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Thai Huyen Nguyen, Kyoko Take, Tien Tam Nguyen, Thi Lien Phuong Pham

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RESEARCH ON THE INTEGRATION OF INDEPENDENT WASTE WORKERS IN SOLID WASTE MANAGEMENT IN VIETNAM

STUDY REPORT



Lead Authors

Dr. Nguyen Thai Huyen
Dr. Kyoko Take
Dr. Nguyen Tien Tam
Pham Thi Lien Phuong

Coordinators

Hoang Thanh Vinh (UNDP Viet Nam)
Dang Nguyet Anh (UNDP Viet Nam)
Nguyen Thi Nhat Hoai (UNDP Viet Nam)
Le Hoai Linh (UNDP Viet Nam)

Editing & Design

Nguyen Thi Hai Yen

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ABBREVIATIONS

Viết tắt	Thuật ngữ tiếng Việt	Abbreviation	English Term
BHXH	Bảo hiểm xã hội	SI	Social Insurance
BHYT	Bảo hiểm y tế	HI	Health Insurance
CSPL	Cơ sở thu mua phế liệu	SPFs	Scrap Purchasing Facilities
CSR	Trách nhiệm xã hội của doanh nghiệp	CSR	Corporate Social Responsibility
CTR	Chất thải rắn	SW	Solid Waste
CTRSH	Chất thải rắn sinh hoạt	DSW	Domestic Solid Waste
ĐKKD	Đăng ký kinh doanh	BR	Business Registration
EPR	Trách nhiệm Mở rộng của nhà sản xuất, nhập khẩu	EPR	Extended Producer Responsibility
HTX	Hợp tác xã	COOP	Cooperative
HTXMT	Hợp tác xã Môi trường	ESC	Environmental Services Cooperative
LBVMT	Luật bảo vệ môi trường	LEP	Law on Environmental Protection
LĐPCT	Lao động phi chính thức	IWs	Informal Workers
LĐTD	Lao động tự do	IDWs	Independent Workers
LĐTD-CTR	Lao động tự do trong thu gom, vận chuyển, xử lý chất thải rắn	IDWWs	Independent Waste Workers
LHHTXMT	Liên hiệp Hợp tác xã Môi trường	FEC	Federation of environmental cooperative
NPAP	Chương trình đối tác hành động quốc gia về nhựa	NPAP	National Plastic Action Partnership
OB1	Lao động tự do thu gom và vận chuyển chất thải rắn	OB1	IDWs involved in recyclable waste collection and transportation
OB2	Lao động tự do trong các Hợp tác xã Môi trường tại Thành phố Hồ Chí Minh	OB2	IDWs in Environmental Services Cooperatives in Ho Chi Minh City
OB3	Lao động tự do trong thu mua và phân loại chất thải rắn có thể tái chế	OB3	IDWs at Scrap Purchasing Facilities
OB4	Lao động tự do trong tái chế chất thải rắn	OB4	IDWs in waste recycling
OB5	Đơn vị tái chế có đăng ký kinh doanh	OB5	Registered recycling unit
PRO	Tổ chức thực hiện trách nhiệm của nhà sản xuất	PRO	Producer Responsibility Organization
QLCT	Quản lý chất thải	WM	Waste Management
QLCTR	Quản lý chất thải rắn	SWM	Solid Waste Management
TPHCM	Thành phố Hồ Chí Minh	HCMC	Ho Chi Minh City
RDL	Rác dân lập	IDWCs	Independent waste collectors
UBND	Ủy ban Nhân dân	PC	People's Committee
UNDP	Chương trình Phát triển Liên Hiệp Quốc	UNDP	United Nations Development Programme
UNEP	Chương trình Môi trường Liên Hợp Quốc	UNEP	United Nations Environment Programme



1.1. Background

Viet Nam is currently experiencing rapid economic and population growth, which simultaneously poses major challenges for solid waste management (SWM), especially plastic waste. With limited waste management (WM) infrastructure, high rates of waste leakage into the environment, and increasing plastic consumption, the control of solid waste (SW), especially plastic waste, has become an urgent issue.

According to research by the National Plastic Action Partnership in Viet Nam (NPAP Viet Nam), strengthening the capacity of the informal sector is considered one of the systemic interventions to expand recycling capacity in an economically efficient way. It is estimated that the volume of plastics collected for recycling in Viet Nam could increase from 11% in 2018 to 38% in 2030. This corresponds to an increase from 0.39 million tons in 2018 to 2.20 million tons¹ in 2030. In this context, the Government of Viet Nam has demonstrated strong commitment through a series of policies such as the Law on Environmental Protection (LEP) 2020, the National Strategy for General Management of SW(2018), the NPAP initiative (2020), along with the implementation of Extended Producer Responsibility (EPR) and regulations on waste fee calculation based on weight.

Within the SWM system in Viet Nam, independent workers (IDWs), often referred to as the informal workers, play a critical role, particularly in waste collection and recycling. Although operating outside the formal framework, this group accounts for a substantial share of the solid waste value chain². They not only reduce the burden on the public management system but also contribute significantly to recycling, particularly plastic recycling. However, they often face many risks such as unsafe working conditions, lack of supportive policies, and lack of recognition³ from society. Integrating IDWs into SWM mechanisms

may represent a sustainable and effective pathway enhancing the overall efficiency of SWM while simultaneously improving the living and working conditions of these workers.

A comprehensive EPR approach designed to bring benefits to the informal workers (IWs) sector has been developed, promoted, and disseminated in the ASEAN region. For the first time, the contributions of the informal labor sector in SWM have been recognized in a United Nations environmental resolution. Nevertheless, at the national level, the absence of an overarching policy framework and specific legal mechanisms continues to be a major barrier preventing IDWs from accessing social services and formal employment opportunities.

Under the 2020 Law on Environmental Protection and Decree No. 05/2025/ND-CP guiding the implementation of EPR, the waste collection, sorting, and recycling network – largely handled by IDWs – will be directly affected by new compliance and transparency requirements. Insights from projects and numerous consultations with IDWs indicate the need to establish or strengthen a legal entity at the national level to serve as a bridge between policymakers, regulated industries under EPR, and the independent workforce engaged in WM.

On this basis, the study conducted surveys and assessments of the current participation of IDWs in SWM in Viet Nam, with the aim of proposing integrated approaches aligned with the implementation of EPR, while ensuring tangible benefits for this group of workers during the transition toward a more sustainable and comprehensive WM system.

1. <https://weforum.ent.box.com/s/af0ujig2ioyisnyuwvpid7d7q4ukc2io>

2. Nguyễn T.H. et al., *Động nát ở Hà Nội, những không gian năng động trong đô thị*. Science and Technology Publishing House.

3. UNEP/EA.5/L.23/Rev.1

1.2. Objectives

- Update and assess the situation of IDWs in SWM;
- Identify the challenges and opportunities facing IDWs in SWM under the emerging environmental and social legal framework;
- Propose actionable measures toward SWM modalities capable of integrating IDWs.

1.3. Research subjects

The subject of this report is the group of **IDWs engaged in the collection, transportation, and treatment of solid waste** (Independent Waste Workers – IDWWs). This group includes individuals who collect waste and recyclables, load and transport SW, and participate in waste treatment activities, who operate without formal labor contracts and for whom the time or income derived from these activities constitutes the main share of their livelihood.

IDWWs extend beyond and encompass the informal workforce in solid waste management, as defined by the International Labour Organization (ILO).

1.4. Research methods

The report is based on a synthesis and analysis of secondary sources, including legal documents, regulatory provisions, and published research reports from both domestic and international contexts, as well as data provided by relevant organizations. In addition, the study integrates fieldwork through 37 in-depth interviews conducted in three cities - Hanoi, Ho Chi Minh City (HCMC), and Quy Nhon - between January and June 2024. Six groups of stakeholders were interviewed: IDWs involved in recyclable waste collection and transportation (OB1); IDWs in Environmental Services Cooperatives (ESCs) in HCMC (OB2); IDWs engaged in purchasing and sorting recyclable waste (OB3); IDWs in waste recycling activities (OB4); registered recycling units (OB5); and relevant waste management authorities, researchers, organizations, and formal waste collection workers.

Furthermore, the report's overall assessments draw on quantitative data published during the period 2021–2024, including studies and surveys previously carried out by the research team. However, the size and composition of each group of IDWs in the SW collection and treatment chain may have changed over time due to the influence of new policies and market dynamics. Consequently, the analyses should be interpreted in relation to the ongoing shifts occurring within the WM sector in Viet Nam.



2 | THE SITUATION OF INDEPENDENT WASTE WORKERS (IDWWS) IN VIET NAM

2.1. Concept and components of the IDWWS in Viet Nam

2.1.1. Concept of IDWWS in Viet Nam

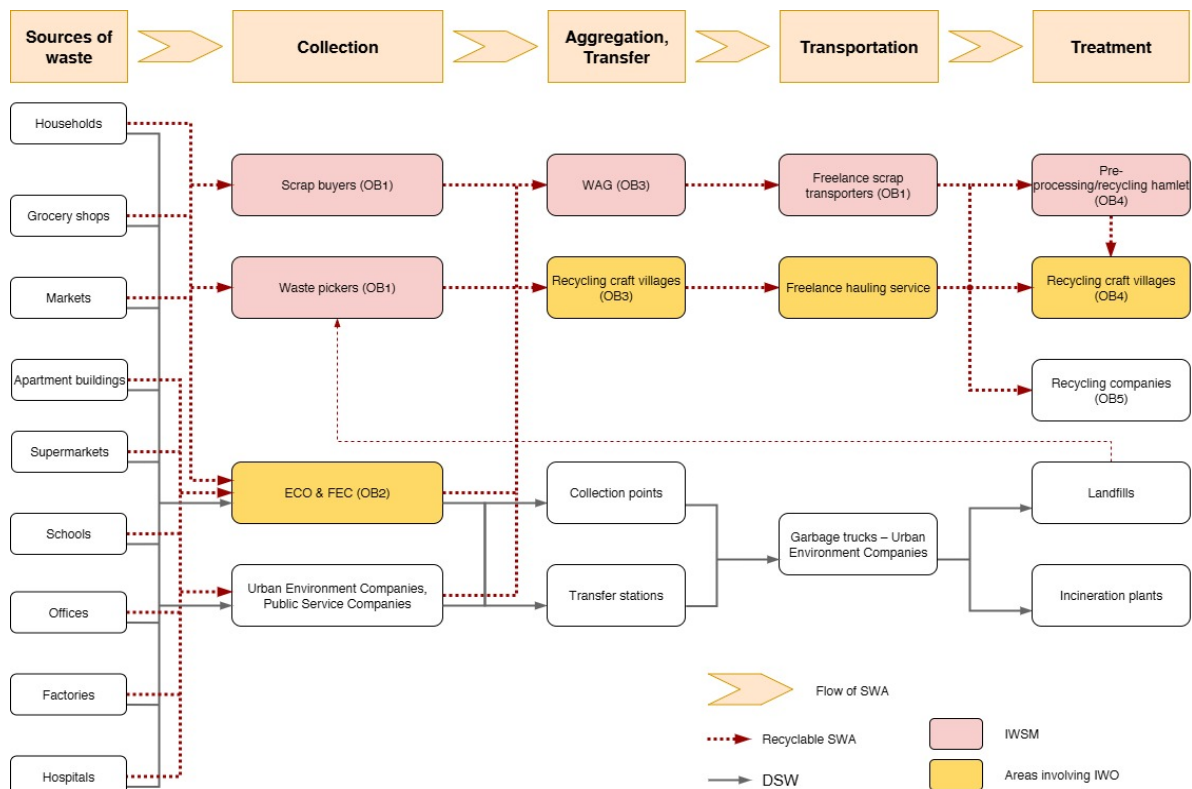


Figure 1: Labor components in the SW collection, transportation and treatment chain in Viet Nam

