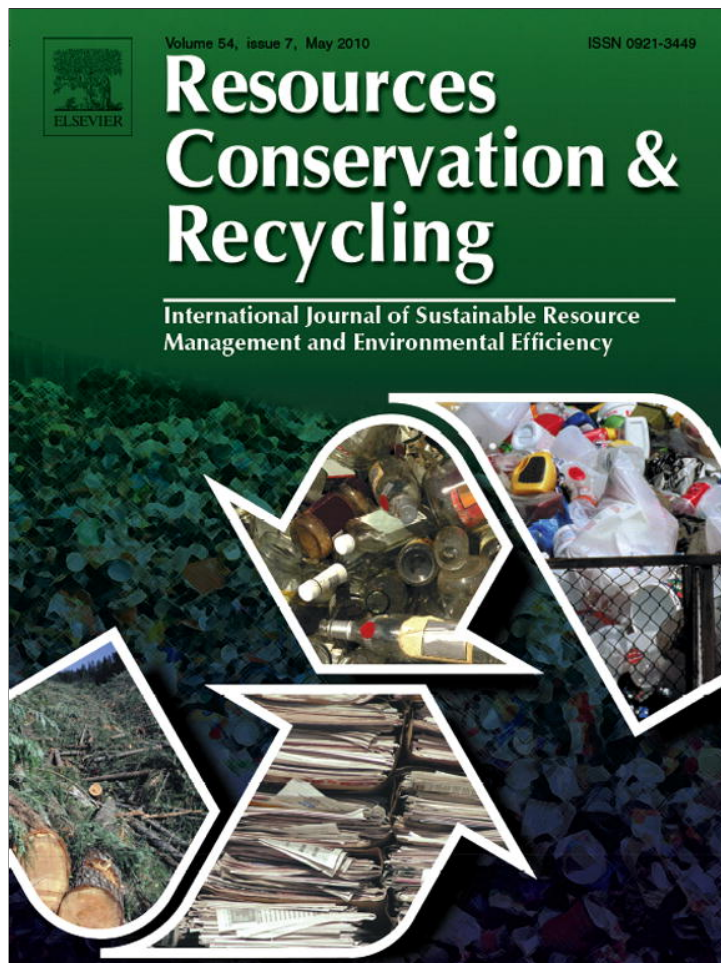


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United We Can: Resource recovery, place and social enterprise

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ABSTRACT

Informal resource recovery, the collection of recyclable materials from the waste stream and urban environment, known as binning, can contribute to poverty alleviation and environmental sustainability. An informal and marginalized sector of 'invisible citizens' exhibit a sense of place and agency obtained through the organization of the United We Can (UWC) bottle depot, a social enterprise in Vancouver's Downtown Eastside (DTES), Canada. This paper discusses (1) social and economic aspects of resource recovery, in particular the binners' sense of place and community, (2) the capacity of social entrepreneurship for community development through UWC and (3) current policy framework and required changes to support new forms of inclusive waste management that will contribute to the local economy and environmental quality.

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1. Introduction

The wider understanding of solid waste as a resource is not a new concept (Gutberlet, 2008, 2009; Medina, 2007). Business, particularly large corporations have discovered the resources embedded in household waste and the possibility to generate profits with recycling. Worldwide a few multinational concerns are involved in urban waste management, from collection to disposal and recycling (Fahmi, 2005; Ferrara and Missios, 2005). There is also a social facet to resource recovery, though this is less well recognised. The collection of recyclables generates a living mostly to the livelihoods of no- or low-income populations. In addition it can contribute to the creation of better communities. Retrieving valuable materials out of the waste stream is mostly performed informally through those who do not have sufficient income. Informal scavenging is well known in developing countries but is less frequent in North America and Europe. In many cities in developing countries the social and economic value of organized recycling has become evident and innovative integrated waste management policies are emerging from these cases (Gutberlet, 2008; Peredo and McLean, 2006).

