

Sonia Dias<sup>1</sup>

## Integrating Informal Workers into Selective Waste Collection: The Case of Belo Horizonte, Brazil

This Briefing Note expands on the genesis and key elements of the public policy focused on the integration of one category of informal waste workers: the *catadores* (collectors of recyclables) of Belo Horizonte, Brazil, sketched in the previous Briefing Note – No. 5.

### Introduction

Informal workers in the solid waste sector represent a large and growing stakeholder group in most developing countries. In some cities their work is responsible for between 50 and 100 per cent of all waste activities. This means they make an important economic contribution to reducing the burden of waste management for which a city is responsible. Experience shows that informal workers often achieve higher recycling rates than formal recycling systems in many cities of the developing world (UN-Habitat 2010; Visser and Theron 2009). Higher recycling rates are associated with reductions in greenhouse gas emissions. However, most of these workers experience poor working conditions, their contribution is not acknowledged, and they are often harassed by members of the public and by the authorities.



**ASMARE leader Dona Geralda and her husband were the pioneers in getting waste pickers organized in the city.** Source: Leslie Tuttle

Some countries are now recognizing the contribution that these workers make to solid waste systems. In

Brazil many cities have developed recycling systems that formally integrate waste pickers. This

<sup>1</sup> Sonia Dias is WIEGO's waste sector specialist working on the Urban Policies Programme. She can be contacted at [sonia.dias@wiego.org](mailto:sonia.dias@wiego.org).

Briefing Note explains the public policy that focused on the integration of one category of informal waste workers – the *catadores* (collectors of recyclables) in Belo Horizonte, the capital city of Minas Gerais State.

## The Context

From the 1960s onwards, many poor people began to work in Belo Horizonte's open dump, earning a living by reclaiming saleable waste materials. In 1973 this dump was closed when a sanitary landfill was created. As a result, the *catadores* took to the streets. They were excluded and persecuted by the municipality; the population viewed them as beggars or criminals. At that time, Belo Horizonte had no formal source separation scheme. Any recycling was done by informal recyclers who rummaged through the waste put out on sidewalks or streets for collection by the city trucks. These recyclers also sometimes made special agreements with businesses to collect their waste materials.

The first association of *catadores* was ASMARE, set up in 1990 as a result of the work done by an NGO called Pastoral de Rua,<sup>2</sup> which promoted the right to earn a living from recyclables. Its interest in *catadores* stemmed from the NGO's mission to help street dwellers. At the time, most *catadores* slept in the streets to guard their recyclables as there were no storage areas. In this group, Pastoral de Rua saw the potential for organizing, as the *catadores* themselves were fighting for recognition of their right to earn a living from recyclables.

The Public Cleansing Agency (SLU) has a mandate to deliver all solid waste management (SWM) services.

In 1993, because of environmental and social concerns, SLU implemented an integrated system which included the following:

- upgrading operations at the existing landfill
- selective waste collection
- a recycling programme for civil construction waste
- composting of organics
- environmental education
- improving working conditions of formal workers (sweepers and collectors)
- integration of informal workers within formal SWM processes

In that same year, SLU undertook a consultation process with ASMARE and Pastoral de Rua to determine the best model for the city's waste management. A mixed system with a drop-off scheme and the formal recognition and support of *catadores* was introduced. The city responded to the demands of the organized *catadores* and the SLU and ASMARE became partners in its municipal selective waste collection scheme.

An important factor that helped to build the relationship between the municipality and the *catadores* was the sensitivity of decision-makers in government in 1993<sup>3</sup> to their cause, and government officials' familiarity with some of the groups and individuals. There was also a strong political commitment to the rights and obligations of all citizens, including workers in the informal sector.

