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Mapping of Waste Pickers from the Old Districts on Hong Kong Island

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Abstract

Waste pickers, also known as 'Cardboard Grannies' in Hong Kong, are marginalized individuals who collect and sort recyclable materials. They play a critical role in the city's waste management system, particularly in the absence of a comprehensive recycling infrastructure. However, their contribution is often unrecognized and undervalued.

Hong Kong is densely populated, generating a significant amount of waste. The city's recycling rate remains low at around 31%. Waste pickers work in informal settings, facing health hazards and stigma due to their socio-economic status. Despite these challenges, they continue to collect recyclables and earn a meager income.

Hong Kong Island, especially in old districts, these areas are characterized by old-style residential buildings and a multitude of local markets. They are home to many grassroots individuals, particularly elderly people who do not live with their families. These elderly individuals lack the conditions to enter the formal labor market and do not receive daily care from their relatives. To make a living, they have no choice but to engage in the waste picking industry, which is a common phenomenon in older districts of Hong Kong.

Waste pickers working and the recycling industry in old districts are facing numerous challenges, such as urban redevelopment planned by the government, which will increase shop rents, and the improvement of local community economic connections.

In short, waste pickers in Hong Kong play a critical role in the city's waste management system, but their contribution is often unrecognized and underappreciated. They face daily challenges, including health hazards, physical dangers, and discrimination. This study aims to explore the following questions: First, why is there a relatively low level of societal attention towards recycling issues and waste pickers, despite the significant reliance on recycling workers in Hong Kong? Second, the study will examine the attitudes and perspectives of waste pickers towards their own industry. This may be influenced by government policies or the result of the current social structure and system in Hong Kong.

Introduction

In Hong Kong, there are individuals known as 'Cardboard Pickers' who engage in the collection and sorting of recyclable materials from various sources like public refuse collection points, streets, rubbish bins, and back alleys. These individuals, typically elderly people and janitors, often work in informal environments and face marginalization due to the nature of their work, challenging working conditions, their socio-economic background, limited education, and restricted access to social resources.

Waste pickers play a critical role in Hong Kong's waste management system.

Without a systematic atmosphere developed by the authority that is beneficial for citizens to recycle, many merchants rely on the daily recycling routine carried out by individual waste pickers. These individuals collect and sort recyclables, mostly cardboard, metals, that would otherwise end up in landfills. However, their contribution to the city's waste management system is often unrecognized and underappreciated. According to the research report conducted by the Hong Kong Waste Pickers NGO in 2018¹, the average weight collected per waste picking session is approximately 35 kg for those who waste pick daily. Based on this calculation, the total amount of waste collected by waste pickers in Hong Kong each day is estimated to be around 193,000kg, which is approximately 193 metric tons.

¹ Research done by Hong Kong Waste Pickers NGO in 2018 in chinese: https://newarrivals.org.hk/News/2783/Final_Report_Ragpicker_Research_2018.pdf

Hong Kong is one of the most densely populated cities in the world, with a population of over 7 million people². According to "Monitoring of Solid Waste in Hong Kong - Waste Statistics for 2021" published by The Environmental Protection Department (EPD), in 2021, landfills received a total of 5.67 million tonnes of solid waste, with an average daily amount of 15,533 tonnes. This represents a 5.4% increase compared to the previous year. Regarding MSW, the total quantity of disposal at landfills was 4.15 million tonnes and the average daily quantity was 11,358 tonnes, representing an increase of 5.1% from 2020³. The city's waste generation rate is also high, with each person generating 1.53 kilograms in 2021, up from 1.44 kilograms in 2020. Despite the city's efforts to promote recycling, the recycling rate in Hong Kong remains low, with only about 31% of waste being recycled.

Waste pickers in Hong Kong typically work in informal settings, they do not have an employer, and they usually work in the early morning or late at night, collecting recyclables from public bins and dumpsters. They then sell the materials to recycling companies for a profit. They have to roam busy streets and collect discarded items from various locations such as grocery shops, street markets, restaurants, and supermarkets. However, their work is not without challenges. Waste pickers face numerous health hazards and muscle strains due to the physical burden, such as repetitive lifting, sorting and organizing recyclable materials; and also the poor working conditions, such as exposure to hazardous materials, as well as physical dangers like falling into dumpsters or being hit by vehicles.

2 According to data from the World Population Review, Hong Kong is the fourth most densely populated city in the world, with a population density of 6,690 people per square kilometer. https://worldpopulationreview.com/country-locations/hong-kong-population

³ Food waste was still the largest component of MSW in 2021, accounting for 30 per cent, followed by waste plastics (21 per cent). These shares are comparable to those in 2020. Waste paper was the third largest component, accounting for 20 per cent, less than the corresponding share in 2020. https://www.info.gov.hk/gia/general/202212/29/P2022122900293.htm?fontSize=1

In addition, waste pickers in Hong Kong often experience stigma and discrimination due to their socio-economic status. Their income from waste picking is typically very low, and they are frequently perceived as poor, dirty, and uneducated. This stigma can make it challenging for waste pickers to access public spaces and facilities, such as rest areas, parks and washrooms.