IDWWS are individuals who collect waste and recyclables, load and transport SW⁴, and participate in waste treatment activities, while operating without formal labor contracts⁵. For most of them, the time or income derived from these activities constitutes the main share of their livelihood. IDWWS encompass the “informal workforce” in SWM.

The IDWWS in Viet Nam are identified as consisting of 4 main groups: IDWs involved in recyclable waste collection and transportation (OB1); IDWs in ESCs in HCMC (OB2); IDWs engaged in purchasing and sorting recyclable waste (OB3); IDWs in waste recycling activities (OB4).

2.1.2. IDWs involved in recyclable waste collection and transportation (OB1)

The IDWs involved in recyclable waste collection and transportation consist of 3 main groups: (1) scrap buyers, (2) waste pickers, (3) independent waste transporters.

Scrap buyers⁶ : with different names in local regions from North to South of Viet Nam such as Đồng nát, người đi sọt, nhôm nhựa, ve chai... Scrap buyers usually follow fixed routes within a

4. Resolution 09/2021/NQ-HĐND on special regimes and policies for COVID-19 prevention and control, supporting people affected by the COVID-19 pandemic in Ho Chi Minh City, and Decision 2379/QĐ-UBND in 2021 on implementing support policies for workers facing difficulties due to the impact of the COVID-19 pandemic in Dong Nai Province.

5. Government Resolution 68 dated 01/7/2021 on several support policies for workers and employers facing difficulties due to the COVID-19 pandemic.

6. The term “đồng nát” in Viet Namese originally means: “đồng” refers to materials and objects made of copper, “nát” means old, broken. Today, the term “đồng nát” is used to refer to all stakeholders in the field of scrap collection and trading, including scrap buyers, scrap purchasing facilities, second-hand goods buyers, scrap transporters, and sometimes even recycling villages.

defined area. They buy broken or discarded materials that can be recycled from households or shops, agencies, companies, schools, construction sites... and then sell them back to scrap purchasing facilities (SPFs).

Waste pickers: these are people who search for and collect recyclable materials on the streets, from unowned piles of garbage, at landfills, SW treatment sites, etc., for reuse or for sale to SPFs.

Independent waste transporters are individuals without legal entity status who provide transportation services for SW upon request, or who move scrap materials from SPFs to recycling craft villages or recycling companies. Scrap is only one of the various materials they transport. In addition, these individuals may also function as intermediaries, purchasing scrap from smaller SPFs and reselling it to larger specialized SPFs or to recycling enterprises and recycling villages.

2.1.3. Independent waste collectors (IDWCs) in Environmental Services Cooperatives in HCMC (OB2)

In 2019, there were about 4,000 IDWCs⁷ participating in Independent waste collection units in HCMC. This force collected about 60% of the domestic solid waste (DSW) of the city, mainly collecting at waste sources in small alleys, apartment buildings, etc., then transporting to meeting points and transfer stations in the local areas. By the end of 2023, the whole HCMC had 204 private waste collection companies, 36 ESCs and 1 federation of environmental cooperative (FEC) operating in the field of waste collection⁸, and 100% of IDWCs unit (2,667 units) had joined or established COOP⁹.



Figure 2: Scrap buyer in HCMC



Figure 3: Waste pickers at landfill in Quy Nhon City



Figure 4: Independent scrap transporter in HCMC



Figure 5: Independent wood waste transporter in Hanoi



Figure 6: IDWC in ESCs in HCMC

7. Department of Natural Resources and Environment (DONRE) of HCMC, 2019. Report on state of SWM in the city.
 8. Publication of the implementation results of Resolution No. 03/2017 of the People’s Committee (PC) of Ho Chi Minh City on urban environmental protection, residential areas, and waste management by DONRE HCMC in 2023.
 9. DONRE HCMC, 2023. Report on the implementation results of managing the Independent waste collectors.

2.1.4. IDWs engaged in purchasing and sorting recyclable waste (OB3)

In the chain of activities of collecting, transporting, and treating SW, recyclable SW in Viet Nam today is mostly collected and handled through the scrap trading network with names such as *đồng nát* or *ve chai*, *sắt vụn*. Recyclable waste is purchased by scrap buyers, then resold to SPFs.

Scrap Purchasing Facilities (SPFs): are dumping yards and trading points that can be found across the country. They buy scrap from scrap buyer, or purchase directly from large waste sources (companies, schools, supermarkets, apartment buildings, etc.) in the surrounding area. Scrap will be transported to recycling craft village or recycling company. Depending on the scale of the facility, the scope of operation varies. Small-scale facilities: operate within communes or wards. Medium-scale

facilities: operate within districts. Large-scale facilities or specialized SPFs: operate citywide. SPFs have diverse scales with areas ranging from $20m^2$ to $2,400m^2$, in which HCMC is the place concentrating many large-scale facilities, with 45% of the total number having areas of $100m^2$ or more. In Hanoi, the number of SPFs is the largest in the country, with small compact facilities interspersed in residential areas, 60% of which have areas smaller than $50m^2$, mainly concentrated in central urban areas with high population density and large waste generation. In Hanoi there are 972 facilities across the city¹⁰, and in HCMC there are 726 facilities¹¹. In Hanoi, SPFs currently collect 2,500-3,000 tons¹² of various scrap per day from different sources and from other localities.



Figure 7: Images of SPF in Hanoi and HCMC

2.1.5. IDWs in waste recycling (OB4)

Recyclable SW after being purchased by scrap buyers will be transported and resold to recycling company and recycling village. IDWs in SW recycling include owners, family workers, and hired workers in recycling workshops/facilities in recycling craft village without business registration (BR).

Recycling workshop/recycling facility: is a production unit specializing in recycling or manually pre-processing recyclable materials, mostly of small and medium scale, manual, without BR, often hiring workers directly and without labor contracts, employing workers from mountainous areas, remote areas, with an average of 3–15 workers/workshop depending on scale.

Recycling villages are areas that concentrate manual scrap processing and recycling activities, primarily involving three types of recyclable materials: paper, metal, and plastic, mostly located in northern Viet Nam. These villages originated from traditional craft villages, such as paper-making or bronze handicraft villages. In response to market demand, they have gradually transformed from small-scale manual production into large-scale scrap recycling clusters. Within these villages, numerous recycling and production facilities of vary-

ing sizes are concentrated, both registered and unregistered under business regulations. They employ a significant number of IDWWs, many of whom migrate from other cities to work in these clusters.

The results of document review and field surveys conducted in Hanoi, Quy Nhon, and HCMC indicate distinct patterns in the composition of IDWWs. In Hanoi, IDWWs are primarily represented by scrap buyers, SPFs and pre-processing or recycling workshops located in recycling villages, with activities focusing mainly on recyclable waste such as metals, paper, and plastics. In HCMC, IDWWs are mainly IDWCs within ESCs, while the *ve chai* and *đồng nát* groups play only a minor role. In Quy Nhon, IDWWs comprise both waste pickers at the city landfill and SPFs. Across the three cities, the number of IDWWs is generally proportional to the volume of waste generated. Within the solid waste collection, transportation, and recycling chain in Viet Nam, IDWWs are estimated to collect, concentrate, sort, and transfer up to 80% of recyclable waste.

10. Survey data of the research team updated in 2023

11. Survey data of the research team updated in 2020

12. Survey data of the research team updated in 2021



Figure 8: Plastic recycling facility producing binding ropes in Trieu Khuc recycling craft village in Hanoi

2.2. Characteristics of IDWWs in Viet Nam

Since 2015, through international research projects Recycurbs-Viet (2015–2020), COMPOSE (2019–2021), EU Rethinking Plastic (2021–2022), CCGV (2022–2023), the research team has carried out several rounds of quantitative and qualitative sur-

veys of IDWWs in Viet Nam and related stakeholders. The quantitative data analyzed in this report are based on survey results from 50 samples of OB1, 972 samples of OB3 in Hanoi, 393 samples of OB2 and 726 samples of OB3 in HCMC.

2.2.1. Gender, age, education level

Gender

The gender distribution of the three IDWW groups in Hanoi and HCMC reveals significant differences. Among scrap buyers in Hanoi (OB1), women account for the majority (73%), reflecting the flexible nature of the work, which requires little capital and is suitable for migrant women with limited skills. By contrast, IDWCs in ESCs in HCMC (OB2) are predominantly men (65–80%), particularly in suburban areas, where physical strength and machinery operation skills are required. In the inner city, however, the proportion of women is higher due to lighter collection tasks. At SPFs, (OB3) in both cities, the gender distribution is nearly balanced (men 48%). Nonetheless, a gender-based division of labor persists within family-run models: women are generally responsible for purchasing and financial management, while men handle transportation and heavy material processing.

