

# Waste Management in the LATAM Region

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## Waste Management Country Report: Panama

This paper aims to provide a better understanding of business opportunities for the Netherlands in waste/circular sector in Panama



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# PANAMA

## Country Information

Panama is twice as big as the Netherlands, it has only 4 million inhabitants, of which 1.5 million live in the capital, Panama City.

The country has positioned itself as the ‘Hub of the Americas’ due to its central location, excellent connections and favorable business climate. This regional trade, logistics and financial center has attracted many Dutch businesses.

Over the years, the Panamanian economy has been able to maintain high growth figures. Panama ranks among the fastest growing economy in Latin America. In addition, it has the highest GDP per capita (PPP) of Latin America.

According to the World Bank, the COVID-19 pandemic is hitting the country hard. The contraction of the aggregate demand and a sharp decline in government revenues have a negative impact on the economy during 2020.

Key Indicators	
<b>Size</b>	Panama is 82% larger than the Netherlands
<b>Population (2019)</b>	4.2 million <sup>i</sup>
<b>Nominal GDP (2019)</b>	USD 66.8 Billion world rank: 73 <sup>rdii</sup>
<b>GDP per capita (2019)</b>	USD 32,850 <sup>iii</sup>
<b>Import from the NL (2018)</b>	USD 12 million <sup>iv</sup>
<b>Economic growth (2019)</b>	3.0% <sup>v</sup>
<b>Ease of doing business rank (2019)</b>	86/190 <sup>vi</sup>
<b>Corruption index (2019)</b>	101/180 <sup>vii</sup>
<b>Unemployment rate (2019)</b>	7.1% <sup>viii</sup>
<b>Currency</b>	Balboa (USD)
<b>Time difference NL</b>	-6/-7 hours

## 1. The Waste/CE Market Analysis

### 1.1 Facts & Figures Waste Generation and Composition

In 2016, Panamanians generated 1.2 kilograms per day of waste, which on a national level is about 5,000 tons per day, or 1,830,000 tons per year. It is estimated that 74% of the population’s waste ends up in landfills. These figures are based on the preparatory studies of the Spanish consultancy company INECO (Ingeniería y Economía del Transporte S.A.) which in 2017 elaborated the Panamanian Plan for Integrated Waste Management 2017 - 2027. The rest of the waste gets incinerated in an uncontrolled manner and/or is dumped into rivers and other ecosystems. Almost half of the collected garbage ends up in the Cerro Patacón landfill of Panama City.

The country generates around 480,000 used tires in a year, of which around 350,000 ends up in Cerro Patacón (INECO, 2017). In Panama City, 1 million m<sup>3</sup> of Construction & Demolition (C&D) waste is generated per year. 53,000 tons per year of C&D waste is disposed of in Cerro Patacón (INECO, 2017). According to the

program BasuraCero (Zero Waste), Panama City recycles around 5%. Official numbers are not available. The only waste stream that is processed in the country itself is carton. The rest of the collected recyclables are exported.

### 1.2 Collection and Disposal

#### 1.2.1 Waste Collection

Waste collection is the responsibility of the municipalities, either through their own means (46 districts) or by concession companies (13 districts). 66% of the population is served this way (INECO, 2017). In the eight biggest cities, the collection is carried out by private companies. All of these follow the same approach, which is having a user fee billing system, around 5 USD per month. In rural areas, the population density is low, therefore collection is very expensive.

#### 1.2.2 Waste Disposal

The country has 63 landfills. In 89% of them, illegal dumping of hazardous waste takes place and in 82%

burnings on site. Only three landfills have a scale to weigh the waste (INECO, 2017). The Cerro Patacón landfill of Panama City receives around 2.400 tons per day of Municipal Waste (almost half the nation's output), as well as 30 tons per day of hospital waste and 53,000 tons per year of Construction & Demolition waste. Numbers on other industrial and special waste streams are unknown. All in all, the importance of the Cerro Patacón landfill is obvious. This is the first stop for Dutch companies interested in working on landfill rehabilitation in Panama.