The case study presented in this paper highlights the role of informal recyclers in Downtown Vancouver. Condemned as dirty, less worthy or marginal, these people do a valuable job, which nevertheless is not recognized as such. The bottle depot *United We Can*,

a social enterprise, plays a vital role in providing a place that is more than a refund depot but a place where recyclers can find support and friendship. In this paper we tell the story of how a sense of community is created where despair or desolation is often widespread. Based on the principles of social economy, a difference can be made to those people and to the wider community. The initiative of one leader and a small support group in Vancouver showcases that the quality of life of marginalized people is improved, even with limited resources, and that the local environment equally benefits from it.

The research was conducted from a community-based perspective (Stoecker, 2008), listening to official voices from the local government as well as from those involved in informal resource recovery. Political ecology, particularly considering the social justice aspect (Low and Gleeson, 2001) provides the theoretical context for the paper and highlights possible benefits from integrated waste management policies. A community-based perspective underlines the fact that solid waste problems require not only technical solutions but also social and economic considerations. The paper argues for a paradigm shift by tackling solid waste concerns with a focus on the social and economic facets. The conclusions provide a new perspective on public policy design that make a difference in the building of more sustainable communities.

2. Social and economic aspects of resource recovery

In Vancouver, informal resource recovery is known as 'binning'. It is a widespread economic activity for a diverse range of low-income individuals. The number of people involved in this sector has increased dramatically over the last 10 years, from a few hun-

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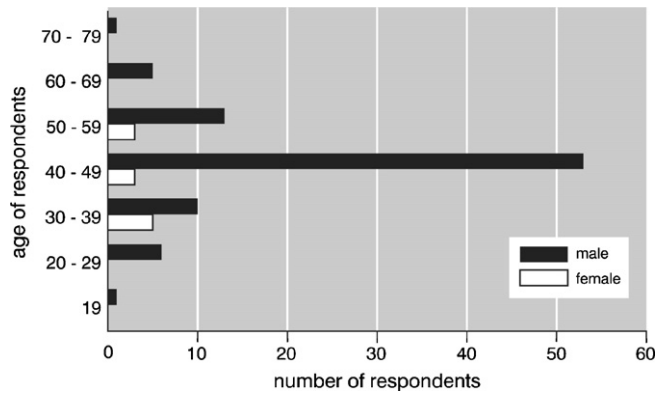


Fig. 1. Age and gender of binners at United We Can bottle depot, 2005.

dred in 1990 to thousands in 2005; primarily as a response to welfare restructuring in the province. In 2005, a case study was conducted to learn about the binning community in Downtown Eastside Vancouver (DTES). The research involved 100 surveys and 10 in-depth interviews with binners, 8 in-depth interviews with key informants from the local government and the community, and participant observation, whereby the binners were accompanied in their daily routine for four weeks in August (of 2005). Participant observation occurred at the United We Can bottle depot, where information such as the number of binners, variations in the influx of binners at specific times of the day, the type and quantity of material, the equipment used, and the social-economic variations among the binners was recorded. This method contributed to establishing initial communication and relationships with binners and employees at the United We Can bottle depot. A one-page close-ended questionnaire was used to gather information on the quantity, type, and source of material collected. Socio-demographic information such as age and gender (Fig. 1), place of residence, occupational background, and level of education was also gathered (Fig. 2). The survey revealed that the majority of binners are male (90% of respondents), between the ages of 40–49 (53% of respondents) (Fig. 1). As will be discussed later in this paper, these results are indicative of a series of welfare cuts in the province affecting primarily single males in this age category.

Contrary to the general perception of binners having little or no educational background, the survey revealed that 13% (13/100) of the population have attended college, 11% (11/100) have attended university, and that 37% (37/100) have completed high school. The remaining 33% (33/100) have attended but not completed high school, and 7% (7/100) have only primary education. This reveals that many binners engage in this activity out of socio-economic circumstance rather than due to a lack of education.