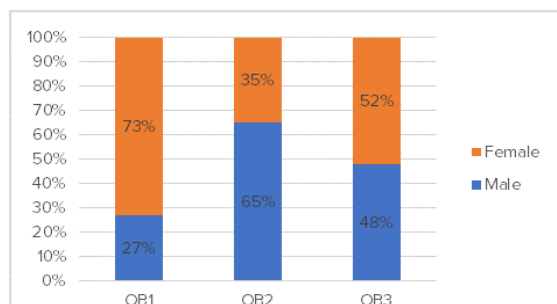


Chart 1: Gender of scrap buyers surveyed (OB1), IDWCs in ESCs in HCMC (OB2) and SPFs (OB3) in Hanoi and HCMC

Age

The age structure of the three IDWWs groups in Hanoi and HCMC varies according to the nature of work. Among scrap buyers in Hanoi (OB1), the majority are middle-aged (30–50 years, 64%), while workers over 50 represent 34%, reflecting both the importance of experience and the trend of workforce aging. The OB2 in HCMC includes the highest proportion of young workers under 30 (18%), attributable to the physical demands of the job. By contrast, the OB3 group is concentrated in the 30–50 age bracket (74%), indicating the requirements for management capacity and occupational stability.

Education level

IDWWs generally have low levels of education, with most not having completed high school, which limits their access to better-paid employment opportunities. Even operators of SPFs typically lack formal professional qualifications, relying primarily on practical experience to manage their businesses.

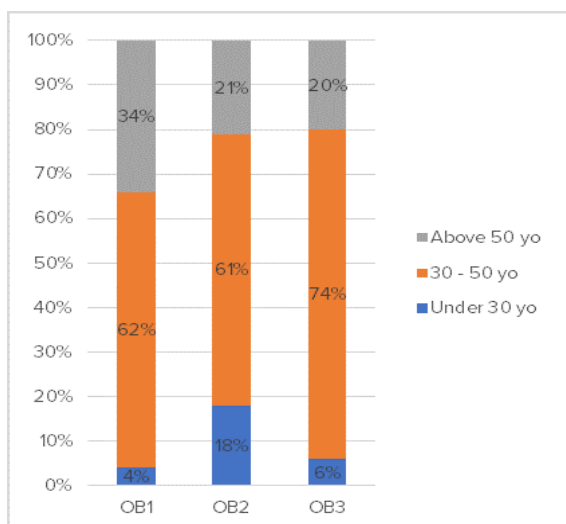


Chart 2: Age of scrap buyers (OB1) surveyed in Hanoi, IDWCs in ESCs in HCMC (OB2) in HCMC and SPFs (OB3) in Hanoi

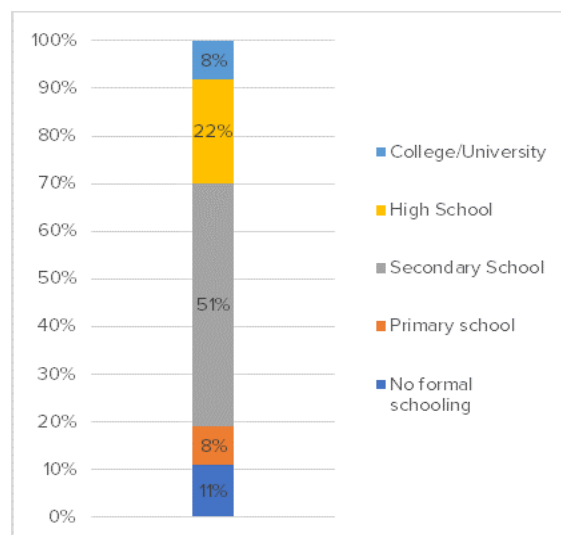


Chart 3: Education level of SPFs (OB3) in Hanoi

2.2.2. Origin, hometown

Most IDWWs are migrants from other provinces, particularly from rural areas moving to major cities such as Hanoi and HCMC in search of livelihoods. Within OB1 and OB3, a substantial proportion originates from Nam Dinh, accounting for 68% and 43% respectively. In addition, IDWWs from Hanoi and the wider Northern region also constitute a significant share, reflecting the spread and strong social networks of IDWWs based on ties of kinship and fellow countrymen, which often perpetuate the family tradition of this occupation¹³.

2.2.3. Working conditions

Working time

IDWWs typically work long and irregular hours, unlike formal workers with fixed schedules. In Hanoi, operators of SPFs (OB3) work 6–7 days per week, averaging 8–12 hours per day. OB1 workers have flexible yet extended working hours, especially during peak seasons. In HCMC, OB2 workers follow fixed schedules, working from early morning until late at night, which often results in exhaustion due to insufficient rest.

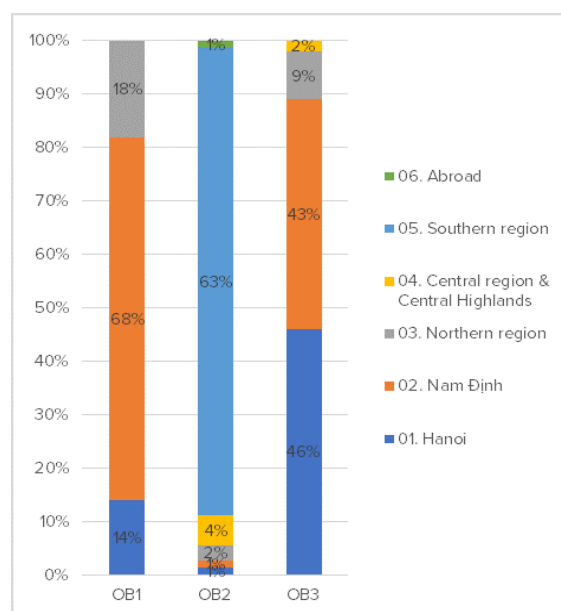


Chart 4: Hometowns of scrap buyers (OB1) surveyed in Hanoi, IDWCs in ESCs in HCMC (OB2), and SPFs (OB3) in Hanoi

Because workers' income is directly tied to the volume of scrap collected, SPF operators not only manage their facilities but also personally engage in purchasing and sorting. This dual role contributes to longer working hours compared to ordinary SW collectors.

13. Nguyễn T.H. et al., 2022. Đống nát (scavengers and scavenging) in Hanoi, visibility in the community. Science and Technology Publishing House

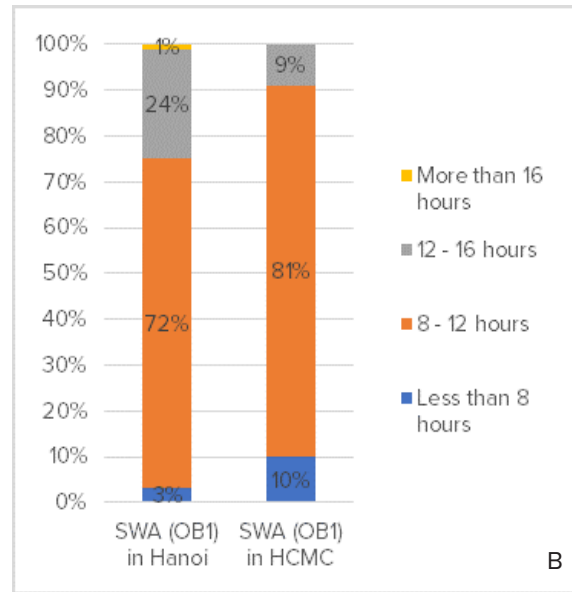
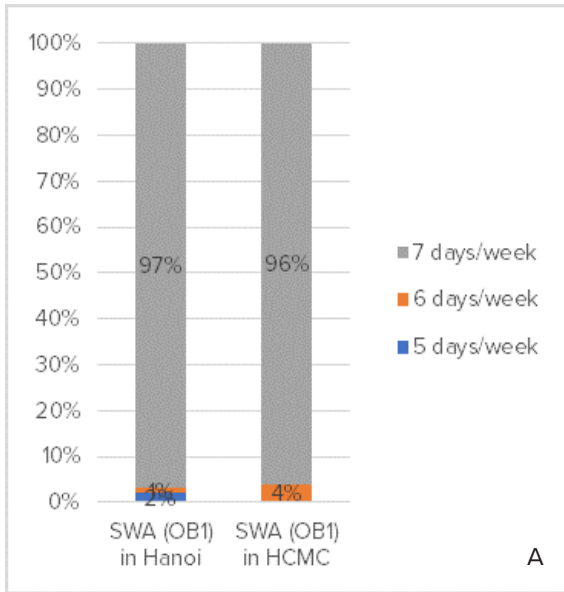


Chart 5: Working time of SPFs (OB3) in Hanoi and HCMC by number of days per week (A) and number of hours per day (B)

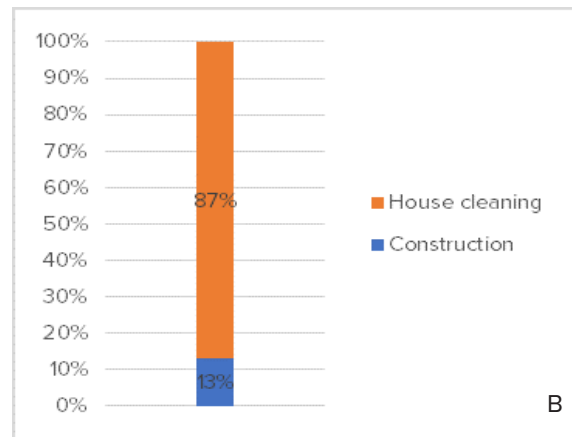
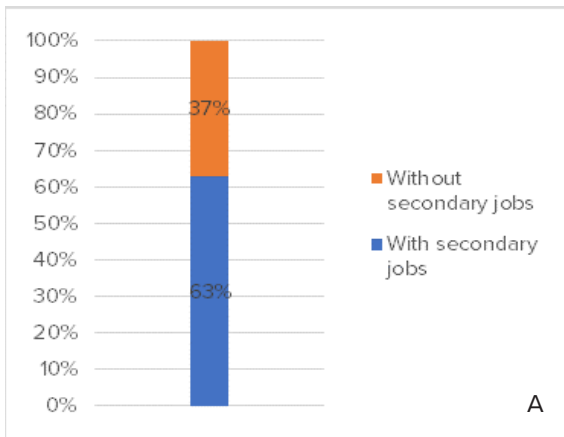


Chart 6: Secondary employment (A) and specific jobs (B) of scrap buyers surveyed (OB1) in Hanoi

Tools of labor and means of transportation

The means of transportation used by IDWWs are diverse, ranging from bicycles, pushcarts, and motorized tricycles to trucks, depending on the scale of activity, financial capacity, and working areas. The OB1 group

primarily relies on bicycles or travels on foot to access narrow urban neighborhoods. By contrast, the OB3 group employs small to large trucks (2–30 tons) to transport substantial volumes of recyclable materials.