Despite the challenges they face, waste pickers in Hong Kong continue to play an important role in the city's waste management system. Their work not only helps to reduce the amount of waste that ends up in landfills, but also provides a source of income.

In recent years, there has been growing recognition of the important role that waste pickers play in Hong Kong's waste management system. Non-governmental organizations (NGOs) and community groups have been working to raise awareness about the contributions of waste pickers and to advocate for their rights and welfare. However, it is evident that the resources of NGOs are limited. We can see that the NGOs working on this issue primarily focus on the New Territories and Kowloon, leaving Hong Kong Island with unique waste management and public space utilization challenges.

Hong Kong Island, the heart of the bustling metropolis, has witnessed a remarkable journey of consumerism and urbanization throughout its historical development.

From its beginnings as a British colony in the 19th century, there were frequent cargo ships and business activities among Hong Kong Island, and there were many tenement buildings, making it a densely populated residential area. Since the 1990s, Hong Kong has transformed rapidly into a commercial hub and an international financial center, with commercial activities mainly concentrated in Central and Wan Chai. Other old districts on Hong Kong Island have gradually become residential areas for working professionals. The island's strategic location and natural harbor attracted traders and merchants from around the world, leading to a flourishing trade industry. As the city grew, so did its consumer culture.

This rapid urbanization, coupled with a consumer-driven society, has contributed to Hong Kong Island's reputation as an international shopping destination. However, it has also presented challenges such as overcrowding, traffic congestion, and environmental concerns. Efforts are being made to preserve the island's historical landmarks and balance development with sustainable practices, as Hong Kong Island continues to evolve as a symbol of dynamic urbanization and consumerism.

This urbanization has also resulted in significant challenges, including the issue of waste management and the utilization of public space.

The research locations are situated in old districts of Hong Kong Island, near the economic center, which has attracted many people to reside here for convenient commuting to their workplaces with slightly cheaper rent compared to the economic center. Due to its advantageous geographical position, this area typically offers convenient transportation connections and abundant amenities. Residents can easily access commercial centers, office buildings, shopping malls, restaurants, and other recreational facilities. Moreover, there are quite an amount of elderly people living in these old districts, which make it more convenient for elderly people to engage in waste picking work. As the waste pickers are also the residents there, it has established a stable community economic network.

During the pandemic, many citizens enjoy visiting the old districts of Hong Kong to explore the heritage and seek out traditional establishments. However, it is disheartening to see news reports highlighting the hardships of waste pickers in these areas, with incidents of accidents and injuries. Unfortunately, most people have limited knowledge about their actual living conditions, the reasons behind their waste picking, and the social pressures they face.

Background of Recycling industry in Hong Kong

Recycling industry in old districts faces certain challenges, but without any support from the authority. The Redevelopment Proposal implemented by the Government has harmed the community economic network. During the 2010s, the Government established many redevelopment projects in Hong Kong that ended up being focused on real estate development, leading to the phenomenon of "gentrification" in many old neighborhoods. Gentrification does not necessarily destroy the culture itself, but rather the social connections among people within the community. For example, in the case of revitalizing Lee Tung Street(a famous hub for printing production)⁴, the Urban Renewal Authority transforms it into tourist attractions, the outcome is the rents in the area are skyrocketing, making it unaffordable for the original businesses and forcing them to leave, thus disrupting the community economic network.

 $[\]label{lem:https://hongkongfp.com/2016/02/01/wedding-card-st-to-be-turned-into-first-class-shopping-district-developers-accused-of-backtracking/$

It is obvious that the rental prices are high, even in old districts. Many of the private recycling shops on Hong Kong Island were established by the older generation in the early 1990s, and they have been passed down from generation to generation.

Therefore, it is difficult for this industry to expand.

The only policy addressing this obstacle is the 'The Recycling Fund', the government provides financial support to organizations and individuals for projects that promote recycling and waste reduction in Hong Kong. However, the approval process for this environmental fund is opaque and time-consuming. According to an audit report, from October 2015 to March of this year, a total of 3,865 applications were received for the recycling fund, of which 2,596 were approved, with a total funding amount of 855 million Hong Kong dollars. Within this period, 3,222 applications have been processed, and the Audit Commission found that 506 applications (16%) had processing times exceeding 180 days, ranging from 181 to 608 days (approximately 3 months to 1.6 years). The Environmental Protection Department stated that the prolonged processing time for some applications was due to applicants taking a long time to provide sufficient supporting documents or meet the application requirements. The Audit Commission believes that the Environmental Protection Department needs to take measures to expedite the processing of applications for the recycling fund.

