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Who are our informal recyclers? An inquiry to uncover crisis and potential in Victoria, Canada

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What is considered garbage embodies a recoverable economic value, and environmental cost if not recycled. Throughout the world, the often marginalised and impoverished population earns a living through informal recycling. This is also true for Victoria, British Columbia, one of the most affluent cities in Canada. This paper discusses results of a participatory socio-economic survey involving informal recyclers in Victoria, BC to determine their livelihood determinants. The findings reveal that “binning” is an important survival strategy to generate income. A new waste-management model that considers the social and environmental context is needed. Inclusive public policies can respond to the livelihood concerns outlined in this paper by facilitating access to recyclable materials, devising occupational safety improvements and educating about alternative strategies for resource recovery. This model can contribute to the overall sustainability of the community by reducing the waste of resources and people, empowering marginalised populations and reducing the environmental impacts of natural resource use and waste disposal.

Keywords: resource management; informal recycling; sustainable livelihoods; community-based research; social inclusion

Introduction: informal recycling

There is a population of impoverished and socially excluded individuals in Victoria, British Columbia, whose livelihood depends on the collection of refundable beverage containers from dumpsters. This activity of “binning”, the colloquial term for informal resource recovery, is a common phenomenon, particularly in poor countries (Medina 2001, Gutberlet 2008a, 2008b), and is also becoming more widespread in the North as this case study highlights. There are similarities in terms of structural barriers and livelihood issues experienced by the recyclers in the North and in the South; however, there are also very distinct differences between the experiences and situations faced in less-developed countries compared with affluent cities like Victoria. The value redeemed from refundable bottles is an important source of income for impoverished individuals, many of whom are homeless and some who identify themselves as Aborigines in North America. As scavenging through garbage bins remains an illegal activity in British Columbia, their actions are not without confrontation. Frequent encounters with police lead to fines or arrests; also,

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humiliating them is a common reaction of the community at large. The binning activity, accepted by the government and the community, provides the ability for marginalised individuals to become independent through earning an income without having to resort to begging or crime. Organising informal recyclers into cooperatives and social enterprises can significantly improve their working and living conditions (Medina 2000, Baud *et al.* 2001, Nyachhyon 2006), build their capacity to network and collaborate with businesses, industry, and government (Gutberlet 2008a), and stimulate community environmental awareness of waste reduction and selective collection, among other benefits. Cooperative recycling practices can be part of an integrated strategy to reduce urban poverty and environmental contamination.

There are numerous examples of entrepreneurial initiatives that collect, separate, and transform recyclables into economic resources throughout the world. The *United We Can* (UWC) bottle depot, a social enterprise located in Vancouver's Downtown Eastside, provides a successful example of how the organisation and empowerment of the binning community have contributed to social inclusion and poverty alleviation and also led to increased support from the local community and the municipal government (Tremblay 2007).

This paper presents results from a research project on quality-of-life issues regarding the binning population in Victoria and contributes to the debate on appropriate public policies to tackle the social and economic development needs of recyclers as part of the local community. We learned during the interviews with the recyclers that they refer to themselves as Binners, a term we have adopted in this paper. This research aims to improve the livelihood of Binners by recognising their social function, generating awareness in the community about the benefits from strong partnerships between consumers and Binners, and by restoring the dignity and integrity of Binners, that are often challenged by society's negative perception. A specific focus will be given to homelessness, which affects a significant number of Binners. As Lynch (1990) discusses in his book *Wasting away*, our consumption-oriented society has become extremely wasteful: Wasting resources, as they are no longer in use, wasting people by discarding and abandoning them once they are of a certain age or degree of disability, or wasting places once they are contaminated.

Community-based livelihood inquiries

The research project discussed in this paper employs action-oriented, participatory, community-based methods (Stoecker 2008) with a theoretical framework based on the sustainable livelihoods approach (Conway *et al.* 2002, Department for International Development 2002, 2006). The aim of the project was to gain an understanding of the socio-economic determinants that shape binning (including health aspects, homelessness, drug abuse, etc.), to learn about the socio-economic and cultural significance of informal resource recovery to the livelihoods of the binning community, and thus to inform policy- and decision-makers in Victoria about the assets and difficulties of this specific population. The target population for this research is focused on the Binners in downtown Victoria and surrounding neighbourhoods.