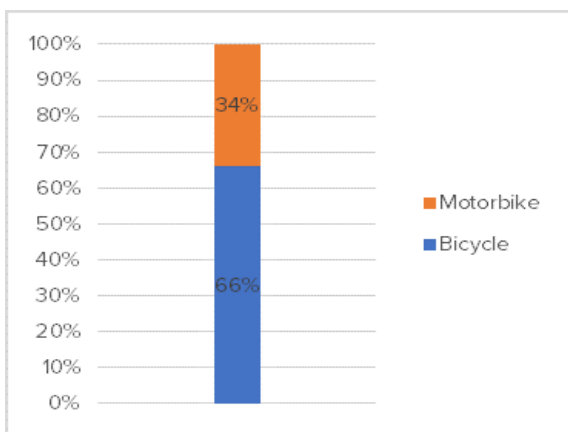


Chart 7: Means of transportation of scrap buyers (OB1) surveyed in Hanoi

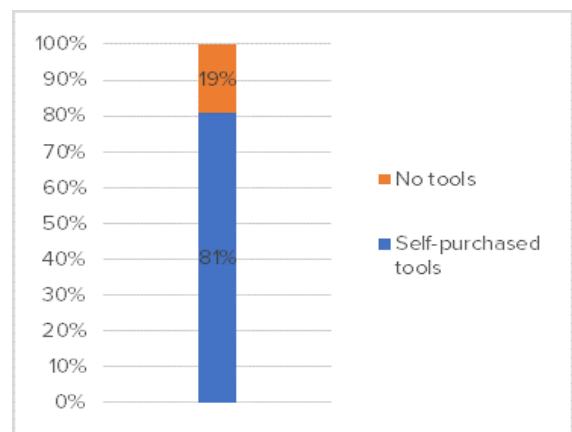


Chart 8: Origin of working tools of SPFs (OB3) in Hanoi



Figure 9: Means of transportation: Truck (A); Motorized tricycle (B); Pushcart (C); Bicycle (D)

Insurance

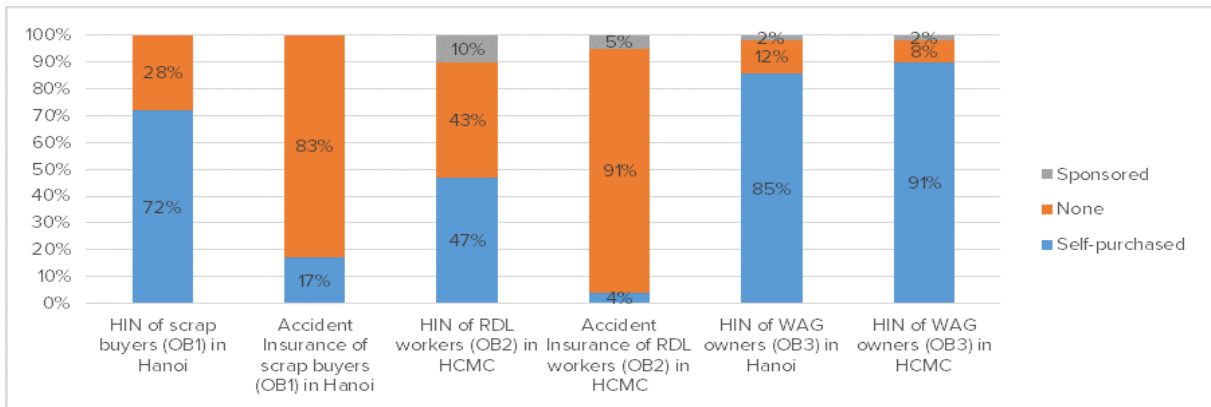


Chart 9: Health Insurance (HIN) and accident insurance of scrap buyers surveyed (OB1), IDWCs in ESCs in HCMC (OB2), and SPFs (OB3) in Hanoi and HCMC

The rate of health insurance (HI) participation among IDWWs is relatively high, largely because workers purchase it themselves. In Hanoi, 85% of OB3 self-purchase health insurance, while the rate for OB1 is 72%. In HCMC, 91% of OB3 self-purchase, but only 47% of OB2 are covered. By contrast, participation in accident insurance is very low. In Hanoi, only 17% of OB1 hold accident insurance, while in HCMC only 4% of OB2 self-purchase such insurance and a further 5% receive

some form of support. These figures indicate that most IDWWs either underestimate occupational risks or face barriers in accessing appropriate insurance schemes. The substantial gap between health and accident insurance coverage highlights shortcomings in social protection policies for IDWs. While many workers demonstrate awareness of the need to protect their health, they still lack adequate support from the social insurance (SI) system.

Income

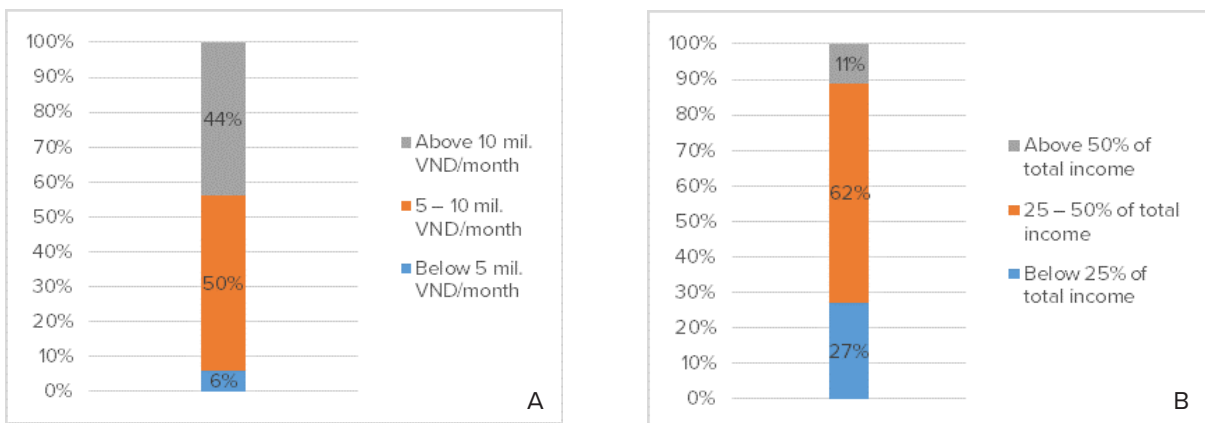


Chart 10: Total income (A) and share of income from selling scrap compared to total income (B) of IDWCs in ESCs in HCMC

The income of IDWWs is clearly stratified according to their position in the recycling value chain. Direct scrap buyers and IDWCs (OB1, OB2) mainly earn between 5–10 million VND per month, without SI and with only limited HI coverage. Their income is highly dependent on fluctuations in scrap prices, resulting in considerable instability. In HCMC, 44% of IDWCs in ESCs report monthly incomes above 10 million VND, while 73% derive at least 25% of their income from selling plastic waste. By contrast, SPFs (OB3) generate monthly incomes ranging from below 10 million to over 50 million VND, with some large facilities reaching several hundred million VND. Income levels are determined by scale, workforce, and transaction volume. This disparity highlights that added value is concentrated in intermediary and recycling stages.

At the lowest tier of the system, IDWWs have diverse but unstable income sources, leaving them economically vulnerable. Their dependence on SPFs underscores issues of fairness in benefit distribution. As such, there is a need for income support measures, the expansion of ESC models, and

the promotion of formal waste collection systems to improve working conditions, increase access to social protection, and ensure sustainable livelihoods. At the same time, developing a transparent recycling system represents a fundamental solution to enhance both efficiency and equity in the sector.

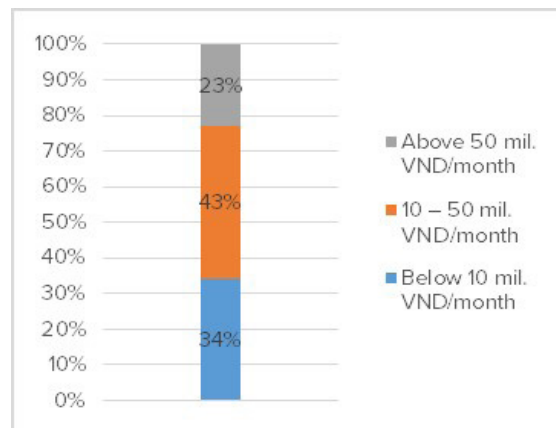


Chart 11: Income groups of SPFs owners (OB3) in HCMC

Group	Type of income	Average income	Payer
IDWWs collecting and transporting SW (OB1)			
Independent waste collectors (“dong nat”, “ve chai”, ...)	From selling recyclables From domestic help services From other seasonal jobs (cleaning, porterage...) From family farming	5–10 million VND/month	SPFs; Households
Waste pickers	From selling recyclables	4–7 million VND/month	SPFs
Independent scrap transporters	From cleaning and transport services; From selling recyclables	7–15 million VND/month	SPFs; Recycling facilities
IDWCs in ESCs in HCMC (OB2)			
IDWC in ESCs in HCMC	From collection services From selling recyclables From tips from households	5–10 million VND/month	SPFs; Recycling facilities
SPFs (OB3)			
SPFs	From scrap trading business	10–100 million VND/month	Recycling facilities; recycling company; Specialized SPFs
IDWWs in waste recycling (OB4)			
Recycling workshop/facility owners	From trading semi-processed or recycled scrap	10–100 million VND/month	Production facilities; Consumers

Table 1: Income of IDWWs

2.2.4. Legal status and policy awareness of IDWWs

The legal status and readiness to participate in the EPR mechanism of IDWWs show clear differences between HCMC and Hanoi, originating from differences in labor organization, operational capacity, and local management methods.

In HCMC, IDWWs and some ESCs have received active support from ENDA Vietnam, gradually establishing a legal basis and promoting forms of formal cooperation, opening up prospects for integrating IDWWs into the formal WM system.

Meanwhile, in Hanoi, in Xa Cau village, Ung Thien commune, 167 plastic pre-processing facilities are concentrated and recognized by the local government as a local economic activity, but awareness and concern about EPR remain limited. Field survey results show that plastic waste collection and pre-processing facilities have no BR and lack the ability to conduct legal financial transactions such as issuing invoices. They operate mainly on trust, reputation, and community

cohesion instead of formal legal contracts. This helps maintain flexibility and stability in transactions, especially for facilities with long-term partner networks, but it poses high financial and legal risks, particularly for IDWWs.

Table 2 below summarizes the legal entity form, management tools, and the ability to provide invoices of IDWWs groups when considering the opportunity to participate in EPR.

In addition, some independent initiatives have emerged to promote community awareness through communication, training, distribution of protective equipment, and networking, such as the “XanhNet” recycling ecosystem of VietCycle company in Hanoi, which also contributes to improving the working conditions of IDWWs in collection and promoting the circular economy.

