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MUNICIPAL SOLID WASTE MANAGEMENT SERVICES IN LATIN AMERICA



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by Jane Lethbridge (j.lethbridge@gre.ac.uk)
Public Services International Research Unit
(PSIRU)

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The Public Services International Research Unit (PSIRU) investigates the impact of privatisation and liberalisation on public services, with a specific focus on water, energy, waste services, health and social care sectors. Other research

topics include the function and structure of public services, the strategies of multinational companies and influence of international finance institutions on public services.

PSIRU is based in the Business Faculty, University of Greenwich, London, UK. Researchers: Prof. Steve Thomas, Dr. Jane Lethbridge (Director), Dr. Emanuele Lobina, Prof. David Hall, Dr. Jeff Powell, Sandra Van Niekerk, Dr. Yuliya Yurchenko

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1. Introduction

This report is the first of a series of reports which are part of a research project on global waste services which PSI has commissioned to inform its work to improve working conditions in the waste sector. This report serves as background research for a meeting of the PSI Latin America, Central America and Mexican affiliates with membership in municipal waste services to be held in Bogotá, Colombia on 28-29 July 2017.

The main research questions are:

1. How do effective waste collection and related services contribute to urban health, decent work and living conditions, and to inclusive local economic development?
2. What are the working conditions of public, private and social cooperatives of informal workers (waste pickers) in municipal waste collection and related services in Latin America, drawing on existing research?
3. What are the parameters of working conditions in the waste sector? Wages, social protection, working hours, health coverage, pension schemes, unemployment benefits, accident coverage, retirement schemes, etc.
4. How are waste services financed and with what policy strings attached?
5. What are the main private waste collection operators at national, regional and city levels?
6. What are the relationships between private waste collection operators, municipal operators, informal workers and their cooperatives?



2. Metodology

This report has been written by drawing on academic, government, NGO and other institutional existing research. There are problems facing the systematic collection of data on solid waste management in many countries. There is a lack of data and municipalities do not always collect details of waste management services. A report commissioned by the IADB, Pan American Health Organization, the Inter-American Association of Sanitary and Environmental Engineering in 2010, conducted a detailed survey of urban solid waste management in Latin America and the Caribbean. The data collected has been used in this report because it is one of the most extensive surveys of waste management activities in the region. Little is found on municipal waste services workers, employment levels and their working conditions.

For the purpose of this report, the expression “solid waste services” indicates the collection and sorting of waste. “Solid waste management” indicates the disposal and reuse of waste in e.g. recycling plants. “Integrated solid waste management” is an expression used to refer to the cooperation between informal waste pickers and municipal waste services for the delivery of solid waste services. “Social cooperatives” indicate associations of informal workers in waste (waste pickers) □

3. Benefits of effective waste collection

Waste can be defined as “substances that the owners disposes of, or is obliged to dispose of” but waste is most often defined by its source, e.g. household, industrial waste, construction and demolition waste, electronic or medical waste¹.

Neo-liberal reforms and globalisation, over the last 30 years, have stimulated the expansion of urban centres and increased consumerism². Income levels and lifestyles are both factors that influence the generation of waste. Income and the spread of modern retail stores allows individuals to consume more goods many of which are packaged for immediate consumption - such as ready meals - leading to increased waste generation. Income also influences the type of waste that is generated with high income groups generating paper and metals, e-waste from the demise of electronic devices such as computers and mobile phones, and low income groups generating higher levels of organic and kitchen waste. The consumption of plastics does not seem to be influenced by income³. Rapid rates of urbanisation contribute to higher rates of waste generation, and Latin America has 80% of its population living in urban areas⁴.

The responsibility for the management of solid waste is primarily at municipal level. Municipal solid waste covers households, commercial and service activities, institutions, markets, non-hazardous hospital waste, from industries' commercial offices, from streets and public areas' sweeping and cleaning. Municipalities are primarily concerned with solid waste management, which includes the collection, transport, processing and disposal of solid waste. These activities constitute an essential public service and require organisation and collaboration between households, communities, private enterprises and municipal authorities⁵. The most commonly used waste management strategies include open dumping, landfill practices, incineration, sorting, composting and recycling.



3.1 Waste management and the environment

Effective solid waste management has an important preventive impact and contributes to public safety and the prevention of environmental damage and contamination. Solid waste can result in diseases, explosive gases, air pollution, landfill gas and liquid migration, water and marine pollution. The collection and management of solid waste services plays a key role in the promotion of public health, the maintenance of safe public spaces and the implementation of environmental policies. Economic and social activities cannot properly take place in areas and settings where there are no adequate waste collection management services, which therefore are a critical factor to foster thriving, inclusive and safe local communities and economies.

Solid waste services systems are particularly influenced by local, national and international policy and legal frameworks in public health, environmental control and resources management.

Table 1 below shows the percentage of influence of these policies on three Latin American cities.

Table 1: Factors influencing solid waste services


Urban centre	Public health (% collection coverage)	Environmental control (% controlled disposal)	Resource management (% materials recycled or recovered)
Belo Horizonte (Brazil)	85	100	1.5
Managua (Nicaragua)	82	97	19
Cañete (Peru)	71	81	12

Source: Scheinberg, Wilson & Rodie, 2010⁶

Waste management has a direct impact on the environment because depending on how waste is managed it can contribute to carbon emissions through the generation of carbon dioxide, methane, water vapour and nitrous oxide, and other substances that can damage or alter the environment. The use of waste to generate energy is a promising path to reduce such emissions, e.g. through biomass and incineration plants, among others, that can turn municipal solid waste into gas, heat, compost and electricity.

3.2 Waste management and inclusive socio-economic development

Reusable and recyclable waste is increasingly viewed as a valuable resource. There is a growing awareness that economic growth has to focus more on the use of existing resources rather than continually making new products which use increasingly scarce resources and energy intensive production processes. One way of addressing this problem has been to develop production processes that re-use existing resources, such as paper, metals, textiles, plastics. Increasingly, solid waste management is acknowledged as playing a role in the generation of local economic development through the production of new services, products and supply chains. The re-use, recycling and recovery of waste is a significant source of employment and economic activity and the recycling of textiles, bottles, plastics will generate new materials for use in industrial, agricultural, manufacturing and construction sectors.

How this public service is organised and delivered is a major issue for every local and regional government covering large urban centres and metropolitan areas, especially in a context of rapid urbanization. Waste generation is influenced by economic activities, population size and level of development⁷. In Latin America approximately 436,000 tonnes of waste are generated every day with an average of 0.93 kg/person/day⁸. The majority of Latin American countries have waste generation rate about the average for the region but Guatemala is the highest generator at 2.0kg/person/day. Uruguay and Bolivia have the lowest rates of 0.11 kg/person/day and 0.33 kg/person/day respectively⁹. Guatemala (134 inhabitants/ sq/km) has a much higher population density than Uruguay (19/ sq.km) or Bolivia (9/ sq km.)¹⁰. The rates of waste generation are expected to increase over the next decade, along with the increase in urban population and average household disposable income. 

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4. Organisation, delivery and workforce

Although there have been several attempts to collect data on waste management in Latin America, the most recent study which collected data on how services were delivered was made by the Inter-American Development Bank (IADB), the Inter-American Association of Sanitary and Environmental Engineering and the Pan American Health Organization in 2010 that provide national level data for all Latin American countries.