Open-ended questions focused on environmental and public perception, health implications, territoriality and competition, social hierarchy and community involvement. This was also an opportunity to find out about the role that the United We Can bottle depot plays in supporting this activity, and any recommen-

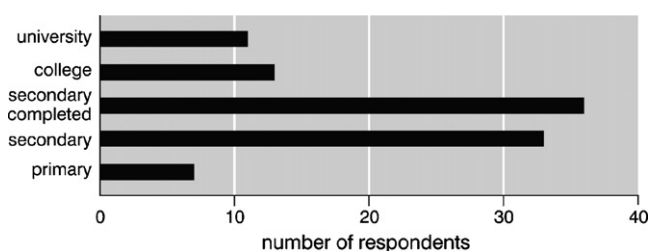


Fig. 2. Level of education of binners at United We Can bottle depot, 2006.

datations for improvement of their services. Interview participants were partially identified using a snowball sampling method. This sampling method relies on contacts made in the field to provide third-party references to appropriate participants (Hay, 2000). Many of the participants were recommended by UWC employees based on their experiences and length of time involved in the activity. The remaining participants were chosen for interviews after engaging in conversations at the bottle depot. These participants were chosen based on their duration of time involved in binning, their experiences, socio-economic situation, age, gender and willingness to participate. The participants selected revealed a very diverse background, experience, duration of involvement, and socio-economic motivations for engaging in this activity. The sample of full-time/part-time and established/new binners provided a wide range of perceptions and attitudes about this activity, and their place within the community. A total of 10 binners participated in the semi-structured in-depth interviews and were encouraged to reflect on their integration with waste management, the economic significance of binning in their lives, their perceptions of this activity as contributing to the environment, the social organization of this activity, and their sense of belonging to a community. The interviews with binners were conducted at various locations in the Downtown Eastside, although the majority took place at a coffee shop down the street from the UWC bottle depot. The interviews were recorded using an audio-tape recorder, followed by a period of written reflection. The binners that participated in the in-depth interviews (10) were given a blank piece of paper on which they were asked to draw or describe their selected route, their “trapline”. Most often, binners have one or two routes that they travel to recover recyclable resources. These routes or designated territories reveal the spatial distribution of the activity throughout the city. The spatial data was transferred to a base map of Vancouver to reveal the spatial boundaries and distribution of this activity.

The results from this research highlight the dependence on informal recycling as a main economic source, and that options for alternative sources of income are difficult to obtain if not impossible. Theories of social exclusion, whereby certain segments of society are seen as isolated in terms of economic and social opportunities (Wagle, 2002), re-enforce that this population faces exclusion. Smith (2003) suggests that the concentration of social services and low-income housing in the DTES reflects the high percentage of marginalized population living there. As to Smith (2003), planning and public policies from the past have had major consequences for the current socio-economic conditions in the area. What Smith (2003) describes as a self-perpetuating ‘poverty industry’ is reflected in the significant concentration of binning activity in higher income areas such as the West End, reinforcing spatial inequalities and access to resources.

The flexible and autonomous character of binning offers an opportunity for economic survival and social inclusion to individuals living on the margins of society. Despite this sector’s positive contribution to resource recovery and litter reduction, the activity remains severely stigmatized.

There is a direct correlation between BC’s social assistance cut-backs (from 1995 to 2002) and an increase in binning during those years. The dramatic increase occurred in the number of people that started binning in 1995, when the BC Benefits Act was implemented and again in 2002, when further welfare restructuring happened (Fig. 3). Among the survey respondents, 56% reported the earnings from binning as a necessary additional source of income needed to supplement inadequate welfare payments, disability, and pension.

The introduction of the two-year welfare limit in 2002 is seen to have an impact on the increase of this activity to date. As the two-year welfare limit continues to cut people off social security, Vancouver will presumably continue to experience an increase in this and other informal related activities.

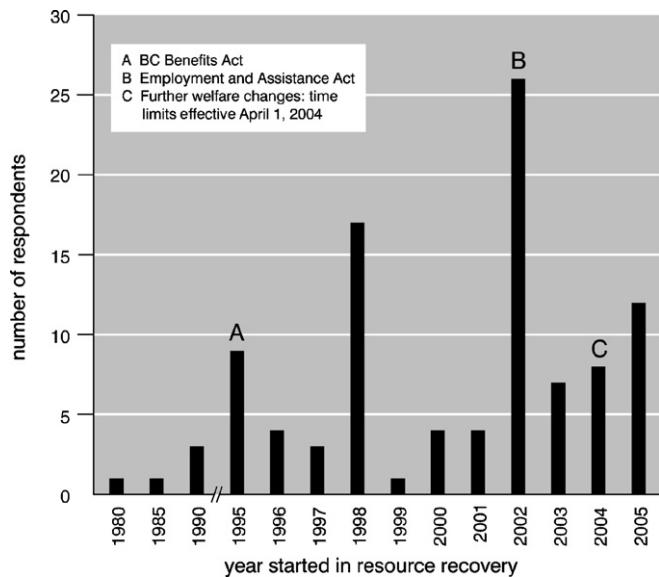


Fig. 3. BC social assistance policy changes and year started in resource recovery.