Tipping fees at Cerro Patacón<sup>ix</sup> amount to 17 USD per ton for Industrial waste, 14.30 USD per ton for institutions and Special waste, 14.50 USD per ton for Construction & Demolition waste and 11 USD per ton for Municipal Waste collected by the National Waste Authority (AAUD)<sup>x</sup>. The landfill is operated by the Colombian waste company Interaseo. Their Panamanian branch is called Urbalia Panamá S.A. The municipality of Chorrera, next to Panama City, has the only landfill that complies with all national regulations. This landfill is managed by the French waste company Veolia.

No formal legislation exists for special waste streams, so most of these materials are dumped at illegal dumpsites or burned. There are companies specialized in collection and disposal of hospital waste, but since this stream is also lacking control, it is not clear which percentage of hospital waste gets treated adequately.

### 1.3 Value Chain

#### 1.3.1 Recycling

According to the National Waste Management Plan of 2017 (INECO, 2017), 89% of Panamanians do not separate their waste and none of the municipalities have separated collection routes for recyclable waste. Same as in other Latin American countries, informal separation and collection does exist, however, in Panama it is a rather small sector. Waste pickers are present in a couple of neighborhoods in Panama City and at landfills, where they mainly collect aluminum.

In 2015, the municipality of Panama City, in cooperation with the private sector, started the BasuraCero program. BasuraCero is a recycling initiative designed for the period 2015 – 2035. The objective of the program is to reduce waste disposal through the implementation of the so-called 3 Rs (reduce, reuse and recycle), through

awareness programs, regulations and institutional strengthening<sup>xi</sup>.

Since 2015, the program inaugurated 31 recycling centers,

where the citizens of Panama City can hand in their recyclable waste.



It is estimated that Panama generates 89 tons per day (32,598 tons per year) of e-waste (INECO, 2017). In February 2016, a draft version of the law that will regulate e-waste was presented but it has not been finalized yet.

Since environmental awareness of (multi)national companies is increasing, the country has several industrial waste collection companies. Panama has a local capacity to process carton. Because of the modest amounts collected, most of the other recyclable waste is exported. Neighboring countries such as Costa Rica and Colombia do have a recycling industry, so it is cheaper to export the materials. Other destinations are the USA and China.

#### 1.3.2 Composting

Panama City generates approximately 122,000 tons of organic (food) waste each year. This is one of the major problems of the sector. Although the national government does not have any policy to promote the separate collection of municipal organic waste, BasuraCero set the target for the Municipality of Panamá to reduce food waste by 10% between 2015 and 2020<sup>xii</sup>. The municipality is preparing the implementation of this program at a marketplace in the old city center. There may be scope here for food waste collection and processing programs which are inherently profitable.

In the industrial sector, things are changing. As an example, companies are investigating the possibilities of biodigesters to transform their food waste. Korean equipment has been installed in several companies<sup>xiii</sup>. There may be opportunities for Dutch equipment as well.

### 1.3.3 Waste to Energy

Waste to Energy (W2E) is not considered a feasible option at this moment in Panama, due to the lack of a policy framework. In 2016, the government presented a proposal for a W2E-law, but this version has not been further elaborated<sup>xiv</sup>.

## 2. Governance on Waste/CE

### 2.1 Waste Management

In Panama, the Ministry of Health (MINSAs) is responsible for municipal waste policies. As part of the implementation of Law 51 of 2010<sup>xv</sup>, 10 years ago the government founded the National Waste Authority (AAUD). This entity is responsible for the administration, planning, operation and inspection of municipal, commercial, and industrial waste management as well as the landfills. Interestingly, the same organization is also responsible for waste collection in Panama City. AAUD faces difficulties to fulfil this double role. As a result, collection in Panama City has not seen any progress in the past years. The board of directors of AAUD is headed by the Minister of Health and the Director of the Sanitation Authority.

