



Roles of Women in Living Income: Coping Strategies and Perception of Waste Collectors in Battambang Town, Battambang Province

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ABSTRACT

Purpose of the study: This research study aims to explore the specific roles women play in this field, the disparities they face compared to men, and their coping mechanisms.

Methodology: A mixed-methods approach was used for this research, combining quantitative data from household surveys and desk reviews with qualitative data from key informant interviews. The study reviewed relevant research papers, articles, and reports, including project progress reports, published journals, guidelines and policies related to waste collection, and research reports from other researchers and policymakers.

Main Findings: The research findings revealed that women's family status significantly impacts their economic decisions, often leading them to work for pay to support their families. Household surveys showed that women comprised 64% of respondents, and 54% had no schooling. Additionally, 37% of respondents were aware of women's roles in providing for their families, while key informant interviews with community organizations confirmed this understanding. While the study found that 60% of respondents believed that increased women's rights would not compromise men's rights, 40% disagreed. Some respondents expressed concerns about men losing their privileges if women gained more rights. However, the study concluded that women's contributions to household income should be valued more, and that collaborative efforts are needed to achieve gender empowerment and economic management.

Novelty/Originality of this study: Through this research, the master plans for solid waste management will be developed and the partnership with private sector will be strengthened to improve waste management practices and increase income for waste collectors.

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1. INTRODUCTION

Cambodia is a less developed country with a rapidly growing population, estimated at more than 15 million people [1]. This census also shows that from 2008 to 2019, the number of populations has increased around 14.1% (only 11 years). And it is growing at least 1.2% each year. The annual growth rates in Phnom Penh and Preah Sihanouk are 3.2% and 2.8% respectively. Banteay Meanchey, with its special development zone (Paoy Paet), also remains a target province for migration and has absorbed migrants from other provinces seeking economic opportunities. Populations have increased for most of the provinces and cities, except Kampong Cham

and Battambang where the growth rate has become negative. At the same time, the population is becoming increasingly urbanized, resulting in more waste generation, concentrated in urban areas. People tend to go to the city for years to study as well as find job opportunities while their homeland has no jobs for them.

According to the Asian Development Bank [2], there is an estimated 90% informal employment in non-agricultural employment in Cambodia. Across the economy, most women in Cambodia continue to be employed in low-wage jobs with little security earning on average 30% less than male colleagues [3]. Women tend to work more often in the informal economy than men in the majority of countries. It is likely that this gender difference would be larger if we accounted for the informal agricultural economy, for which data is not available. Women spend substantially more time than men on unpaid care work [4].

In addition to making major contributions to the economic growth of their households and communities, women play critical roles in the generation of revenue. Notwithstanding these accomplishments, women frequently encounter obstacles such as restricted access to resources, cultural expectations, and unequal chances. Improving their economic involvement and guaranteeing sustainable growth need addressing these obstacles. With the exception of women's concerns about various forms of physical security, men and women perceive drivers and important impacts quite differently, despite notable distinctions between them when it comes to entering (informal) labor. Additionally, they show that the degree of organization in the industry and the symbolic assets owned by workers had a stronger influence on the levels of activity among waste pickers, with gender having a moderate effect. The results also show how gendered power dynamics function in the informal recycling industry and how various sector organization and development levels frequently lead to chances for collective action, which in turn reduces gendered vulnerabilities [5].

Women and men in informal employment are those who work in jobs that are not regulated by the government and are not protected by labor laws. These jobs are often low-paying and lack benefits such as health insurance or paid time off. According to the International Labour Organization [6], women make up a larger share of informal employment than men in most regions of the world [6]. One of the most varied and little-known forms of informal employment is that of women engaged in rubbish picking. Those who perform the initial collecting or sorting of waste products that have been "cast aside" are known as waste pickers [6]. These personnel usually go straight to homes, businesses or commercial buildings, municipal landfills, and other kinds of public spaces (such as streets, parks, or waterways) to gather undesirable materials. Some rubbish pickers even work as waste sorters in warehouses, especially those who have organized into worker cooperatives [5].

According to the international statistical standards adopted by the 15th International Conference of Labour Statisticians (ICLS), the informal sector consists of a subset of unincorporated enterprises (i.e. not constituted as separate legal entities independent of their owners) that are also not registered with a national government authority [6]. Most informal enterprises are single-person operations or family firms/farms; very few are owned or operated by employers with hired workers. Typically, they operate at a low level of organization, on a small scale and with little or no division between labor and capital as factors of production. Households with persons working in a farm or private business in which the destination of production is wholly for own final use are excluded from the scope of the informal sector but included as part of the household sector.

Gender disparities within the waste-picking industry expose at least three types of oppression that affect women waste pickers' pay, physical well-being, and political engagement prospects. On the one hand, because of their working conditions, female waste pickers may not have access to the highest-value recyclables, may receive less money for the same recyclables that men collect, and may be exposed to more health risks due to handling waste and/or working in unsanitary conditions [7]-[9]. In addition, women are less likely than males to hold positions of responsibility inside their organizations, and even when they do, they might not be treated with the same respect. Women appear to participate more at the local and community levels, as noted by Muller and Scheinberg [9], and gender differences become more pronounced the further away from the community and the more formal the environment [5].

A report by the United Nations Environment Programme (UNEP) [10] that discusses the importance of gender dynamics in waste management. The report states that women can take an immediate leadership role in the minimization and separation of household waste, but men also need to become involved and take on a greater share of household responsibility for domestic waste management [10].

The gendered division of labor in the waste management sector reflects traditional stereotypes of male and female roles in everyday life, which means it often goes unnoticed because it simply mirrors what is seen elsewhere. This is the "Gender and waste nexus", which refers to the gender and inequalities in waste management that reinforce and even justify gender inequalities in society at large. Changing attitudes about gender norms through awareness-raising campaigns, training, and research to collect sex and gender-disaggregated data are crucial to addressing gender inequality in the waste sector [10]. The World Bank has also published a report on Cambodia's Solid Waste and Plastic Management Improvement Project. The report highlights the challenges at each stage of waste management: collection, disposal and recycling [11]. Women and children in the informal waste sector face multiple challenges.

According to an article by Cambodian's, Cambodian's perception of waste is poor and informal sector jobs are unpopular. There is a clear lack of understanding of the informal sector, given the lack of awareness and appreciation of people working this job and the job itself. Informal waste pickers had the least rewarding job but one with big health risks [12].

Women and men have different social roles and are expected to perform in different positions or types of work and gender roles in society means how we are expected to act, speak, dress, groom, and conduct ourselves based upon our assigned sex. For example, girls and women are generally expected to dress in typically feminine ways and be polite, accommodating and nurturing (plannedparenthood.org). Thus, they are in diverse types of occupation with varied roles and responsibilities that create gender differentiated exposure to risks. For example, in solid waste management, women are often the pickers/collectors of waste, while men are mostly transporters. Thus, women are more vulnerable to exposure to waste, and hence require improved protection and training in handling waste.

Women play both traditional and transitional important roles in supporting family income. The traditional role is the role of women as wives, mothers, and household leaders while the transitional roles as workers and community members. As workers, women are actively involved in supplementing the family income with available skills and jobs. Women's contributions to family income have been essential in abating the effects of stuck or stalled family income growth. Simply, women's participation in the workforce has made the key difference for middle-class families and more vulnerable families on the brink [13].