Participatory-based methodologies have emerged as an inviting alternative to conventional "top-down" approaches in conducting community research, particularly within resource management (Gjertsen and Barrett 2004, Gutberlet 2008b). Conventional, hierarchical approaches are less likely to foster sustainable communities, as it has been shown that citizens involved in the research process are much more likely to sustain the end results (Gutberlet 2008a). This approach provides individuals with an opportunity to have ownership of the project and share responsibilities because they have been involved in the process and have participated in the debate rather than being obligated by law (Hickey and

Mohan 2005). Community-driven research comprehends an innovative and powerful form of knowledge generation and mobilisation with the Binnars to bring solutions to the needs of this community and to advocate for action to effect change in the lives of the people involved in this research. Participatory research ideally integrates local communities, development agencies, and policy-makers through all phases of the project, including the inception of the research objectives and data collection, analysis, and dissemination. Guerts and Joldersma (2001) argue that scientific and subjective knowledge is required to improve communication between stakeholders and will ultimately enhance the effectiveness of the policy-making process.

Participatory methods encompass mapping, interviewing, focus group discussions, or surveys, applied *with* people and not *on* people. Community-mapping workshops provide a venue for multiple stakeholder perspectives, facilitate participation, and ultimately can lead to more inclusive public policies. Hickey and Mohan (2005) address broader methodological issues of participation as the potential to be “transformative” within the concept of citizenship, empowerment, and social movements. In particular, they argue that participatory approaches succeed when they are aimed at securing citizenship rights for marginal groups which seek to engage social change within a wider political arena. Participation has been embraced as a way to build transparency, accountability, and trust between people and institutions. It has become a mainstream approach by researchers, funding agencies, and governments to tackle poverty and social injustice.

By strengthening citizen rights and providing spaces where these can be voiced, participatory development also becomes a basis for personal learning and change, which can help produce a wider societal transformation. (Gutberlet 2008b, p. 14)

Participatory approaches can also build social capital within communities by providing opportunities for necessary dialogue and networking between different groups, and thus developing the capacity and empowerment of individuals to share responsibility in finding and implementing sustainable solutions (Chaskin *et al.* 2006). Capacity building develops social assets and contributes to social cohesion – the bonding and building of community (Putnam 2000). Social cohesion is defined by Maxwell as

... building shared values and communities of interpretation, reducing disparities in wealth and income, and generally enabling people to have a sense that they are engaged in a common enterprise, facing shared challenges, and that they are members of the same community. (Maxwell 1996, p. 13)

Participatory research contributes to building social, financial, and political assets and can increase the effectiveness of people and organisations working towards solving problems of poverty and injustice (Gutberlet 2008a).

Knowledge is empowering. It empowers an individual to form his or her own opinion and to act and transform conditions to lead to a better quality of life. (Hjorth 2003, p. 385)

Sustainable livelihoods approach

Several studies have adopted the sustainable livelihood approach to better understand quality-of-life issues among the marginalised and poor (Department for International Development 2000, Conway *et al.* 2002). The sustainable livelihood framework (SLF) is a tool to organise the information about people’s assets and about the institutions,