4.1 Municipal waste management plans in Latin America

Most countries in Latin America have high waste collection rates with 89% of the population covered by municipal waste collections although these services are often concentrated in the central business district and high/ medium income neighbourhoods. **Table 2** below shows that the collection coverage is relatively high with all countries having over 80% coverage and nine countries with over 90% coverage (Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Nicaragua, Uruguay and Venezuela). However, the effective planning, organisation and delivery of municipal waste management has an important part to play in maintaining high rates of population coverage.

A local waste management plan allows a municipality to plan, in the short, medium and long-term, how to prevent the generation of solid waste and how to organise and improve systems for collection, recycling, treatment and final disposal of waste. An effective local plan would need to involve the key stakeholders in the processes – including citizens, urban dwellers and waste workers - for drawing up the plan in an open participative way.

Table 2 also shows that Argentina and Uruguay have the highest percentages of municipalities with solid waste management plans. Chile has 53.4%, Costa Rica 57.1% and Peru 57.2%.

Table 2: Solid waste management – municipal plans, population coverage and financing

Country	% Municipalities with solid waste management plans	Population % covered by collection	Sources of financing (collection as % of population)				
			Property tax	Electricity bill	Drinking water & sanitation bill	Regular customer billing for waste services	Re-cycling rate
Argentina	74	99.8	68.2	3.9	0	27.9	-
Bolivia	9.8	83.3	0	95.6	0	4.4	
Brazil	1.6	90.4	79.1	0	9.2	11.8	1
Chile	53.4	97.8	58.6	0	0	41.4	10
Colombia	-	98.9	0	34.5	65.5	0	17.2
Costa Rica	57.1	90.4	31.8	0	0	68.2	0.3
Ecuador	-	84.2	7.1	75.9	16.3	0.8	-
Guatemala	28.5	77.7	0	0	0	100	-
Mexico	36	93.2	-	-	-	-	9.6
Nicaragua	1.2	92.3	0	0	0	100	
Peru	57.2	84	85.1	0	0.2	14.7	14.7
Uruguay	73.0	98	100	0	0	0	-
Venezuela	33.4	100	0	90.9	0	9.1	-

Source: BID/OPS/AIDIS EVAL Software 2010¹¹

4.2 Municipal waste financing in Latin America

Financing of municipal waste collection systems varies from country to country with some countries dependent on one or two sources of financing, either through property tax, electricity or water bills, or direct customer billing. **Argentina, Brazil and Chile** use a mix of property taxes and regular customer billing. **Bolivia and Venezuela** have the majority of the population paying through electricity billing. 100% of the population in **Guatemala** is covered through regular customer billing and 100% of the **Uruguay** population is covered through a property tax¹². Direct household payments for waste services are considered the most sustainable method because the income will not be used for other purposes. Payment through property taxes is vulnerable to be diverted to other demands on municipal income. With financial decentralisation, common in many countries, municipalities have had to take on funding of services previously funded by central government. This reduces the resources available for other municipal services. How municipal waste management systems are financed has direct, concrete implications for the ability of municipalities to develop sustainable, quality services and to promote decent employment conditions in the sector.

Municipal governments play a lead role in the collection and disposal of solid waste management. With growing urban populations, the pressure on municipalities to maintain and development adequate waste management services will continue although national governments are responsible for policies, planning and budgets. Although there has been an increase in the percentage of municipalities with solid waste management plans, these are not always implemented due to lack of technical resources, funding, skilled workforce and because of miscoordination between different levels of government competences and jurisdictions.

For example, in **Argentina**, municipal plans are often not implemented because municipalities depend on financial and human resources allocated by provincial governments and on provincial investment in solid waste infrastructure projects. Efficient waste management systems heavily depend on effective institutional coordination and collaboration at all government levels¹³. Within this context, there is a lack of data available necessary for municipal waste management planning and what data is available is often not shared among institutions.

4.3 Municipal waste services providers in Latin America

A study of operator models for delivering municipal solid waste management services in developing countries (2017), which included several Latin American cities, found that there was no type of operator model (public, private or social cooperative) associated with higher collection rates¹⁴. The use of multiple options in different areas of a city can extend coverage.

Some municipalities have an autonomous department responsible for contracting social cooperatives. Direct municipal control over these services are associated with better governance and adequate financing. Capacity building of institutions and waste workers also contributes to the quality of services delivered by both formal and informal waste workers¹⁵.

Costa Rica, **Ecuador** and **Nicaragua** have over 70% of the population covered by direct (public) municipal services. **Chile** and **Colombia** have the lowest rates of 18.8% and 30.6 % population covered by municipal services. **Guatemala** has 19.2% of the population covered by social cooperatives.

Table 3 below shows that in many countries, waste collection services are still predominantly provided by direct (public) municipal waste services. Countries with a longer history of out-sourced, privatized waste services, for example, **Chile** and **Colombia** have a smaller proportion of the population covered by direct municipal services.

Table 4 below shows that most Latin American countries have a relatively small percentage of the population covered by social cooperatives of informal waste workers, which is explained by the fact that waste collection needs equipment and machinery which are more easily acquired by municipalities or the private sector. **Venezuela** has a higher percentage of population covered by social cooperatives because the Ministry of Community Action for the Environment (MPPA) set up an arrangement that promoted the contracting of such cooperatives to provide waste services for small- and medium-sized municipalities.¹⁶

Besides, these data also show that some countries have much higher rates of municipal services for final disposal, for example, **Bolivia**, **Ecuador**, **Guatemala** and **Uruguay** have rates of over 70%. Other public institutions also play a minor role in

Table 3: Delivery method for refuse collection services (% population covered)

Country	Direct (public) municipal service	Private for profit contracted service	Social Cooperatives of waste pickers	Other public institutions
Argentina	45.6	54.3	0.1	0
Bolivia	53.7	37.9	8.4	0
Brazil	41.9	54.3	1.3	0
Chile	18.8	81.2	0	0
Colombia	30.6	69.0	0.4	0
Costa Rica	72.3	27.7	0	0
Ecuador	79.9	19.9	0.2	0
Guatemala	55.6	25.2	19.2	0
Mexico	66.5	25.3	8.2	0
Nicaragua	73.7	22.1	4.2	0
Peru	66.1	33.9	0	0
Uruguay	78.3	21.2	0.5	0
Venezuela	59.9	24.1	12.0	4.0

Source: BID/OPS/AIDIS EVAL Software 2010

Argentina, Guatemala, Mexico and Venezuela, often operating from a national level. Social cooperatives play a very minor role in final disposal because large equipment and some capital investment are needed, which social cooperatives and informal waste workers do not have access to.

Municipal waste management services have been subject to the same pressures to contract or outsource services to the private sector. Examples of World Bank Inter-American Bank loans for solid waste management since 1995 show that the promotion of public-private partnerships was a key element in the programmes¹⁷. Even so, municipalities have maintained a strong role in the provision of direct municipal services in many countries with social cooperatives of waste pickers playing a relatively smaller role. The role of social cooperatives may be expanding now though.

Table 4: Delivery method for final disposal and population covered

Country	Direct (public) municipal service	Contracted (private) Service	Social cooperative	Other public institutions
Argentina	45.2	24.1	0.1	30.7
Bolivia	70.8	29.9	0	0
Brazil	50.3	49.3	0.4	0
Chile	17.1	82.9	0	0
Colombia	17.3	82.4	0.3	0
Costa Rica	32.5	67.5	0	0
Ecuador	74.8	25.2	0	0
Guatemala	80.8	1	0	18.2
Mexico	65.7	22.3	0.3	11.7
Nicaragua	63	36.4	0.6	0
Peru	67.4	32.6	0	0
Uruguay	96.2	3.8	0	0
Venezuela	66.1	22.1	2.5	9.4

Source: BID/OPS/AIDIS EVAL Software 2010

4.4. Employment levels and labour intensity in municipal waste services in Latin America

Table 5 below shows the number of direct (public) municipal services employees and contracted services per 10,000 inhabitants. The numbers of direct municipal service employees/ 10,000 inhabitants are often higher than the number of contracted services employees.