Furthermore, the Hong Kong government is not particularly supportive of the private recycling industry. The only paper drink carton recycling plant in Hong Kong, 'Mil Mill', is facing eviction as it did not receive a lease renewal from the responsible The Hong Kong Science and Technology Parks Corporation(a public corporation set up by the Hong Kong Government). 'Mil Mill' has been actively involved in promoting environmental conservation, especially in paper recycling, and has garnered significant support from environmentally conscious citizens. The founder collaborated with over 30 district councilors(district bodies) to set up recycling points at different offices, and also created short videos to educate people on how to properly recycle paper drink cartons. This grassroots environmental education and waste sorting initiative has gained momentum, especially during the pandemic. The founder pointed out that the biggest challenge faced by the recycling industry is space because large machinery, logistics, and storage of goods all require physical space. He criticized the government for lacking long-term policies to provide stable development for the recycling industry. The Recycling Fund in Hong Kong is a financial support scheme aimed at promoting recycling initiatives. The fund consists of two programs: the Enterprise Support Programme (ESP) and the Industry Support Programme (ISP). The ESP supports projects initiated by enterprises, focusing on innovative technologies, equipment upgrades, and recycling promotion across various industries. The ISP supports industry organizations and associations in implementing projects that promote recycling and waste reduction within specific sectors. The fund has specific eligibility criteria, funding principles, and application processes, but the application process is not transparent. The company that received the biggest amount of funding of approved projects under the Enterprise

Support Programme is "On Fat Lung Innovative Resources Limited" with an approximate approved amount of \$1,012,820.51(USD) in 2023.

Literature and Policy Review

To fully encompass the recycling system in Hong Kong, it is inevitable to include the role of waste pickers in the discussion. According to Sonia Maria Dias(2016), in cities lacking a formal municipal recycling system, waste pickers play a crucial role by collecting recyclable materials and supplying them as raw materials to the formal recycling industry.

Hong Kong's situation is not favorable to develop a healthy system for all the recycling practitioners, and also the concepts on recycling. According to Carl A. Zimring, grassroots movements play a significant role in challenging the dominant paradigm of waste production and disposal. These movements often arise from local communities and advocate for sustainable waste management practices, emphasizing the reduction, reuse, and recycling of waste. The lack of a supportive community atmosphere, combined with the government's inaction in terms of policies, makes it challenging to foster a culture of environmental consciousness among citizens in Hong Kong. This, in turn, hampers efforts to improve the working conditions of waste pickers and waste pickers, and address their needs.

Reviewing the current Hong Kong legislation regarding recycling and environmental protection, there is no provision directly related to waste pickers. What's more, the implementation of the upcoming 'pay-as-you-throw' scheme⁵ (MSW Charging of households) by the Hong Kong government next year further puts janitors and waste pickers easily fall foul of the law. After the implementation of the waste charging scheme in April next year, citizens will be required to dispose of household waste in designated plastic bags. Failure to do so will be considered illegal. However, authorities have also stipulated that when cleaners discover non-compliant waste, they must first secure it in the designated bags. Otherwise, it will be considered illegal. This has raised concerns from the public, as it is seen as shifting the responsibility onto the cleaners and contradicting the principle of polluters paying for their actions. waste pickers who collect discarded cardboard and tin cans from shops on the streets may also face prosecution by the Food and Environmental Hygiene Department(FEHD). However, the government has not responded with specific details regarding the implementation process.

Keith Hart (1973) pointed out in his article on the informal economic system in Ghana that the main distinction between the formal and informal economy lies in the opportunities for income and whether the labor expended can obtain sustainable and fixed income returns. In simple terms, the formal economy allows workers to earn fixed wages (wage-earning), while the informal economy belongs to the realm of self-employment. As mentioned in the background, most waste pickers do not have stable job opportunities, and their labor often does not receive the deserved income returns. Therefore, the waste picking industry has long been classified as an informal

⁵ MSW Charging Scheme in 2024: https://www.mswcharging.gov.hk/en/

economic activity, mainly undertaken by socially vulnerable individuals such as the elderly, weak, disabled, and those unable to enter the formal economic market.

According to Kathleen M. Millar(2018), in Argentina, waste management is primarily the responsibility of local governments, and each municipality has its own waste management system. Cartoneros play a crucial role in the recycling chain in Argentina. They scavenge through waste to collect recyclable materials such as cardboard, plastic, and glass. Cartoneros often work in precarious conditions, facing social stigma and limited access to social security benefits, which are similar to Hong Kong's situation. However, there are more efforts to integrate cartoneros into **formal waste management systems** in Argentina. This includes providing them with better working conditions, access to protective equipment, and recognition for their contributions to recycling. Some municipalities have established partnerships with recycling cooperatives, where cartoneros can bring their collected materials for sorting and processing.

Neighboring regions such as Taiwan, which share a similar economic structure with Hong Kong, have implemented similar plans, according to Liu(2017), and at least the issue of waste picking is discussed among the public, government, and pressure groups. However, the Hong Kong society does not have any parallel to waste picking and environmental initiatives.

Nevertheless, environmental protection and sustainable development issues are gradually gaining attention globally, including in Hong Kong and other regions. This is also a challenge that global authorities need to address. For example, Hong Kong experienced its hottest summer in 2023, and in response to public pressure, the government began implementing guidelines for working in hot weather. Over time, there may be more discussions and actions related to waste picking and environmental initiatives, in order to better address these issues and promote sustainable development.

Research Methods

This research adopts a mixed method, comprising survey, in-depth interview and field study.

This study primarily adopts an ethnographic approach, employing qualitative research methods such as fieldwork and in-depth interviews. It is supplemented by a review of literature and data to document the life stories of elderly waste pickers in Hong Kong and delve into their lives and social roles.