*The partnership of the municipality with the catadores democratized the public cleansing agency – it brought the government closer to the needs of its citizens.*

Lucas Gariglio,  
Planning Director of SLU<sup>4</sup>

The strong tradition of dialogue and cooperation that exists in the Minas Gerais state has contributed to a high level of cooperation between government and informal workers in the capital of Belo Horizonte. This has given the *catadores* and their organizations the chance to push for more inclusive action on SWM. As outlined in the previous briefing note, in 1993 a recycling programme for civil construction waste was set up that included another category of informal workers – the collectors of rubble and building waste (*carroceiros*). The favourable climate in Belo Horizonte also encouraged the *carroceiros* to organize.

## How the Policy Evolved

The **principal phases** of the integration policy are provided below (Dias 2002; 2009).

- **Legal Framework: 1990**  
The first laws that encouraged integration of membership-based organizations (MBOs) in SWM in the city were approved by 1990. A clause was later added which stated that collection and sale of recyclable material should be done using *catadores*. However, the city did not always meet this requirement and the *catadores* were still harassed.
- **Mapping and Analysis of the Situation: 1993**  
When the city decided to integrate the *catadores* it was important to know how many people were engaged in informal recycling so that the necessary infrastructure could be provided. A survey identified 511 individuals then working

<sup>2</sup> Pastoral de Rua is an NGO of the Catholic Church that engaged in the organization process of *catadores* and street dwellers.

<sup>3</sup> This was during the first administration term of the Workers' Party in Belo Horizonte.

<sup>4</sup> The quotations in this Briefing Note were collected by the author in research conducted for her PhD thesis. See References.

in the streets, most of them sleeping next to their materials as they did not have a recycling warehouse for storage.

- **Signing of an Agreement with the Association of Waste Pickers - ASMARE: 1993**

The agreement stated that ASMARE was the preferred partner of the municipality in the recycling scheme. The city had to provide (1) a monthly subsidy for administrative expenses via the Municipal Secretariat of Social Development; (2) infrastructure such as recycling containers and recycling warehouses where the *catadores* could sort materials; (3) trucks to collect recyclables from the containers; and (4) environmental education.

ASMARE had to (1) manage the recycling warehouses; (2) sort and value the recyclables; and (3) provide information to the city on the production of recyclables.

*I realized how important we were after ASMARE's creation. Later on the capacity building courses and the partnership with the municipality began. You see we used to collect recyclables for a living*

*but we had no idea of the importance of this work .... We had no idea of what recycling meant and its importance for the environment...*

Dona Geralda, ASMARE's founder

- **Implementation of the First Recycling Containers: 1993**

The first recycling containers were set up in public areas so citizens could deposit their recyclables, which had previously been sorted at home. Plastic, tin cans, paper and cardboard were then collected by SLU trucks from the containers and taken to ASMARE's recycling warehouse for further sorting and selling. The scheme included glass containers but these were taken to a processing facility for recycling and the money earned was donated to a public hospital, as agreed to by all the partners. Individual *catadores* were also allowed to collect recyclables from offices located downtown using their hand pushcarts.

ASMARE recycling warehouse where recyclables are sorted, weighed and baled prior to selling.

Source: Leslie Tuttle

- **Social Mobilization and the Community's Involvement: 1993 onwards**

It was important that the SLU was committed to changing the negative views that people had of the *catadores* in the city. In 1993, a Social Mobilization Department was formed at the SLU to run environmental education and mobilization campaigns about SWM. Educational activities and cultural events were organized to explain the positive contribution of the *catadores*. For example, carnival parades, theatre, dance and music were used to share social messages about the importance of *catadores'* work for the environment. Law 8052, approved in 2000, created the department of social mobilization responsible for carrying out environmental education programs, including the provision of technical advice to waste pickers. Thus it ensured support to MBOs of informal workers.