Not only women have bigger needs of urban environmental services as well as different needs from men, but they also have greater difficulty in accessing them. Women normally have less education than men, get fewer opportunities to improve their skills and on average receive less wage than men. Urban women have greater access to services and infrastructure, more opportunities to engage in paid employment, and are subject to fewer sociocultural restrictions than women living in rural areas. However, they do not benefit equally with men in urban environments [14].

The informal waste pickers in the proposed study areas are living in poverty where livelihood is mainly dependent on the daily to day work in the landfill. Their lives cannot be improved unless anything changes in the way they live their lives. In fact, women work as informal waste collectors, women of waste were created by women to advocate for and spotlight women's work and achievements in the waste management sector. Women are well-represented at the lowest levels of the waste value chain-such as informal waste collectors-but are noticeably absent from the other levels. Additionally, women informal waste collectors are also more likely to experience sexual harassment and gender-based violence [15].

According to a source, waste pickers collect organic matter for composting and biogas in Belo Horizonte, Brazil and Nakuru, Kenya, Material is sold to artists and groups to work with. Others profit from waste pickers' work, many waste pickers sell to buyers, who then sell the material for a profit [4]. In Battambang town, Battambang province, Cambodia, this research study aims to investigate the perspectives and experiences of men and women who work as informal waste collectors regarding the roles of women for earning living income for the family. The following are the paper's specific goals is women gained the opportunity to make income for a living and to be overrepresented in vulnerable, informal jobs such as rubbish collection, with a focus on the roles that women play in earning a living and to investigate the disparities between the gender in the difficulties faced by these workers and their coping mechanisms for enduring such circumstances.

Waste management is closely linked to the level of development of each country and is linked to economic growth, industrialization and urbanization. On a global scale, food and green waste make up around 44% while dry recyclable waste is around 38% [16]. Poor waste management causes many problems to daily life such as health, productivity, community cleanliness, environment and biodiversity, etc. Women play an important role in the process of waste management and livelihood. In the informal sector, women are often overrepresented in the waste sector and are more likely to be involved in sorting and recycling.

In Asian Least Developed Countries (LDCs) such as Afghanistan, Bangladesh, Bhutan, Cambodia, Lao People's Democratic Republic, Myanmar, Nepal, Timor-Leste, Yemen are generated organic waste about 65% and other waste around 35% [17]. In many countries, waste collection is done door-to-door by small trucks or small vehicles. In limited space areas, people use handcarts or donkeys, motorbikes or tricycles to transport waste from household or small business sites. People use different methods or systems to collect waste such as: door-to-door, by block or container collection methods and so on [16]. And some countries also divide into different sites such as: urban, around the city and suburban areas (through waste collection map) by using different methods and transportation/facilities to collect the waste. One case in Indonesia for commercials and industries that need to be responsible for collecting waste and transporting them to dumpsite by themselves and for hazardous waste is responsible by the government for one way direct to the final dump site for treatment [18].

The disposal site is also different from one country to another country. For some countries using open dumpsites, it is found still not meeting with sanitary standards. Therefore, solid waste generation through reduction, reuse, recycling, treatment, and disposal strategies need to improve. To address challenges in solid waste

management, most countries in ASEAN are trying to work on 3Rs programs including compost, recovery waste, and waste bank, etc.

In Cambodia, waste disposal still mixes even though some households sometimes separate recyclable waste for reuse or sales [19] and increasing waste generation requires more landfill sites for dumping the waste [20]. Scavengers (street and dump site scavengers) also play an important role in waste segregation [19]. Managing waste in growing urban cities is an increasing challenge day by day. Waste management is one of the basic essential services provided by local authorities and regulated bodies. Solid waste management includes collection, segregation, sorting, treatment, transportation, and final disposal. Along with the formal sector, the informal bodies are also active in Nepal. Informal waste workers are contributing to waste minimization and promoting environmental justice by involving in recycling activities [15].

2. LITERATURE REVIEW

2.1. Gender Aspect

The Ministry of Women's Affairs (MoWA) of the Royal Government of Cambodia (RGC), which was founded by royal decree in 2004, developed the section on women's roles in generating money for family livelihood that was examined for the strategic plan. The mission of MoWA is to uphold and defend the rights of women in Cambodia in conformity with its Neary Rattanak policy, which is presently in its third phase and runs from 2009 to 2013. In order to carry out its mandate, MoWA collaborates with other development partners via the Technical Working Group on Gender (TWG-G) and with RGC line ministries through Gender Mainstreaming Action Groups [21].

In order to propose policy measures covering adaptation and mitigation, cross-cutting agendas, institutional, organizational, and human capacity development, research and development, financing, monitoring, and evaluation, this sectoral review aims to assess climate change vulnerability and adaptation capacities from a gender perspective. In the sector review, the gender perspective on economic development will be examined, and the results will be used to suggest how gender influences the susceptibility, adaptation, and mitigation of climate change.

- **Women's contribution to social development context:** Women in Cambodia, irrespective of age, engage in economic development activities up to the age of 65. the rate of labor force participation by age groups, sex, and place of residence over a five-year period. According to Labor and Social Trends in Cambodia (2010), the percentage of women in the labor force who are over 65 ranges from 45.2% to 88% for those in the 35–44 age range. With the exception of the 15–24 age group, where the Labor Force Participation Rate (LFPR) is 63.2 percent, showing greater school dropout rates for girls, men's are higher than women's in every age group.
- **Make sure that adaptive actions are focused on increasing women's asset bases:** This is because people's ability to respond to climate change and their ability to be affected by it is largely determined by their assets. Therefore, interventions aimed at enhancing women's adaptive capacities must support women's access to land, credit, education, and other reproductive and productive resources.
- **Ensure mitigation and adaptation efforts also address sources of gender-based vulnerability, poverty and gender inequality.** Responses to climate change must address the historical and contemporary disadvantages faced by women. As a result, policy and programming should acknowledge that gender equality and women's empowerment are important for family and community well-being and livelihoods, and they play a crucial role in fostering the resilience of economies and communities due to their central role in environmental, social, and economic development.
- **Conduct an in-depth and evidence-based analysis of women's and men's roles in sectors impacted by, and their strategies for coping with, family income,** enhanced comprehension of the roles, abilities, and information possessed by men and women will serve as a strong foundation for policies and initiatives designed to tackle the distinct effects of climate change on the two genders.

The Ministry of Women's Affairs (MoWA) is tasked by the government with enhancing women's status through the implementation of policies that prioritize economic empowerment, improved educational opportunities, legal protection, improved health outcomes, female participation in decision-making, and gender mainstreaming in program and policy changes. Developing institutional strength and ability for gender equality is another one of MoWA's main areas of concentration for its Five Years Strategic Plan (2014–2018). In all areas of development, the Royal Government of Cambodia has shown a strong commitment to advancing women's empowerment and gender equality. In order to guarantee inclusivity for all and that no one is left behind, this will require concerted efforts and cooperation from all pertinent government entities, non-governmental organizations, civil societies, and the commercial sector [21].