The number of binners also fluctuates on a monthly basis, with more activity at the end of the month, which is directly correlated to the social assistance pay. One recycler commented on the day of 'Welfare Wednesday' in Vancouver, that the "streets are empty of recyclers. Everyone just got their cheques so no one is out binning" (Informal interview with male binner, approximately 40 years old, August 15th, 2005). Binning activity drops so dramatically at this time of the month that UWC officially closes its doors, highlighting the extreme dependence on this activity from those that are supported by social assistance.

Despite the prevalence of informal resource recovery in many developed countries, research on the phenomenon in those countries has generally been limited in both quantity and scope, especially in comparison to the developing world where a number of studies have been completed to date (Adeyemi et al., 2001; Gutberlet, 2003, 2005, 2008; Medina, 2000). More specifically, studies focusing on creating opportunities for environmentally sound economic development through recycling are rare in the developed world. Acknowledging this activity as important income generation for marginalized and socially excluded populations could also contribute significantly to future policy development directed towards poverty alleviation and social inclusion in Canada. "They make \$20–\$30 or sometimes 40\$ a day, depending on the day, work at it about 5 days a week, and they work hard and are competitive and they are the true entrepreneurs... and they have sort of a trapline that they become familiar with and they work that trapline... they actually get the businesses and residences to contribute, to wait for them, and put stuff out, marked for them in a way to make sure that they get it, and those people may or may not spend much time in the bins" (Interview with Bob Ross, Consultant with the Department of Engineering DTES Revitalization Project, City of Vancouver, August 9th, 2005). Professional binners are highly productive at retrieving recyclable materials from many sources and through partnerships with residences and businesses. Most of them are completely dependent on this income for their livelihood, working up to 7 days/week and 10–12 h/day. The survey revealed that 74% of the respondents have established partnerships with residences and businesses for regular bottle pick-ups, providing both an asset for their livelihood and community network. "I could go get a job no problem. I know I can. I could get a 9-5 job, where I do the exact same thing everyday like a robot. Now, binning. I work my own hours, I am my own boss, I can work in any direction I want, I work any

hours I want. I don't know who I am going to, I don't know what I am going to find, how much I am going to make. Everyday is a brand new adventure" (Interview with Roy, a male binner/middleman approximately 40 years old and binning for 3 years, August 9th, 2005).

There is a clear *social hierarchy* within the binning community, ranging from low to high levels of productivity, in terms of amount of recyclable material recovered and returned for income. Within this community, a multitude of niches are made available; those with extreme poverty and disabilities that rely on this activity for their daily survival, to part-time and seasonal workers, to those that are highly productive at retrieving recyclable materials as full-time employment.

3. Territory, place and community building

The process of binning in Vancouver is organized around an unwritten set of codes and conducts primarily based upon territoriality and seniority. These territorial boundaries are designated through established routes called 'traplines' that binners work on a regular basis. These routes are highly diverse in the size and location of area, contributing to an interwoven and complex system of spatial territory (Fig. 4). Among the survey respondents, 44% revealed to have a designated trapline and an attachment to this space. A sense of ownership and territory develops while the binner becomes familiar with his or her set route. This attachment to territory provides a sense of security and is recognized within social geography theory as an indicator of social cohesion (Benko and Strohmayer, 2004). Symbolic of the community's identity, the importance of territoriality re-enforces the link between place-based concepts and social inclusion. These elements of community cooperation and inclusion are organized through the model of social enterprise at the United We Can bottle depot.

Communities can be defined as networks of connection, with boundaries that delineate insiders and outsiders, and where members identify with one another or have what community psychologists in the 1970s began to describe as sense of community (Meyer et al., 2005). Sense of community is determined by "the extent to which community members experience a sense of solidarity and a sense of significance" (Young et al., 2004, p. 2628). This entails members feeling that they are appreciated as important contributors in their community and society, thereby developing a sense of achievement, fulfilment and worth (Young et al., 2004).