*The catadores were invisible... In the past I would see them in the streets, also the junk shops, and I had no idea they had an organization. It was when ASMARE became more known that I took notice of the work of the catadores.*

Dr Jesus Murilo Vale Mendes,  
President of Mendes Júnior Group

- **Implementation of Recycling Warehouses: 1994/1996**

In 1994, SLU rented a warehouse of 3,200 square metres equipped with a kitchen, toilets, individual sorting boxes and a scale; in 1996, a second warehouse of 600





square metres was also rented; and an adjoining 600 square metre warehouse was built at ASMARE's headquarters.<sup>5</sup>

- Capacity-building Courses for the Catadores: 1994 onwards**  
 Courses covering traffic safety, recycling and the environment, how to run and be part of a cooperative, human relations, and literacy were introduced for incoming catadores to the association. These were jointly organized by ASMARE, Pastoral de Rua, and the SLU staff.
- Expansion of the Selective Waste Collection to other Areas: 1996/2001**  
 With financial resources from the Ministry of the Environment and the Inter-American Foundation, many recycling containers were put out in the city, and this created additional jobs in sorting

and recycling that also enabled inclusion of street dwellers from the city government's social programmes. ASMARE's membership increased from 31 members in 1993 to 355 in 2001 to keep pace with this expansion.

- Participatory Planning: 2003**  
 From 1999 onwards, groups were formed of people working with collection of recyclables and/or the production of crafts out of waste materials.<sup>6</sup> The Waste and Citizenship Forum (FMLC BH) was created in 2003; it includes representatives of new groups of catadores, the local government, and NGOs. It allows all the stakeholders to discuss guidelines for the integration of organizations of *catadores* (and *carroceiros*) and to request public financial resources for their activities.

**The municipal recycling scheme includes the collection of recyclables by city trucks from drop-off containers and private residences.** Source: WIEGO Photo Library

## Current Source Segregation Scheme in Belo Horizonte

The recycling system improved over the years. In addition to the existing drop-off scheme, SLU implemented curbside collection of recyclables,

<sup>5</sup> This warehouse was in a run-down area that ASMARE had used in 1988, before its formal partnership with the city. At the time ASMARE fought for the right to use it as a sorting space and an agreement was reached.

<sup>6</sup> In 2000, a national movement of *catadores* – MNCR – was also formed in Brazil.

and integrated other associations/cooperatives of *catadores* that were later formed in the Belo Horizonte, following ASMARE's example.

The official integrated recycling system is a combination of formal and semi-formal sector cooperatives as follows:

1. **Curbside collection** is done in part of the Central and Southern Regions of Belo Horizonte, where the city's formal workers collect recyclables that are then taken to cooperatives' warehouses for sorting and selling.

*The implementation of the curbside collection by the municipality was very important as it made our work easier since we no longer have to push heavy push carts and big bags to collect recyclables.*

Nely Medeiros, Coopersoli leader

2. **Drop-off system** includes 156 sites with 435 recycling containers where citizens can separate recyclables into containers placed in public places. These are then collected by city trucks at the recycling containers, and taken to cooperatives' warehouses for sorting and selling.
3. **Collection of recyclables from cooperatives** with pushcarts (for small business and offices) and/or vehicles (bigger industry and government offices). The recyclables are taken to warehouses for sorting and selling.