2.2. Women Changing Roles In Family Labor Force

In Cambodia, there is still a gender disparity in productive and dignified labor notwithstanding a drop in the difference in human capital. In addition to the disadvantages of having fewer jobs available, more precarious work, and an unpaid work load, women in the labor market suffer greatly from the gender employment gap because, even in cases where they do find employment, their pay is lower than that of men [2].

The primary barriers to employment for women are the responsibilities of caring for others and doing household chores, as well as their comparatively restricted access to resources such as government services, credit, financial services, education, and training. Along with widespread prejudice, women are largely unprotected by society in the workplace. The challenges facing Cambodia are increasing employment, decreasing precarious employment, and enhancing possibilities for decent work. To achieve this, comprehensive macroeconomic measures to increase employment prospects will be needed, together with laws and policies to enhance social protection, decent work, and active labor market support for both men and women [2].

- Migration by urban and rural areas, 2008 and 2013:

Thailand had the largest percentage of out-of-country migration in 2015 and 2016, rising from 79 percent to 92 percent for women and 73 percent to 88 percent for men. After that, Korea and Japan have the highest percentage of outward migration, followed by Malaysia and Singapore, albeit by a narrow margin. This table below only includes overseas migration that is reported by private firms [22]-[24].

Table 1. Internal Migration in percent and total numbers

Stream of migration	2008		2009	
	Women	Men	Women	Men
Rural to rural	49	53	57	60
Rural to Urban	30	26	26	24
Urban to Rural	6	7	5	5
Urban to Urban	16	14	13	11
Total	100	100	100	100
Total Members	1,710,000	1,742,000	2,049,000	2,085,000

Table 2. External migration registered by private companies in percent

Stream of migration	2015		2016	
	Women	Men	Women	Men
Malaysia	4	1	0	0
Thailand	79	73	92	88
Japan	6	2	3	1
Singapore	1	0	0	0
Korea	10	24	5	11
Total	100	100	100	100

- Family Formation:

Given that it has a smaller impact on migration and more of an impact on fertility and death, marital status is a crucial element in population dynamics. The percentage distribution of men and women over the age of 15 by five age groups for those who have never married is shown in the table. The following categories were used to classify responses to the CSES marital status question: never married and ever married (currently married, widowed, divorced, and separated) [25].

It has been noted that the largest percentage of people in the 15–19 age range—roughly 92% of women and 98% of men—are unmarried. Between 2014 and 2016, the percentage of single people in both sexes who are between the ages of 30 and 34 dropped to roughly 1%. The majority of people who identified as "never married" after the age of 50 stayed unmarried all of their lives [26].

- Labor Force

The primary data on women's pay share, employment status, age distribution of employed people, percentage of working children, percentage of working children now attending school, and labor force participation rate. According to the National Strategy Development 2014–2018, the data are a component of the Ministry of Labor and Vocational Training's Priority Policy Action Plan [27].

According to the CSES survey [25], the labor force is defined as people in the working age range of 15 to 64 who work at least one hour a month. When comparing the numbers of labor force participants from 2012 to 2015, both genders were in the similar situation, with a higher percentage of men in Phnom Penh's urban and rural areas.

Table 3. Labor force rate by areas, age 15-64, 2012 and 2015

Residence	2012		2015	
	Women	Men	Women	Men
Cambodia	80	89	77	89
Phnom Penh	72	82	71	86
Other Urban	75	85	72	84
Other Rural	82	91	79	90
Total	3,788,800	3,928,900	4,324,200	4,035,300

In addition, the worldwide definition states that women are less likely than men to be chosen for a paid job and that the overall unemployment rate is quite low. The labor force participation rate by areas, age 15-64, 2012 and 2015 indicated in proposition (%) of all in each group as the table below.

Table 4. Labor force aged (15-64 years) by areas in percent

Labor force and Gender	Cambodia	Phnom Penh	Other Urban	Other Rural	Total Number
Employment Rate					
Women	77	71	72	79	4,322,700
Men	89	86	84	90	4,029,700
Unemployment Rate					
Women	0.1	0.1	0.1	0.1	1,500
Men	0.0	0.2	0.0	0.0	5,700

When it came to the employment status of men and women in various fields, there was a greater proportion of men who were paid employees. As a result, women were more likely to work for themselves or manage their own businesses, with the remainder going to support their families. In Cambodia, twice as many women as males work in sales and service industries, making up 41% of the workforce in Phnom Penh and 43% in other cities. Women and men's participation in agriculture, forestry, and fishing in Phnom Penh and urban areas was comparatively lower than that of other rural areas, at 44% and 41%, respectively [26].

Table 5. Employment Status, main occupation age 15-64 by and areas, 2015

Employment Status	Cambodia		Phnom Penh		Other Urban		Other Rural	
	Women	Men	Women	Men	Women	Men	Women	Men
Paid employees	43	54	63	76	42	58	40	49
Own account worker/self-employed	53	42	31	21	55	40	56	47
Unpaid family workers	4.0	4	6.0	2.0	3	2	4	4
Total	100	100	100	100	100	100	100	100

- Decision Making

The primary data regarding female representatives in the national assembly, senate, and top posts in the federal and local governments. The information shows the outcome of implementing the Neary Rattanak IV Five Year Strategic Plan for Gender Equality and Women's Empowerment [21]. This plan centers on two strategic areas that cut across various issues: gender responsive government policies and reform programs, and women's public decision-making and politics.

In 1999, women accounted for 15% of Senate positions at the highest level; this percentage has not changed between 2006 and 2012. About 20% of women were elected to the national assembly in 2003; this percentage was likewise nearly the same in the elections held in 2008 and 2013 [26]. In 2008, women occupied 7% of ministerial positions; this percentage increased marginally to 11% in 2013 and 2016, while the percentage of women holding roles as secretaries of state rose from 8% in 2008 to 20% in 2013 and 19% in 2016. From 16 percent in 2008 to 18 percent in 2013 and 19 percent in 2016, there has been a minor increase in the proportion of women holding undersecretary of state positions [28].

Director General, Deputy Director General, Director of Department, Chief of Bureau or Equivalency Position, and Vice Chief of Bureau or Equivalency Position are among the administrative roles at the national level. At the national level, the proportion of women in managerial roles was roughly 20% in 2013, slightly higher at 21% in 2015, and somewhat lower at 18% in 2017 [28]. There is only one female provincial governor in existence in 2017, 26 provincial deputy governors, or 17 percent, are female out of the 150 provincial deputy governors. Out of 197 women, just 4% have held the office of district governor; in contrast, 185 women, or 26% of the total, are district deputy governors [28].

2.3. Policy Context

Women's rights are frequently violated, and their protection in Cambodia is still in its infancy. The distribution of power within the various gender roles is uneven; for example, women have minimal influence at work. Seldom do they hold the most senior roles in businesses, the government, or its institutions. Women's rights are generally not respected, and both men and women in Cambodia think it is okay for men to violate women's rights.

Nevertheless, it might be challenging for women to get justice when they wish to defend their rights. It is advised that wives of abusers of domestic violence remain with their husbands because divorce is still frowned upon in Cambodian society. Rape victims seldom ever receive their day in court. Typically, the offender agrees to a civil settlement with the court, and the police or royal prosecutor unlawfully drops the case. Or, even worse, the victim's family may want her to wed the offender in an ironic attempt to preserve her honor [29].