Waste pickers are a relatively closed and marginalized group in society. Due to their marginalized status, they tend to be guarded towards unfamiliar individuals outside their community. Therefore, researchers find it challenging to obtain authentic information about the waste picking community through direct survey methods such as questionnaires or one-time interviews. Consequently, the ideal research approach involves direct engagement with the waste pickers, personal observation and experience of their work and living environment, establishing a relationship of trust, and ensuring that their voices are valued. Only through such means can the most genuine research data be obtained.

Research Locations

The research took place in the old districts of Hong Kong Island, namely Wan Chai, Tin Hau, Fortress Hill, North Point, Quarry Bay, Sai Wan Ho, Shau Kei Wan, and Chai Wan. These areas are characterized by old-style residential buildings and a multitude of local markets. They are home to many grassroots individuals, particularly elderly people who do not live with their families. These elderly individuals lack the conditions to enter the formal labor market and do not receive daily care from their relatives. To make a living, they have no choice but to engage in the waste picking industry, which is a common phenomenon in older districts of Hong Kong.

Research Questions

A total of 62 questionnaires were collected; 36 elderly waste pickers were interacted with and informal conversations were engaged in to gather research data through observation and active listening. While some questions had been prepared prior to each interview, the obtained information was not confined to the predefined questions. The following topics were discussed during the conversations:

- i) Reasons for involvement in the waste picking profession, often leading to discussions about the life experiences of the elderly waste pickers.
- ii) Job details of waste picking, including working hours, income, routes, and daily routines (meals, naps, etc.).
- iii) Interactions between waste pickers and non-waste pickers, including interactions with the general public, the government officials, shops nearby, etc.
- iv) Personal feelings and experiences of being engaged in the recycling industry.
- v) Challenges and obstacles faced by waste pickers working in Hong Kong society.

On the other hand, in-depth interviews especially target waste pickers who would like to share detailed working experiences, discovering their daily routines, income and expenses, and interpersonal and social connections. In addition, interviewing janitors, workers from the recycling industry and citizens would provide more information about the full picture of the recycling industry in Hong Kong, which helps synchronize the macro-examination of the discipline structure inside institutions and the social norms.

Findings

Part one: The phenomenon in Hong Kong

A total of 62 questionnaires were collected. The oldest waste picker is 83 years old, while the youngest is 56 years old. Among the interviewed waste pickers, **82.26%** were female. Out of the 62 respondents, 47 mentioned that they reside in the same district where they work as a waste picker. Additionally, two respondents stated that they used to work in the same district before retirement, and they returned to waste pick in the same area after retiring.

The diverse employment backgrounds and circumstances of the respondents reveal the impact of economic shifts, particularly the relocation of manufacturing industries to mainland China since China's reform and opening up in 1978, which reshaped the economic structure and growth in Hong Kong, which forced many individuals, including elderly workers, to transition into low-skilled occupations defined by the government.

27(43.5%) respondents have a full time job; among them, 22 of them are janitors. In addition, five respondents mentioned that they worked in the retail, food and beverage, and healthcare assistant industries. Other 35(56.5%) individuals without a full time job, 21 of them are elderly, ranging from 70 to 83 years old. 10 of these individuals claimed that when they were young, they were involved in the manufacturing industry, such as metalworking or plastic factories. However, as factories moved north to mainland China, they were forced to change careers and engage in low-skilled industries as defined by the government, such as security guards, cleaners, and construction site laborers. Upon reaching retirement age, they resorted to waste picking as a means of making a living.

Informal economy can help earn a living

Among all respondents, 36 of them give more detailed answers on their working conditions, and their understanding of the working status, i.e. how they perceive waste picking as a form of labor.

Regarding working conditions, almost all of them think the income from waste picking is low, and can afford the expense for food. More than half of the respondents reside in private properties, which prevents these elderly households from receiving the protection of Comprehensive Social Security Assistance (CSSA) and Elderly Living Allowance (ELA). This is because their sole asset, their property, exceeds the government's asset limit. Due to their limited income, they do not have extra money for leisure activities or unexpected expenses like medical bills.

One of the interviewees, Granny Chan, mentioned that her child can only afford little for her and her 85 years old husband's living expenses, waste picking is the only way for her(old woman) to earn more money for better choices of food).

Another interviewee Fong mentioned that, "nowadays, even a single meal costs over \$6.40USD. I can't even afford a meal by working for an hour. So, I collect things that people don't want. Instead of wasting them, I consider it as a way to help with our expenses."

Despite being an informal economic activity that is not socially sanctioned, the importance of waste picking for the lower class should not be suppressed. In fact, waste picking offers stability and employment opportunities for the underprivileged in society.

Dangerous and unpleasant working environment

29 of them agree waste picking can be dangerous, because they have to walk on the roads with vehicles passing by. At the same time, they also mentioned frequently handling cardboard in narrow, dark, and unclean alleyways areas, such as alleyways with rodent infestation. During the questionnaire process, some respondents would caution the interviewer to be careful not to touch dirty objects. Before selling the cardboards to the private recycling shops, waste pickers have to flatten the cardboard boxes. All of the respondents have a cutter, but only a few of them are wearing gloves. It is obvious that there are light cuts on their skins, made by cutters or cardboards. Based on observations, more than ten individuals have experienced finger and back bending due to their work as waste pickers. However, when asked about their physical condition, the waste pickers all claim that they can still "walk and move" without any major health issues.