Table 5: Employment rates in waste services in Latin America

Country	Population million/ per 10,000	Direct municipal service employees per 10,000 inhabitants	Private for profit contracted service employees per 10,000 inhabitants	Direct municipal service – estimated numbers of workers	Contracted service – estimated numbers of workers	Total number of workers
Argentina	43.8 /4,380	3.32	2.53	14,541	11,081	25,622
Bolivia	10.8/1,080	1.39	0.53	1,501	572	2,073
Brazil	207.6/20,760	3.12	2.44	64,771	50,654	115,425
Chile	17.9/1,790	0.31	2.11	554	3,776	4,330
Colombia	48.6/4,860	2.02	2.16	9,817	10,497	20,314
Costa Rica	4.8 /480	2.07	0.74	1,041	355	1,396
Ecuador	16.3/1,630	2.35	0.88	3,830	1,434	5,264
Guatemala	16.5/1,650	1.45	1.23	2,392	2,029	4,421
Mexico	127.5/12,750	2.82	1.71	35,955	21,802	57,757
Nicaragua	6.1/610	1.44	0.55	878	335	1,213
Peru	31.7/ 3,179	1.06	0.11	3,369	349	3,718
Uruguay	3.4/ 340	5.1	1.26	1,734	428	2,162
Venezuela	31.5/3,150	2.84	2.13	8,946	6,709	15,655

Source: BID/OPS/AIDIS EVAL Software 2010 con cálculos adicionales

Chile is the only country where the number of contracted service employees/ 10,000 inhabitants is higher than for direct municipal service employees/10,000 inhabitants. This is an indicator of how contracted services cut costs by reducing the number of workers. Municipal solid waste collection remains a labour-intensive activity and private waste companies tend to seek labour cost reduction and automation as the main strategy to make profits. **Brazil** and **Mexico** have the largest numbers of waste workers, both municipal and private contractors.

Differentiated or selective waste collection is the collection and transportation of municipal waste services that has been separated at the source by the household/ industry/business (setting apart solid, dry, recyclable waste from non-recyclable solid waste). This can be done either under a door-to-door or under differentiated-containers systems. The door-to-door collection is a more labour intensive collection system than the differentiated-containers, which may be placed in several locations in each neighbourhood. Door-to-door collectors have to pick up different types of waste with different waste collection vehicles. Differentiated-containers can more easily be collected from central points and be transported in large quantities. The door-to-door collection is more labour intensive than the differentiated-container system. This has implications for recycling rates because sorting at source can generate better quality materials, for example, paper is not damaged by organic waste. These systems are relatively uncommon in most Latin American countries although in **Brazil** 62% of municipalities implement selective management solid waste collection programs¹⁸. □



5. Occupational health and safety (OHS)

Waste services is one of the most dangerous professions and waste workers are particularly exposed to potentially severe occupational health and safety risks. The most common forms of ill-health and injuries are back and joint injuries, respiratory illnesses, infections, puncture wounds, injuries, headaches and nausea and heavy metal poisoning¹⁹. Life expectancy is also reduced. Informal waste workers with no protection and training are also particularly exposed to increased ill-health and injuries.


The most frequent types of accidents experienced by municipal waste workers include:

- Cuts as a result of broken glass not separated out of household waste;
- Cuts from other sharp objects e.g. syringes, nails, thorns;
- Biological contamination from medical waste (when specific hazardous medical waste system is defaulting e.g. HIV-AIDS);
- Poisoning from hazardous substances and heavy metals (e.g. lead, mercury, cadmium, pesticides, paint, e-waste etc.);

- Ergonomic and musculoskeletal injuries such as back pain and repetitive strain injury (RSI);
- Falls from collection vehicles when workers are at the back of the vehicle;
- Traffic accidents at points of collection, waste transfer points and final disposal;
- Invalidating or fatal accidents in heavy equipment for crushing and compacting waste;
- Bites from dogs, rats, snakes and poisonous insect bites²⁰;
- Stress due to heavy workload and tight shifts;
- Violence at work either by service users or due to street crime.

Waste services workers are also vulnerable to diseases which are carried by vectors that can be found or proliferate at waste collection or disposal points, such as rats, mosquitos, flies, cockroaches, pigs and birds. These may spread bubonic plague (rats), typhoid/ cholera (flies and cockroaches), mosquitos (malaria) and other parasites. Workers can be exposed to toxic substances which can affect the organs of the body and cause major health conditions. The main resulting conditions are: immune problems; cancers; damage to the reproductive system and birth defects; respiratory and lung diseases; liver problems; neurological and kidney problems²¹.

The provision of adequate protective equipment, training and improving working arrangements are critical to improve working conditions. The provision of clean and drinkable water and proper sanitation facilities at waste services workplaces contributes to better OSH and conditions for waste workers. Providing working gloves, clothes, equipment, developing medical surveillance standards and protocols, developing training materials and choosing collection and disposal equipment which minimise contact between workers and waste are preventive measures that contribute to prevent and reduce health hazards related to work in the waste sector²².

The particularly dangerous and difficult nature of municipal waste services work points to the fact that health and the working conditions of waste workers can greatly benefit from trade union representation and from the setup of workplace municipality/private employer-union OSH committees. It would be important to ascertain and assess the OSH conditions of municipal waste workers in the region to identify any specific risk to address on a priority basis. 



6. Local, national and international policy frameworks

Solid waste management policies are influenced by municipal, national and international policies and legislation aimed at reducing the impact of climate change and promote greater sustainability and social inclusion.

6.1 Municipal and local frameworks

As cities and municipalities increasingly set their own policies – especially in affluent megacities that are the hub of the economic development of their countries - their legal and policy frameworks play a critical role in shaping municipal solid waste service systems, in regulating the relationships among participating actors, and in setting benchmarks for working conditions.

For instance, the recent Constitution of **Mexico City** adopted in February 2017 commits to the use of organic waste for energy generation (Art. 2) and to the prevention and reduction of solid waste, also stating that municipal solid waste management services are the responsibility of the city government, which is the exclusive provider to the

community for no fee. The Constitution also prohibits the privatization and concession of the service (Art. 5). Such provisions are enshrined in a context of mutual recognition between local authorities and municipal trade unions, labour relations are rooted in collective bargaining, and formal employment is a joint policy objective (Art. 10)²³.

6.2 National frameworks

Many Latin American countries have developed national public policies for sustainable waste management which focus on the promotion and recognition of recycling as part of sustainable waste management and the integration of informal waste workers within municipal waste plans. It seems that formal waste workers issues are not particularly addressed in these frameworks.

In **Brazil**, the National Policy on Solid Waste was implemented in 2010²⁴. It included five waste management approaches:

- Waste management prioritising waste prevention, minimisation, reuse and recycling over environmentally safe treatment and disposal;
- Eco-design – design of products to enable recycling and minimise environmental impacts;
- Share responsibility of products' life cycle by producers, distributor and sellers;
- Integration of waste pickers, with adequate training and equipment in waste collection, reuse and recycling;
- Green procurement by government bodies.
- This national plan required municipalities to develop their own integrated waste management plans and were encouraged to develop joint plans with neighbouring municipalities that should include:
 - Suitable locations for constructing waste treatment and disposal facilities
 - Programmes and actions for participation of cooperative and other forms of associations for waste picker collecting reusable and recyclable materials
 - Targets to reduce the quantity of waste needing environmentally adequate disposal.