- **Gender:** The social characteristics and possibilities that come with being male or female, as well as the interactions between women and men, girls and boys, and women and men, are all referred to as gender. Socialization procedures teach people these socially built qualities, opportunities, and relationships. They are flexible and context/time-specific. What is expected, acceptable, and valued in a man or woman in a particular situation depends on their gender. Women and men differ and are not treated equally in most countries when it comes to roles allocated, activities engaged in, access to and control over resources, and opportunities for decision-making.
- **Gender-Based Violence:** is violence committed against a person because of their sex or gender. It covers threats of such acts, coercion, and other forms of deprivation of liberty, as well as acts that cause bodily, mental, or sexual pain or suffering. Although gender-based violence can affect boys, girls, women, and men equally, women and girls are the more common victims.
- **Violence Against Women:** is any act of gender-based violence, whether committed in public or privately, that causes, or is likely to cause, bodily, sexual, or emotional injury or suffering to women. This includes threats of such actions, coercion, or the arbitrary denial of liberty.
- **International Covenant on Economic, Social, and Cultural Rights** states that everyone has the right to self-determination (ratified by Cambodia on May 26, 1992). They are free to choose their political status and to pursue their own economic, social, and cultural growth as a result of that right. The states parties are required by Article 2 Subclause 2 to ensure that the rights will be exercised without any form of discrimination based on race, color, sex, language, religion, or political opinion. According to Article 3, the state parties promise to protect women's and men's equal access to all economic, social, and cultural rights. According to Article 6, the state parties acknowledge the freedom to choose one's own employment.

The labor market presents a significant opportunity to address historical injustices and eradicate discrimination. It is there that chances for skill development and employment in high-caliber positions can support financial independence, self-reliance, and participation in democratic life [30]. The ILO gave technical assistance to the creation and execution of employment policies and programs in numerous developing nations in accordance with the Employment Policy Convention, 1964, which was ratified by 111 nations.

In addition to aiming to eradicate poverty in all its forms, the SDGs expand upon and streamline the accomplishments of the preceding MDGs. In order to safeguard the environment and advance prosperity for all people, including those in poverty and middle-income countries, all nations are urged to take action under the new Sustainable Development Goals (SDGs). The 2030 Agenda and the SDGs acknowledge the need to address a wide range of social needs, including employment opportunities, health care, education, and social protection, in addition to environmental sustainability, in order to effectively end poverty [30].

Women play a significant role in achieving the 17 goals, with several of the specific targets acknowledging gender equality as a fundamental right and a catalyst for advancement. As a result, Agenda 2030 presents a significant chance to address the systemic causes of gender inequality and tackle problems including child marriage, gender-based violence, resource access, leadership possibilities, and the contribution of women to national development and peace [30].

The most comprehensive document pertaining to the fundamental right to be free from discrimination at work is the Discrimination (Employment and Occupation) Convention, 1958. The Convention permits the addition of additional discriminatory grounds to the list of prohibited practices after consulting with representatives of employers' and workers' organizations. For instance, age, HIV/AIDS status, and sexual orientation are among the very pertinent concerns related to gender equality that have been included by certain ratifying member states.

The necessity to balance work and family obligations is acknowledged by the Workers with Family Responsibilities Convention of 1981. It lays out guidelines on a wide range of topics that impact workers who have dependents, including childcare, travel distances, part-time employment, and working hours.

3. RESEARCH METHOD

3.1. Description of Study Areas

This research study was carried out at Battambang, in the northwest province. The KII with duty bearers and the garbage collector survey in the interim. By the way, just the Chrey Korng municipality of Krong Battambang, Battambang, Cambodia was the subject of the household survey with waste collectors and households. Furthermore, this research study area was also discussed with WCCC of Krong Battambang due to the landfill being there and many waste collectors go to collect and work there and it is easy for the research team to collect the data from them.

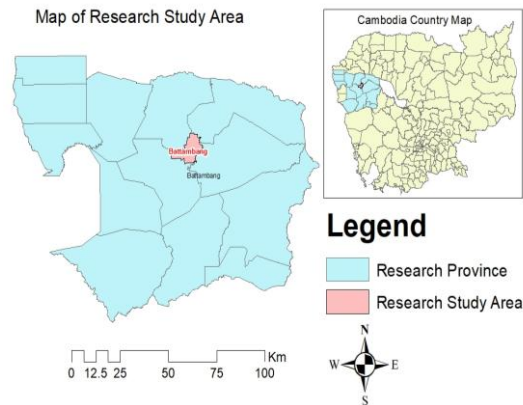


Figure 1. Map of research study area

3.2. Research Design

This research project was employing a hybrid methodology that combines quantitative and qualitative techniques with a feminist and participatory approach. Desk reviews and household surveys were providing the quantitative data, while key informant interviews were providing the qualitative data. The investigator was examining pertinent research papers, articles, and reports, as well as other project progress reports, published journals, guidelines and policies pertaining to waste collection approaches and policies, and research reports from other researchers and policymakers. Furthermore, the research inception report includes recommendations for data collecting, data analysis for HHS, and KII, as well as a survey instrument with a sample size selection criterion.

Along with the production volume, productivity, actual benefits, income generated at various stages of the value chain of the targeted commodities, and other pertinent demographic characteristics, the survey instruments were also broken down by gender, age, socioeconomic status, education, disability, vulnerabilities, and other relevant demographic characteristics. Furthermore, qualitative methods were used to gather information for this research, which carried out in collaboration with pertinent departments or stakeholders within the Battambang municipality.

Simultaneously, the framework incorporates pertinent data to examine the current state of value adds and diversification-related activities among the target, particularly in the waste collecting process, and evaluate the state of waste management for livelihoods (Quantity and Quality). For every study question, a blend of reliable quantitative and qualitative research techniques has been devised. For every study question, an effort was made to gather data from several sources using various techniques, allowing the results to be triangulated and leading to legitimate and trustworthy conclusions. Stakeholder feedback, field trips, and observations was enhancing and clarify the quantitative and qualitative information gleaned from the project's document review.

3.3. Data Collection Procedures

3.3.1 Primary Data Collection

Following approval of the current literature review report, research study proposal, and instruments, which include the questionnaire, the researcher were used a selection method or procedure to categorize respondents in order to determine the ideal number of respondents for each strategy. Research data in the field is gathered for a statistically valid selection of the intended beneficiaries. Respondent selection, the researcher provided the enumerators to make sure they comprehend the purpose of the study, receive a refresher on data collection instruments, and receive training on communication, stakeholder involvement, questionnaires, and data collection protocols.

Comprehensive interviews and surveys; key informant Case studies, observation (checklist), and interviews were shown to be the most effective ways to get information from participants. A quantitative survey including rubbish pickers chosen by purposive approaches for the target research was carried out. Additionally,

Key informant interviews (KII) or in-depth interviews (IDI) will be used as an extra support strategy in this research project. The WCCC and the Commune Council for Women and Children Committees (CCWC) would be among the target responders chosen for recruitment and data collection.

3.3.2 Secondary Data Review

Using content analysis, the project documents examined to identify evidence relating to the objective of this research study, including but not limited to, other project reports, data tracking tools, national guidelines, and research reports from other authors. These results of findings also helped to inform the design, implementation plan, and tools used for primary data collection in the evaluation process.