Concepts of *social cohesion* such as conflict resolution and participation are evident in this process of group organization (Pinto da Silva, 2004). From this perspective, group rules and codes determine access and management of these common-pool resources. Resources under common use are referred to as common-property or common-pool resources. These communal management systems differ from conventional approaches because ownership, in many cases informal, is based on group control. Here, participation, trust, and feelings of a shared identity play an important role in overcoming conflict due to resource competition and can provide incentives for collective resource management. The seniority and territorial system of the binning community provides an example, although not perfect, of community common-pool resource management.

It's not a violent protection you know. It's just that's mine, that's where I work, this is my work (Interview with Dan, a male binner approximately 40–45 years old and binning for 2 years, August 20th, 2005). A trapline could have numerous binners working along it at various times. "It gets refilled, you can tell that it has just been gone through and you just go the other way, and then you go in a circle and come back and it's full again, so it really is like a trap line" (Interview with Harry, a male seasonal binner approximately 40–45 years old and binning for four years in the summer, August 8th, 2005).

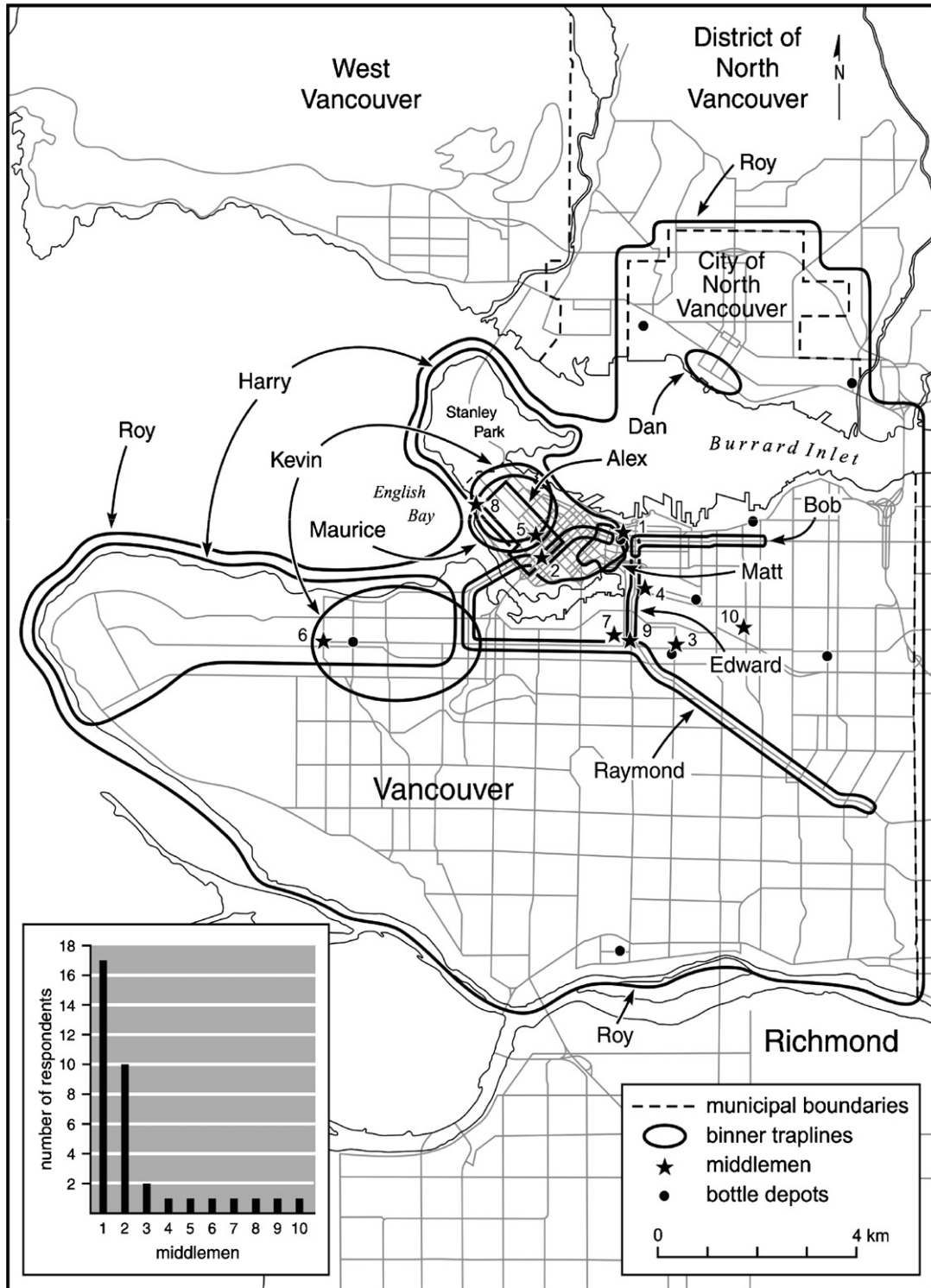


Fig. 4. Traplines in Vancouver, mapped with the local binners.

The recognition of individual traplines, and the consequent spatial organization and cooperation of the binning community, reveal a distinctive shared identity. The daily interactions between the binning community, guided by self-governed rules and regulations (The Binners Code) of resource use and management, strengthens theories of community empowerment and social cohesion. Furthermore, these results contain similar elements of resource co-management regimes, particularly in the organization and cooperation of this community pertaining to

common-property resources. Common interests and experiences are shown to enhance group solidarity, generating shared beliefs and norms. Shriver et al. (2000) define collective identity as “a sense of solidarity, and a political consciousness” (2000, p. 45). Although competition and conflict over resources exists within the binning community, threats of resource exclusion from waste privatisation and monopolization is an element that further solidifies this community’s shared interests and identity.

4. Social entrepreneurship for community development

The United We Can (UWC) bottle depot is a clear example of social entrepreneurship (Peredo and McLean, 2006). It is an enterprise that earns revenue and serves a client base of over 1500 regular customers in Vancouver's Downtown Eastside. But it is also a *social* enterprise, in that social aims dominate the goal structure of the organization. In employing inner-city residents (approximately 350 staff/part-time binners work on a rotational basis), UWC contributes significantly, by explicit intention, to