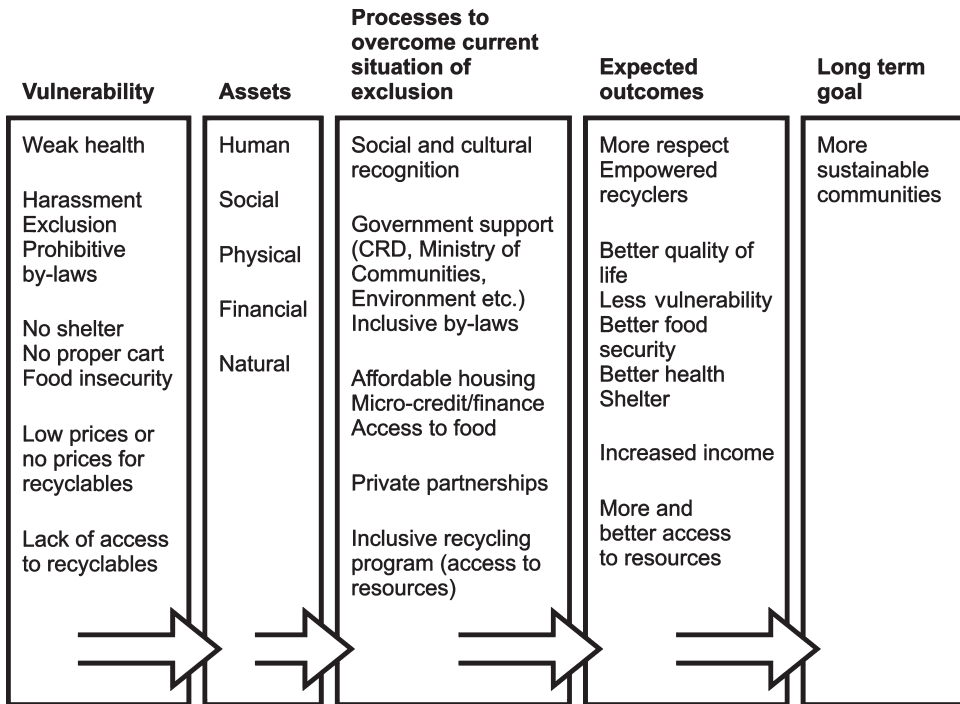


Figure 1. The Bidders' livelihoods and processes to overcome exclusion.

strategies, outcomes, and interactions involved in people's livelihoods (Figure 1). This framework is helpful, particularly when the study involves basic human rights issues such as access to food and shelter, as is the case among the Bidders and homeless people. Many studies have made use of the SLF to organise information on the marginalised and poor and have applied it in their poverty-reduction programmes (Bauman and Sinha 2001, Pomeroy *et al.* 2006). Livelihood assessment is a comprehensive and effective means of organising the management of assets – the natural, human, social, political, and financial – that poor people access to make a living (Assby 2003).

Livelihoods are the ways in which people make a living. Marginalised and poor individuals often attempt to balance their lives with food and income-earning activities. They use multiple strategies to sustain the activities. The poverty situation worsens when one or more of the strategies fail. Understanding these livelihoods helps reveal how people live through difficult times and situations. However, the primary task is to identify and build on people's existing assets and not merely their needs when planning interventions. The single most important factor that needs to be taken into consideration in livelihood assessments is to identify the extent to which the marginalised and poor are able to access assets (Baumann 2002). These assets are human, social, natural, physical, and financial. The SLF draws attention to core influences and processes, and emphasises the multiple interactions between the various factors that affect livelihoods (Department for International Development 2000). The framework provides a way of organising information on livelihoods, either from the people's vulnerability context or from the assets perspective they have (Conway *et al.* 2002).

Human assets include people's skills, knowledge, ability to labour, and good health, together enabling them to develop strategies to better their well-being. *Social assets* relate

to the networks and social relations people draw on to pursue their livelihood objectives. Social assets act as an informal safety net to ensure survival during periods of insecurity and to compensate when other types of assets (shared labour, for example) are lacking. Therefore, social assets give the people a sense of community, family, and social networks. *Natural assets* are the resources from which people derive all or part of their livelihoods. This includes land, forests, marine and wild resources, water, and air (Department for International Development 2000). *Physical assets* are the basic infrastructure and goods (tools and equipments) needed to support livelihoods. Infrastructure comprises changes to the physical environment that help people to meet their basic needs and to be more productive. *Financial assets* refer to the financial resources (for example, cash and loans) that enable people to access different livelihood strategies (Department for International Development 2000). The framework also provides space for organising information on the vulnerability context of the poor. They are vulnerable due to economic shocks, trends, and seasonal change. With the available assets, the poor will seek livelihood strategies that lead to positive or negative outcomes. The framework features policies and processes so as to give room for mitigating measures to be incorporated into livelihood assessments.

The framework has been widely used in the rural context (Chambers and Conway 1992, Brocklesby and Fisher 2003, Nandakumar 2007) and only more recently have the lessons learned been applied to the urban setting (Farrington *et al.* 2002, Chant 2004). Few studies follow the sustainable livelihoods methodology to better understand the assets and barriers of the urban poor (Meikle 2002). In India, the livelihood of informal recyclers has been studied in Delhi (Köberlein 2003) and in Dhaka (Rouse and Ali 2001), and the approach has provided very useful insights helping to understand the complex social and economic relationships and conflicts.