The delivery model for this plan aims “to encourage technical and financial cooperation between public sector, commercial (private) sector and households to deliver an environmentally friendly and economically affordable sustainable waste management solution for Brazil”²⁵. There is no specific mention of municipal (public) waste workers and this is in contrast to the emphasis on the integration of informal waste workers.

In **Argentina**, in 2004 (Law 25.916 Management of Domestic Waste) set up a system for managing domestic waste. Article 13 acknowledged that the relevant authorities are responsible for guaranteeing the collection of domestic waste and promoting measures to integrate informal waste collection arrangements and encouraging the population to reduce, re-use and recycle waste. In the City of Buenos Aires, legislation recognised the waste pickers and the use of public resources to provide infrastructure, welfare benefits, personal accident insurance for their work, which forms part of their integration into the formal waste management system. This legislation which recognises the rights of waste pickers does not address the needs of municipal waste management workers.

E-waste, a relatively new form of waste generated by the disposal of information communications technology hardware is the smallest, yet the fastest growing, waste stream in the world²⁶. E-waste management entails a set of issues and problems that Latin American countries are only beginning to address.

In **Argentina**, some provinces have passed legislation on e-waste and a national framework has recently been discussed in the federal parliament. New initiatives include joint projects between the National Institute for Industrial Technology (INTI), municipalities and civil society to install plants for processing e-waste, which will be eventually managed by social cooperatives. A national campaign about the importance of recycling computer equipment is being run by the Ministry of Education.

In **Brazil**, a new law provides a framework for managing e-waste, complemented by local policies²⁷. In **Peru**, a national law for the management of e-waste has been passed and since 2010, campaigns to make people more aware of the re-use of electrical products have been run in several Peruvian cities (Lima, Callao, Huancayo, Trujillo and Arequipa). E-waste is an area of solid waste management which will become more important for municipalities to address in future.

Overall, it seems that national legislation on waste services and waste management addresses the different stages of waste generation, collection and disposal but rarely mention municipal waste workers. Municipalities are given responsibilities for developing sustainable systems, which increasingly include the integration of informal waste workers/waste pickers. Municipal workers do not seem to receive the same attention.

One possible explanation could be that social cooperatives of informal waste pickers are systematically used by some municipalities as cheap labour to cut the costs of municipal waste services and that such national frameworks make their participation possible in formal waste management systems while keeping them in informality. This goes at odds with the strategy to promote, instead, their transition from informal to formal employment in the municipal waste sector, which would enable them to access decent working conditions and foster social inclusion for them, their families and communities.


6.3 International frameworks

The **UN Sustainable Development Goals (SDGs)** replaced the Millennium Development Goals and set targets for the period 2015-2030 that UN member states commit themselves to implement at a national level. Several SDGs can potentially impact on solid waste services, in particular: SDG2 “zero hunger”; SDG 6 “Clean water and sanitation”; SDG 8 “Decent work and economic growth”; SDG10 “Reduced inequalities”; SDG11 “Sustainable cities and communities”; as well as SDG 12 “Responsible consumption and production”; SDG 13 “Climate action” and SDG 14 “Life below water”. All these commitments cut across the environmental and social objectives of fostering a waste services sector that protects the environment, minimizes and reuses food waste, services local communities and favours clean, safe public spaces, protects public health, contributes to thriving local economic development and fosters socio-economic inclusion through the generation of decent employment opportunities for all, including for formal and informal waste workers.

SDG 12 “Ensure Sustainable Consumption and Production Patterns” sets out a global strategy to reduce waste and move towards sustainable consumption, particularly with policies for sustainable production and consumption, waste reduction and increased recycling and green public procurement. This goal has the potential to particularly influence municipal solid waste services because it pressures governments to develop municipal waste plans to increase sustainable consumption and production. Such policies could change the volume and type of waste generated in cities in future and, in turn, impact employment levels, working conditions and working methods in municipal waste.

Under SDG 12 municipalities will likely also have a role to play in promoting reduced domestic consumption and food waste through education campaigns and will increase recycling. National, regional and local governments will likely work towards specific targets and introduce new collection and waste management systems that will have

an impact on waste services-related employment and workforce e.g. door-to-door collection. Sustainable public procurement policies with respect to waste generation and management will be encouraged, which will also provide opportunities for municipalities to develop public procurement policies which address social inequalities by setting living wages and other provisions to support decent working conditions for municipal waste workforce.

Likewise, the **New Urban Agenda (NUA)** adopted in 2016 - the UN roadmap for urbanization policies for the next 20 years – contains commitments that UN-Habitat member states have to uphold and casts a direct influence on municipal waste management systems. Among these, the NUA contains a clear commitment to “full and productive employment and decent work for all, by ensuring the creation of decent jobs and equal access for all to economic and productive resources and opportunities” (art. 14b and art. 57). The NUA mandates the operationalization and monitoring of the NUA’s transformative commitment to generate decent employment in cities and local communities – including in relation with environmental sustainability measures (art. 75), which is an opportunity to promote decent “green jobs”²⁸. The NUA also includes the important commitment pushed for by the trade unions to facilitate “a progressive transition of workers and economic units to the formal economy” for the “working poor in the informal economy, particularly women, including unpaid, domestic and migrant workers” (art. 59). Moreover, Art. 74 includes a commitment to reduce, reuse and recycle (3Rs) waste minimizing landfill and turning waste into energy”, and Art. 122 makes a commitment to “universal access to sustainable waste management systems”²⁹. 



7. Privatization and outsourcing

As one of several public services which have been subject to privatisation and outsourcing, the reform of waste services has been a focus of the World Bank and of the Inter-American Development Bank strategies and loan conditionalities for over 20 years. In the 1990s, as neoliberal policies were increasingly introduced, municipalities started privatising waste collection and street sweeping by contracting-out to private companies in the larger towns and cities.

The experience of compulsory tendering in the **United Kingdom** was used to argue that municipal waste management costs could be reduced by 25% or more. Contracting-out led to dramatic loss of jobs and a drastic decline in pay and conditions of the workers; in many cases, the process was resisted by the workers with strikes and demonstrations. Waste services privatization led to a decline in quality and working conditions³⁰.

Like other privatisations, the opening of a new market attracted multinational companies, especially the French groups Suez and Veolia, the largest waste

multinationals. This was part of a massive expansion by these two companies to take advantage of the privatisation policies in the Latin American region. They also obtained water concessions, bought privatised telecoms and energy companies, and expanded their healthcare, media and construction businesses.

They especially concentrated on **Argentina**, a country which was seen as a 'model pupil' of the International Monetary Fund (IMF) privatising on a larger scale than any other country. Suez bought a 50% stake in Cliba, a company with waste collection contracts in the cities of Cordoba and Buenos Aires. Veolia set up Proactive, a joint venture with a Spanish multinational FCC, which also gained contracts in Buenos Aires and elsewhere. After the economic crisis of 2001, many multinational companies left Argentina although by 2017, Veolia has returned and has several municipal waste contracts.

In 2016, recognising that municipalities are crucial to solid waste management, the World Bank is aiming for "integrated systems that are efficient, sustainable, and socially supported". The focus of World Bank loans and advice has changed slightly over time from privatisation and the promotion of public-private partnerships to a goal of integrated waste management, which includes informal waste workers. In effect, the term public-private partnerships is often used to refer to municipal – waste picker relationships as much as municipal- private company partnerships.