In 2015, the Ministry of Environment (MiAmbiente) was created. It is now part of the board of AAUD. MiAmbiente represents the Republic of Panama in (inter)national organizations concerning waste issues and promotes and facilitates environmental projects. The specific responsibilities of MINSAs and MiAmbiente are not clearly defined by the regulations.

In November 2015, AAUD contracted the Spanish company INECO to design a master plan for the national waste sector. The goal was to determine the guidelines, objectives and primary lines of action for sustainable waste management. The resulting plan provides an interesting overview of the current situation in Panama and draws the following key conclusions<sup>xvi</sup>:

- There is a great quantity and variety of regulations, creating legal uncertainties, reducing clarity and causing inefficiencies and complexities in their application.
- In the regulations there is a notable absence of homogeneous definitions and terms and a lack of

defining the different management roles and the actors involved.

INECO proposed the elaboration of an Integrated Waste Management Law. The Panamanian government presented the draft of such law “that regulates the integrated waste management of the Republic of Panama as an essential issue of public health”.

The law passed the first debate in July 2019<sup>xvii</sup> and now must go through the 2nd and 3rd debates in the National Assembly before it can be signed (in 2021 at the earliest) by the President of the Republic.

In February 2018 Law 6 was published<sup>xviii</sup>. This law regulates the integrated management of solid waste in public institutions, among others defining responsibilities and obligations concerning recyclable materials. To date, it has not been implemented<sup>xix</sup>.

In March 2018, a law on Zero Waste was published. This law provides an integrated waste management framework based on the concept of circular economy. The goals are to achieve the best economic, environmental and social use of waste and natural resources, to generate new job opportunities (inclusion of waste pickers) and to reduce pollution and impacts on health and the environment<sup>xx</sup>. It defines responsibilities for all actors (individuals, public and private sector) that produce, import, commercialize or consume products or deposit waste. It also creates a National Education Program to promote a Zero Waste Culture (3Rs).

In October 2019, the Ministry of Environment launched the Electronic Waste Project in Panama (PREAL). The amount of 550,000 USD was reserved for its execution in the period 2019-2024<sup>xxi</sup>.

The national government presented first versions of laws concerning used tires, collection of e-waste and recycling in mass events<sup>xxii</sup>. In 2019, a law was presented concerning single use plastics, with the objective: “Regulating the Reduction and Progressive Replacement of Single-Use Plastics by 2021”<sup>xxiii</sup>.

The National Tourism Council (CNT), the main public-private body for the tourism sector in Panama, has recently approved the Master Plan for Sustainable Tourism 2020 - 2025<sup>xxiv</sup>. Through this plan, the Panama Tourism Authority (ATP) re-launches the country as a tourist destination post COVID-19. The Master Plan

concludes that virtually all priority destinations have urgent shortcomings in basic urban infrastructure, including solid waste treatment. The plan includes activities to improve waste management at tourist sites and to reduce single-use plastics. This Master Plan can be a stimulus for local governments to review waste management in their constituency, as well as to start with campaigns for their citizens.

In conclusion, the Panamanian government has been working on several laws and decrees to promote sustainable waste management. However, almost none of the laws have been implemented, activities have not been planned, and real responsibilities (and control) have not been assigned to the local governments.

## 2.2 Policy Landscape: Circular Economy

In October 2019, the Ministry of Environment signed an agreement with the Industrial Union (Sindicato de Industriales) and the National Council of Private Business (CONEP) to create a Circular Economy Centre<sup>xxv</sup>. This is a first step in the design of a circular economy strategy. The partners are now defining how this center will work and investigating financing possibilities.

## 3. Financial Aspects

Since the country has not yet implemented EPR-norms or a landfill tax, the only sources of financing for the waste sector are the household fees for collection and landfilling plus additional financing by the municipalities. The waste invoice is part of the water bill. By law, Panamanians have a right to drinking water, so in case they do not pay the waste fee their water does not get disconnected. Taking into account the low payment discipline for the waste service, Panama only collects 8% of waste fees on time.