Participatory methods with the binning community

The project encompassed a multi-methods, participatory approach including focus group discussions, surveys, in-depth interviews, and community mapping. The first contacts with local Bidders were established by the research team in 2005 through casual conversations in the streets of Victoria and through the organisation of the discussion panel on *Inclusive Waste Management* held during the 1st Waste Reduction Day at the University of Victoria, on 9 October 2006, where some Bidders were invited as speakers. The purpose of the focus group was to validate and adjust the project design together with local stakeholders. We invited Bidders and experts from Vancouver and Victoria in order to (1) learn about the relationship between homelessness and binning, (2) gain a better understanding of the extent and diversity of the binning community in Victoria, (3) assess which would be some of the main livelihood issues of Bidders, and (4) discuss possible interventions to diminish stigmatisation and reduce poverty. A total of five Bidders from Victoria and two Bidders from Vancouver participated in the discussion, besides several other community members from an NGO and from the University.

The *focus group* provided the necessary space to discuss the project and invite all suggestions, which were weaved in at that time. This was also a chance to get to know each other and to bond in a way that created a sense of trust and reassured common interests. This experience facilitated the implementation of the survey. Survey questions were designed to collect information regarding livelihood assets and strategies. Snowballing was used to expand the number of Bidders involved in the project, starting with the contacts already made in 2006. A total of 14 Bidders were recruited and trained as *survey* facilitators. The survey was applied to a total of 156 Bidders by the facilitators over 3

days. The facilitators targeted Binnners at various bottle depots, along collection trap-lines, at shelters and on the streets of Victoria. *In-depth interviews* with Binnners were conducted by the researchers, transcribed and theme-coded. The responses do not speak for all Binnners; however, their statements were powerful and highlight individual perceptions about living homelessly and on binning. *Community mapping* was an integral component of the participatory research tools employed in this project. A total of 10 Binnners were trained to facilitate the day-long community mapping event in collaboration with the local NGO *Lifecycles*. A variety of themes were explored in the community-mapping workshop including binning routes (trap lines), access to services and facilities, and barriers that inhibit their livelihoods (locked dumpsters for example). The project received ethical clearance from the University of Victoria (Protocol Number 07-07-046b). The Binnners actively involved in the research received a pro-labore for the time and effort made within this project.

The plethora of information received during the workshop is being synthesised into a map as a tool for improving Binnners' access to services and resources. The map will help educate and create awareness of the public on binning activities. The process of community-mapping engages and builds networks between the stakeholders. Being able to participate and share experiences also creates opportunities for education and awareness-building. Our community map turned out to be an excellent tool to identify and locate institutions and social relations to which Binnners have or are denied access.

The Binnners' livelihood assets

Participatory methods are well-suited to finding out about the provision of services and facilities that enhance human assets (for example, schools/education, healthcare and sanitation facilities). Such methods can also uncover barriers to accessing resources resulting from cost, location, or social factors (for example, gender and social status). An important advantage is that such methods can help engage members of the community in problem-solving exercises and, through their use, service providers can be brought together with community groups to seek joint solutions to problems (Department for International Development 2000).

Human assets

Of 156 Binnners who responded to the survey questions, 90 were homeless, 58 were not homeless, 2 were temporarily homeless, and 6 did not respond. Of the homeless respondents, the majority were males between 40 and 59 years of age. Of the female respondents, the majority were between 40 and 49 years of age, many of whom were also without adequate shelter. Participants reported homelessness as a cause of financial difficulties were (28.6%), followed by political (23.5%), social (12.2%), and health factors (10.2%). Contrary to the perception of Binnners having limited or no education, this study found that the majority of homeless respondents had high-school education (64%) and some had college (18%) or university (18%) background. Twenty per cent of the entire sample population had only primary-level education.

Many immigrants enter the informal economy because they are precluded from formal-sector employment due to their immigration status, language barriers, or their lack of recognised skills (Cox and Watt 2002). However, in this study, it was found that the majority of homeless individuals are Canadians (57%) or identify themselves as First Nations (32%). Although there is a significant Asian binning population in Vancouver (Tremblay 2007), this sample reveals no Asian Binnners in Victoria.