Group	Legal entity form	Current management tools	Ability to issue invoices
IDWWs collecting and transporting SW (OB1)			
Independent waste collectors (“dong nat”, “ve chai”, ...)	Seasonal workers No labor contract, mostly verbal agreements	Temporary residence registration	No
Waste pickers	No labor contract	Temporary residence registration	No
Independent scrap transporters	With or without BR as appropriate	Driving license BR	Yes, if with BR
IDWCs in ESCs in HCMC (OB2)			
IDWCs	Workers in IDWCs unit COOP members	Membership registration Labor contract Temporary residence registration	No
ESCs	ESCs established with license	Business license	Yes
SPFs (OB3)			
IDWWs in SPFs	No labor contract, mostly verbal agreements	Temporary residence registration	No
SPFs	Household business Without BR or with BR and environmental license	BR Environmental license	Yes, if with BR
IDWWs in waste recycling (OB4)			
IDWWs in recycling workshops	No labor contract, mostly verbal agreements	Temporary residence registration	No
Recycling workshop/facility owners	With or without BR	BR PC at commune level managing via electricity supply	Yes, if with BR

Table 2: Legal status of IDWWs

3

POLICIES AND SUPPORT ACTIVITIES FOR IDWWS IN VIET NAM: CURRENT SITUATION AND CHALLENGES

3.1. Assessment of policies affecting IDWWS in Viet Nam

3.1.1. Waste segregation at source

The role of IDWWS in implementing waste segregation at source under the LEP 2020 is very important. According to Article 75 of LEP 2020, households and individuals generating waste must carry out segregation according to regulations, including: SW capable of reuse and recycling; food waste; other DSW. This regulation, effective from 01/01/2025, requires collection and treatment of waste to be performed separately, creating major challenges in terms of infrastructure and finance.

The process of promoting waste segregation at source seems to bring opportunities for independent waste collectors and SPFs when people actively segregate to reduce the volume of waste subject to fees. However, this trend will be disadvantageous for the IDWCs force when income from recyclable waste in their daily collection is significantly reduced.

The pilot implementation of waste segregation at source in 6 districts of Hanoi creates **considerable opportunities** for IDWWS, especially scrap buyers (OB1) and SPFs (OB3). First, recyclable waste collection becomes easier when households proactively segregate; recyclable waste (such as plastic, metal, paper) will be separated, enabling IDWWS to collect without re-sorting.

With this change, IDWWS can play a more important role in the SWM system, helping them be rec-

ognized as part of the urban waste management chain. IDWWS are not only solid waste collectors but also serve as an important bridge between households and the recycling system, with potential specific roles in communication and guidance on waste segregation. Because they are in direct contact with households the primary source of daily waste - IDWWS can help households understand and comply with proper segregation standards, thereby contributing to greater community awareness. IDWWS also link households with recycling companies by acting as intermediaries in transporting recyclable waste from households to recycling facilities, ensuring more efficient handling.

However, while waste segregation at source creates opportunities for scrap buyers and SPFs, it also poses major challenges for IDWCs currently organized under ESCs in HCMC. Specifically, when households segregate and sell recyclables directly to SPFs, the volume of valuable waste entering the cooperatives' collection system declines, directly reducing members' daily income. In addition, ESCs and public waste collection units - key actors in implementing segregation regulations are facing challenges related to costs, pricing mechanisms, and uneven management capacity across localities.

3.1.2. Regulation on volume-based waste fee

According to Circular 02/2022/TT-BTNMT, which provides guidance on the implementation of the LEP 2020, provincial People's Committees (PCs) are authorized to determine the method of charging fees for DSW collection, transportation, and treatment. Fees may be calculated based on one of the following factors: (i) the price of DSW packaging, including the production cost of the packaging and the associated collection, transportation, and treatment fee; (ii) the volume of DSW containers; (iii) the weight of DSW, applied to agencies and organizations; or (iv) other methods as prescribed by the provincial PC.

IDWWS play an important role in the waste fee calculation based on weight under LEP 2020 when it takes effect from 01/01/2025. This regulation requires DSW service fees for collection, transportation, and treatment to be calculated based on segregated weight or volume, creating major challenges for IDWWS.

The group most directly affected is the IDWCs in HCMC, specifically as follows:

Promoting linkages and aggregation: Despite challenges, the application of new regulations has prompted IDWWS in HCMC to gather and form ESCs. From 2019, when there were 1,500 IDWCs units, now 100% of IDWCs have joined ESCs. This

helps strengthen their position, enhance bargaining power, and improve working conditions. However, the transition still faces many difficulties, especially as there is no specific plan for adjusting DSW service prices.

Risk of losing income sources: Currently, many IDWCs maintain income from “tips” and selling recyclables collected from DSW. If the new fee mechanism is applied based on packaging price or weight, they may lose these income sources, greatly affecting their ability to sustain services.

Negative impacts on collection and transportation: The new regulation may encourage the use of fake packaging or illegal dumping to avoid costs, reducing the quality and efficiency of waste

collection services, especially when IDWWs in HCMC are operating under a self-financing mechanism¹⁴.

In Hanoi and other cities, volume-based fee may push recyclable waste flows more strongly towards scrap buyers and SPFs and make this group more active if the formal sector does not promote effective collection.

In summary, IDWWs play a key role in implementing the new volume-based fee regulations under LEP 2020. However, to ensure social protection, efficiency, and fairness, supportive policies are needed, including reasonable service pricing mechanisms and income protection measures for IDWWs.

3.1.3. Extended Producer Responsibility (EPR)

The role of IDWWs in implementing EPR

Potential suppliers: IDWWs can serve as potential suppliers in the collection and sorting of recyclable products and packaging under the EPR framework. They are currently key stakeholders in recovering valuable materials from waste streams, particularly in areas not adequately covered by the formal collection system.

Opportunities from EPR: EPR can generate new opportunities for IDWWs as demand for recycling and the collection of used products increases, particularly for low-value plastics and packaging that are often not segregated or separately collected. If effectively integrated into the EPR system, IDWWs would be able to expand their activities and enhance their income.

Challenges for IDWWs when EPR is implemented

Lack of legal status and invoices: The characteristics of IDWWs, including the absence of legal registration, financial records, and invoices, as well as non-compliance with labor and tax regulations - constitute major barriers to their integration. These limitations hinder their ability to cooperate with producers and formal recycling companies, thereby reducing their opportunities to participate in EPR.

Competition with new entities: Emerging actors—such as urban environment companies, private firms, and ESCs - possess legal status and the capacity to comply with EPR requirements. These advantages may create strong competition for IDWWs in collection and recycling activities. Without integration into the EPR system, such competition could undermine the regular operations of IDWWs and further marginalize their role in the waste management sector.

Management and compliance burden: To participate in EPR, IDWWs need to comply with tax and financial management regulations. However, their lack of experience and limited education cause difficulties in proposal writing, project management, and compliance with legal procedures. This may increase the risk of bankruptcy for newly established ESC.

Adaptability and need for support

Formalization process: The formalization of IDWWs - such as through joining cooperatives (COOPs) or enterprises with legal entity status—has been initiated but continues to face many challenges. ESCs, in particular, require further support in management and compliance with legal regulations, especially with regard to tax administration.

Need for support from EPR: ESCs and IDWWs need support from financial contributions under EPR to participate effectively in the formal recycling system. However, their lack of knowledge and experience in project management and proposal writing can be a major obstacle.

IDWWs have an important role in implementing EPR in Viet Nam, especially in collecting and sorting recyclable products and packaging. However, to enable their effective participation in the EPR system, specific support and guidance from government authorities and relevant organizations are required. Such measures are needed to reduce legal and administrative barriers and to facilitate their integration into the formal system.

14. The IDWCs unit services was recognized by Decision No. 5424/QĐ-UB-QLĐT of the People's Committee of HCMC, allowing them to collect waste and receive direct payment from waste-generating sources without salary or subsidies from the local government.

3.1.4. National Action Plan to promote responsible business in Viet Nam

The National Action Plan to improve policies and laws to promote responsible business practices in Viet Nam for the period 2023–2027¹⁵ is built on the idea of promoting corporate social responsibility (CSR) through the implementation of responsible business principles. In Viet Nam, large enterprises and multinational corporations operating in Viet Nam see this program as an opportunity to enhance brand reputation by applying responsible business standards, helping them meet some international partner requirements related to labor, environment, and governance.

For IDWs in general and IDWWs in particular, the program can provide opportunities for them to participate in the formal economy when they are **integrated into the supply chain through responsible sourcing initiatives**. In addition, the program

also promotes **transparency and labor contract implementation through** new regulations on business responsibility that encourage enterprises to establish more transparent labor relations, including contract signing, recording of SI, and other labor benefits.

Nevertheless, the National Action Plan to improve policies and laws to promote responsible business practices in Viet Nam for the period 2023–2027 is still at the strategic stage with macro-level requirements and objectives. For implementation and realization, a roadmap, regulations, guidelines, and specific training programs for enterprises are needed. On this basis, enterprises can develop methods to integrate IDWWs into their business and production activities.

3.2. Assessment of practical support activities for IDWWs in Viet Nam

3.2.3. Implementation of ESCs models initially integrating IDWWs

Under the direction of HCMC, the FEC coordinated with local authorities to guide IDWCs on procedures for establishing environmental sanitation service COOP¹⁶; provided consultation on procedures to reorganize the operation of COOP. Participation in ESCs helps IDWWs legalize their business activities, transition from the informal sector to the formal sector, thereby benefiting from legal entity status, accessing job opportunities as well as formal support policies such as SI, HI and preferential credit. ESCs create a mutual support network among IDWWs, strengthen community connectivity, and reduce dependence on informal intermediaries.

Although the transition from the IDWCs unit model to ESCs in HCMC represents an appropriate strategy contributing to the modernization of the waste management system and the improve-

ment of IDWWs' livelihoods the transition process continues to face numerous challenges. IDWWs often lack the legal knowledge and management skills needed to adapt to the cooperative model. They encounter difficulties not only in understanding and complying with regulations but also in financial management and the systematic organization of work. Furthermore, the shortage of initial financial resources poses a significant barrier. Many newly established cooperatives lack sufficient capital to invest in modern facilities or upgrade equipment, resulting in inefficient waste collection. Government support mechanisms to strengthen the operational capacity and expansion of cooperatives remain limited. In addition, cooperatives have yet to be closely linked with national programs, and as a result, the full potential of this model has not been realized.

