



EARTHCHECK

BENCHMARKING ASSESSMENT REPORT

DESTINATION BENCHMARKING

MUNICIPIO DE BAIÃO
PORTO, PORTUGAL



REPORT DATE: 22 March 2021

Benchmarking Data Collection Period: 1 January 2019 – 31 December 2019

The planet deserves more than half measures

OVERVIEW

This annual assessment of **Município de Baião** was undertaken against EarthCheck benchmarking indicators and checklists developed for EarthCheck and listed below. ¹ They have been carefully selected to track performance in key areas of environmental and social performance impact. EarthCheck benchmarking provides an organisation a vehicle for sustainability reporting and is based on the premise of continual improvement. By undertaking a Benchmarking Assessment an organisation meets the requirements of annual benchmarking which includes the collection and submission of benchmarking data to EarthCheck for review and completion of the Benchmarking Assessment Report.²

Indicator Measure (Benchmark)	
1	Policy Policy is produced and in place ²
2	Energy Energy Consumption (GJ / Person Year) ² Green Power (%) ⁴ Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO ₂ -e / Person Year) ³ Indirect Emissions (Scope 3) (t CO ₂ -e / Person Year) ³
3	Water Potable Water Consumption (kL / Person Year) ³ Recycled / Captured Water (%) ⁴
4	Waste Waste Sent to Landfill (m ³ / Person Year) ³ Recycled / Reused / Composted Waste (%) ⁴
5	Sector Specific Nitrous Oxides Produced (kg / Person Year / Hectare) ^{3 5} Sulphur Dioxide Produced (kg / Person Year / Hectare) ^{3 5} Particulate Matter Produced (kg / Person Year / Hectare) ^{3 5} Habitat Conservation Area (%) ² Green Space (%) ² Significant Site Maintenance Fund (%) Destination Safety – Homicide Rate (%) Destination Safety – Theft Rate (%) Destination Safety – Assault (%) Socio-Economic Benefit – Unemployment Rate (%) Accredited Operations (%) ²
Lead Agency Performance	
6	Water Savings Water Savings Rating (Points) ⁶
	Waste Recycling Waste Recycling Rating (Points) ⁶
	Paper Paper Products Rating (Points) ⁶
	Cleaning Cleaning Products Rating (Points) ⁶
	Pesticides Pesticide Products Rating (Points) ⁶

¹ Please refer to the relevant EarthCheck Sector Benchmarking Indicator (SBI) document for more details. For frequently asked questions (FAQs) about benchmarking or specific help, please log on to 'My EarthCheck'.

² Produced by the lead agency after consultation with the destination and consensus.

³ Person Year is equivalent to 365 person days. EarthCheck Destinations must also allow for both resident and transient (tourist) populations in indicators assessed on a per person year basis. Tourist activity is classified into an “overnight stay” or “day tripper”. An overnight stay is counted the same as a permanent resident, that is, 1 person day. A day tripper is counted as 0.333 person day.

⁴ These indicators are for guidance only and do not affect the overall benchmarking evaluation.

⁵ Primary assessed impacts on air quality are emissions due to electricity consumption, vehicular transport, industrial processes and mining. The levels are calculated on a per unit area basis using total emissions and total bounded area of the Destination, including waterways. The data is then normalized against the average number of person years per area of the country.

⁶ Assessed for the lead agency only.

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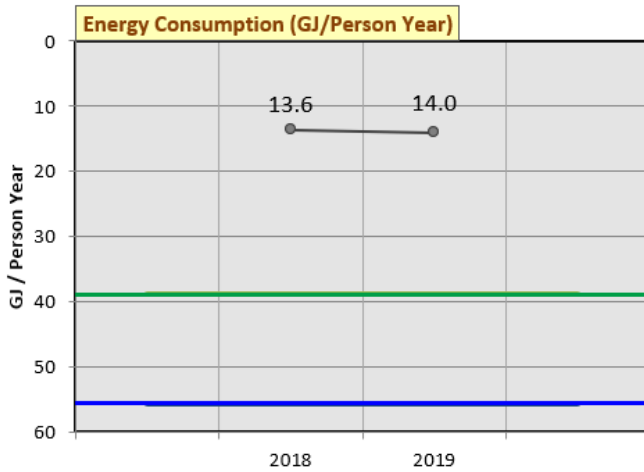
COMMUNITY PERFORMANCE BENCHMARKS

Current performance: Below Baseline ✖ At or above Baseline ✔ At or above Best Practice ★