3.4. Data Analysis

The primary data collecting research study report was generated, along with data analysis (data cleaning, data analysis, and summary of outcomes based on the purpose). Excel was used to enter quantitative data for cleaning and analysis. Before being analyzed using excel, the supervisor confirmed this data to ensure that the findings are accurate based on the opinions of the respondents. The survey results were presented using tables, graphs, figures, and descriptive statistics. After that, excel was used to enter and tidy up qualitative data for analysis. The data's themes and sub-themes that examined using thematic analysis method.

The researcher was proceeding with the data analysis based on the information gathered during the inception phase, as well as inputs from key stakeholders' conversations and interviews during the field expedition and online platform interviews (only if necessary). Before creating a final draft of the study report, the researcher briefs the supervisor on the preliminary findings from the field trips. The researchers were compiling and address criticisms and suggestions after they have been included. They were also creating the final edition of the research study report and resubmit it to the supervisor.

Additionally, the researcher was made sufficient space for the university's thesis department and the participation of pertinent parties, who may then help with the review and revision of the study instruments (methodology, tools, questionnaires, final report, communication and dissemination of key findings to a wider audience).

4. RESULTS AND DISCUSSION

This research study aims to investigate the perspectives and experiences of men and women who work as informal waste collectors regarding the roles of women for earning living income for the family. The research study conducted both key informant interviews (KII) with stakeholders and household surveys with waste collectors. Among those, 10 of the respondents were CCWC from the municipality of Battambang and another one from WCCC from Krong Battambang.

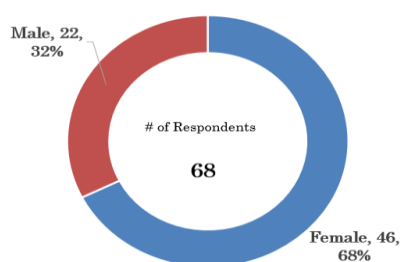


Figure 2. Number of respondents by gender (household survey)

Despite the qualitative approach, the research study also facilitated data enumerators to facilitate the household survey. The household survey had planned to be conducted with 75 respondents as waste pickers in the selected target and obviously, 68 of respondents participated in the household survey. Meanwhile from the figure 02: indicated that 68% or 46 out of 68 of the respondents are females while 32% or 22 out of 68 are males.

Table 6. Plan vs Actual of respondents

Data collection tool	Type of respondents	Plan	Actual	% of variance
Household Survey	Waste Pickers	75	68	9%
Key Informant Interview	CCWC and WCCC	11	11	0%
	Total	86	79	8%

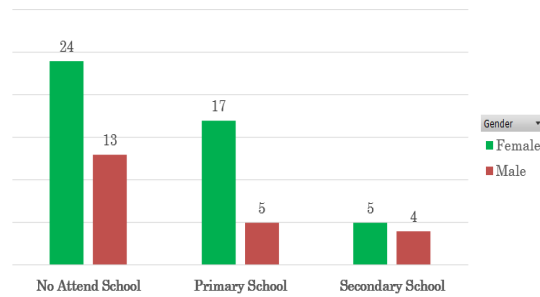


Figure 3. Level of education of respondents

Amongst all participants, the majority is Cambodian, 68 (100%) of them are Cambodian. Furthermore, education service is a significant prioritization among other services especially human resource development. However, family status has also affected the family’s economy and decision-making in continuing their children to study at school and forced them to work for a wage to support their families. In the meantime, a household survey confirmed that there were 27 females while 13 males did not attend school, 17 females in primary school while 05 males and 05 females in secondary school and 04 males.

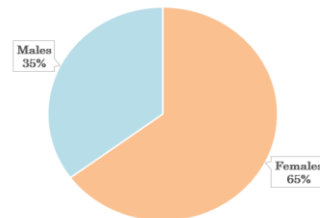


Figure 4. Number of respondents do not attend school by gender

In addition, from the household survey as mentioned, 54% or 37 out of 68 of respondents do not attend school. The figure 04 indicated that the level of education of respondents is higher than male while 65% of females do not attend school and males only 35%. The KII with key stakeholders also highlight that the most vulnerable people need to provide the support and intervention especially females who are working with unemployment contracts, waste pickers or construction work and migration because females are less likely to get the education from school than males due to perception of the parents, family economics and cultural behaviors. The females in the family spent much more time than men with some work with their parents including earning income, looking after brothers or sisters when their parents went to work or migration for generation income or other things.

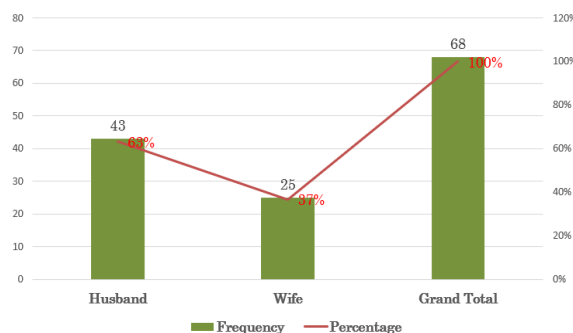


Figure 5. Main income earner in household

A workforce is the main source of income generation for their families. It is observed that the average number of members is 5 people in each family. The majority of respondents is 63% or 43 out of 68 confirmed that husbands have been actively involved in the income-earning to support their family, while 37% or 25 of respondents confirmed that they come from wives.

A KII with the Commune Committee for Women and Children (CCWC) said that women play a very important role in the family, especially earning income. Some of household, man is a household head but earner income for the family is women. Even women are playing the role of earning income for the family but husband and other family members still do not give them a value because they think that man is the one only earning and responsible for earning income and leading the family.

In addition to this, income sources play a significant role in improving the family’s economy. It is confirmed that there were several sources to generate income through construction workers and waste collectors. However, the majority 68 or 100% out of respondents confirmed that waste collecting is the main source of income for their family.

4.1. Roels of Women in Earning Household Income

The result from the research study indicated that 37% or 25 of 68 respondents have knowledge related to women’s roles for earning income for the family. Meanwhile, through KII with CCWC and WCCC who acknowledged that they understand women’s roles of earning income for the family in their community. They believe it is not violence when the wife is always asking money from the husband for going to market. They also believe that it is not violence when the husband does not do anything for earning a living, so they have a very limited understanding of roles of women in family income.

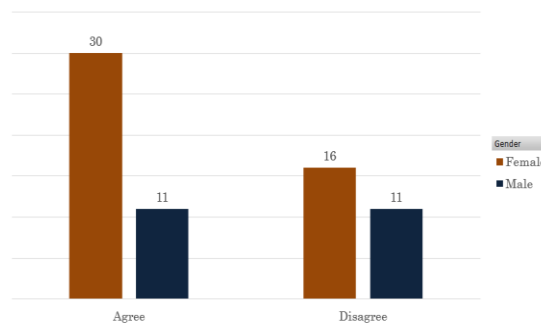


Figure 6. Number of respondents understanding women’s role in the family of earning income

At the same time, the majority 60% or 41 out of 68 respondents believed/agreed that men’s rights would not lose if women’s rights increased while 40% or 27 out of 68 disagree. Moreover, respondents claimed that it was true if women have rights, and men will lose their rights, where 27% or 11 out of 41 responses were raised by men and 30 or 73% out of 41 responses were raised by women. In addition to this, respondents mentioned that women’s rights have not been subtracted from men. They claimed that “it could not happen that men lose their privilege once women have gotten their rights. On the contrary, when all women got their rights, it meant that they had gotten respect, support, values, and equal opportunity in society as the same as men. However, there are still a few limitations related to respondents’ knowledge of women’s roles. Obviously, respondents still claimed that it was true which women’s rights subtracted from man’s rights. They mentioned that if women got full rights, then men would lose power particularly decision-making to manage in their families and women would request and suggest more to men to do some things. At the same time, respondents didn't even definitely define women’s roles.