3.2.4. Support activities of international organizations

The UNDP plays a prominent role in the joint international effort to promote recognition of IDWWs in the implementation of EPR and the circular economy, as well as in advancing their integration into the formal system¹⁷. The project “Scaling up Integrated and Inclusive Solid Waste Management Models through Empowering the Informal Sector and Promoting the Circular Economy” (DWP5C Phase 2), implemented by UNDP with support

from the Norwegian Embassy¹⁸, helped establish an informal waste workers' club in Quy Nhon. This initiative connected more than 200 IDWWs engaged in collection, sorting, and supplying scrap to material recovery facility. UNDP organized multiple awareness-raising programs and provided specialized equipment to improve the working conditions of this labor group. By the end of 2023, nearly 67 tons of plastic had been collected

15. Decision No. 843/QĐ-TTg on promulgating the National Action Program to improve policies and laws to promote responsible business practices in Viet Nam for the period 2023–2027.

16. <https://vpub.hochiminhcity.gov.vn/portal/pages/2018-1-12/Nam-2018-Chuyen-doi-cac-luc-luong-thu-gom-rac-than-425203.aspx>

17. https://www.undp.org/sites/g/files/zskgke326/files/202208/Issue%20Brief_VIE_Informal%20Waste%20Workers_UN_EU_2022.pdf

18. <https://www.undp.org/vi/vietnam/blog/thuc-day-kinh-te-tuan-hoan-trong-quan-ly-chat-thai-ran-va-nhua-tai-binh-dinh>

from communities, fishing ports, and the Long My landfill. Collection efforts were also expanded through the “Fishing Boats Bringing Plastic Waste Ashore” initiative, which mobilized 200 fishing boats to participate in environmental protection. These initiatives not only contributed to pollution reduction but also helped create more stable livelihoods for IDWWs while promoting the circular economy in Viet Nam.

However, in large cities such as HCMC and Hanoi, where IDWWs networks have long existed, often linked through compatriot groups or existing business cooperation, this model will face difficulties in organization and implementation. Here, IDWWs networks are often complex in scale and have operated independently in their own way, so establishing a new model requires adjustments suitable to local conditions and more flexible cooperation mechanisms. The initial success of the model in Quy Nhon demonstrated the potential for replication in other localities with similar characteristics, while being a practical solution to enhance efficiency and fairness in WM.

In addition, UNDP also cooperated with The Circulate Initiative to implement a project to improve the quality of life and livelihoods of IDWWs in the supply chain of Duy Tan Recycling through the Responsible Sourcing Initiative framework¹⁹, with the expectation of creating positive impacts for 10,000 IDWWs in Viet Nam.

3.2.5. Contribution of the private sector in supporting IDWWs

Enterprises such as Unilever, Coca-Cola, VietCycle, and Duy Tan Recycling have implemented initiatives to enhance and stabilize income, training, and skill development for IDWWs. Notably, the Plastic Reborn project has delivered training to more than 2,500 waste collectors and created opportunities for over 12,000 collectors to recover more than 80,000 tons of plastic waste annually²². In addition, the waste collector network project in Da Nang, supported by Coca-Cola, has enabled 1,466 members to stabilize their income²³.

In addition, Duy Tân Plastics has provided support to small-scale SPFs by supplying lifting equipment and forklifts. These contributions have improved work efficiency and enhanced occupational safety, thereby contributing to better working conditions for waste workers²⁴.

IDWWs are gradually being recognized and supported by many organizations at home and abroad through diverse programs. ENDA Vietnam is one of the pioneering organizations, with activities supporting the establishment of COOP, providing protective equipment²⁰, insurance, raising community awareness, and especially promoting EPR policies to connect IDWCs with the formal recycling chain. At the same time, the World Bank funded projects to strengthen infrastructure and waste treatment capacity, creating stable jobs for IDWWs²¹. International organizations such as IUCN, ILO, USAID and development partners such as the British Embassy, Canadian Embassy, and Dutch Embassy also actively participated through technical support, social protection, and policy dialogue, contributing to shaping more sustainable, inclusive, and equitable waste management models for this vulnerable labor group.

Nevertheless, support from organizations mainly concentrates in major cities such as HCMC and Hanoi, projects are short-term in nature, and lack long-term coordination mechanisms with local authorities, causing cooperatives and IDWWs to face difficulties in maintaining operations after projects end.

The collaboration between businesses and non-governmental organizations has expanded access to social policies, particularly HI, for vulnerable groups. The initiative “Public - Private Collaboration for Building a Circular Economy in Plastic Waste Management (PPC)”, led by Dow, SCG, and Unilever, has enabled more than 1,200 workers - especially women and vulnerable groups - to gain access to social services such as insurance and healthcare. Nevertheless, these initiatives continue to face three major challenges: inconsistent local policies, incomplete collection and treatment infrastructure, and sustainability that relies heavily on external funding. To optimize their effectiveness, stronger coordination mechanisms between businesses, local authorities, and communities are required in order to build more systematic and long-term support models.

19. <https://vietnamcirculareconomy.vn/responsible-sourcing-initiative-reaches-first-milestone-in-viet-nam/?lang=en>

20. <https://cuoituan.tuoitre.vn/de-nguoi-thu-gom-rac-thay-khong-don-doc-20240424104545111.htm>

21. <https://documents1.worldbank.org/curated/ru/504821559676898971/pdf/Solid-and-industrial-hazardous-waste-management-assessment-options-and-actions-areas.pdf>

22. <https://vccinews.vn/news/44389/tetra-pak-hop-tac-voi-pro-viet-nam-va-circular-action-thi-diem-mo-hinh-thu-mua-vo-hop-giay-dung-do-uong-trong-cong-dong.html>

23. <https://baodanang.vn/can-biet/202405/cong-ty-tnhh-nuoc-giai-khat-coca-cola-viet-nam-va-mang-luoi-nguoi-thu-gom-ho-tro-nguoi-thu-gom-rac-thai-phi-chinh-thuc-tai-thanh-pho-da-nang-3972350/index.htm>

24. <https://provietnam.com.vn/tin-tuc/nhua-duy-tan-mong-muon-viet-nam-di-dau-ve-xu-ly-rac-thai-nhua/s>

3.3. Challenges and opportunities for IDWWs in Viet Nam

3.3.1. Challenges in integrating IDWWs into the SWM system in Viet Nam

Concerns about management and legal procedures

Lack of legal status: IDWWs such as scrap buyers and waste pickers, often lack permanent residency in the cities where they work and do not possess BR or other legal documents verifying their occupation. This creates significant barriers to accessing social support policies or participating in formal linkage programs.

Reluctance to declare and register: Some workers are concerned about close supervision by regulatory authorities, particularly in relation to complex administrative procedures. They perceive that such requirements could disrupt their work or increase operating costs.

Legal Capacity Constraints: Although ESCs and FEC possess legal entity status, they often lack personnel with sufficient legal expertise to handle procedures for accessing support, bidding, or cooperation under new policy frameworks. In particular, when it comes to participating in EPR, many do not know where to start.

Barriers related to awareness and education: This represents a major obstacle preventing IDWWs from transitioning to other occupations with higher and more stable incomes. It also affects work efficiency, as the lack of skills in management, sorting, and waste treatment can result in low collection efficiency and increased environmental pollution.

Challenges in meeting requirements for operational transformation

Dependence on traditional networks: SPFs and recycling workshops in Hanoi and Quy Nhon often operate through long-established community-based networks and relationships. As a result, they see little incentive to transition to formalized models, which require changes in operational practices and compliance with new standards.

Lack of awareness of new environmental and general policies: Most SPFs do not clearly understand information or do not value the necessity of complying with modern WM policies, leading to reluctance to change or defensive attitudes.

Group	Support needs	Challenges (motivation, barriers)
IDWWs collecting and transporting SW (OB1)		
Independent waste collectors	Means of transport, protective equipment Accident insurance	Desire to stabilize jobs, steady income Fear of management, afraid of declaration/reporting procedures Lack of legal status
IDWCs in ESCs in HCMC (OB2)		
IDWC in ESCs in HCMC	Means of transport, protective equipment Accident insurance Premises, working space	Desire for better income Fear of declaration/reporting procedures Lack of legal status
ESCs/FEC leaders	Legal procedures for project proposals, support applications, bidding	Willing to participate in EPR Inconsistent management/payment methods for collection fees across localities Lack of legal/professional expertise to expand services and support bidding
SPFs (OB3)		
SPFs	BR Premises, working space	Limited awareness of environmental policy changes Lack of recognition of need to transform; Long-standing operation with existing networks → no demand for policy support
IDWWs in SW recycling (OB4)		
Recycling workshop/facility owners	BR; Premises, working space Business networking	Operate with existing networks → no demand to change model

Table 3: Summary table of field survey results in Hanoi, Quy Nhon and HCMC

Limitations in working conditions, tools, and infrastructure

Precarious working conditions: IDWWs such as waste pickers and scrap buyers, often operate under harsh conditions, with long working hours but unstable incomes. They rely heavily on family and community networks and function within informal structures, which makes them vulnerable to social constraints and exploitation by stronger counterparts.

Lack of adequate premises: Recycling workshops and SPFs often operate in small, makeshift spaces. Meeting official requirements for premises would require significant investment, which they are unable to afford.

Lack of protective equipment and work tools: Scrap and waste collectors typically work under unsafe conditions, without accident insurance or

access to modern equipment. This situation not only reduces labor productivity but also poses long-term health risks.

The challenges faced by IDWWs differ across regions. In Hanoi, SPFs are numerous but predominantly small and medium-sized, more flexible in cooperation based on prices but mainly relying on personal reputation. Therefore, they are less willing to change as they feel stable with the current model. Meanwhile, in HCMC, ESCs and FEC show a higher level of readiness to connect with formal networks and a desire to access state support policies. However, they continue to face challenges including inconsistencies in fee payment for waste collection across districts and a lack of personnel with adequate legal expertise to expand services.

3.3.2. Opportunities for IDWWs under new policy frameworks

Opportunities to participate in formal WM networks and benefit from support policies

With the introduction of the LEP 2020 and the EPR mechanism, IDWWs have received greater attention. Participation in formal management networks through ESCs in HCMC not only helps IDWWs access financial support, insurance, and working tools, but also opens up more sustainable job opportunities thanks to their ability to meet new policy requirements. Regulations on waste segregation at source and volume-based waste fees also create opportunities for IDWWs to play a deeper role in the formal SWM value chain. In Hanoi, pilot waste segregation at source programs have raised awareness among households and collection units and demonstrated high demand for skilled labor in recyclable waste collection and treatment, providing IDWWs with a comparative advantage in scrap collection. Moreover, a number of initiatives led by international and local organizations have been implementing training and capacity-building programs for IDWWs, enabling them to meet new technical requirements and participate in formal networks.