relieving some of the hardship that prevails in its areas of the city. The Downtown Eastside, characterised as one of the poorest neighbourhoods in Canada (Smith, 2003), struggles with many complex socio-economic challenges such as drug addiction and dealing, HIV infection, prostitution, crime, lack of adequate housing, high unemployment, and the loss of many legitimate businesses. UWC is actively engaged and dedicated to improving the socio-economic conditions of the Downtown Eastside community, and plays a significant role in mobilizing and supporting the binning community. The goals of UWC are to create self-sustaining urban environmental enterprises, and to create jobs for inner city residents. In pursuing alternative approaches to environmental initiatives, UWC recognizes the significant opportunity and vital need to build the capacity of this community in order to encourage economic development and social cohesion.

The organization of the informal waste sector into social enterprise has proven to be a successful model for marshalling resources already present in a community (Peredo and Chrisman, 2006) and of social and economic inclusion (Gutberlet, 2005; Medina, 2000). International experiences, for example from Diadema, Brazil, reveal many socio-economic and environmental improvements for participants of the binners association (*Pacto Ambiental*) including (a) increased income by strengthening ties with industry and the local government, (b) social inclusion through improved organization and legitimization of activity, (c) increased efficiency in resource recovery through capacity building to improve source separation and door to door collection services, and (d) improved health awareness and education and (e) formal recognition as service providers through the establishment of new bylaws that pay the recyclers for the amount of recyclable material collected from the households (Gutberlet, 2008). Social enterprises and other forms of social economy structures provide an important link between the informal waste sector, government and society through capacity building, education programmes, and occupational health guidelines.

Building social capital, a measure of the extent of social networks in a community, is particularly important in creating opportunities for excluded individuals to be engaged in civic life, and to promote greater economic prosperity. Social capital 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). These interactions have been shown to promote population health and effective civic institutions (Lochner et al., 1999). The resources of social capital include a high degree of reciprocity in which short-term sacrifices are made with the implicit understanding that they will be repaid over time; trust, or a willingness to take risks with the conviction that others will respond cooperatively; and broad agreement on social norms (Larson and Starr, 1993; Onyx and Bullen, 2000). The advantages these resources offer to populations who are otherwise marginalized are obvious. Social enterprises thus play a valuable role in promoting social capital and community participation among the binning population.