Close to 90% of the waste pickers mentioned that they engage in waste picking activities within the district from as early as 5 am until 7 pm. Additionally, at least 10 individuals mentioned that they would linger on the streets during the early hours of the morning, hoping to seize the opportunity to collect cardboard.

Due to the serious issue of waste in Hong Kong, many reusable and recyclable items are being discarded without proper handling, 8 waste pickers stated that their duty is important to the society. However, they do not consider it as a formal occupation, so when asked about labor protection, they are unable to provide specific answers.

In-depth interviews with a full-time elderly waste picker

Granny Chan, is one of the members of the waste picking community located along the Seven Sisters Road in North Point. With over a decade of experience, she collects discarded cardboard boxes from nearby shops every day from morning until night. She then flattens the boxes and bundles them up, pushing them on a handcart to a recycling store, where she earns a return of \$0.09USD per kilogram of cardboard. She sells around 200 kilograms of cardboard per day, working tirelessly throughout the year without a day off. Despite her hard work, she only earns a monthly income of \$537.7USD.

The reason for 80-year-old Granny Chan's involvement in waste picking is that she used to work as a janitor at the Tseung Kwan O landfill. However, after the landfill reached its capacity, and changed to collect construction materials, she then was no longer able to work as a janitor there. Other job opportunities were also not accepting individuals in their 70s, as they were unable to purchase workers' insurance, and employers were not necessarily willing to take on that risk.

Granny Chan faces numerous difficulties in her cardboard collection work. She has experienced incidents where her handcart was stolen, and her cart was confiscated by the Food and Environmental Hygiene Department, resulting in a total loss of around \$76.83USD. The industry itself has low income, and with many competitors, it is inevitable that there are situations of competition for "business".

Granny Chan knows that without them, the situation would be dire, because she experienced the situation of 'waste paper siege' in 2017. At that time, mainland China raised the sanitary standards for imported waste, and Hong Kong's recycling industry was temporarily unable to comply. They also did not receive the necessary export permits for waste materials, resulting in a halt in the collection of paper and cardboard. As a result, the city faced a buildup of waste, leading to the phenomenon of the 'waste paper siege'. Granny Chan mentioned that, 'there are cardboard boxes everywhere on the streets. Just go to the alley behind McDonald's in the early morning and you'll see piles of cardboard. Without us collecting the cardboards, how would the government handle it? The landfills are already overflowing. In other countries, how many trees would be cut down? They know the importance of recycling, don't they?'

Granny Chan understands the significant role that waste pickers play in waste management and recycling, even though the work is challenging and often underappreciated. Although Chan's child has urged her to give up cardboard collecting, her child can only afford little for her and her 85 years old husband's living expenses.

Part two: Gentrification and waste picking

Gentrification, the process of urban revitalization often accompanied by rising property values and the displacement of lower-income residents, has far-reaching consequences for various marginalized communities. One such group profoundly affected by gentrification is waste pickers, who rely on informal waste management systems to sustain their livelihood.

Law enforcement against waste picking

52.8% of these waste pickers are using hand carts to transport cardboards. 13 of waste pickers have received warning notices from the Food and Environmental Hygiene Department, stating that their hand carts are obstructing the street. 6 of them had their hand carts confiscated and were unable to retrieve them.

The city has rigidly planned spaces that do not allow waste pickers to handle cardboard in public areas. It has led to complaints from the public about obstructed streets and the waste pickers being driven away by the Food and Environmental Hygiene Department (FEHD). The waste pickers often have to adjust their schedules, staying up late and waking up early to avoid encounters with the FEHD. All of these challenges are ultimately rooted in the lack of dedicated space for the waste pickers to carry out their work.

Case Study on Gentrification and waste picking: An In-depth interview with a janitor who engages in waste picking every day

Fong works as a janitor in a commercial building in Wan Chai. She used to work as a general worker in a printing shop on Lee Tung Street. However, when Lee Tung Street underwent redevelopment in 2006, due to the relocation and closure of all small businesses, Fong could not find another printing shop job duty, so she had to change her career path. She worked as an assistant in nearby street markets and also tried her hand in the food industry. As her physical strength began to decline, she transitioned to working in the cleaning industry, where she has been for approximately four years.

Her working hours are from 7 am to 5 pm. Every morning, she starts cleaning the offices and dumping the trash. At around 8:30 am, she pushes the collected waste paper and cardboard to a recycling store.

As a minimum wage worker(\$5.122USD/hour), she has a daughter who is currently studying in university, and they live together. She believes that her cleaning job only allows her to make a living, so she tries not to waste anything and engages in waste picking to supplement their household income.

Fong earns over \$7.68USD a day through waste picking, which is considered a good source of income since she is not a full-time waste picker. She mentions that most of the recycling stores nearby do not cheat the waste pickers because they are all neighbors. However, she has heard of some recycling store owners paying less to the waste pickers. 'The timid elderly ladies wouldn't dare to ask about the price of cardboard.'

Fong often witnesses arguments among the elderly who rely mainly on waste picking for income. She believes this reflects that their lives are not very good. 'We are all from the lower class, but we have no choice. There is so much cardboard, and we are afraid of being targeted by environmental enforcement. We have to be careful.'