Access to facilities

An important component of SLA is exploring participant's access to facilities and services. In this study, we were interested in access to water and sanitation facilities, shelters, and soup kitchens. Although the study did not include access to healthcare facilities, occupational injuries and health threats were recorded. Accessing clean sources of drinking water and sanitation facilities such as a shower and toilet can be a challenge for many homeless individuals. The majority of respondents, both homeless and non-homeless, use public spaces most frequently to access water, including public fountains and taps. Other options are restaurants, homes, or the place of friends and/or relatives. As more than half of the respondents (58%) reported being homeless, shelters are an important asset, particularly for the use of shower and toilet facilities. The lack of affordable housing seems evident. In the voice of interviewee Joana (Interview 2007), "... under subsidized housing there can be quite a wait list although there are exceptions for health conditions". For Joana (Interview 2007), housing means accessing citizenship: "If I get accommodation, I will be able to enter a program to find out what my capabilities are ... We need a home and we just don't want to bother anybody".

Occupational health

The health implications and risks of bottle scavenging is a major concern (Harpet 2003, Gutberlet and Baeder 2008). Common health risks reported in the survey include skin and viral infections (22%) due to cuts (37%) primarily from broken glass and metal (see Table 1). Physical soreness (30%) is also a very common response, and is often associated with transporting heavy loads of materials long distances. Some individuals reported that arthritis is a significant challenge when binning. A few respondents experience occupational threats such as being robbed, followed, and/or harassed as a consequence of territorial competition (3.5%) or general dislike. Despite risks of infections, disease, and injuries, limited precautions are adopted by this community. Among the respondents, only 20.4% wear protective clothing (gloves, boots) while binning.

The working circumstances in the street bear elevated health risks. The main problem consists of Binner " ... riffling through the garbage or something they poked themselves with something sharp or cut themselves", explained a *Cool-Aid* nurse (Interview 2007); "they come, probably once a week. I would say on average about one hand injury a week" (*Cool-Aid* Interview 2007). Cuts that get infected or require stitches are most common. Often, recyclers wait too long and the cut gets infected, creating a risk of Hepatitis C. Arthritis also seems to be a widespread ailment. The *Cool-Aid* nurse (Interview 2007) further points out "... we have had a couple of people with symptoms of food poisoning, diarrhea, nausea related to a ham that they recovered out back". Binner seem not to reach old age. In the interview with Maria (2007), she mentioned having recently lost two Binner

Table 1. Health risks of Binner.

Occupational health issues								
Cuts	Hep C	Conflict over territory	Physical soreness	Infection	Addiction and binning related health issue	Other	Total	No response
54	4	5	44	32	1	5	145	9
37%	3%	3.5%	30%	22%	1%	3.5%	100%	

friends. They were both 52 years old; one died in an accident hitting his head and the other had a heart attack.

Financial assets

Economic circumstances such as unemployment, limited and/or no social assistance are found to be the primary incentives for participation in binning activities in the Canadian context (Tremblay 2007). Accessing financial assets such as income from recycling, casual labour, or exchanging services for bottles is a valuable survival strategy. For many homeless respondents, binning provides the only source of income (68%), and for non-homeless respondents, this activity is also an important financial asset (40%) (Table 2).

Other means of income of the surveyed population are shown in Table 3. The findings from this research reveal that a productive informal economic system exists in recovering recyclable materials in Victoria. The majority of homeless individuals earn on average between \$10 and \$30/day (52%), while a significant portion of that population earns between \$30 and \$50/day (19.5%). Binning as a means of economic survival requires a significant amount of time and energy. In this study, the majority of participants reported binning between 5 and 7 days/week, and many between 4 and 6 hrs/day (Table 4).

Despite increasing difficulties in obtaining and maintaining social assistance in the province (especially as a single male), many respondents collect social benefits (52%). There is, however, a significant percentage (46%) that relies exclusively on binning activities for income. According to the outreach worker at *Our Place Drop-in Centre* (Interview 2007):

... there are people that are on welfare or disability and have to take money out of their support to pay for their rent and that doesn't leave a lot to live off for the month for groceries ... especially for people that have compromised diets and stuff ... so they make extra cash doing that [binning].