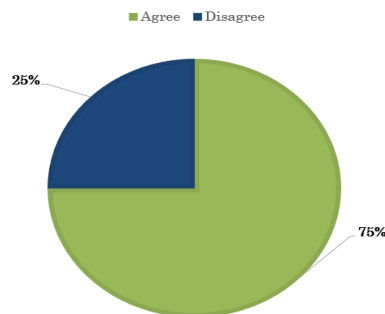


Figure 7. Number of respondents understanding on women shared workforce in family

In addition, a result from a household survey shows that 75% of responses claimed that “It was true, "When women work, it means that they are snatching jobs away from men”. This idea was raised by 17 or 33% out of 51 responses were raised by men while 34 or 67% out of 51 were raised by women. Male and female respondents stated that gender equality and women’s roles in the family who are involved in earning income were

much beneficial for them, as they provided practical ways in which to interact, be aware and develop their own empowerment.

Furthermore, result of this research survey indicated that the estimation of income from waste collection at the landfill of women in average is 200,217 KHR per month while men can earn 199,091 KHR in average. As finding, showed that women can earn income to support their family livelihood much more than men but quite different between women and men. Anyways, women still play the important roles in their family for income and support the family needs.

Table 7. The average income of women and men from waste collection

Gender	Mean	N	Std. Error of Mean
Female	200,217	46	4199.024
Male	199,091	22	5579.38
Total	199,853	68	3342.418

However, respondents still claimed: “it was true that when women work, it means that they are snatching jobs away from men and this included responses by men and other responses by women. Because now even construction works also present women to work the same as men. Moreover, it is an antiquated and false belief that women "snatch" jobs from men. The most successful workplaces are those that capitalize on a wide variety of viewpoints and abilities. Like men, women work to support their families, follow their passions, and make a positive contribution to society. It's about giving everyone, regardless of gender, the chance to succeed and making sure that hard work and talent are recognized.

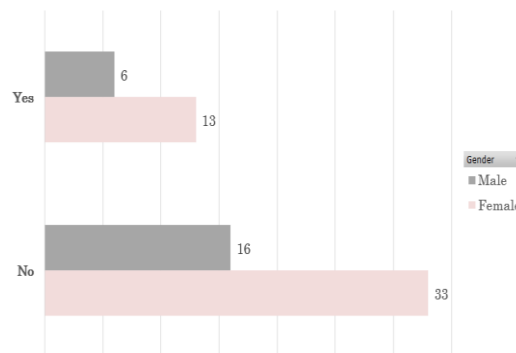


Figure 8. Number of respondents understanding women's role on economic for the family

Additionally, there are only 19 or 28% out of 68 respondents indicating that the role of income earned in the family is not for men only. Of these ideas, 6 or 32% out of 19 responses were raised by men and 13 or 68% out of 19 responses were raised by women. They believed that women are able to work for wages the same as men especially, they have the more competitive advantage to seek any suitable jobs with their skills and talents.

The results of this survey indicated that men and women are household leaders, both of them can make income for the family, so they are the main decision-makers especially in big things or small things for home-based work. However, responses have agreed that earning income was the men's role only and they realized that women mostly do housework, then earning money is the men's responsibility.

Table 8. Number of respondents understanding roles in decision-making in the family

What input do women have in deciding how to use their family income?	Gender		Total
	Female	Male	
No	28	12	40
Yes	18	10	28

According to the result, there was an idea “A man has great authority over the decision-making in the household”. There were 28 or 41% out of 68 respondents who believed women now have full right to decide for using their family income especially in big things. This table has been claimed by 22 males and 46 females. This is a good opportunity for women to discuss some things with their families and share perceptions and opinions in the decision-making process. However, there were respondents who still believed that some women should not decide for any big things and it should be a response for men only.

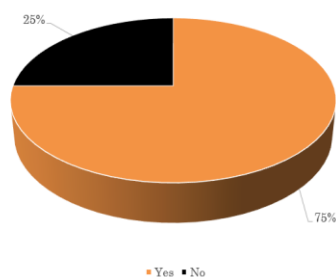


Figure 9. Number of respondents understanding on their sharing role men and women in the family

Similarly, there were 51 or 75% out of 68 respondents who claimed that housework and cooking are women’s roles or responsibilities only and it was shared with family members, especially with their husbands. Male and female beneficiaries stated that they were more confident to speak out and stand up for themselves when problems arose that affected either them or their family. More importantly, women and men highlighted that when they had realized and understood their rights, they tended to involve themselves more in productive roles. This enabled them to gain more power in the family, in terms of decision making, and generate more income to support their family. Women and girls felt that their knowledge sharing, in groups, helped empower them. Women believed that when women and girls were brave enough to speak out and share what they had learned, they could easily become role models for other women and girls.

The participants from the survey also showed that they increased their knowledge on women’s rights, gender and domestic violence through awareness meetings and public forums in their community. They acknowledge the daily work of women including housework, running the business and other income generation activities and now men have increased understanding of sharing their roles and responsibilities for housework among their family and wife. However, respondents still supported the above idea that raised “the most important role of women is to take care of the house, cook for family only.

Table 9. Number of respondents reported changing housework roles and responsibilities

Whose role is it to take care of the house and cook for the family?	Gender		Total
	Female	Male	
No	37	14	51
Yes	9	8	17
Grand total	46	22	68

Based on a result from household survey indicated that there were 75% or 51 of 68 stated that role of take care of the house and cook for the family is not only women role but husband and wife. Participants found the activities associated with sharing roles and responsibilities and management as transformational of the whole family response. This had produced a demonstrable personal and family impact. Both male and female beneficiaries stated that positive sharing roles had been beneficial for them in practical ways, helping them educate their children in a positive way. It was noted that beneficiaries cited changes in the modes of communication between husband, wife and children. It was noted that this had created noticeable changes in the family’s relationship. Moreover, a result from the household indicated that to enable earning income for the family and support children even food are husband and wife roles.

The result of the household survey, respondents mentioned that house work is not only men or women roles but those who are responsible for men and women share roles and responsibility together with equality and this generated from respondents raised by males and females. In addition, respondents reported that they usually do housework together by sharing roles and responsibilities. However, respondents also reported they did housework and were confirmed by women and men. In addition, women perceive that it is good that men can share their roles and responsibilities with their wives. But they really do not want men to fully work all the women's jobs because they think that that man is female-like. Furthermore, mostly women perform housework which are unserious jobs and men earn from/do serious jobs. More than that, they acknowledge that men are the main decision-makers in the families especially for big things because men are house leads and most of the income is earned by men. And women can only decide to do small jobs especially home-based work including kitchen work and clothes.