'I think both waste pickers and janitors are good(in a good relationship). We should help each other because we are all in this together, just like how I help the elderly woman and she helps me carry plastic bottles to GREEN@COMMUNITY(the recycling center held by the government).

Fong has mentioned GREEN@COMMUNITY, it is funded by the government and then outsourced to different organizations. To encourage citizens to recycle, the center has implemented a point accumulation program that allows participants to exchange points for daily necessities such as toilet paper and oil. However, this program is not favored by waste pickers as they can immediately earn money by selling paper and metal at private recycling stores. Since private recycling stores do not accept plastic, waste pickers bring their plastic items to GREEN@COMMUNITY.

Fong agrees that GREEN@COMMUNITY is not a suitable place for waste pickers to recycle. Firstly, it is not conveniently located. Secondly, compared to specialized recycling stores, the entrance of GREEN@COMMUNITY is too narrow, and the electronic scale is too small, making it difficult to handle large quantities of cardboard from waste pickers. Thirdly, the point-based reward system is impractical for people in the lower income bracket.

Finally, when asked about the labor rights that waste pickers should have, Fong raised an issue she encountered during her full-time cleaning job. Her employer unreasonably canceled her seven days of annual leave and constantly terminated her contracts, leaving her without the guarantee of continuous employment. Not to mention the lack of contractual protection for waste picking.

'Waste picking can be considered self-employment, and it's a very flexible job, but that also means there's no security. As a janitor, I have a signed contract, but if my employer wants to make changes, they just do it, and as a result, I don't have any leave. I know that I have a chance to win if I take it to court, but if we miss a day of work, it means we miss a day of income, and that's a matter of survival!' Fong explained.

In-depth interviews with a private recycling shop that is facing challenges due to Gentrification

Mrs. Li operates a recycling shop in one of the old districts, Tin Hau, and she revealed to us that she constantly receives complaints from residents in the area, which has led to government authorities visiting her shop and even altering nearby road facilities to hinder her recycling business.

Mrs. Li's shop offered the highest price for recycling paper among other recycling shops in Tin Hau, offering HKD \$1 per kilogram of recyclable paper. This makes it a popular destination for waste pickers to sell their cardboard. She has been running this business at the same location for over 20 years. Two decades ago, her father's recycling shop was situated on the same street, but due to an urban redevelopment scheme, her father had to move to the current address, and then she took care of her father's recycling business.

However, in 2015, large upscale residential buildings began to be constructed next to her shop, and a hotel was built across the street. This significantly impacted her recycling business. She started to receive complaints from the residents everyday.

The staff from the Food and Environmental Hygiene Department came to Mrs. Li and told her there are several complaints from the residential area, saying Mrs.Li's recycling trucks are blocking the road, and also the residents think the recycling shop is dirty and noisy. As the interviewer's observation, Mrs.Li recycling shop stands out as the cleanest and most well-maintained among others. There is no clutter or debris piled up, which made it difficult for the interviewer to locate the shop initially, as it did not resemble a typical recycling shop.

To reduce noise during the recycling process, Mrs. Li adjusted her shop's opening hours to operate from 8:30 a.m. to 1:00 p.m. She also parked his two container trucks further away on a secluded road to avoid disturbing nearby residents. However, she continues to receive complaints, and residents even called in government officials from the Food and Environmental Hygiene Department and the Highways Department, requesting changes to the road section in front of Mr. Li's shop to designate it as a restricted area, preventing her from parking any vehicles for recycling.

Mrs. Li expressed her frustrations to us, believing that she has contributed to this industry for 30 years. Her father started the business, which thrived during Hong Kong's printing industry boom in the 1990s and has made significant contributions to the recycling industry. She firmly believes that the private recycling sector plays a crucial role, but the construction of luxury residences has made her business even more challenging.

She has experienced being fined HKD 4,000 per day because the Highways

Department changed the road section to a restricted area, resulting in her recycling vehicles being ticketed.

'They only know how to fine us and say residents complain. But they forget our contribution to recycling.' Mrs Li complained.

She has tried to approach the Environmental Protection Department directly with her concerns, but they always respond in a bureaucratic tone, telling her to just tolerate the situation. They only inform her before enforcement actions are taken so that her staff can drive the vehicles away and then return later when they have time to patrol the area.

Mrs. Li believes that this dialogue proves that the government actually needs private recycling shops to handle recyclable materials but fails to provide support for them.

Mrs. Li has directly asked the Environmental Protection Department if they can provide her with another location to operate her shop. She has the necessary machinery and two large trucks, which are essential facilities for recycling. However, they remain silent and offer no response.

Mrs. Li believes that waste pickers and the recycling industry are important parts of the community, contributing to the functioning of society. She also believes that the government's elderly pension benefits for low-income citizens are not substantial, and that waste picking can be a good way for them to supplement their household income. However, she feels that the government is suppressing these individuals. She believes that if things(suppression) continue like this, she will no longer be able to operate her business. She also doesn't want her next generation to take over the business and have to face complaints every day, as the nature of the work is demanding and unrewarding. Eventually, she will have to close down and retire.