Physical assets

Recyclable resources, and in particular, refundable containers, are a form of physical assets and are crucial to providing Bidders with an income. Access to, and the use of these materials, is highly competitive between Bidders, especially with the threat of anti-scavenging by-laws and corporate influence over ownership of these resources. The most common material collected is beverage containers (51%), followed by clothing (22.5%) and electronics (14.5%). There is a refund in BC, Canada between 5 and 20 cents for beverage containers, which means a significant quantity of them is necessary to make a daily wage. Recovering up to 100 bottles/day is common.

There are numerous sources where materials are recovered throughout the central part of the city; however, their access is becoming more confined, as one Bidder explains

Table 2. Binning as livelihood option.

Binning as main source of income (total responses: 156)				
	Yes	No	No response	Total
Homeless	67 68%	31 32%	0	98 100%
Not homeless	22 40%	33 60%	3 5%	58 100%

Table 3. Additional income of Bidders.

	Other means of supplementing income						Total
	Disability	Panhandle	Sex trade	Casual labour	Scavenging	Savings	
Homeless	5	11	1	7	3	0	27
	18.5%	41%	3.5%	26%	11%	0	100%
Not homeless	6	5	0	10	0	1	22
	27%	23%	0%	45%	0	5%	100%

They are locking up dumpsters more and more . . . They are being kept behind the parking gates at apartment buildings. I notice that happening. There's more and more steel gates, way more. I've lived here twenty years. (Maria Interview 2007)

The respondents have repeatedly stated that resources are getting scarcer and that competition has increased noticeably with the influx of Bidders from other cities, particularly Vancouver. Although in most cases, multiple sources are accessed on a trap line (designated route), the most common source is the "blue-box" (curbside recycling bin) (30%), followed by litter cans (25%), and apartment totes (18%). The "blue-box" is the official programme of the Capital Region District for the collection of recyclables since 1989.

The most widely used equipment is the shopping cart (40%), often leading to a host of difficulties, including increased negative stigma from the community primarily due to noise and confiscation of materials from the police as a consequence of cart theft from shopping centres. Accessing equipment to transport materials is a common challenge in binning. One of the bottle depot managers evidences the underlying conflict related to the use of shopping carts and the nuisance of abandoned shopping carts as follows:

I understand the need for Bidders to use shopping carts, for them, it's their transportation, and I have never tried to tell them they can't bring their stuff in with shopping carts because that's unreasonable, as long as they don't leave them here I don't have a problem with that. (Depot Interview 2007)

Table 4. Time effort in collecting recyclables.

	Time spent collecting materials per week						No information on hours available, only number of days	No response
	<2 hrs	2-4 hrs	4-6 hrs	6-8 hrs	>8 hrs			
Homeless								
<1 day	1		1			4		
1-2 days		1	5	1		5		
2-4 days	4	4	9	7	7	11		
5-7 days	4	12	10	7	1		4	
Not homeless								
<1 day	1					2		
1-2 days		2	1			4		
2-4 days	2	8	4			6		
5-7 days	8	6	5	4				
Total						147	9	

As the manager from the other depot also confirms,

It's an ongoing problem, that will always be a problem . . . they're just trying to make a living, so if people didn't see it as a bad thing. . . I mean they're not harassing, they're just grabbing bottles to make a living . . . so, I think that is one of the big obstacles that they face in the community. (Depot Interview 2007)

Bidders are disrespected for recovering resources from the garbage and for taking shopping carts for transporting the material. Using shopping carts is inappropriate, noisy, and uncomfortable.

A local engineer and founder of *Tony's Trailers* produces and distributes carts to Bidders in Victoria both to improve their capacity to transport materials and to improve their image as recyclers. Recently he received recognition for his model cart "shelter-in-a-cart", a collapsible cart that also supports a built-in tent. The *urban binning unit* (UBU) is a similar venture designed by an industrial engineer in Vancouver. The UBU is a binning cart and capacity-building project of the UWC bottle depot, a social enterprise in Vancouver's Downtown Eastside. The project provides networking opportunities between the community and participating Bidders, and stimulates awareness and education about working with Bidders for resource recovery while improving their image.