Opportunities to expand business through private sector engagement

Active participation of the private sector through funding, training, and business cooperation programs has contributed to motivating IDWWs to formalize their activities, establish more stable economic relationships, and professionalize their operational models. Major companies such as Coca-Cola, Unilever, Dow, and Nestlé are funding recycling and collection initiatives within the framework of EPR. These programs not only provide financial support but also supply modern work tools, expand collection networks, and generate new business linkages. In this context, ESCs and formal collection and recycling units have the opportunity to benefit from stable economic contracts with these corporations. This also incentivizes ESCs to expand their networks, enhance their capacities, and strengthen their labor force in order to meet the requirements of large-scale and professionalized collection. At the same time, SPFs and recycling workshops increasingly recognize the benefits and opportunities of professionalizing and formalizing their activities, thereby gradually transitioning into the formal system. Such reforms not only address the demand for sustainable development in WM but also contribute to shaping a more skilled and better-organized workforce in the field of SW collection and treatment.

4 | RECOMMENDATIONS

4.1. Objectives and principles of integrating IDWWs into SWM

4.1.1. Objectives of integrating IDWWs into SWM

The integration of IDWWs into the SWM system should be understood as the process of recognizing their role and establishing appropriate mechanisms and policies to formalize their participation in the collection, transportation, and treatment chain of SW. Integration aims to enhance the efficiency of SWM, minimize environmental impacts, and ensure better working conditions and income security for IDWWs. The integration of IDWWs into the SWM system seeks to achieve the following key objectives:

Improve working conditions and livelihoods of IDWWs

- Formalize their role in the collection and recycling chain of SW.
- Ensure labor rights such as HI, accident insurance, and stable income.
- Improve working conditions by providing protective equipment and infrastructure support.

Enhance the efficiency of waste collection and recycling

- Formalizing the role of IDWWs can increase the recovery rate of recyclable waste, reduce the burden on landfills, and ease pressure on the formal collection system.
- Improve waste segregation at source, thereby reducing environmental pollution and enhancing the quality of recyclable materials.

Supporting circular economy development and waste reduction

- Maximize resource recovery from waste, thereby reducing the volume of waste requiring treatment and landfill disposal.
- Support the establishment of recycling cooperative services, enabling IDWWs to participate in sustainable value chains.

Promote sustainable waste management policies and social equity

- Connect IDWWs with the formal WM system, enabling them to access financial benefits, training, and technical support.
- Raise public awareness of the role of IDWWs in environmental protection, thereby creating a foundation for the development of long-term support policies.

Strengthen collaboration between government, enterprises, and communities

- Develop cooperation models between IDWWs, government, and formal recycling units to ensure balanced benefits for stakeholders.
- Promote communication and education programs to encourage community participation in waste segregation and to support the integration of IDWWs.

4.1.2. Principles of integrating IDWWs into SWM

The integration of IDWWs into the SWM system should adhere to the following principles to ensure effectiveness, protect workers' rights, and promote the circular economy:

Recognition of roles and support for flexible organizational forms. Public authorities should acknowledge IDWWs as an integral part of the waste collection and recycling system. Support should be extended not only to SPFs but also collection points equipped with adequate infrastructure.

Protection of rights, improvement of working conditions and income. IDWWs should be guaranteed access to HI, accident insurance, and stable income through collection fees or financial support provided by public authorities and recycling enterprises. Provision of protective equipment, designated

sorting spaces, and enhanced occupational safety measures is also essential.

Integration of IDWWs into waste segregation at source. IDWWs should be encouraged to participate in the formal collection system through mechanisms such as payment of collection fees, provision of segregated waste bags, and collaboration in recyclable waste collection.

Enhancing community awareness and protecting the rights of IDWWs. Communication campaigns should be implemented to shift public perceptions of the role of IDWWs. Measures such as issuing identification cards and facilitating dialogue between residents and IDWWs can help reduce stigma, strengthen cooperation, and improve coordination in SWM.

Establishing a legal framework and financial support. The government should formally recognize this occupation, simplify registration procedures, and provide access to social insurance and appropriate financial support.

Applying these principles helps create a sustainable and fair SWM system, promoting recycling while ensuring stable livelihoods for IDWWs.

The application of these principles will help create a sustainable and equitable SWM system that both promotes recycling and ensures stable livelihoods for IDWWs.

4.2. Classification of IDWWs groups for integration support in SWM

Research and analysis of the position and role of IDWWs in the solid waste flow indicate that there are two main groups requiring integration support

into SWM: (i) individual self-employed IDWWs, and (ii) owners of facilities or units employing IDWWs.

4.2.1. Individual self-employed IDWWs

Waste pickers

This is the most vulnerable group among the components of IDWWs. They typically work at landfills, on streets, or in public areas. They are also exposed to the highest risks in terms of health and income. This labor force requires training in waste segregation and collection skills. They also need to be provided with work tools and equipment to ensure safety, as well as support in accessing accident insurance and social protection.

Scrap buyers

This is the largest and most widespread group within the network, yet they work without labor contracts, lack protective equipment, and operate based on informal agreements. They require support in terms of protective tools and equipment, access to accident insurance and social protection, and guidance on legal procedures to enable them to register and benefit from government support policies.

Independent scrap transporters

This group often uses tricycles or small trucks to transport various types of waste, either along routes requested by SPFs or under verbal trans-

portation agreements. They require awareness-raising and capacity-building to improve their understanding of, and compliance with, legal regulations and standards on waste transportation. At the same time, they also need to be governed by business transport regulations, including business licenses or permits for SW transportation.

Members of ESCs

Although IDWCs units in HCMC have now all joined or been transformed into ESCs, the linkages between IDWCs unit and ESCs remain weak. ESCs are not yet able to provide salaries or sign labor contracts with RDL members. At the same time, IDWWs within IDWCs units are not willing to pay ESC membership fees. Therefore, the effective integration of this workforce into ESC activities requires improvements through labor contract-based management mechanisms with clear benefits and entitlements. Training programs on recycling skills and waste management are also needed to enhance productivity, increase income, and support the development of a more sustainable recycling sector.

4.2.2. Owners of facilities/units employing IDWWs

Owners of SPFs, informal recycling workshops, recycling villages

These include small-scale SPFs and recycling facilities that operate without BR or fail to fully comply with legal regulations on waste treatment. Along-

side stricter enforcement and improved management, awareness-raising, advocacy, and legal support for BR and the formalization of their activities are also urgent measures.

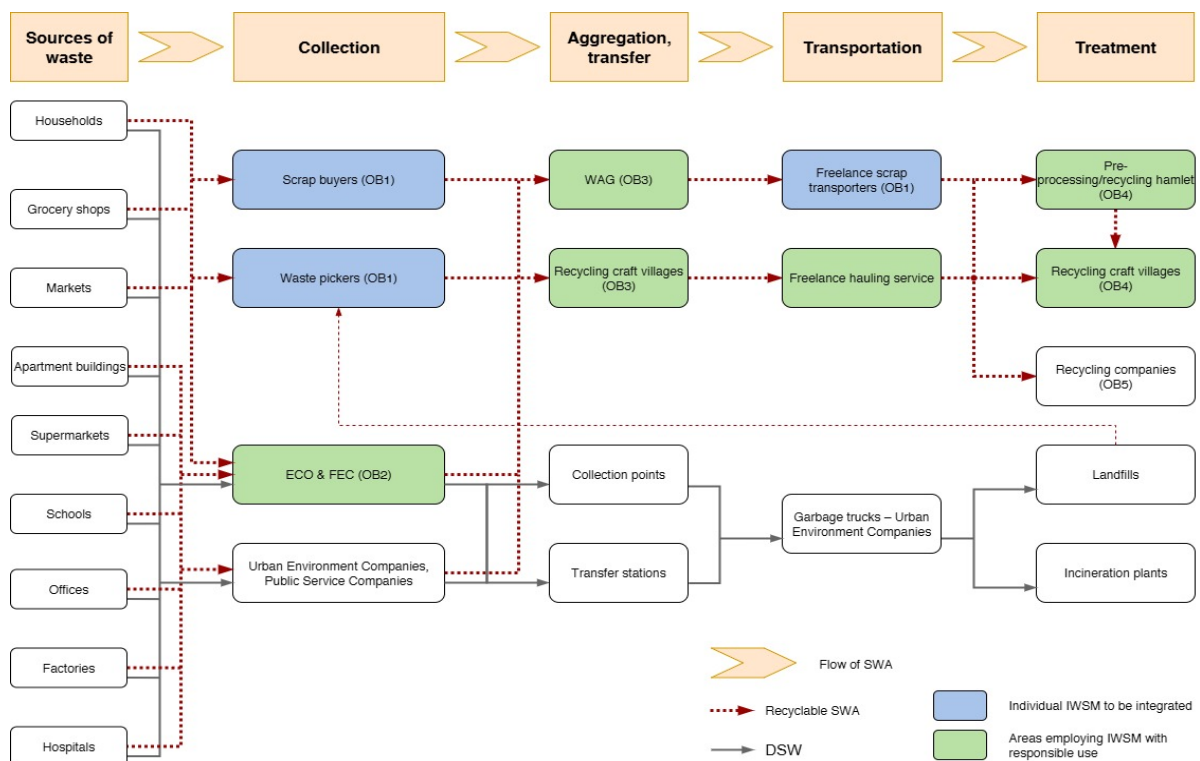


Figure 10: Position of IDWWs groups and units employing IDWWs that need integration support

4.3. Orientation and support activities for integrating IDWWs into the SWM system

4.3.1. Strengthening public policies and enforcement of labor law for IDWWs

Legal and social recognition of IDWWs

The concept of “Independent Waste Workers in Solid Waste Management (IDWWs)” should be formally included in legal documents and national strategies on labor and the environment. Clear rights and obligations of IDWWs should be established within the legal system to ensure their access to essential public services such as healthcare, education, social protection, HI, and accident insurance.

Enhancing access to labor rights and legal protection

Encourage the signing of labor contracts, participation in SI, compliance with standards on

working conditions, minimum wage, and occupational safety.

Establish clear monitoring mechanisms and sanctions for organizations and enterprises employing IDWWs, especially in the small and micro-enterprise sector.

Strengthen inspection and supervision of the implementation of the Labor Code in the waste collection and recycling sector; strictly handle violations of labor laws.