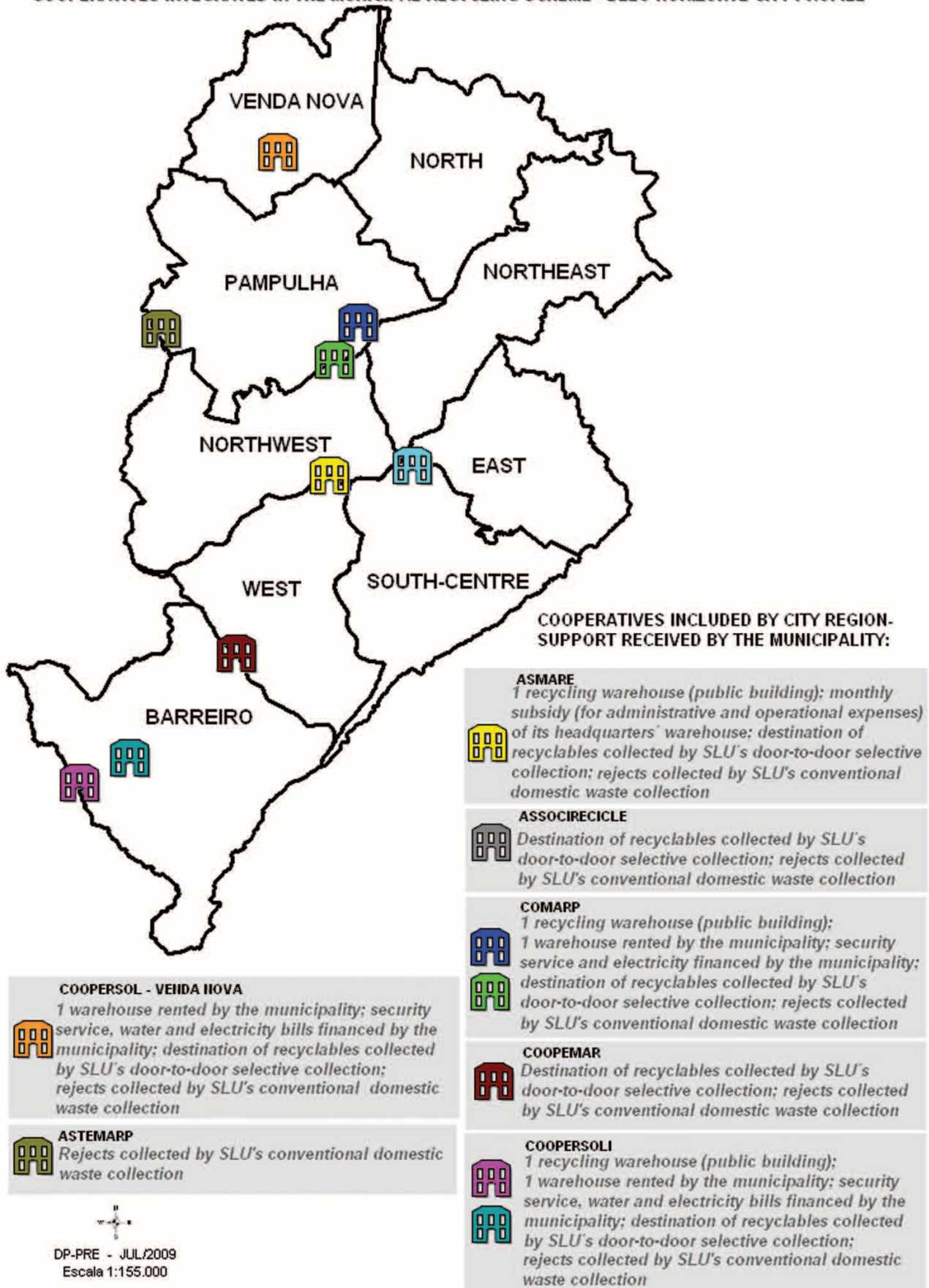
Recycling containers are placed in public areas such as parking lots, recreational areas, and parks. Source: SLU



Manual carts are widely used by waste pickers for collection of recyclables in the streets of downtown Belo Horizonte. Source: Sonia Dias

**MAP 1: The location of waste picker cooperatives in the municipality of Belo Horizonte and support received by the city. Source: SLU**

**COOPERATIVES INTEGRATED IN THE MUNICIPAL RECYCLING SCHEME - BELO HORIZONTE CITY PROFILE**



# Examples of Cooperatives Participating in Belo Horizonte's Municipal Waste Management System

## ASMARE Recycling Warehouse and Headquarters

ASMARE was started in 1990 as an organization that provides management and administrative support to its associate members who work in the recycling field. The association is organized into committees: Infrastructure, Health, Religion, Social Communication, Finances, Environment and Education/ Culture/ Entertainment, each one with a representative on the Steering Committee. ASMARE is legally registered as an association and functions internally as a cooperative.