Case Study 2: The two recycling shops are facing closure and transformation due to reconstruction

Interview 1: Mr. Leung, Recycling Shop in Quarry Bay

Mr. Leung used to have a physical recycling shop but lost it during the urban redevelopment plans in 2010. Currently, he operates three recycling trucks that visit various locations in the Hong Kong Island area, focusing on collecting cardboard from large supermarkets.

He believes that it is challenging to find another physical shop for his recycling business. It's difficult to rent a large space if you're not the property owner, and it's also costly to accommodate the necessary large-scale machinery and modify the shop to fit the size of the equipment.

After the eviction, Mr. Leung decided not to search for another physical shop and instead hired additional staff for on-site collection. He parks a large container truck in a nearby parking lot to receive cardboard from waste pickers.

'Indeed, I have lost many regular customers since I no longer have a physical shop.

But in reality, there are also fewer waste pickers coming to me because there are now many commercial buildings, and they tend to hire people to collect cardboard.

So, I have seen a decrease in customers.'

Interview 2: Mr. Wong, Recycling Shop in the Reconstruction Phase

Mr. Wong's recycling shop is currently in the early stages of reconstruction. The

neighboring hardware stores and printing factories have already relocated, and Mr.

Wong's shop, consisting of two units, is undergoing interior demolition. He currently

has one or two large container trucks parked outside the shop to handle recyclables

from waste pickers.

Mr. Wong mentioned that by the end of 2023, he needs to vacate the shop. He is actively searching for a new location but encounters significant challenges. Firstly, the two units were purchased properties, and the cash they received from the developers was not sufficient to purchase another new property suitable for recycling purposes.

Secondly, finding a place to accommodate all the recycling machinery is also challenging. The machines are large, and renting a suitable warehouse takes time and incurs significant expenses. If they can't find another physical shop, they will continue operating with the trucks or consider retiring directly.

Other Stakeholders

Shop Owners

Several shops located on Hong Kong Island have been visited, they tend to have partnerships with waste pickers. They place a vast amount of cardboard boxes outside their shops for the waste pickers to collect freely. Some shops that have a better relationship with the waste pickers even keep the cardboard boxes specifically for them and help to look after them. For the shops, this is a way to reduce the cost of handling product packaging, so they are generous in leaving the cardboard boxes for the waste pickers, almost like outsourcing the process to them.

Janitors

One of the interviewees, Fong, knows many other waste pickers in the neighborhood because she lives in the same area. She has contact with an elderly waste picker mainly because the elderly woman's family opposes her engaging in waste picking. However, the elderly woman wishes to have some savings and not be a burden to others. Fong helps the elderly woman by pushing her collected cardboard to the back alley. "There are some shops that the elderly woman is more familiar with, so the shops leave some cardboard and soda cans for her. I help her take them to the back alley and wait for her to collect them."

Fong often witnesses arguments among the elderly who rely mainly on waste picking for income. She believes this reflects that their lives are not very good. She believes that better communication between waste pickers and cleaners, and avoiding complaints from food safety and residents, would be a better strategy. 'We are all from the lower class, but we have no choice. There is so much cardboard, and we are afraid of being targeted by environmental enforcement. We have to be careful.'

Conclusion and Recommendations

Challenges of Environment and Society

There is no denying that the lack of formal regulation in the current private waste recycling network presents various difficulties. Problems such as overloaded transportation, inadequate labor protection, and pollution caused by small workshops involved in resource recycling are complex issues that cannot be easily resolved by relying solely on the capabilities of the informal waste management system.

Recycling is an essential component of sustainable waste management, contributing to environmental conservation and resource preservation. However, the effectiveness of recycling initiatives heavily relies on the policies and regulations implemented by governments. In this regard, it is crucial for governments to review their recycling policies to ensure they align with current environmental challenges and address the needs of all stakeholders, including waste pickers. This essay explores the reasons why the government should review its recycling policy and how such a review can bring significant benefits to waste pickers.

It is essential to consider whether it is fair to exclude informal practitioners before the government's planned formalized recycling system is fully established. Instead of completely disregarding the informal waste management system, is it possible to explore and incorporate valuable practices found within it? Rather than adopting a one-size-fits-all approach, there are different possibilities for identifying and utilizing beneficial practices within the private waste management system while awaiting the development of a formalized recycling system.

Reviewing recycling policies

Reviewing recycling policies presents an opportunity for the government to invest in training and capacity-building programs for waste pickers. These programs can focus on enhancing their knowledge of waste management practices, recycling techniques, and occupational health and safety. By providing waste pickers with the necessary skills and knowledge, the government can improve their efficiency, increase the quality of recyclables collected, and open up additional incomegenerating opportunities.

Government recycling policies should include financial incentives and support mechanisms for waste pickers. This can include offering subsidies or grants to assist waste pickers in acquiring necessary equipment, such as protective gear, collection tools, or transportation vehicles. Additionally, the government can establish fair pricing mechanisms to ensure waste pickers receive adequate compensation for the recyclables they collect. These financial incentives and support mechanisms would enable waste pickers to sustain their livelihoods and improve their socio-economic conditions.