Social assets

Social assets operate at different scales and because they refer to the moral and organisational context within which livelihood decisions are made; they are closely associated with issues of trust and reciprocity. However, capturing the ways in which peoples' social relationships, networks, associational and institutional linkages represent strategic livelihood resources is of enormous importance (Department for International Development 2000). Since income from binning is a sole economic source for many homeless individuals, building partnerships with residences and businesses for secured and regular access to materials is a significant social asset. Building these assets, a measure of the extent of social networks in a community, is particularly important in creating opportunities for homeless and excluded individuals to be engaged in civic life, and to promote greater economic prosperity. Social assets can be seen as

a shared resource, which is derived from and renewed through inter-personal networks, voluntary associations and trust generating interactions among citizens. (Luckin and Sharp 2005, p. 63)

Building partnerships with residences and businesses is a common working strategy and provides a consistent supply of non-contaminated and separated materials. This research revealed that 31% of homeless respondents have partnerships with businesses and residents for bottle collection. Partnerships between residents and recyclers improve the working conditions and valorisation of this activity and lead to more efficient resource recovery. These collaborations help retrieve resources that would otherwise have to be sorted from the garbage, posing potential health and sanitation hazards. Often, Bidders that have partnerships with businesses and residents will exchange services such as cleaning, over-night security, and odd jobs for bottle collection. For homeless individuals in Victoria, this is an additional strategy to obtain bottles. Recovering food from waste is also common, with 43.9% of homeless respondents reporting doing so.

The most severe problems Binnners face are harassment from police and park workers. The lack of respect and citizenship rights of Binnners is apparent. Local police confiscate and often destroy their belongings. Binner Maria notices:

... most of my friends have had their things taken by the police ... our things being taken routinely is just part of living outside. ... The poorest people are stolen from ... it seems outrageous ... because we are outside. (Interview 2007)

Research with Binnners has provided them moments of empowerment. One of the participating Binnners commented on her experience with this research:

... people helping people and sharing ideas ... , and too see it all going to be compiled like that, I am really excited. I have never heard anything like it so I am excited ... I have appreciated it, I haven't wanted to leave, and it's held my attention. (Interview with Joana 2007)

Policy opportunities and constraints

Despite a history of concerted effort by local government and community groups to reduce homelessness in the city, Victoria currently ranks among the top two Canadian cities having the highest housing costs and lowest vacancy rates. In Victoria, the 2007 Homeless Needs Survey conducted by the local *CoolAid Society* revealed that out of 1242 homeless and unstably housed people, 652 (52.5%) were men, 275 (22%) female, 5 (0.5%) transgender, and 310 (25%) male and female youths. Homelessness affects a wide range of people; however, single men constitute the largest segment of homeless in most Canadian cities (Klodawsky 2006). Of the Homeless Needs Survey participants, 58% noted concerns about their physical health (excluding addictions), 42% reported having a mental health concern, and 48% reported alcohol or drug use (Cool Aid Society 2007). The Vancouver Island Health Authority has determined a pronounced income gradient where persons in lower income brackets experience poorer health ratings than those with higher incomes. This research purports that emphasis should be given to resource recovery as a strategy to enhance the livelihoods of Binnners through the development of inclusive waste-management policies. Waste is a resource which generates income and thus contributes to improve livelihoods. However, those involved in the recovery are not recognised and there are no policies in place that support the activity and improve the working conditions of Binnners.

To the contrary, there is tension between the local government's waste-management policies and the Binnners. Through the "blue-box programme", an assortment of recyclable materials is placed by households in specific containers for weekly pickup. The operation of this programme is contracted out to a private company who generates income from processing the collected items. Although consumers can return bottles to designated bottle depots for a deposit refund, many residents place their returnable bottles in the blue box for convenient disposal. It is illegal for anyone to scavenge materials from the blue boxes; however, this is a guaranteed source of refundables for Binnners and their trap lines often coincide with blue-box pickup schedules. Some residents consciously leave refundable bottles in a separate bin or beside the blue-box so they are available to Binnners but not perceived to be the property of the waste-management contractors. While blue-box scavenging is common among Binnners, garbage receptacles and public spaces are also often searched for refundable items.