Given that the waste sector is not a priority in the country, it can be difficult to obtain subsidies or credits for waste management projects.

## 4. Stakeholders

Since 1945, Industrial Union for consistency (SIP) represents the industry in Panama. Every year they organize an International Symposium on Sustainability. This can be a useful event to get to know the Panamanian industry and their (sustainability) plans and needs. SIP

organized a first event on circular economy in November 2020. Besides, the following organizations play an important role in the sector:

- [AmCham](#)
- [CONEP](#)
- [ANCON](#)

Interestingly, most of the waste collection and recycling companies active in Panama are Colombian companies or their owners are Colombians. This makes Panama a potentially effective steppingstone towards Colombia or the other way around.

Within the recycling sector there are different foundations promoting the sector, for example [CIAM](#) (United Nations), [Fundación Marea Verde](#), [Costa Recicla Foundation](#) and [La Camara Panameña de Reciclaje](#).

## 5. Dutch–Panamanian Cooperation

In 2017, a waste management mission was organized by the Dutch embassy in cooperation with the embassy in Colombia. A one-week trip was organized to Cartagena and Panama City. In Panama, a visit to the landfill was made and the general manager of AAUD presented the results of the INECO study. The second day, a match-making event between Panamanian and Dutch companies was organized. Unfortunately, this has not yet led to Dutch Panamanian business on waste management.

The current bilateral cooperation is mainly focused on the water and port sectors. In 2019, a Holland House was opened in Panama, which offers services to companies interested in expanding their business to Panama.

## 6. Business Opportunities

Even though there is lack of government interest and a weak regulatory framework, there are business opportunities in the waste/CE sector.

### 6.1 Collection and Landfill

On a national level, the country is lacking an urgency to move away from the current situation of collection and landfilling/illegal dumping towards a circular economy approach. According to several persons interviewed, the current situation is basically the same as during the 50's and 60's. However, there are a lot more people

generating a lot more waste. A structural “problem” the country is facing is the low overall volume of waste generated. With only 4 million inhabitants in a country double the size of the Netherlands, collection and treatment of waste is relatively expensive. It is perhaps the reason why only carton waste is recycled nationally, while other recyclables are exported.

The central waste authority AAUD is eager to improve the waste sector but faces serious challenges. Therefore, it is recommended to focus on private (waste) companies. As an example, the INECO study made it clear that investments in equipment for leachate treatment at Cerro Patacón landfill are necessary<sup>xxvi</sup>. Besides, (pilot) projects on collection and recycling could be developed together with local waste companies (which may have their headquarters in Colombia). Opportunities in organic waste processing (including food waste, such as biofuels out of cooking grease from restaurants) may be the low hanging fruit here.

## 6.2 Circular Economy

With the organization of the first circular economy event in November 2020, SIP took a proactive role in the implementation of circular economy. It is recommended that Dutch companies investigate, together with SIP, the long-term circular economy plans of SIP members. During the November 2020 event, organizations such as the International Development Bank, the National Beer Company, Nestlé, CocaCola Femsa, Tetra Pak, MiAmbiente, the International Renewable Energy Agency and the Ministry of Commerce and Industry discussed the importance of renewable energy, food logistics and how to include circular economy in the reactivation of the economy after COVID-19.

## 7. Concluding Remarks

In conclusion, the Panamanian government, first of all, has to regulate the national policy framework, including standards on collection, transport and final disposal for all waste streams (municipal, commercial and industrial). Besides, it has to define the responsibilities of the private sector (EPR-systems). The country needs recycling targets, which should be part of local waste management plans, including financing. Only this way the country can move towards sustainable waste management. And only then the country will be ready to seriously work on a circular economy strategy.

The Netherlands can play an important role in the design of this waste management framework and circular economy strategy, but it is important to make informed choices before financing such important steps.

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