There was acknowledgement that some large loans have not been successful and a review of recent waste management loans since 2010 show that the number of large infrastructure projects has been reduced. As an example of a World Bank waste services investments, the International Financial Corporation (IFC) invested in Estre Ambiental, a private, family owned company in **Sao Paulo, Brazil**, which managed landfill sites. A loan of approximately US\$24.5 million was made in 2010³¹. By 2017, Estre Ambiental was the largest environmental services company in Brazil, with 14 subsidiaries, delivering street cleaning, waste collection for household and industries and processes waste in either landfills or energy production³². The loan had turned a small family-owned business to the largest environmental services company in Brazil, thus supporting the expansion of the private sector.

In **Argentina**, the World Bank gave out \$40 million in loans and grants for a food waste projects with three municipalities that have led to the closure of 70 dumpsites and the construction of 11 waste facilities³³. This reflects a slight change in policy by the World Bank away from large infrastructure projects to smaller projects dealing with food waste, one of the largest sources of waste in low income areas, and the closure of dump sites.

One of the largest multinational corporations, Veolia, initially operated waste management (as well as water and energy) with municipalities as well as with the private sector. Since the takeover of Proactiva in 2012, Veolia has moved into hazardous waste management via a Mexican subsidiary RIMSA. The company views the increased emphasis on 'green' growth and the role of municipalities in supporting public services as a way of expanding into new profitable sectors such as mining, oil and gas and other industrial customers³⁴. Veolia has a partnership with Empresas Publicas de Medellin (EPM), Colombia which provides renewable energy services as well as a wide range of other public services, such as treatment, transportation, and disposal of solid waste and sludge³⁵.

Veolia views cities in many global regions, including Latin America, as a source for growth, particularly with increasing environmental protection regulations. It

Table 7: Examples of World Bank/Inter-American Development Bank (IADB) loans for waste management

Country	Year	Project	Loan	Notes
Brazil	2009	<p>Minas Gerais - to improve municipal solid waste management planning capacity and practices in a selected group of medium to small size municipalities with high replicability potential.</p> <p>Aims to strengthen planning between municipal/state levels, support intermunicipal collaboration and focus on waste pickers and local populations near to open dump sites.</p>	<p>IDB: Japan Special Fund (JSF) US \$320.000</p> <p>Local: State of Minas Gerais US \$80.000</p>	<p>The emphasis is on integration of the informal sector. Although supporting inter-municipal collaboration. The project document points out that because the process of inter-municipal collaboration is slow, “ public-private partnership in medium size cities is also an alternative still incipient in Brazil</p>
Bolivia	2012	Programme for comprehensive solid waste management implementation	<p>IDB (Ordinary Capital) US\$16 million</p> <p>IDB (FSO) US\$4 million</p> <p>Total US\$20 million</p>	Emphasis on integration of waste pickers and training/ capacity building of municipalities.
Honduras	2014	Support for integrated management of the urban solid waste sector (RSU), Tegucigalpa case. The project will help create a community waste management entity in each municipality with the responsibility to sustainably operate and maintain the waste management system, including drafting operational plans for each municipality to ensure the cost recovery of operation and maintenance through a differentiated tariff system.	US\$ 250,000	Support for a community waste management entities, which can be a cooperative, association, utility or concession to a private company. This is not supporting municipal waste services.

Source: IADB, 2009, 2012, 2014

Table 8: Veolia contracts with municipalities Latin America 2016/7

Country	Cities/ Municipalities	Contracts
Argentina	Buenos Aires	<p>Services in the Zone 1 of the City of Buenos Aires. Collection of municipal solid waste. Manual and mechanical sweeping and street cleaning. Empty waste paper bins. Containerization. Contract held since 1998.</p> <p>Population: 200,000 plus a significant fluctuating population (1.5 million people). Rehabilitation, operation and maintenance of the Donato Gerardi's water treatment plant in Punta Lara. Capacity 15,000 m³/h. It supplies 800,000 people from 3 cities in the Province of Buenos Aires.</p>
	Misiones	<p>Comprehensive waste management services: transportation, treatment and final disposal of solid municipal and assimilated waste. Comprehensive management of pathogenic waste in Misiones Province. Contract ends in 2026. Population served: more than 700,000 in 65 localities across the entire Province. 140,000 metric tons a year. Construction and operation of landfills and 26 transfer stations. -Fachinal: Environmental complex. Management and treatment of liquid waste. Collection of pathogenic waste in the city of Posadas and public health facilities across all of Misiones Province and its treatment in an autoclave system. Battery management.</p>
	Puerto Iguazú	<p>Construction of a waste sorting and transfer center in the city of Puerto Iguazú.</p>
Brazil	Barueri, Florianópolis, Sorocaba	<p>Florianópolis/SC (landfill: industrial & municipal, non hazardous waste, medical waste).</p>
Chile	O'Higgins	<p>Municipal Waste Collection Rancagua is located in Region of O'Higgins in center of Chile. Municipal Waste Collection, Street cleaning and final disposition. Population served: 250,000. Contract duration: 5 years. 7,800 tons/month.</p> <p>Las Condes is located in the Metropolitan Region. Municipal Waste Collection. Population served: 280,000 almost 1,000,000 considering the floating population. Contract duration: 10 years. 400 tons/day.</p>
	Valparaíso	<p>San Felipe is located in Region of Valparaíso. Veolia is responsible for the sweeping and cleaning of streets and public areas, collection and transport of waste. Population served: 72,000. Contract duration: 10 years.</p> <p>Landfill Santiago Poniente is located in Maipú, west side of the Santiago de Chile Population served: 1.200.000. 8 Municipal clients. Contract duration: 22 years.</p> <p>70,000 tons/month. La Yesca is located in Region of O'Higgins. Population served: 612.703. 16 Municipalities. Contract duration: 27 years. 20,000 tons/month.</p>

Colombia		Contracts for public cleaning services (sweeping and cleaning of streets and public areas, waste collection and transportation, and final disposal). Total population served: 1,100,000. Operation of Presidente landfill, with 220,000 metric tons of waste landfilled each year.
	Cucuta	Collection and transportation of solid waste, street sweeping and cleaning of public areas in the Cúcuta north district: pop. 450,000.
	Bucaramanga	Provision of the services of Sweeping and Cleaning of public areas, Collection and Transportation of waste, and Marketing. Population server: 74.000. Area served: Metropolitan Area of Bucaramanga (Municipalities of Bucaramanga, Floridablanca, Giron and Piedecuesta). Modality: Direct lender in free competition market.
México	Tlalnepantla, Estado de México	Municipal concession contract: stabilization and decommissioning of the municipal waste centre and final disposal in a landfill for municipal solid waste. Commercial and industrial collection of solid waste. 800 metric tons/day. Population served: 700,000. Querétaro - Stabilization and decommissioning of municipal waste centres, separation and final disposal in a landfill of solid municipal waste with biogas recovery. Commercial and industrial collection of solid waste. 1,100 metric tons per day. Population served: 800,000. Nuevo Laredo, Tams - Integrated waste concession: street cleaning, waste collection, and disposition landfill. Population served: 500,000.

Source: Veolia 2017³⁶

chooses cities in terms of their potential for growth and risk. It adapts contractual models to take into account the different level of risks, to avoid “being exposed to risky concessionary models”. The company is planning to capitalise on the “social dimension” of its business products and their role in supporting social and economic development of cities. Veolia claims it will also support the “resilience” of cities³⁷. Suez does not have waste service contracts in Latin America although is very active in water, sanitation and waste water sectors. It previously had waste service contracts in Argentina but left after the 2001 economic crisis. □

8. The integration of informal waste workers into formal municipal waste management systems

‘Integrated sustainable waste management’ has become established as a goal for municipal solid waste management. This expression recognises the role that informal waste workers play in recycling and solid waste management but this has to be seen in the context of the pressure for municipal authorities to privatise and outsource their solid waste management services. The impact of this approach on municipal waste management workers has yet to be assessed.