ASMARE's headquarters, situated in downtown Belo Horizonte, receives waste material from individual collectors (*catadores*) who are members of the association. ASMARE associates have bright yellow carts to collect recyclables and each associate has her/his own space for sorting. ASMARE has its own compressing machines and a bulk weighing scale in a compressing and weighing centre that is managed by *catadores* and former street-dwellers.

The weight of materials per person is recorded and a receipt given, and each person is paid for the recyclable materials produced from the waste they have collected. Recyclables sorted and processed at the warehouse and then sold. The income is shared amongst all the ASMARE associates. ASMARE also has other projects and facilities such as cultural bars and a paper workshop.

### Benefits and Challenges in ASMARE

The change from working in the streets with no formal organization

into semi-formality (cooperatives) brings many different benefits to cooperative members, such as empowerment, improvements in their working and living conditions, and greater self-esteem.

### The shift to working in warehouses also required work specialization at ASMARE:

some *catadores* continue to collect recyclables in the streets with manual pushcarts; some work as sorters of materials from mechanized collection (carried out by city trucks), some work in baling. Working at the warehouses also allowed more women to become involved as the environment was safer and child care was provided by the cooperative. In 1993 only 18 per cent of the *catadores* at ASMARE were women; by 1998 this number had increased to 55 per cent (Dias 2002). Men and women are paid

equally per production or a daily fee. The founder of ASMARE was a woman and women still occupy leadership positions.

There has been a lot of capacity-building for both the leadership and the children of long-time members of ASMARE, who are becoming more involved in administrative tasks at the association. Nevertheless, semi-formalization brings challenges. The demand for efficient service can be a challenge for some members who are not accustomed to the discipline of a regular work schedule (no drinking in the premises; standardization on recyclables; working hours linked to the opening and closing hours of warehouses).

The work being performed is usually more complex than they may have done previously; training, however, is provided. For example, people with a low level of education are trained to perform administrative tasks.

### COMARP Pampulha – Recycling

COMARP was formed in 2003 by 10 people, mainly women, after a

**CATAUNIDOS Plastic Recycling Plant, which recycles PET bottles, is owned by waste pickers' cooperatives.** Source: Leslie Tuttle



Madalena Duarte and Gil Warley are members of CATAUNIDOS, a network aimed at joint selling of recyclables and recycling of plastic. It represents 23 cooperatives from municipalities of the metropolitan region of Belo Horizonte. Source: Sonia Dias



capacity-building activity hosted by the municipality to encourage social enterprises in the Pampulha region of Belo Horizonte. The group decided to form a cooperative and work in recycling. At first, the group collected recyclables and made brooms from PET bottles as a way to generate income, but now they concentrate on sorting of recyclables. From the beginning the group has received support from the municipality, which provided a building for the cooperative's first sorting facility.

COMARP currently has 35 associates, 29 of them women, who belong to UNISOL, a confederation of cooperatives linked to CUT (the national confederation of workers). Together with three other local cooperatives, COMARP formed REDESOL – a network of *catadores*' cooperatives for bulk selling of recyclables.

ASMARE and *catadores*' organizations from cities within the Metropolitan Region of Belo Horizonte – Betim, Brumadinho, Contagem, Ibirité, Igarapé, Itaúna, Nova Lima and Pará de Minas – have joined to form Cataunidos, with over 500 *catadores* who work in a recycling plant that produces pellets from recycled plastic.

In 2003 an agreement was signed between the municipality and

ASMARE for the donation of a piece of land on which to construct a plastic recycling plant that would produce pellets from waste. The recycling plant opened in 2007 using funds from different sources such as the Fundação Banco do Brasil, the Brazilian Petroleum company Petrobrás, and the Inter-American Foundation. The municipality supported the recycling plant, but its ownership rests with Cataunidos. The vision and the leadership role of the MBOs involved and their social advisors such as the Pastoral de Rua and INSEA<sup>7</sup> contributed to the establishment of the plant.

Operators of the plant are hired in the local community by Cataunidos. Three *catadores* are the managers of the plant. There is a committee with representatives of the nine *catadores*' groups which oversee the management of the plant.