1. Policy ★

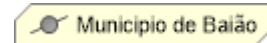
2. Energy

Energy Consumption (GJ / Person Year) ★



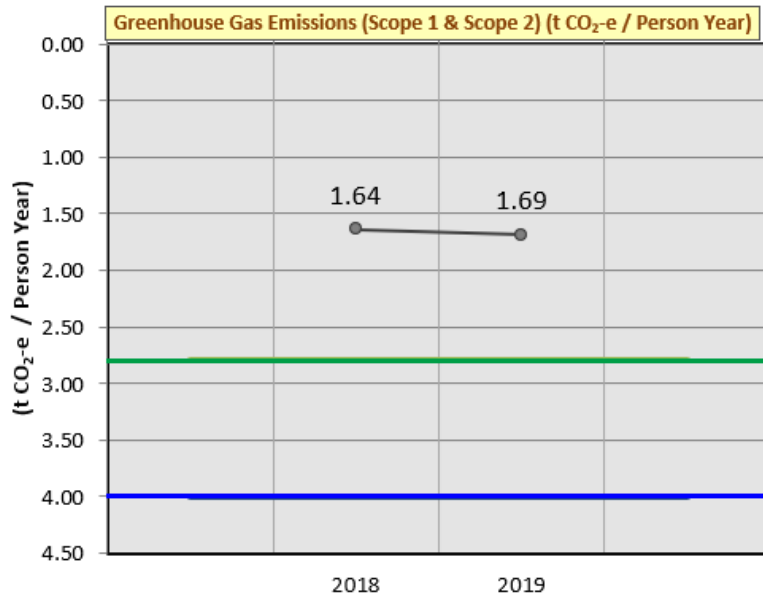
Energy Consumption (GJ / Person Year) for the year 2019 (1 January 2019 – 31 December 2019) was 14 GJ / Person Year, which was 63.9% better than the Best Practice level.

Green Power (Purchased Electricity) (%)



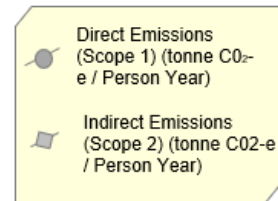
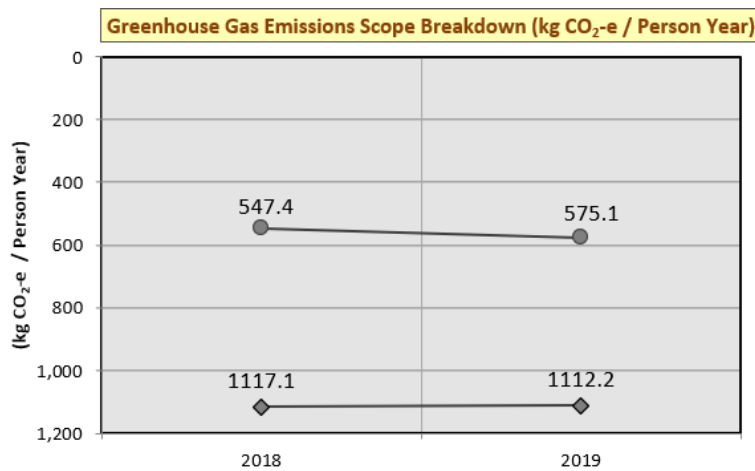
Green Power (Purchased Electricity) (%) for the year 2019 (1 January 2019 – 31 December 2019) was 0%.

Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year) ★



Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year) for the year 2019 (1 January 2019 – 31 December 2019) was 1.7 t CO₂-e / Person Year, which was 39.7% better than the Best Practice level.

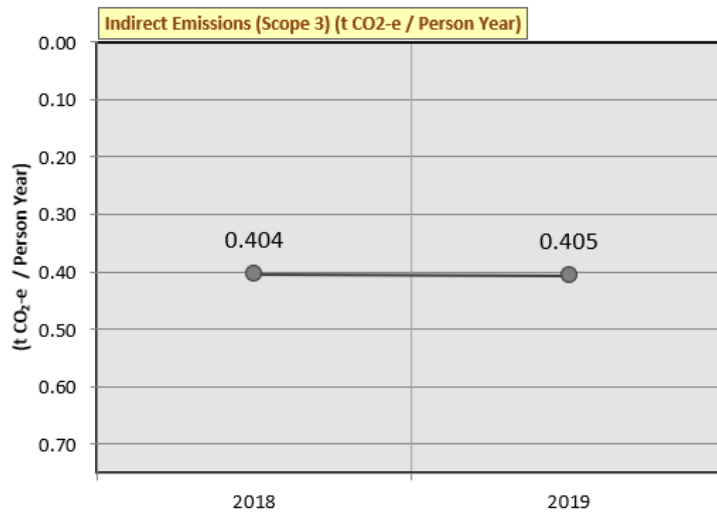
Greenhouse Gas Emissions Breakdown by Scope (kg CO₂-e / Person Year)



Direct Emissions (Scope 1) (kg CO₂-e / Person Year) for the year 2019 (1 January 2019 – 31 December 2019) was 575.1 kg CO₂-e / Person Year.

