> This interview was conducted for background in formation and did not follow the structure of the questionnaire. I explained my research intentions and asked for audio recording, but this interview is not part of the research sample.

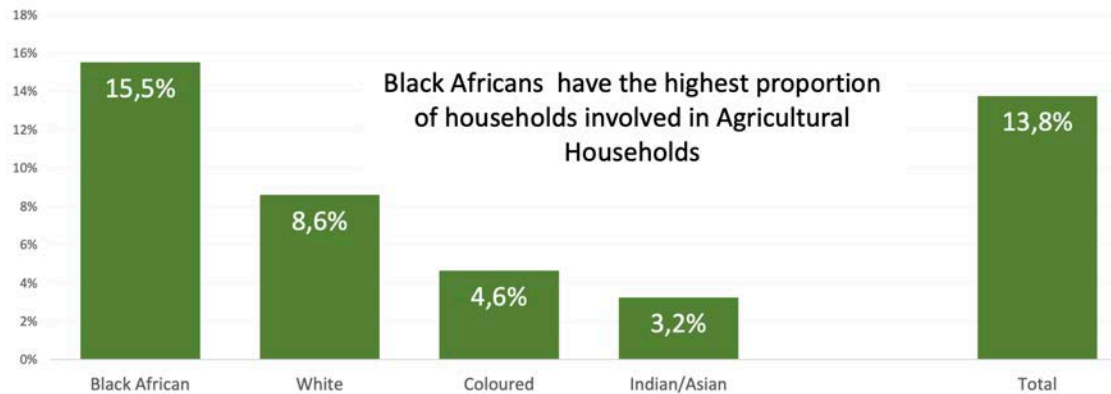
quantity. The price is marginally higher than buying direct from the Bulk Market, but I posit that many retailers at Warwick would prefer this option for the additional quality control at site of purchase. Many of them pointed out – and I noticed this on my very first visit – that most vendors at Warwick sell their goods at the same price, so the competitive edge is all about quality. Unfortunately, in our interviews people were vague about sourcing from the Bulk Market so we were unable to determine who preferred the market agent and who preferred the platform traders.



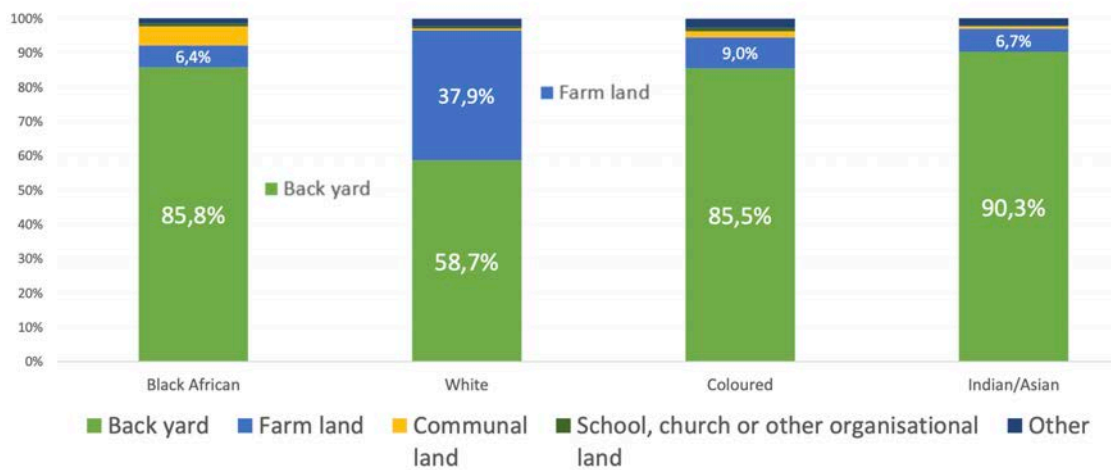
**Figure D.2:** Platform traders at Durban Fresh Produce Market  
(source: author's own photo)

## G. HOUSEHOLD AGRICULTURE STATS FROM S.A. 2016 COMMUNITY SURVEY

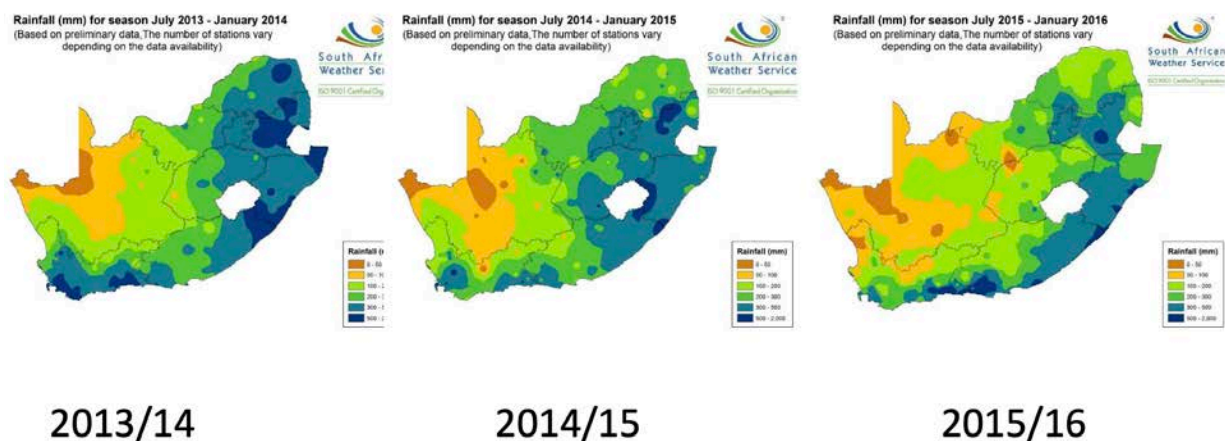
Source: Lehohla, P. (2016). Community survey 2016: agricultural households. *Statistics South Africa*.