Informalisation is often used as a way of undercutting wages and the power of unionised public sector workers as well as ‘hollowing’ out the local state³⁸. This is part of a wider process of informalisation which has been the result of neo-liberal reforms and a reduction of the size of the state and opening up the market of public services to private operators. Informal activities are not subject to formal agreements or other standards as defined by law. In the case of informal waste workers, they are not subject to minimum wages legislation, occupational health and safety standards or other forms of protection and are therefore particularly vulnerable to exploitation.

Although many national governments are now introducing public policies which promote recycling, local recycling has traditionally been developed by informal waste pickers as a way for them for generating survival income. Often these activities have



been considered illegal and informal waste pickers have experienced harassment by police, problems in getting access to rubbish dumps and competition with private waste companies. With a growing emphasis on recycling as part of municipal solid waste management which has been promoted through international policies, such as the SDGs and the NUA, municipalities are starting to include recycling in their formal waste management systems. The introduction of technological innovations to recycle materials, managed by multinational companies and other private companies may result in the exclusion of informal waste workers because they are either excluded from access to waste or forced to sell to selected private company rather than to buyers of their choice, undermining their bargaining power to set prices for recyclable materials³⁹.

However, informal waste workers are organising in many cities, advocating for their rights and demanding that they are incorporated into formal municipal waste management systems. The experience of several cities shows that this can lead to an expansion of the public sector and the public sphere⁴⁰, with a positive transformation of the relations between state, formal economy, informal economy and residents, ultimately contributing to a more inclusive, democratic states, cities and metropolitan areas.

As a way of making cities more socially inclusive, waste pickers are recognised in terms of the contribution they make to waste management and receive benefits from the municipality, thus improving their economic security and access to public services and social protection. Under such frameworks their activities are no longer seen as informal or outside the law but acknowledged as an essential part of public waste management services.

Recent studies have shown how the process of incorporating informal waste workers in formal municipal waste management systems can result in a progressive relationship with the local state, although the success depends on a number of factors. A study by the Economist Intelligence Unit (EIU) of 12 Latin American cities found that although there were varying degrees of integration of informal waste pickers into municipal waste management systems, there are pre-conditions which are necessary for social inclusive integration, which focus on appropriate regulation, organisation and market conditions and workers' rights⁴¹.

Four million people earn their livelihood in Latin America through the collection, transport, sorting and sale of recycled products, such as paper, glass, aluminium⁴². UN Habitat (2010) estimated that informal recyclers contributed 25-50% of all recycled municipal waste in Latin America and the Caribbean. National policies have started to recognise the role of recyclers and to protect their rights. Governments, especially local and regional/municipal governments, have a key role to play in providing sustainable waste management services to local communities and in facilitating better working conditions and a formalization of informal waste workers, who otherwise remain an especially vulnerable group⁴³.

The EIU report found that the needs of women are not being addressed systematically in municipal policies to integrate waste pickers. The experiences of four cities in Latin America will be outlined below to show that the process of integration of informal waste workers is complex and has to be based on the existence of active participatory organisations which provide the foundations for the development of sustainable waste management policies.

8.1 Sao Paulo, Brazil

Solid waste management is legally recognised as a public service in Brazil and is the responsibility of municipalities but recycling is defined as an industrial process. Ninety three recycler cooperatives work in 96 districts of Sao Paulo. Ordinary waste is collected by two privately owned concessionaires covering 2 million households. The main stakeholders are: independent and organised recyclers; companies responsible for collection, transport of non-recyclable material; industries which use recycled products and; the state.

There are an estimated 10,000 recyclers of which 1,100 are associated with an organisation registered with the Prefecture. There are 22 registered recycler cooperatives. Although there are recycling programmes which involve the government and private sectors, informal recyclers are not involved in them. They continue to work with limited equipment and high health and safety risks. There is still a need for government to support recyclers in organising and forming organisations which can fight for rights of recyclers. Campaigns are needed to educate users to separate out waste so that materials can be recycled and reused.

8.2 Buenos Aires, Argentina

The city is divided into seven zones for wet waste which is collected by seven private urban sanitation companies and the government agency Urban Hygiene. For dry waste, the city is divided into twelve zones and these are managed by 12 cooperatives which have 5,500 informal recyclers, which work with the Ministry of Environment and

Public Space under the Government of the City of Buenos Aires. Each cooperative collects draw waste from one zone and this is taken to one of eight Green collection centres.

Most recyclers do not live in the city but 9,000 – 10,000 travel to work each day. Many are informal or precarious workers living at the edge of the gentrified part of the city. Many used to be formal workers and were hit hard by the economic crisis of the 90s. Each recycler receives a monthly incentive paid into a bank account as well as welfare/ health services, personal accident insurance and a uniform. One cooperative is led by the Movement for Excluded Workers which has also opened day care centres for children of the recyclers although more are needed. In this way recyclers have been recognised as a provider of a municipal public service. Public policy is unevenly implemented because of high staff turnover in the municipality. There is no systematic collection of data.

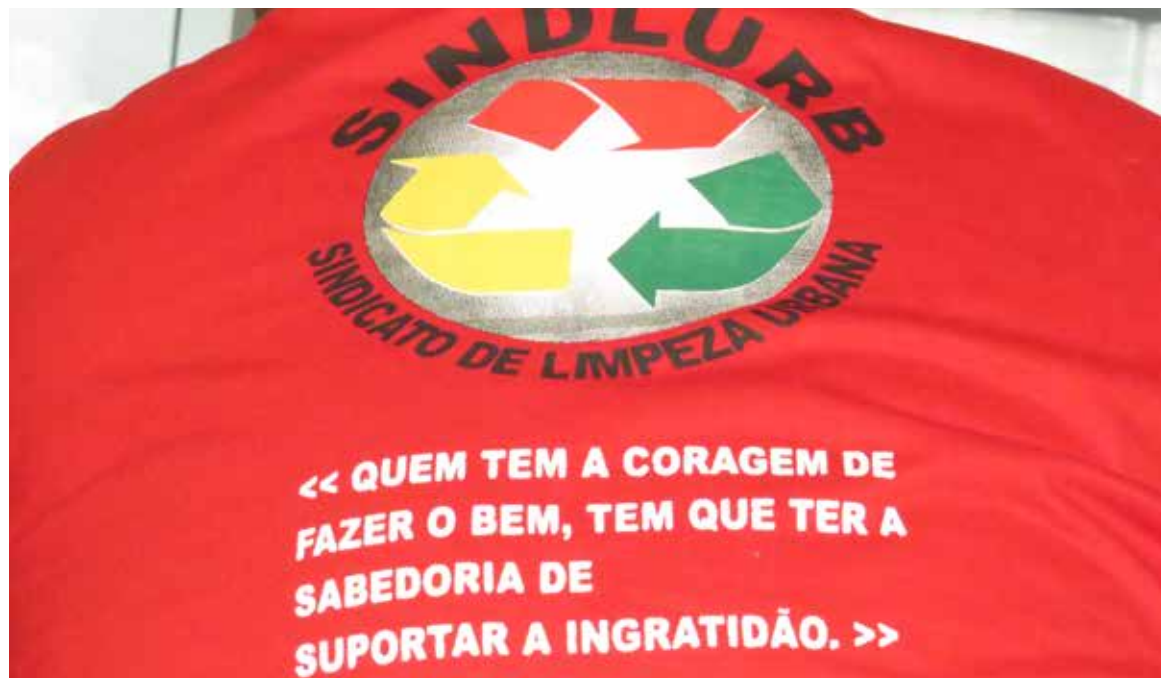
8.3 Bogota, Colombia

In Colombia, the collection of solid waste is considered a public service in law (1994) and a Decree 298 in 2013 established recycling as part of the public sanitation service. Companies that meet certain requirements can make contracts with users and issue invoices which are linked to payment for water and sewage services. There is a long tradition of collective organising among Colombian waste pickers and in Bogota, the *Asociacion de Recicladores de Bogota* (ARB) was formed with three cooperatives in 1990. By 2013 it represented 17 organisations (1,700 workers).