Indirect Emissions (Scope 2) (kg CO₂-e / Person Year) for the year 2019 (1 January 2019 – 31 December 2019) was 1112.2 kg CO₂-e / Person Year.

Indirect Emissions (Scope 3) (t CO₂-e / Person Year)



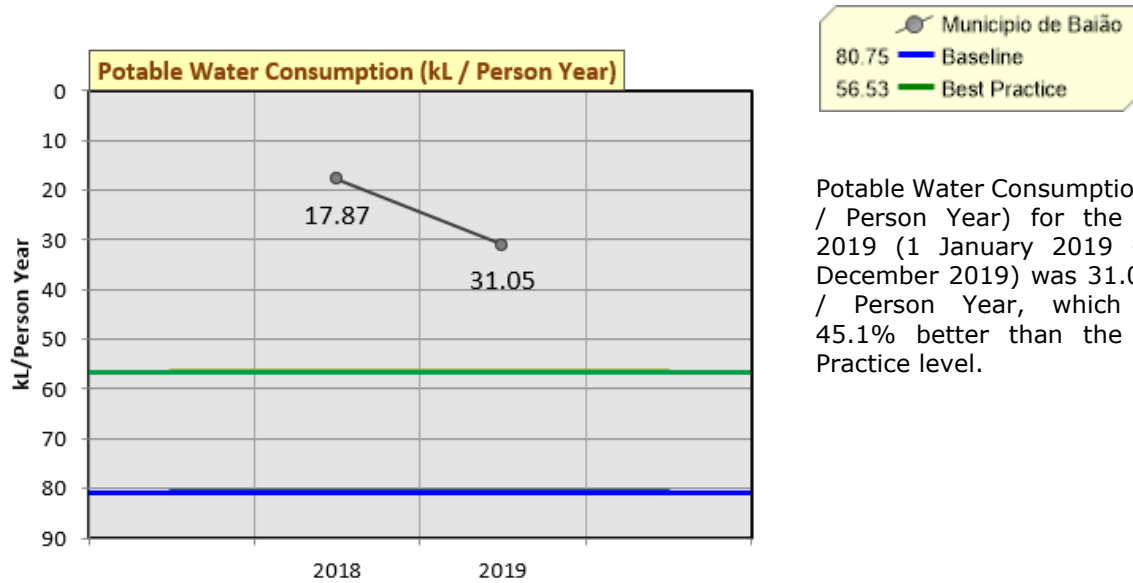
Município de Baião

Indirect Emissions (Scope 3) (t CO₂-e / Person Year) for the year 2019 (1 January 2019 - 31 December 2019) was 0.405 tonnes CO₂-e / Person Year.