## Conclusions – Lessons Learned and Challenges

In Belo Horizonte, the *catadores* were included in the source separation scheme as part of the Integrated Solid Waste Management (ISWM) framework. This showed a commitment on the part of government to finding more comprehensive approaches to the environmental, technical and social aspects of SWM.

The city successfully regulated informal recycling and also addressed the social issues of the urban poor. It gave many *catadores* the opportunity to move from the streets into warehouses.

<sup>7</sup> An NGO engaged in the organization of *catadores* and in giving support to municipalities involved in integration schemes of *catadores*.





**Awareness campaigns make use of theatre and music to involve citizens in appreciating and cooperating with waste pickers.**

Source: Leslie Tuttle

- Environmental outreach campaigns have been carried out by the municipality.
- A stakeholder forum (Municipal Waste and Citizenship Forum) with representatives of MBOs, city officials and NGOs was created.

The following factors were important in institutionalizing the integration of waste pickers into municipal waste management in Belo Horizonte:

- The local authority acknowledged the important environmental contribution of waste picking activities and established a modern solid waste systems that included, rather than threatened, the livelihoods of informal recyclers. Public officials sympathetic to the cause of waste picker organizations provided a valuable entry point into local government structures.
- External support from NGOs was an important factor in setting up the first catadores associations and cooperatives. With this initial support they were able to form their own collectives and voice their own demands.
- Public awareness campaigns changed prejudices towards catadores, using traditional forms of art and culture such

Although there are challenges, the experience from Belo Horizonte is important because of the high level of support given to the informal workers by the city and the success achieved by the workers. The most important aspects of the policy include:

- Infrastructure has been provided to MBOs, such as rental and/
- or construction of recycling warehouses for sorting.
- Formal agreements were signed with MBOs which include fixed monthly payments.
- Technical assistance and capacity-building programmes have been instituted.



**Cooperatives like ASMARE are hired out by firms to make furniture from recycled materials such as this waiting room. Source: Vina Engenharia**

as theatre and music to develop powerful messages.

- Stakeholders' forums were and continue to be important in that the views of all interest groups were heard. These included social activists and MBO representatives who support the *catadores*, as well as city officials who are concerned about costs and budgets. These forums provide the opportunity for conflicts to be tabled, views to be shared, and agreements to be reached between all stakeholders.

*Since 1993 the lives of the catadores started to change because the municipality understood through its public cleansing agency that catadores should be preferential partners in the source segregation scheme.*

Cristina Bove, NGO Pastoral de Rua

There has been a big increase in the number of *catadores* working in Belo Horizonte, many of whom compete with the city's integrated system. The recycling chain has changed in the city since this policy was implemented back in the early 1990s, and it should be re-modelled to address the challenges and continue to be effective.

The following are some of the current challenges:

- **Not enough recycling containers:** the drop-off system does not reach enough people as there are too few recycling containers placed around the city. The curbside collection likewise serves too few neighbourhoods.
- **MBO internal management challenges:** the MBOs need to

improve their work performance regarding reliable collection and efficient sorting. MBOs must also promote the use of the equipment provided by the city to protect the health and safety of the *catadores*.

- **Competition between organized and non-organized catadores:** finding ways of integrating *catadores* who for various reasons are not organized into cooperatives is a challenge. Organized *catadores* represent only 15 per



**The newly built recycling warehouses are better planned and safer.**

Source: Leslie Tuttle

cent of informal SWM workers in the city (Dias 2009). The non-organized *catadores* also collect recyclables in the same areas served by the integrated recycling scheme and compete with the MBOs. They may also damage the containers when searching through them, necessitating replacement at an added cost.

- **Payment for services:** the early support to *catadores*' MBOs in Belo Horizonte was based on subsidies. However, *catadores* nationwide have been demanding payment for their services based on the concept

of environmental service. There is therefore a need to have guidelines for service contracts, including methods to monitor and evaluate the quality of the service rendered.