In 2012, the waste pickers successfully challenged the municipal government in Bogota in its tender for municipal waste management, issued in 2011, because it had not provided capacity building for them to submit a bid or to recognise the environmental services that they provided to the city. The waste pickers argued that their human rights were violated when they were not allowed to compete for contracts. The Constitutional Court upheld the challenge and ordered the municipal government to develop a plan which would give waste pickers the exclusive right to recyclables in the city, to build an integrated waste management system which built on the formal system and agreed to pay waste pickers for extracting recyclables from waste⁴⁴. This effectively acknowledged their position with the neo-liberal state. However, they did not argue for their role as providers of a public service⁴⁵.

Also in 2012, a new mayor, Gustavo Pedro was elected. He was committed to integrating informal waste workers into the municipal waste system and began to restructure it in 2013. As part of this process he wanted to extend the contracts of the existing private providers for six months while he developed the capacity of the city to deliver the service itself and re-internalize the service. The Auditor General had found that private providers had overcharged residents by 20-23% profit. However, the four companies did not want to lose their contracts and so refused to collect rubbish for three days. Pedro was forced to agree to the companies collecting waste in 48% of the city although they were now paid on the basis of a fixed monthly fee. This partial re-publicization of the service and change in the payment system of contracted private companies reduced the cost of waste management services in Bogotá. Meanwhile the city right wing party unhappy about Pedro's remunicipalization policies lobbied for Pedro's removal from office. With the support of President Uribe, Pedro was removed from office in December 2013⁴⁶.

In 2016 there was a new Decree (and Resolution 276 issued by the Ministry of Housing, City & Territory) which established a scheme which encouraged waste pickers to form a union through organising so that in five years they can become public sanitary service suppliers paid at an agreed tariff⁴⁷. Informal waste workers still have inadequate equipment and are exposed to hazardous working conditions.



8.4 Belo Horizonte, Brazil

Belo Horizonte has a long history of working with informal waste workers and integrating them into the municipal waste management system. This process of integration was supported by the role of the *Partido dos Trabalhadores* (PT) and local and federal governments. In the 1980s, Asmare, a cooperative of informal waste pickers, was set up but it was only in 1993 when the PT gained control of the municipal council that a positive relationship between the waste pickers and municipal government started to develop. This was underpinned by principles of participatory democracy which the PT was promoting throughout Brazil.

One of the most important approaches that the municipal government adopted was to change waste management from a technical issue to a social, environmental, political, cultural and economic issue. The municipality provided Asmare with warehouses where waste pickers can sort materials, transport recyclables from containers in residential neighbourhoods to the warehouse and educate the local population about the value of recycling. In return, the municipality pays Asmare a monthly subsidy to cover its administration costs.

The Public Cleansing Unit of the municipality recognised that if the waste pickers were to participate in developing plans for municipal waste management, they needed support through individual and collective capacity building. A Social Mobilisation Unit was set up which worked with Asmare “to design and implement education campaigns”. It provided technical advice, training for waste pickers and collective capacity building. Public events were organised which helped change the public perception of waste pickers. In 2000 the municipality passed Law 8052 which created a Department of Social Mobilisation which has a legal duty to work with the waste pickers. In 2003 a Belo Horizonte Waste and Citizenship Forum was created which now includes Asmare, NGOs, newer waste pickers organisations and representatives of municipal government.

These different accounts of how informal waste workers have been integrated into a group of Latin America cities shows that the process of integration works well when it is informed by a democratic, participatory approach between municipalities and the workers. As vulnerable, informal workers, waste pickers need to be empowered and supported by municipalities and other levels of government to access their human rights including access to social protection. Yet, the systematic inclusion – and in some cases the legal obligation – to include cooperatives of informal waste workers in formal municipal waste management plans points to a systematic use of cheap

labour for the provision of an essential public service that is at the heart of sustainable development and inclusive urbanization. The focus should be rather shifted further to process facilitating the transition of informal waste workers into formal decent employment at a local level. At the same time, the focus should also be on ascertaining and improving the working conditions of municipal waste workers, whose role and challenges seem overlooked and under researched.

There is a major opportunity for municipal and waste services trade unions and social cooperatives of informal waste workers to join forces to facilitate the formalisation of informal waste workers on the one hand and to improve the working conditions of all waste sector workers on the other hand. Such alliances can be presented as “local public waste partnerships”, reflecting the focus on a stronger public sector and emphasizing the facilitation to transitioning into formal employment from the informal economy and be integral parts of local decent work pacts⁴⁸. Such alliances have the potential to greatly contribute to public health, to environmental protection and improvements, as well as to more socially inclusive cities and urban areas through the generation of decent employment opportunities in an essential municipal public service. □

9. Public-Public Partnerships (PuPs)

A public-public partnership (PUP) is a collaboration between two or more public authorities or organizations, based on solidarity, to improve the capacity and effectiveness of one partner in providing public water or sanitation services. They have been described as a “peer relationship forged around common values and objectives, which exclude profit-seeking”. PUPs avoid the risks which are typically encountered in public-private partnerships: transaction costs, contract failure, renegotiation, the complexities of regulation, commercial opportunism, monopoly pricing, commercial secrecy, currency risk, and lack of public legitimacy⁴⁹.

Two cases of PuPs in solid waste management follow:

9.1 Rio Grande do Sul, Brazil

Thirteen local authorities in Rio Grande do Sul, with a total population of 88,000, formed the Inter-municipal Consortium of Solid Waste Management (CIGRES) in 2001. After seven years of negotiations CIGRES started to operate and treated solid waste from three municipalities. By 2012, it was working with 30 municipalities. There were two problems which CIGRES aimed to address. First, the monopolistic pricing system that private waste management companies contracted to operate waste collection and disposal services. Second, to make environmental improvements to


the final disposal sites of municipalities which had not contracted private companies. The creation of CIGRES was supported by government funds and tax breaks for the inter-municipal association⁵⁰.

Twentyfiveoutofthethirtymunicipalitieshaveoutsourcedthecollectionbutthemonitoring and control of these contracted services are the responsibility of the municipalities. Eight of the 25 municipalities contracted primary collection to one medium sized company and 17 were contracted to small local enterprises. Five of the municipalities continued to collect their own waste. Mixed waste is delivered to the treatment centre where materials which are recyclable are separated out. The waste is then sent to a compost yard – process of bio-stabilisation and then disposed in a sanitary landfill⁵¹.

9.2 Girsu Virch-Valdés, Chubut, Argentina

In December 2005, the municipalities of Trelew, Puerto Madryn and Rawson in Chubut, Argentina, signed a Framework Agreement to “regulate the joint management of waste generated in part municipalities” in order to promote sustainable development and environmental protection. The provincial state also agreed to support the project.