Direct Emissions (Scope 1)									
Stationary Fuel Combustion									
2019									
Type	Quantity	Unit	Energy Consumption (MJ)	CO ₂ Emission Estimate (t CO ₂ -e)	CH ₄ Emission Estimate (t CO ₂ -e)	N ₂ O Emission Estimate (t CO ₂ -e)	Total Emission Estimate (t CO ₂ -e)		
Diesel	2403.84	litres (L)	91819.2	6.5	0.02	0.02	6.5		
subtotal			91819.2	6.5	0.02	0.02	6.5		
Mobile Fuel Combustion (road)									
2019									
Type	Quantity	Unit	Energy Consumption (MJ)	CO ₂ Emission Estimate (t CO ₂ -e)	CH ₄ Emission Estimate (t CO ₂ -e)	N ₂ O Emission Estimate (t CO ₂ -e)	Total Emission Estimate (t CO ₂ -e)		
Diesel	3085336.41	litres (L)	117850286.3	8296.1	9.2	135.4	8440.6		
Motor gasoline	605333.3	litres (L)	20703899.8	1363.0	10.3	48.8	1422.1		
subtotal			138554186.1	9659.1	19.5	184.1	9862.7		
Onsite Wastewater Treatment									
2019									
Type	Average BOD (mg/L)	Wastewater Volume (kL/day)	Number of days in use	CO ₂ Emission Estimate (t CO ₂ -e)	CH ₄ Emission Estimate (t CO ₂ -e)	N ₂ O Emission Estimate (t CO ₂ -e)	Total Emission Estimate (t CO ₂ -e)		
Aerobic (BOD Known)	773	1015	365		1082.5		1082.5		
subtotal					1082.5		1082.5		
TOTAL			138646005.3	9665.6	1102.0	184.2	10951.7		
Indirect Emissions (Scope 2)									
Purchased Electricity									
2019									
Quantity	Unit	% Green Power	Provider	Energy Consumption (MJ)	CO ₂ Emission Estimate (t CO ₂ -e)	CH ₄ Emission Estimate (t CO ₂ -e)	N ₂ O Emission Estimate (t CO ₂ -e)	Total Emission Estimate (t CO ₂ -e)	
35682747	Kilowatt hour (kWh)	0	Portugal, EDP	128457889.2	21088.5	10.9	78.6	21178.1	
subtotal				128457889.2	21088.5	10.9	78.6	21178.1	
TOTAL				128457889.2	21088.5	10.9	78.6	21178.1	
Greenhouse Gas Emissions (Scope 1 and Scope 2)									
GRAND TOTAL				267103894.5	30754.1	1113.0	262.8	32129.8	
Indirect Emissions (Scope 3)									
Waste Sent to Landfill									
2019									
Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Source	CO ₂ Emission Estimate (t CO ₂ -e)	CH ₄ Emission Estimate (t CO ₂ -e)	N ₂ O Emission Estimate (t CO ₂ -e)	Total Emission Estimate (t CO ₂ -e)
6420.32	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	International	0	7757.16	0	7757.16
subtotal						0	7757.16	0	7757.16
TOTAL						0.0	7757.16	0.0	7757.16

3. Water

Potable Water Consumption (kL / Person Year) ★

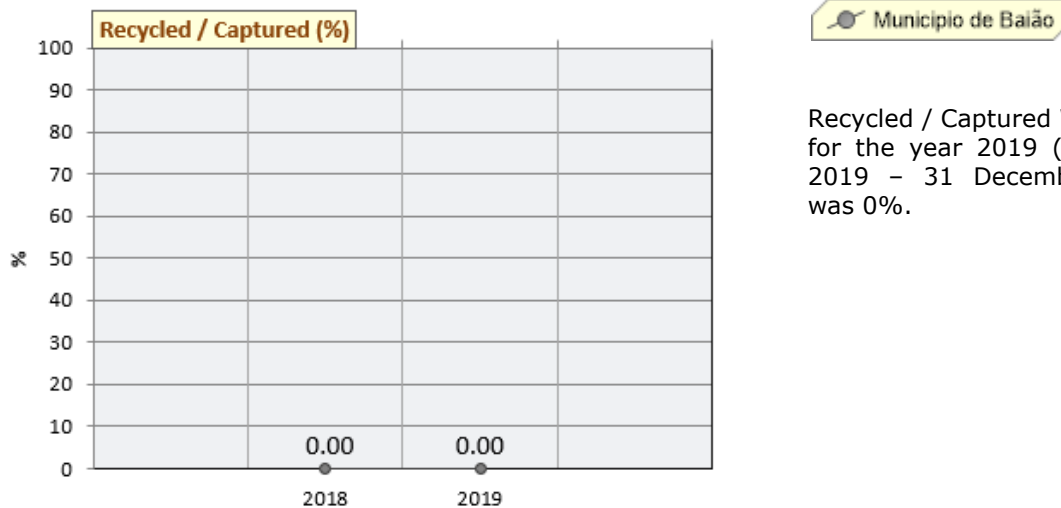


Potable Water Consumption (kL / Person Year) for the year 2019 (1 January 2019 – 31 December 2019) was 31.05 kL / Person Year, which was 45.1% better than the Best Practice level.