Peredo and Chrisman (2006) highlight social capital and positive social networks as useful concepts in understanding community-based enterprises, and are seen as necessary components for

economic development. It is within these networks that "communities are able to build strong relationships, which, over time, allow trust, cooperation, and a sense of collective action to develop among members" (Peredo and Chrisman, 2006, p. 314). Social capital creates economic opportunity, builds political activity, and promotes social, cultural and environmental goals. Within this framework, individual participation and organization through social enterprise contributes to improved cooperation, conflict resolution, and political activity.

UWC acts as a support system for binners throughout Vancouver, providing a sense of community and belonging to those that may not have a family and are often socially and economically excluded. "In the modern technological society I think there is still a hunger in people for having some sort of meaning and being part of the pack. . . so how do you do that? If you are not part of society it is very hard to figure out how you are included in it. . . our objective with UWC has meant to say if that is the commonly accepted value, that the dollar is an important piece of it, and that to exclude people from participating in that is to exclude people" (Interview with Ken Lyotier, Director of the United We Can bottle depot, August 16th, 2005). UWC is a strong advocate for improving the socio-economic conditions in the DTES and for building the capacity of those living and working there. For many, UWC provides a supportive environment that encourages social interaction, self-realization and acceptance.

Creating strong social networks within communities that are on the boundaries of society has a profound influence on the inclusion of a wide diversity of individuals and the potential to build capacity for improved quality of life. UWC is perceived as a place of community, supporting an identity of environmental stewards with no boundaries to social inclusion.

5. Tools for social innovations

In an attempt to relieve tensions between binners and to ensure access to materials by improving relations with the public, UWC and a group of binners have created a Binners Association and a 'Binners Code'. The Binners Code includes behaviour and attitude recommendations when relating to other binners and the public, maintaining a clean environment when binning, and following guidelines concerning territorial boundaries. Although some binners already adhere to an unwritten set of rules, the Binners Code serves a greater purpose. The Binners Code is an attempt to legitimize the activity, instil a level of public confidence and improve the binners' image.

Members of the association are intended to "create the kind of presence amongst themselves to raise the bar on how they conduct themselves with the public" (Interview with Ken Lyotier, Director of the United We Can bottle depot, August 16th, 2005). Members of the association carry an identification card, and there are plans to provide training in customer relations and other topics. The city is supportive of the Binners Association and is currently working with UWC on the proposal of a pilot project that involves street collection of household and commercial recyclable materials. "I think this binners association is a good idea and we ought to give them a uniform and allow them to have some kind of identification and promote the stewardship of the environment aspect of what they do. That would help make them more legitimate and increase their exposure. We have to be inclusive of them whether they're binners or not, or marginalized people. We are not doing enough of that" (Interview with Bob Ross, Consultant with the Department of Engineering DTES Revitalization Project, City of Vancouver, August 9th, 2005). Although still in development, the Binners Association in Vancouver is an important movement and has the potential to benefit members of the association by building stronger social networks between business and residences.

The Urban Binning Unit (UBU), another initiative of United We Can bottle depot, is an innovative utility cart designed to improve the efficiency of the collection and transport of recovered materials, appease local noise complaints, and increase public awareness about binning in an effort to build healthier and more cohesive communities. Fabricated with recyclable and replaceable materials, the cart is made to be manoeuvrable. Equipped with a large canvas bag, the UBU can be easily collapsed and stored, and has an attachment for a bicycle, a common method of transportation among binners. Typically, shopping carts are the mode by which binners collect bottles, hence the UBU solves the contentious issue of stolen property and opens a much-needed dialogue with the public. The UBU is quieter than the typical shopping cart that has been the root of considerable complaints and associated negative stigma. Often, police confiscate shopping carts as stolen property from binners and give punitive fines. Since the UBU carts operate under a lending scheme of the initiative (with opportunity to eventually own the cart), the potential for police harassment is significantly reduced. The “response has been phenomenal. . . People are constantly making comments and tell me how much they appreciate the collection service I provide” (Interview with member of the UBU team, July 27th, 2007).