When asked about the perception of the binning community, the response from a government agent was:

Our mandate is for solid waste function, we are way out of our limit anyway ... we are not a social agency we need to get a job done. At the same time we are human beings, we want to

help if we can. There are opportunities for all people out there, and if you really want to work you will find a way. (CRD Interview 2007)

Part of our waste is becoming recognised as a valuable resource and interested stakeholders defend their access to them. The CRD agent puts it as:

We have contractual regulatory arrangements and the contractors are charged on certain materials . . . the contract specifies that they get the beverage containers back, 75% so we don't have much wiggle room. (CRD Interview 2007)

The CRD employee further explains the open conflict between the CRD and the Binners:

. . . our contracts are responsible for littering so the driver has to stop his rounds collect the debris. When there are chronic Binners, and there have been, it does get confrontational at times and then we have our by-law officer assaulted. We have had one prosecution in the last five years, we have given a few tickets . . . its called MTI "Municipal Ticket Information", it's a particular by-law that allows our officers to enact the by-law, fining people, for scavenging . . . removing items from the blue box and littering. And there are other issues, if someone's complains about someone being in their driveway or if they're making a mess in their blue box . . . we have to respond, we don't have a choice. (CRD Interview 2007)

The binning perspective, however, views this activity as recovering resources and reducing litter and thus as performing an environmental service.

There is opportunity for the local government to employ Binners in resource recovery in order to fulfil their mandate of increasing waste diversion and reducing poverty and homelessness. A unique partnership arrangement is possible between the government and the binning community that would embrace both social and environmental directives. In an affluent city such as Victoria, sufficient resources are already expended by the government to manage waste, but what is lacking are inclusive policies that integrate social and environmental livelihood strategies.

Conclusion: forming a better world with inclusive resource recovery

Besides the violence and harassment, Binners are also facing homelessness, malnourishment, and severe addiction problems on a daily basis. This research revealed that binning provides an essential primary income for 68% of homeless and 40% of non-homeless individuals in Victoria. Binners provide an important environmental service by recovering what will otherwise become an environmental nuisance in the landfill. However, they are often seen as thieves and are punished severely for their act of cleaning up the environment. It is beneficial for the city to tackle social and environmental questions with integrated solutions. Inclusive waste-management programmes can be a viable form to address the severe poverty and social exclusion issue and, at the same time, improve environmental health. There are innovative and creative proposals to put inclusive waste management in practice (e.g. by allowing partnerships between residents/businesses and Binners and by dedicating specific drop-off areas for the recyclables). As one of the Binners puts it

I think what would be great if more of these businesses and people that put stuff in the bins would do more recycling so separate it, put it in a separate container so people don't have to riffle through, that would be the ideal situation. (Interview with Maria 2007)

Binners are disrespected for recovering resources from garbage and for taking shopping carts to transport the material to the bottle depots. Having an appropriate cart would make a significant difference to Binners and businesses from where, traditionally, shopping carts are taken. It would also benefit the general community because of noise reduction. Besides facilitating the transportation of the material, an appropriate cart could also contribute to the empowerment and the building of self-esteem among the Binners. It could make a difference in how society views these individuals and their service. UBU, an initiative of UWC, is a cart designed specifically for collecting bottles and resolving the contentious issue of stolen property by providing an alternative to shopping carts, thereby alleviating the negative stereotype that some Binners carry.

Bureaucratic procedures are often the entry to access social programmes intended to help the needy. Lack of access to the Internet and difficult terminology may be among the hindrances for Binners to access these resources. There are strategies to overcome these bottlenecks, as demonstrates an experience conducted in San Francisco in 2004. A group of homeless advocates rented a local convention hall and persuaded their local social service provider to set up a table to receive and solve the inquiries of the underprivileged. They opened what became a

trade fair for homeless people. There was live music, free food, and, yes, even secure valet parking for shopping carts, so that clients could wander the aisles without fear of having their few possessions stolen. (Paulsen 2007, p. 2)

It is clear that a concerted effort among government agencies and non-governmental programmes is necessary to overcome the complex social problems briefly introduced in this article. Homelessness is an issue which comes together with many other conditions including poverty, social exclusion, drug abuse and addiction, harassment and stigmatisation, malnourishment, lack of empowerment and citizenship, and conflict over resources, among others. These social and economic questions need to be addressed in an integrated and coordinated response, where government agencies need to look beyond their traditional mandates. The sustainable livelihoods framework has served well the purpose of understanding the multiple factors and processes that shape the difficult living and working condition of this particular group.

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