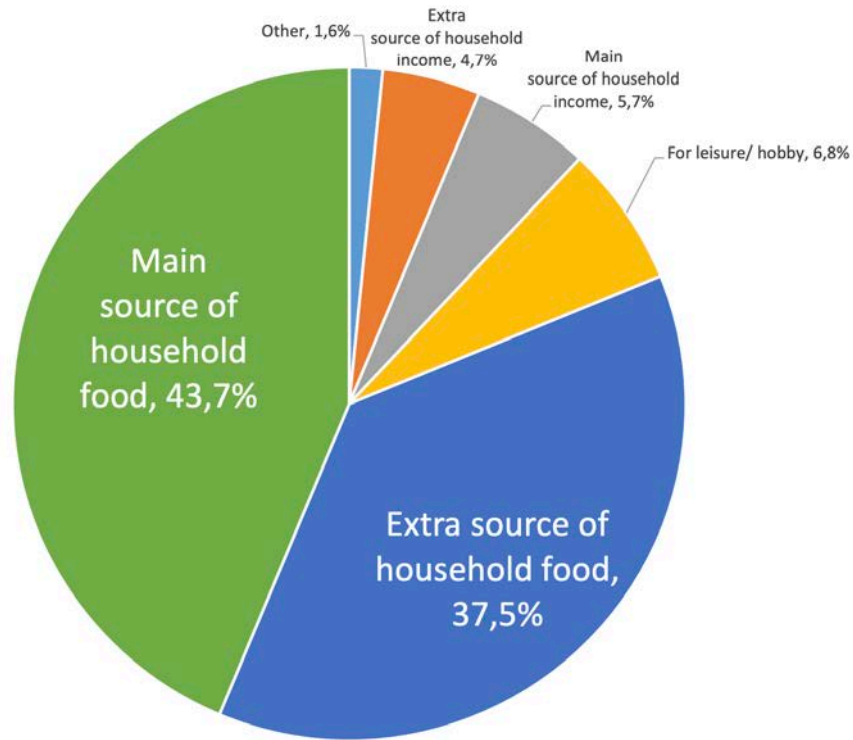
**Figure G.1:** Number of agricultural households by population group



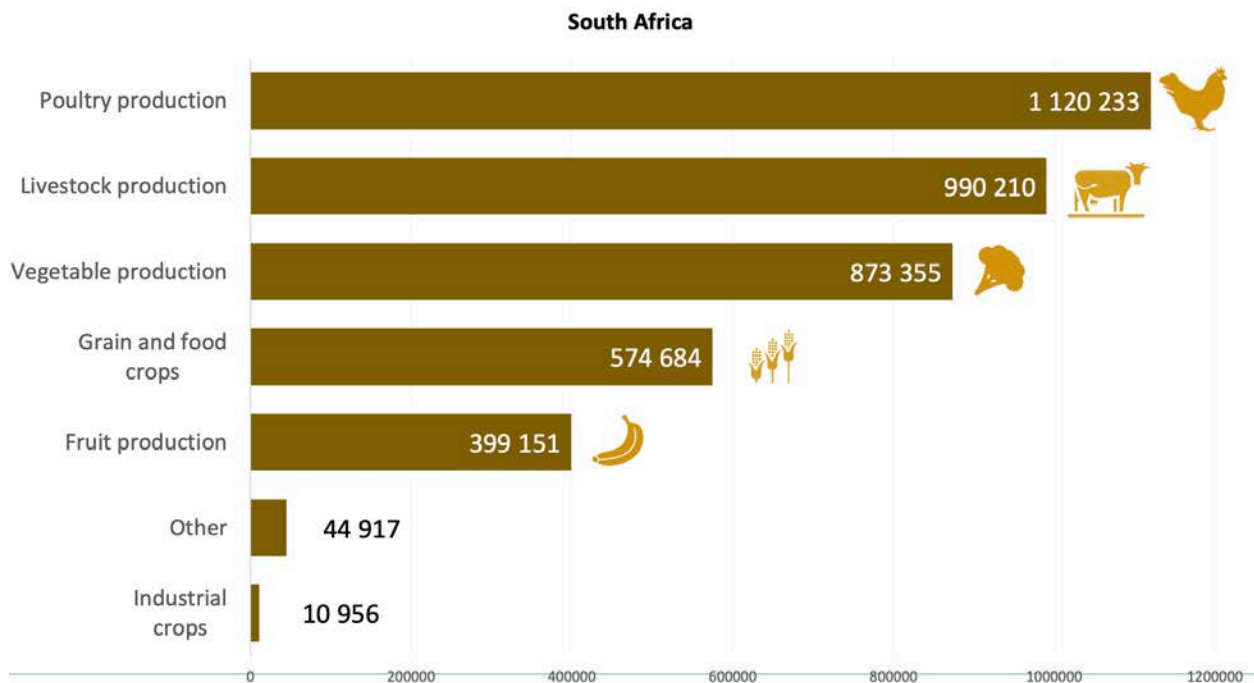
**Figure G.2:** Distribution of agricultural households by main place of agricultural activities and population group of the household head



**Figure G.3:** Drought situation in South Africa 2013-2016



**Figure G.4:** Main purpose of household agriculture



**Figure G.5:** Number of households engaged in different categories of agriculture in South Africa



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