In June 2006, the municipalities of Trelew, Puerto Madryn, Rawson, Gaiman and Dolavon signed a Convention to work together creating the Intermunicipal Public Consortium of Solid Urban Waste (*Consortio de Gestión Integral de Residuos Sólidos Urbanos - Girsu*) Virch Valdés, with legal powers to operate in both the public and private sectors. This agreement was ratified by the following municipal ordinances by jurisdiction: Trelew N ° 10133/2006; Puerto Madryn No. 6452/07; Rawson No. 6124/06; Gaiman No. 1218/07; And Dolavon No. 282/07; LAW XI-45 (formerly Law 5771) of the Province of Chubut⁵².

By 2016, the Consortium was continuing to work together and had just received an investment of 10.9 million pesos from the Metropolitan Areas Development Program (DAMI) for machinery and trucks which will improve the collection and processing of waste⁵³. 



10. Remunicipalization

In many countries across the world, remunicipalisation of public services which has previously been privatised has become a significant social movement to reclaim public services for citizens. A recent study found that the motivations for remunicipalisation were varied but by far the most popular motivation in Latin America was private sector mismanagement (corruption, bribery, breach of contract, excessive dividends, profits above contractual limits, etc.) (60%) and to regain public ownership and control (54%). Although the study did not identify any specific waste services remunicipalisation, the option is becoming more widely supported in Latin America with examples from the water sector, oil and gas and the postal services⁵⁴.

Specific research is needed to identify cases of remunicipalization in waste services in Latin America. □



11. Conclusions

The responsibility for the management of solid waste is primarily at municipal level. This constitutes an essential public service. Waste generation levels depend on economic activity, population size and level of development. With rapid urbanisation and globalisation the disposal of waste is a major challenge and a focus area facing municipal authorities. Solid waste management services play a key role in public health, environmental protection, and in securing safe public spaces and inclusive socio-economic development through the generation of decent work opportunities for all. Sustainable waste systems are also a promising path to generate renewable energies.

- Effective local waste management plans would need to involve the key stakeholders in the processes – including citizens, urban dwellers and all waste workers – both formal and informal - for drawing up sustainable, inclusive municipal waste management plans in an accountable and participative way.
- There is a variety of waste management systems and funding arrangements at a local and national levels. The long-term sustainability of quality municipal waste services depends on sustainably securing reliable financial resources and

intergovernmental policy coordination and coherence between local, provincial and national polices.

- Many studies of waste services in Latin America have commented about the lack of data available. Municipal authorities do not collect data systematically and provincial and federal/central governments are not necessarily required to. Where such data exist, there often is a failure to share such data among institutions. This results in a lack of data about a sector that has a crucial role to play in public health and environmental policies and will affect local economic development. There is a need for more research and the more systematic collection of data on municipal waste, especially on the municipal waste services workforce. This would involve extensive data collection at municipal level but would support future local waste management plans.
- In many Latin American countries, waste collection services are still predominantly provided by direct (public) municipal waste services. Brazil and Mexico have the largest numbers of waste workers, both municipal and private contractors. Countries with a longer history of out-sourced, privatized waste services, for example, Chile and Colombia have a smaller proportion of the population covered by direct municipal services.
- Social cooperatives of informal waste workers in Latin America play a very minor role in final disposal because large equipment and some capital investment are needed, which social cooperatives and informal waste pickers do not have access to.
- Municipal solid waste collection remains a labour-intensive activity and private waste companies tend to seek labour cost reduction and automation as the main strategy to make profits. The private sector can often afford new equipment which introduces a greater degree of mechanisation, which reduces the use of labour.
- Work in waste services is one of the most dangerous professions and waste workers are particularly exposed to potentially severe occupational health and safety risks. The particularly dangerous and difficult nature of municipal waste services work points to the fact that health and the working conditions of waste workers can greatly benefit from trade union representation and the setup of workplace municipality/private employer-union OSH committees. It would be important to ascertain and assess the OSH conditions of municipal waste workers in the region to identify any specific risk to address on a priority basis.
- Solid waste management policies are influenced by municipal, national and international policies and frameworks aimed at reducing the impact of climate change and promoting greater sustainability and social inclusion. City and national legislations as well as the UN SDGs and the New Urban Agenda have a direct effect of the shape and development of waste management systems, employment and working conditions.
- Internationally, the promotion of 'integrated waste management' highlights how informal waste workers have earned a role within formal municipal waste systems. International and national policies are focusing on the integration of waste pickers and this is influencing how waste services are organised and delivered. National legislation on waste services and waste management rarely mention municipal waste workers. Municipalities are given responsibilities for developing sustainable systems, which increasingly include the integration of informal waste workers. However, municipal workers do not seem to receive the same institutional attention.
- Informalisation is often used as a way of undercutting wages and the power of unionised public sector workers as well as 'hollowing' out the local state. This is part of a wider process of informalisation which has been the result of neo-liberal

reforms and a reduction of the size of the state and opening up the market of public services to private operators. There is therefore a risk that social cooperatives of informal waste pickers are systematically used by some municipalities as cheap labour to cut the costs of municipal waste services and that such national frameworks make their participation possible in formal waste management systems while locking them into informality.

- The World Bank, the Inter-American Development Bank, the IMF and other neo-liberal financial institutions, think tanks, private foundations, banks have promoted the privatization and outsourcing of municipal public waste systems as a means to access new market and business opportunities within the framework of the “circular economy”. The role of private companies and the promotion of World Bank strategies has often contributed to increased inequality, wage cuts and worsening working conditions for municipal waste workers.
- Multinational companies with municipal contracts for waste services view future opportunities in providing waste-related infrastructure and investment to rapidly growing cities. Global companies are trying to identify how their current business models have to adjust in order to continue to make profits. The promotion of the circular economy should be seen in terms of these global business interests. They will not encourage viable pathways towards formal, decent employment in municipal waste services but will encourage further institutionalization of poverty wages and informal waste picking conditions as a means to cut labour costs.
- All waste workers, whether working in the municipal sector or in the private sector need improved pay and working conditions. The moves to integrate waste pickers into municipal systems should be seen as part of a move towards decent work for all waste service workers. In order to secure this, more cooperation between trade unions and social cooperatives of informal waste workers is needed to develop joint campaigns for decent work in the waste sector. When campaigns for decent work are successful they will benefit the local economy, and contribute to making cities and local communities more fair and inclusive. Such alliances can be presented as “local public waste partnerships”, reflecting the focus on a stronger public sector and emphasizing its potential to facilitate transitioning informal waste workers into formal employment and provide decent working conditions for all in the sector.
- Governments, especially local and regional/municipal governments, have a key role to play in providing sustainable waste management services to local communities and in facilitating better working conditions for formal and informal waste workers alike, who otherwise remain an especially vulnerable group. This includes setting pro-decent work municipal /local policy and legal frameworks favourable to the generation of decent employment opportunities in the sector including via responsible public procurement; promoting the democratic participation and contribution of waste workers unions and informal workers organizations in the setup of municipal waste management plans; and ensuring that municipal workers in local institutions who manage the service are in adequate numbers, have decent conditions, are skilled and resourced to provide quality waste services to the local communities they serve.
- More research is needed to identify viable models of public-public partnerships and cases of remunicipalization in waste services in Latin America. □

Jane Lethbridge
J.lethbridge@gre.ac.uk
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Public Services International (PSI)

45, avenue Voltaire

01210 Ferney-Voltaire - France

www.world-psi.org