- **Infrastructure of recycling warehouses:** not all associations are properly equipped with equipment for weighing and baling; safety equipment is not widely used; and most recycling warehouses were not planned for waste picking work. However, the newly built recycling warehouses are better planned and safer.

Even though the curbside collection of recyclables and the drop-off system have expanded, only 3 per cent of total recyclables are collected. This is equal to less than 1 per cent of all municipal waste collected (SLU internal

report, 2008). The main challenges are improvement of the technical components of the municipal recycling system and management aspects of the MBO warehouses.

Despite these challenges, the City of Belo Horizonte has demonstrated that good policies can influence thinking outside of the conventional frame of technology and make a strong commitment to including all citizens in improved recycling collection and better environmental management.

## References

This article is drawn primarily from the author's PhD thesis: Dias, Sonia M. 2009. *Trajetórias e Memórias dos Fóruns Lixo e Cidadania no Brasil: Experimentos Singulares de Justiça*

*Social e Governança Participativa. 2009. (Tese de Doutorado), Faculdade de Filosofia e Ciências Humanas, Universidade Federal de Minas Gerais. (Trajectories and Memories of the Waste and Citizenship Forums – Unique Experiments of Social Justice and Participatory Governance, PhD Thesis, State University of Minas Gerais).*

## Other Sources

Ali, M. 2006. Urban Waste Management As If People Matter (editorial). In *Habitat International* 30, 729-730.

Dias, S. M. J. Ijgosse and R. T. V. Barros. 2010. "Belo Horizonte City Profile." In *UN Habitat, Solid Waste Management in the World's Cities. Water and Sanitation in the World's Cities 2010*. London: Earthscan.

Dias, S. M. & F.C.G. Alves. 2008. "Integration of the Informal Recycling Sector in Solid Waste Management in Brazil." Study prepared for GTZ's sector project "Promotion of Concepts for Pro-poor and Environmentally Friendly Closed-loop Approaches in Solid Waste Management." (Available at [www.gtz.org](http://www.gtz.org).)

Dias, S.M. 2002. "Construindo a cidadania: Avanços e Limites do Projeto de Coleta Seletiva de Belo Horizonte em parceria com a ASMARE" (Dissertação de Mestrado). Instituto de Geociências, Universidade Federal de Minas Gerais.

Dias, S.M. 2000. "Integrating Waste Pickers - Catadores for Sustainable Recycling." Paper presented at the workshop "Planning for Sustainable and Integrated Solid Waste Management," SKAT, Manila, Philippines, September 2000. (Available at [www.cwgnet.net](http://www.cwgnet.net).)

UN - Habitat. 2010. Solid Waste Management in the World's Cities. *UN- Habitat's Third Global Report on the State of Water and Sanitation in the World's Cities*. London: Earthscan.

Visser, M. and J. Theron. 2009. *Waste Not: Externalisation and the Management of Waste in Cape Town*. Working Paper 12, Institute for Poverty, Land and Agrarian Studies (PLAAS).

WIEGO Policy Briefs offer information on policies and organizational practices that affect the informal economy. This series supports advocacy processes and disseminates better practices and ideas, contributing to a worker- and livelihood-centered approach to development.

**ABOUT WIEGO:** Women in Informal Employment: Globalizing and Organizing is a global research-policy-action network that seeks to improve the status of the working poor, especially women, in the informal economy. WIEGO draws its membership from membership-based organisations of informal workers, researchers and statisticians working on the informal economy. For more information see [www.wiego.org](http://www.wiego.org).

**ABOUT INCLUSIVE CITIES:** Launched in 2008, the Inclusive Cities project aims to strengthen membership-based organisations (MBOs) of the working poor in the areas of organising, policy analysis and advocacy, in order to ensure that urban informal workers have the tools necessary to make themselves heard within urban planning processes. Inclusive Cities is a collaboration between MBOs of the working poor, international alliances of MBOs and those supporting the work of MBOs. For more information see [www.inclusive.cities.org](http://www.inclusive.cities.org).