Increase the participation of civil society organizations, local authorities, and trade unions in providing legal advice, enhancing self-protection capacity, and policy dialogue for IDWWs.

4.3.2. Strengthening training and raising awareness for IDWWs and employers

Develop training programs for IDWWs linked to WM practices

Design short-term vocational training programs (collection, sorting, SW treatment) that are low-cost, easily accessible, and suitable for the conditions of IDWWs.

Mobilize state budgets and the Viet Nam environmental protection fund (through the EPR mechanism) to support vocational skills training for IDWWs.

Integrate the content of ensuring access to general education for children of IDWWs into social protection programs.

Raising awareness for employers

Implement communication campaigns and awareness training for units employing IDWWs, focusing on social responsibility, legal obligations, and workers’ rights.

4.3.3. Accelerating the integration of IDWWs into the formal sector

Supporting the formalization of IDWWs and SPFs

Encourage IDWWs to join organizations or cooperatives, or to register as small and micro-enterprises. Simplify legal procedures, exempt or reduce unnecessary licensing requirements, and provide support in accounting and taxation. Facilitate access to production premises, credit, technology, and markets.

Expand SI coverage

Develop financial incentive mechanisms and support schemes to encourage IDWWs to participate in voluntary SI with flexible contribution levels. Consider making SI participation a mandatory criterion in some forms of organized cooperation or occupational activities. Strengthen communication and awareness-raising on the benefits and obligations of SI for both workers and employers.

Support content	IDWWs collecting and transporting SW (OB1)	IDWCs in ESCs (OB2)	SPFs (OB3)	Recycling workshops (OB4)
Legal, policy and regulatory support	<ul style="list-style-type: none"> - Support integration into ESCs or legally recognized collection/recycling units. - Build legal framework recognizing occupation/role of IDWWs as a basis for targeted support. - Consider issuing professional ID cards. 	<ul style="list-style-type: none"> - Raise awareness of responsible labor use. - Support legal procedures to access bidding/support programs, environmental permits. - Support legal procedures to become PRO and join EPR system. 	<ul style="list-style-type: none"> - Raise awareness of responsible labor use. - Support legal procedures: BR, environmental permits. - Support legal procedures to become PRO and join EPR system 	<ul style="list-style-type: none"> - Raise awareness of responsible labor use. - Support legal procedures to obtain BR and access support policies, environmental permits.
Finance	Access state/local worker support programs	Financial support, preferential loans for formalization if needed	Financial support, preferential loans for formalization via BR, legal entity establishment	Financial support, preferential loans for formalization via BR, legal entity establishment
Tools and techniques	<ul style="list-style-type: none"> - Training/guidance in tools, sorting, technology, and required skills. - Provide protective equipment and working means. 	<ul style="list-style-type: none"> - Training/guidance in tools, sorting, technology, and required skills. - Require provision of protective equipment and working means 	<ul style="list-style-type: none"> - Training/guidance in tools, sorting, technology, and required skills. - Require provision of protective equipment and working means 	<ul style="list-style-type: none"> - Training/guidance in tools, recycling techniques, technology, and required skills. - Require provision of protective equipment and working means
Infrastructure	<ul style="list-style-type: none"> - Support space for SW gathering and sorting - Support technical facilities at waste collection point/sorting (lighting, sanitation water, etc.). 	<ul style="list-style-type: none"> - Support waste collection point and sorting space. - Require technical facilities at waste collection point/sorting (lighting, sanitation water, etc.). 	<ul style="list-style-type: none"> - Support waste collection point and sorting space. - Require technical facilities at waste collection point/sorting (lighting, sanitation water, etc.). 	<ul style="list-style-type: none"> - Require standard-compliant space and technical facilities for safe/healthy working conditions.
Social protection	<ul style="list-style-type: none"> - Support SI participation, simplify residence registration. 	<ul style="list-style-type: none"> - Require responsible labor use (contracts, sharing benefits with workers/communities). 	<ul style="list-style-type: none"> - Require responsible labor use (contracts, sharing benefits with workers/communities). 	<ul style="list-style-type: none"> - Require responsible labor use (contracts, sharing benefits with workers/communities).
Training and capacity building	<ul style="list-style-type: none"> - Support training in occupational safety and health. - Raise awareness of state support policies for IDWWs. 	<ul style="list-style-type: none"> - Support training in responsible business, occupational safety and health. 	<ul style="list-style-type: none"> - Support training in responsible business, occupational safety and health. - Increase awareness of benefits of formalization and access to state policies. 	<ul style="list-style-type: none"> - Support training in responsible business, occupational safety and health. - Increase awareness of benefits of formalization and access to state policies.

Table 4: Support content for IDWWs and sectors employing IDWWs to integrate into the SWM system

4.3.4. Building networks and representative organizations for IDWWs

The establishment of IDWW networks is a critical step toward improving the working conditions of this labor group while enhancing the overall effectiveness of the SWM system.

Prioritizing support for legally recognized entities as focal points

Existing organizations with clear legal status (such as ESCs or licensed SPFs) should be selected and supported to serve as intermediaries in implementing public policies, particularly EPR. These entities can play a central role in promoting the formalization process of IDWWs.

Establishing representative organizations and strengthening collective capacity

Encourage the formation of representative organizations of IDWWs in the form of COOP or unions with the following functions:

- Facilitating access to social policies and public services;
- Enhancing professional capacity and organizational skills;
- Promoting collective bargaining mechanisms to improve working conditions.

Piloting and scaling up effective model

Conduct assessments, strengthen, and replicate existing organizational models through pilot initiatives. Based on the outcomes of these pilots, propose policy adjustments tailored to specific local contexts and stages of development, ensuring the potential for nationwide scale-up.

4.4. Specific recommendations for current programs and regulations

4.4.1. Recommendations for the implementation of EPR

Developing an integrated database and identification system for IDWWs

To effectively implement the EPR mechanism in Viet Nam, it is necessary to build a comprehensive database on IDWWs in order to accurately identify the scale, characteristics, and role of this labor group in the collection and recycling chain. Complete data is the foundation for designing appropriate support policies, ensuring rights and creating conditions for integrating IDWWs into the formal management system. At the same time, this is also an important tool to monitor and evaluate the effectiveness of EPR implementation in a fair and comprehensive manner.

It is recommended to establish a comprehensive and regularly updated database on IDWWs, including information on individual collectors as well as SPFs. A simple and accessible identification and registration system should be introduced, adaptable to local contexts, to safeguard workers' rights and strengthen state management efficiency. This database will also support the coordination of EPR programs, the allocation of support resources, and the monitoring of policy

impacts over time. It is further proposed to integrate this task into national programs on WM, digital transformation, and social protection.

Strengthen support for SW collectors in EPR:

To enable IDWWs currently engaged in SW collection to effectively participate in the formal system, supportive mechanisms should be considered and promoted, including::

- Direct financial support for collection units to implement SI, labor accident insurance, and provide appropriate working tools and equipment for workers;
- Capacity-building and training programs, focusing on skills in waste segregation, collection, and proper treatment;
- Awareness-raising and communication initiatives to help IDWWs in waste collection better understand their rights, responsibilities, and the legal framework related to SWM;
- Financial support to develop digital platforms or linkage mechanisms, enabling IDWWs to work directly with recyclers, producers, and ESCs;

Recommendations on strengthening the role of Producer Responsibility Organization (PRO) in the EPR operation

According to Clause 5, Article 79 of Decree 08 guiding LEP, the authorized PRO stipulated at Point c, Clause 2 of this Article must meet the following requirements: (i) have legal status and be established in accordance with the law; (ii) not directly recycle and not have ownership relations with any recycling company related to the authorized scope; (iii) be authorized for recycling by at least 03 producers/importers. Thus, current collection units including ESCs, FEC, and SPFs can

become partners or authorized recycling organizations when moving towards linking and forming a capable network.

However, under the current EPR operational framework, PRO only serve as optional intermediaries, since producers and importers may directly contract recyclers to fulfill their obligations. Therefore, to ensure that PRO play an essential and impartial role in the functioning of the EPR system, it is recommended to reconsider and remove Point b, Clause 2, Article 79 of the LEP.

4.4.2. Recommendations to operationalize the National Action Plan on promoting responsible business conduct in Viet Nam

To further enhance the integration of IDWWs into the formal system, the National Action Plan to promote responsible business in Viet Nam needs to be specified in the following aspects:

Establish specific legal requirements for enterprises

Add regulations in legal documents on labor and enterprises, requiring enterprises to ensure basic rights for IDWWs such as minimum wage, safe working conditions, and access to social protection benefits.

Require enterprises employing IDWWs to register information and sign labor contracts with workers to ensure transparency and accountability in labor management.

Encourage enterprises to implement Corporate Social Responsibility (CSR)

Integrate support programs for IDWWs into enterprise CSR plans, including skill training activities,

provision of protective equipment, and support for HI and accident insurance.

Provide financial support or tax incentives for enterprises participating in community development programs to improve the quality of life of IDWWs. Specifically: financial support or tax incentives for enterprises participating in or directly implementing programs/initiatives to enhance CSR, aiming to improve working conditions and rights of IDWWs in supply chains.

Policy support for enterprises employing IDWWs

Develop preferential policies, such as tax reduction, for enterprises committed to supporting IDWWs through measures such as labor contract registration, provision of insurance, and vocational training.

Implement monitoring and evaluation mechanisms for policy enforcement in enterprises, ensuring that the rights of IDWWs are not violated.

5 | CONCLUSION

IDWWs remain an indispensable component in a large, fast-growing developing country such as Viet Nam. However, based on the findings presented in this report, IDWWs in Viet Nam's SWM sector largely consist of vulnerable labor groups with low skill levels, temporary and precarious jobs, limited social protection, and insufficient means to secure a minimum standard of living for themselves and their families. Importantly, the number of workers engaged in these activities is significant within the national SWM system. Integrating IDWWs into the formal network and new management policies is therefore not only essential to improve their living and working conditions, but also to enhance the overall efficiency of waste management in Viet Nam. Building sustainable cooperation models among the state, private sector, and civil society organizations is a cornerstone of this process.

To achieve this, comprehensive support for IDWWs must be prioritized, including the establishment of representative networks and organizations, alongside training, financial assistance, and policy measures to improve their quality of life, competitiveness, and formal participation in the national SWM system. ESCs in HCMC currently demonstrate potential to evolve into formal representative organizations for IDWWs, enabling them to negotiate labor rights and improve working conditions. Strengthening and upgrading this model would not only improve the livelihoods of IDWWs but also contribute to the sustainable development of the SWM, ensuring a balance between economic, social, and environmental benefits.

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