The first step in addressing mentioned challenges of waste picking is recognizing waste pickers' rights as essential contributors to waste management systems. Governments should acknowledge the valuable role waste pickers play in recycling and waste reduction and provide legal protection for their activities. This includes granting them access to waste collection sites, ensuring their safety and well-being, and recognizing their right to earn a dignified livelihood. Moreover, the government should prioritize community development initiatives in areas affected by gentrification. For instance, the authorities should actively foster partnerships and collaborations between waste pickers and other stakeholders, such as formal waste management companies, recycling industries, and non-profit organizations. These collaborations can provide waste pickers with access to resources, training, and market opportunities. Additionally, governments can support initiatives that can ensure waste pickers can work safely and receive fair compensation for their work.

Cardboard grannies in the house: A second thought on a co-run recycling operative by waste pickers in redeveloping communities

While waste pickers, even if not all, assert the significance of building a wastepickers friendly community, as we strolled through and between some brand new
glamorous commercial complexes and nearby aging residential buildings, the
slimmer skyline being blocked by the high-rise constructs have made us pause and
think: what needs to be advocated for both recycling shops and waste pickers as
renewal continues its way?

When being asked about some of the favorable things about taking part in wastepicking, waste pickers from time to time cite work with flexible hours and convenient
location. A recycling shop in the neighborhood is always preferred, with that waste
pickers have saved considerable time commuting across districts, especially when
they are crucial caretakers of their own families. In the talks around workers' rights
and working conditions of waste pickers over the years, views over setting up of a
proper working space for the waste pickers to finish their work and also rest have
been solicited, a socially inclusive waste management hub⁶ has also been proposed.
With at least 15 redevelopment projects⁷ that are already underway or are about to
commence in the coming years and even decades on Hong Kong Island, a dramatic
transformation of the community is quite foreseeable, what is a better and viable
option in the eyes of waste pickers in this transition period? Does becoming a
material provider and collector as well as recycling shop operator sound like a good
idea to the waste pickers, and could such transition turn into co-benefitting the
recycling shop owners, workers and the community that is being served?

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⁶ The Hong Kong Polytechnic University, Report on the Design Project of the Socially Inclusive Waste Management Hub, 2020: https://www.polyujcsoinno.hk/images/content/programme/Action-Project/S2_WasteMgt/Report.pdf 7 Urban Renewal Authority: https://www.ura.org.hk/en/project/redevelopment

As we push for reassessment of the allocation of Recycling Fund, we propose a portion of it to be utilized for launching a pilot scheme supporting waste pickers to run a recycling station. We have seen waste pickers mastering over paper press machine, placing the stacking cardboards onto the machine, and closely observing the transporting of the materials they have brought while being safety conscious, waste pickers can excel not just in collection and organizing of recyclables, but also the operation of a recycling facility, when proper and regular on-the-job and OSH training is available to them. On the other hand, waste pickers could serve the role as recycling shop workers, years of experience of handling with recyclables have equipped them with essential skills and know-how to pick up work of similar nature, this ultimately eases labor shortage in the recycling industry. To waste pickers, it is switching to a new yet familiar occupation. Most of the redevelopment projects have ended up turning "old community" into modern and advanced districts dedicated to commercial land uses, or often comes with a massive real estate development. Like the rest of the world, urban renewal in Hong Kong is also highly controversial for its displacement of low income and minority groups, coupled with uprooting their ways of living. We want to bring in a new perspective to how the community can choose to respond prior to the commencement of redevelopment projects, during which waste pickers, recycling industry can help reshape the design and redevelopment of a district ensuring its members have equal access to well-being, rights and opportunities.

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Appendix

Hong Kong policies summary related to Environmental Protection

Waste Disposal (Amendment) Ordinance:

This ordinance aims to promote waste reduction and recycling by implementing a mandatory producer responsibility scheme (PRS) for specified products, including electrical appliances, batteries, and regulated consumer goods. The PRS holds producers accountable for the collection, recycling, and proper disposal of their products.

Waste Reduction Framework Plan:

The Waste Reduction Framework Plan sets out the government's strategies and targets for waste reduction, recycling, and waste-to-energy conversion in Hong Kong. It focuses on promoting waste reduction at source, enhancing recycling infrastructure, and strengthening public education and community involvement in waste management.

Recycling Fund:

The Recycling Fund provides financial support to organizations and individuals for projects that promote recycling and waste reduction in Hong Kong. It aims to encourage innovation and the development of sustainable waste management practices.

Producer Responsibility Schemes (PRS):

Hong Kong has implemented several PRSs to tackle specific waste streams. For example, the PRS on Glass Beverage Containers requires beverage manufacturers to pay a levy based on the number of glass beverage containers they produce or import, supporting the recycling and proper disposal of these items.

Environmental Levy Scheme on Plastic Shopping Bags:

This scheme imposes a charge on retailers for providing plastic shopping bags, aiming to reduce plastic bag consumption and encourage the use of reusable bags. The revenue generated from the levy is used to fund environmental initiatives and public education programs.

Waste Electrical and Electronic Equipment (WEEE) Recycling Program:

The WEEE Recycling Program encourages the proper disposal and recycling of electrical and electronic equipment. It provides collection points throughout Hong Kong where residents can drop off their unwanted electronic items for recycling, reducing the amount of electronic waste sent to landfills.