The result of the household survey showed that respondents who demonstrated practiced change related to women's roles and gender through they can share roles and responsibilities among their own family including family economic income to support their livelihood. The result also showed that respondents reported women and men did all work together for the family income. Additionally, this situation shows that women have played more roles within their families including housework, formworks etc. As the results from KII mentioned, they also acknowledge that now men share their roles and responsibilities among their wives for housework especially women do have the rights in decision making even participation in any meeting or event and family expense.

4.2. COPING MECHANISMS

Waste collection is an essential service that guarantees the cleanliness and hygiene of our communities, and it is collected while conducting household surveys with waste collectors and KIIs. Nonetheless, there are a lot of difficulties faced by waste collectors, such as bodily pain, accidents, and unfavorable societal opinions. Waste collectors use a variety of tactics to address these issues. These include looking after their health, accepting the work they do, and locating flexible work schedules and social acceptance. Waste collectors can more effectively handle the social, psychological, and physical demands of their labor-intensive employment by implementing these coping strategies.

A household survey indicated that challenges highlight the need for better protective measures, health monitoring, and support systems for waste collectors to ensure their safety and well-being, especially the valuable to women roles as one of the members in the family who are playing important roles for earning income to support the family livelihood.

Due to the nature of their professions, waste collectors—especially women—face a number of health risks. The following list includes some of the major issues that these women highlighted in the household survey as being connected to their jobs and family finances:

- Physical injuries: Because their employment involves heavy lifting and repetitive actions, waste collectors—especially women and children—are more likely to sustain scrapes, bruises, and musculoskeletal issues.
- Exposure to hazardous materials: They frequently come into touch with things that might cause infections, respiratory troubles, and skin difficulties, such as chemicals, biological waste, and sharp items.
- Inhaling dust, pollutants, and other airborne particles can lead to respiratory problems, such as asthma and chronic bronchitis.
- Problems with the gastrointestinal system: Collectors may be exposed to germs that cause gastrointestinal infections when handling waste.
- Psychological stress: The physical demands of the job combined with the stigma attached to rubbish collecting can result in serious psychological stress and mental health problems.
- Burnout and weariness: The physically taxing nature of the labor frequently causes burnout and weariness, which negatively impacts general wellbeing.
- Social protection and value: Because they are rubbish collectors, they are typically seen as different from the community and undervalued.

The KIIs with key stakeholders mentioned that in a family earning income, women are the one who are more responsible than men, especially women or families who work as waste collectors. They added more that women as waste collectors faced many issues/challenges for earning income to support their family including:

- Poor and unreliable wages: Waste collectors can make less than \$2 a day, which is a very poor wage. The quantity and quality of recyclable materials they are able to gather might vary substantially, and this has a significant impact on their income. Additionally, there are certain locations they are unable to visit since the business has advised them not to come and collect.
- Absence of formal recognition: A large number of waste collectors are employed in the unorganized sector and do not have official status. They frequently do not have access to benefits like health insurance, pensions, or job security because of this lack of official registration.
- Health risks: Working with hazardous materials exposes employees to certain chemicals that might cause major health problems. Waste collectors run the risk of getting hurt, getting sick, or developing chronic conditions if they don't have the right safety gear.
- Social stigma: Because of the nature of their employment, waste collectors frequently experience prejudice and social stigma. Their mental and self-esteem may suffer as a result, which will make it more difficult for them to get better financial circumstances.
- Gender inequality: Women waste collectors have different difficulties than their male colleagues, such as being paid less and having less opportunities to work in higher-paying jobs. They also run higher health risks and frequently lack the essential equipment.

- Environmental risks: Collectors who work in or near waste dumps are subject to environmental risks such as air and water contamination, which can worsen their health and means of subsistence.

Additionally, household survey with waste collectors and KIIs with key stakeholders also acknowledge that playing roles of women in earning income for the family is very hard because:

- Gender wage gap: For doing the same work, women are frequently paid less than men. Women make around 80.5% (An estimate by respondents who participated in the survey) of what men do on average, and this difference is much greater for women of color¹. Stress related to money and insufficient savings for emergencies or retirement may result from this discrepancy.
- Work-life balance: Juggling obligations to your family and your career is a difficult task. Women frequently take on a greater proportion of caregiving and domestic responsibilities, which can create a "time squeeze" and raise stress levels.
- Restricted professional growth: Women may encounter obstacles to professional growth, such as a deficiency of mentorship, networking opportunities, and leadership positions. Their earning potential and job satisfaction may be hampered as a result.
- Social and cultural expectations: Women may feel pressured by society and traditional gender norms to put family before career, which may result in career setbacks or part-time work that hinders their long-term wages and professional advancement.
- Access to daycare: It can be difficult for women to find affordable and trustworthy daycare, which makes it difficult for them to pursue possibilities for career growth or to keep a full-time job.
- Health and well-being: Women's physical and mental health might suffer as a result of the stress of balancing many roles. Burnout, chronic stress, and neglecting oneself are prevalent problems.
- Discrimination and bias: Women may experience bias and discrimination at work in the form of uneven compensation, less possibilities for advancement, and a lack of assistance for balancing work and personal obligations.

From KIIs with key stakeholders showed that women, especially those in low-income roles in the family, and the coping mechanisms to manage the challenges/issues they face while earning an income, and A few things need to be taken into account, particularly for the community and to help women become more important in providing for their families. The development will take place on the ground once they are dedicated to transforming their community. The main tactics for enhancing community involvement and better waste management in order to generate cash for the family are listed below. Here are the key suggestions strategies:

- Boost communities/families' understanding of Solid Waste Management to help families make money: If the community does not know how the issue impacts their life, they will not fully participate in the project or program. To start raising awareness of the severity of the problem, people and groups should be approached through the PWG or the municipality. A well-defined strategy for increasing awareness at all levels ought to exist. In order to raise awareness and give training more effectively, there should be a designated group of trained individuals at the village, Sangkat (community), and municipal levels.
- Livelihood Support Improvement: Through SWM programs, the Municipality should make it simple for the community to live better, especially involving women who are working as informal waste collectors to participate in the activities as much as possible. People need to take an active role in recycling and waste segregation if they are aware that they may make a significant profit from the garbage they produce. At the moment, the waste collection firm mixes the correctly separated material at the dump, therefore they are not motivated to do so. As a result, the municipality ought to think about finding important investors or commercial partners to work on SWM in order to help everyone, especially the underprivileged.
- Collaboration with academic institutions: Change agents are not just the community but also the students. They care about improving society and do it with compassion. Before they can alter the community, we can change the way the pupils think. Encouraging the community and students to come together for events such as awareness-raising, group discussions, or other community-changing activities may be necessary.
- Create a Key Community Group on SWM to assist women who gather rubbish to support their families financially: Every Sangkat should organize a dedicated group to work on SWM both within the Sangkat and in the villages. These organizations will be crucial in disseminating information about service delivery and mainstreaming waste management expertise. In order to compare service providers and service recipients, they need also be proactive in finding service gaps. Lastly, they must collaborate on a shared action plan that includes a monitoring strategy.