The UBU provides opportunities for the public to engage with the binners, encouraging their participation in resource recovery and “helping the binners promote themselves as self-initiated urban recyclers” (Interview with Michael Strutt, Director of the Urban Binning Unit initiative, August 20th 2005). The UBU has been an excellent instrument for community development, working to engage various stakeholders and building the capacity and skills of the binners involved. This process has contributed to providing binners with increased capacity to market themselves as street level service providers and entrepreneurs.

6. Innovative waste management policy frameworks

Identifying waste as a resource and as an opportunity for income generation and social inclusion is spearheading a paradigm shift towards inclusive waste management policy development and urban sustainability. As urban expansion continues under the current consumer-driven disposable culture coupled with rising poverty and socio-economic exclusion, recognizing this opportunity is paramount. Successful examples of waste management initiatives such as social enterprises in Canada and other countries are encouraging the public to re-evaluate waste as a resource, and to legitimize the act of recovering these resources as honourable and timely endeavour.

Recycling programmes are often the highest priority for waste management strategies. As a consequence of growing environmental concern for increased consumption of disposable products, recycling programmes have increased on a global scale (Gutberlet, 2003). The commitment to recycle is driven by the need to conserve natural resources, reduce imports of raw materials, save landfill space and reduce pollution from landfills. Recycling in North America is becoming a competitive waste management option given the high costs and environmental concerns of land filling and incineration. Despite waste reduction initiatives in Canada and the United States, a large proportion of municipal recyclable material is still found in the waste stream (Geis, 1996). In the Greater Vancouver Regional District (GVRD) for example, the overall per capita disposal rate was 0.678 tonnes in 2002, compared to 1.38 tonnes in 1990. Approximately 50.6% of the municipal solid waste generated in the GVRD was recycled in 2002. Although recycling rates have increased over the last decade, an additional significant amount of waste could be diverted, underlining the pressing need for alternative policies to increase recovery.

There is potential to create a sustainable and highly productive partnership between binners, residents and the City of Vancouver in recovering resources. Improving the public perception of binners as environmental stewards is a necessary step in providing a healthy and secure working environment. A strong and effective advocate for socio-economic development that contributes to improving the urban environment, UWC facilitates a unique link between this population, the public and the City of Vancouver. “Some people go out of their way to let you know what your doing is ok. That comes with knowledge versus ignorance, prejudice. They aren't informed. . . If you just see the guys as legs sticking out of the bin and as a bum, you don't see the fact that he is keeping materials out the landfills. . . It's how they see it” (Interview with Alex, a male binner approximately 40 years old and binning for 1 year, August 15th, 2005). UWC offers a successful model of social enterprise contributing to poverty alleviation, social inclusion and environmental health that has the potential to be adopted and transferred to cities in other parts of the world where extensive informal resource recovery is happening.

7. Conclusion: towards inclusive waste management

This research confirms a shared identity, fostered in cooperation, organization and solidarity within the binning community. A sense of community is built upon an inclusive, just and supportive environment, creating opportunities for social cohesion, effective forms of conflict resolution, capacity development, and overall community economic development. The bottle depot United We Can in Vancouver's Downtown Eastside is a successful, organized resource recovery scheme. The case study reveals several socio-economic and environmental benefits from this activity. It provides an opportunity to build capacity among those that usually have limited economic options, but who in turn can contribute to the construction of better communities and more sustainable urban environments. The case study shows how to engage and integrate informal recyclers also helps tackle ecological considerations, for example by conserving landfill space and natural resources. Most important, however, is the fact that inclusive waste management approaches facilitate mechanisms that improve the socio-economic conditions of those working informally in the recycling trade and hence tackle poverty alleviation, one of our most pressing and ubiquitous social challenges. Supporting the creation of new recycling plants and facilitating partnerships between the binners, industry and government through the implementation of adequate public policies and the right mechanisms for human and financial resource allocation are feasible strategies to overcome social and environmental injustice. Until now most successful experiences with inclusive waste management are located in the South, the case of United We Can in Vancouver sets precedence for the North.

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