Waste management is intimately related to economic growth of the family, industrialization, and urbanization, all of which are indicators of a nation's degree of development, especially for the vulnerable people including women and children. Around 44% of garbage worldwide is made up of food and green materials, whereas 38% is made up of dry recyclable rubbish [16]. Ineffective waste management has a negative impact on many aspects of daily life, including biodiversity, the environment, productivity, cleanliness in the society, and health. Women are crucial to the management of garbage and the provision of livelihood. Women are more likely to work in the garbage industry and to be active in sorting and recycling in the unorganized sector.

Particularly in low-income environments, women perform critical roles in trash management and considerably contribute to their families' income [31]. Here are some salient features of their participation such as:

- Informal rubbish picking for family income: A large number of women gather recyclables from homes, and streets in their capacity as informal rubbish pickers. Even though their income is frequently underappreciated and low-price, it gives their families the money they need
- Handling domestic waste: Usually, women are in charge of handling domestic waste, which includes sorting and discarding it. This position is essential to ensuring that recyclables are correctly sorted so they can be sold to generate additional revenue.
- Entrepreneurship: A number of women launch small waste management-related enterprises, such recycling facilities or waste collecting services. These business endeavors can greatly increase their family's income and open up job prospects for others.
- Community leadership: In community-based trash management projects, women frequently assume leadership positions. They mobilize and instruct their communities on appropriate recycling and garbage disposal techniques, which can result in more long-term sources of revenue.
- Advocacy and policy influence: In the waste management industry, women are becoming more active advocates for improved working conditions and policies. Their initiatives result in increased pay and job security for trash workers by enhancing their recognition and support.
- Notwithstanding these achievements, women in waste management frequently encounter obstacles like lower income, a lack of official recognition, and restricted access to opportunities and resources. By addressing these problems with encouraging laws and initiatives, we may increase their sense of economic agency and strengthen the financial security of their families

Based on household surveys with waste collectors and KIIs with key stakeholders, women are essential to the family's income, and their involvement in the labor market has a big influence on the financial stability of the family. These are some salient features of their positions which, included as below once:

- Increasing household income: Wages earned by women play a critical role in augmenting household income and enabling families to improve their standard of living. Women's contributions have frequently stopped family incomes from falling, particularly in lower- and middle-class households.
- Economic stability: Women who work contribute an extra revenue stream that can be vital in recessions or in situations where the principal wage earner loses their job. Families with two incomes benefit from this model's increased financial stability.
- Nicer quality of life: Families who earn more money may afford nicer housing, healthcare, and education. The income of women helps to improve their children's prospects and quality of life.
- Empowerment and independence: Women who are financially independent and have more decision-making authority in the home are empowered when they earn a living. Better results for the entire family and more fair relationships may result from this.
- Gender wage gap: Women are still paid less for doing comparable work than men do. In order to guarantee that women's contributions are properly acknowledged and valued, closing this gap is essential.

The RGC's agenda priorities and responses acknowledge women's economic empowerment (WEE) through national policies. Programs for 2014–2018 include a national framework on small and medium-sized enterprises (SME), a national policy framework on social protection (2016–2025), a national policy on technical vocational education and training (2017–2025), a national employment policy (2014–2025), and national programs addressing agriculture, rural development, and land management reform.

Additionally, KIIs with key stakeholders showed that promoting gender equality and acknowledging the achievements of women is reliant on increasing awareness of the role that women play in waste management to secure a family's sustainable income and these are a few useful tactics that communities can apply as:

- Educational campaigns: To inform the public about the important responsibilities that women play in trash management, arrange workshops, seminars, and community gatherings. Emphasize their accomplishments and the difficulties they encounter.
- Media and social media: Share articles and profiles of women employed in garbage management through neighborhood newsletters, social media sites, and local media channels. This has the potential to alter attitudes and raise respect for their contributions.
- Community events: Organize occasions where women who work in waste management are highlighted and honored, such as recycling fairs, clean-up campaigns, and environmental awareness days. Public education initiatives and informational kiosks about trash management techniques may also be a part of these events.
- Collaborations with local and non-governmental groups: Assist neighborhood associations and non-governmental groups that place a high priority on women's liberation and environmental sustainability. These partnerships can provide additional resources for campaigns aimed at boosting awareness as well as assist in amplifying the message.
- Programs for schools: Include instruction on waste management in the curriculum while highlighting the contribution of women to this field. Motivate pupils to take part in initiatives and events that support waste reduction and recycling.
- Public recognition and awards: Create initiatives to honor and recognize women who have significantly improved trash management. Recognizing their contributions in public might encourage others and increase awareness of their significant roles.
- Advocacy and policy influence: Promote laws that advance female parity in the handling of garbage. This entails making certain that women receive equal compensation, giving them access to safety gear, and giving them chances to take on leadership positions.

5. CONCLUSION

In conclusion, fostering a shared understanding of common values, such as respect for women and gender equality, is crucial. Recognizing the universality of human rights and their applicability to all individuals is paramount. Equality between women and men is a fundamental principle that must be mainstreamed across all project activities. While knowledge and awareness of human rights, women's rights, and gender-based violence are relatively high, the practical application of these principles by men remains significantly lacking.

Men often fail to actively promote gender equality, particularly in decision-making processes, combating gender-based violence, and advocating for women's rights and roles within their communities. Men play a critical role in achieving gender equality, including by equitably sharing responsibilities for caregiving, a crucial step towards enabling women's full participation in the workforce. Establishing institutional and legislative frameworks that empower both women and men with genuine personal freedom of choice in balancing work, family responsibilities, and personal life offers benefits to both sexes and facilitates the practical realization of de facto gender equality.

Women significantly contribute to their families by generating income through activities like waste collection, providing healthcare and medical support, ensuring daily food security, meeting family needs, and supporting children's education, including the provision of school supplies. The below are some overall recommendations to improve the perspectives and experiences of men and women who work as informal waste collectors regarding the roles of women for earning living income for the family:

- The municipality should work closely with local authorities and community groups in order to improve and empower women and youth to positively transform traditional practices in society to further gender equality, women's rights/ roles in family economic improvement.
- The relevant departments should provide the capacity (ToT) of project partners and local community groups to better advocate for women leadership and participation is strengthened.
- The municipality works with local community members (men, women, youth) to conduct/facilitate meetings about knowledge sharing and skills on gender equality and women leadership in the family.
- Cooperate with local authorities including men, women and youth groups to organize public forums at the district and commune levels on gender equality and women roles in earning income for supporting the family.
- The municipality should work with project partners to organize or facilitate the annual reflection/refresh ToT course and facilitation skills training for men, women and youth groups.

- Support local authority to conduct quarterly meetings to share information and seek support from the relevant roles when necessary (women leaders at provincial, district, commune, youth, NGOs, CSOs)
- Work closely with women and youth groups and support them in meetings and the process to develop Commune Investment Plan (CIP) and Commune Development Plan (CDP) or District Integration Workshop (DIW).

In summary, the study has made great support to increase the value of women's roles in earning income for the family, municipality and community should start working together for achieving the empowerment of gender and economic management. They also started to develop master plans for solid waste management to improve waste collectors' income and livelihood which is the road map for improving waste management in Battambang as well. In addition, it is also a good opportunity for Battambang city because there are some NGO and private sectors working on SWM as well. Therefore, partnership is needed for greater impact in the city.

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