2019

Quantity	Unit	Potable Water Consumption (kL)
591223	cubic metres	591223.0 kL
	TOTAL	591223.0 kL

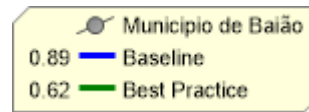
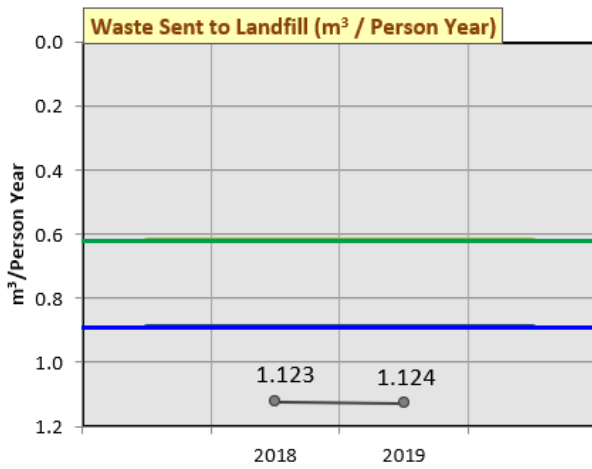
Recycled / Captured Water (%)



Recycled / Captured Water (%) for the year 2019 (1 January 2019 – 31 December 2019) was 0%.

4. Waste

Waste Sent to Landfill (m³ / Person Year) ✕

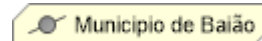
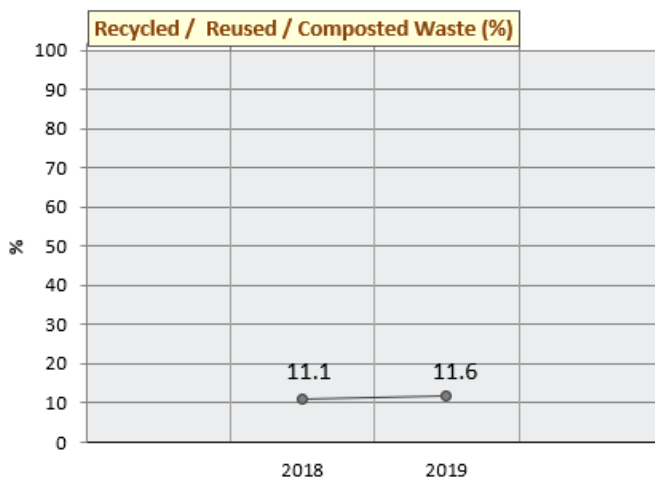


Waste Sent to Landfill (m³ / Person Year) for the year 2019 (1 January 2019 – 31 December 2019) was 1.124 m³ / Person Year, which was 26.3% below the Baseline Level.

2019

Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Waste Sent to Landfill (m ³)
6420.32	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	21401.07
				TOTAL	21401.07 m³

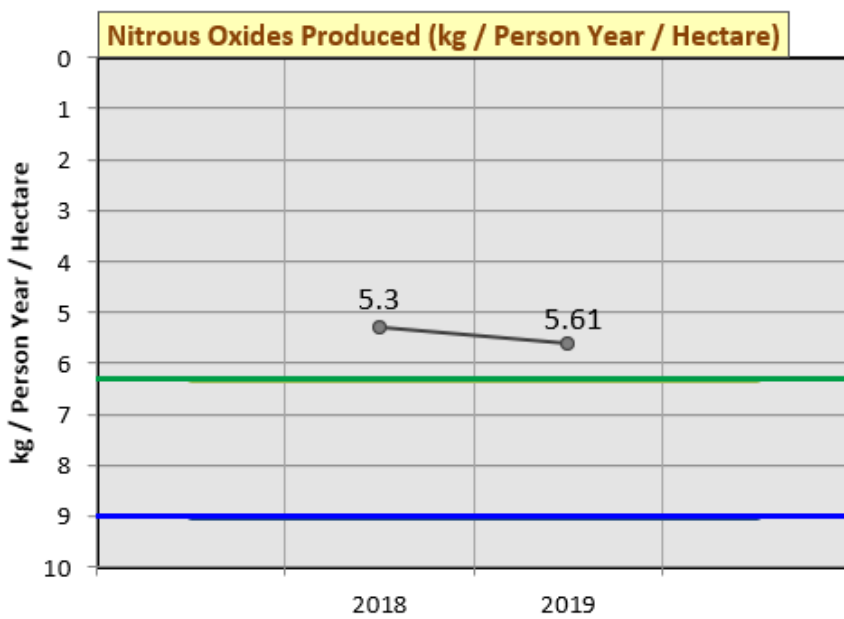
Recycled / Reused / Composted Waste (%)



Recycled / Reused / Composted Waste (%) for the year 2019 (1 January 2019 – 31 December 2019) was 11.6%.

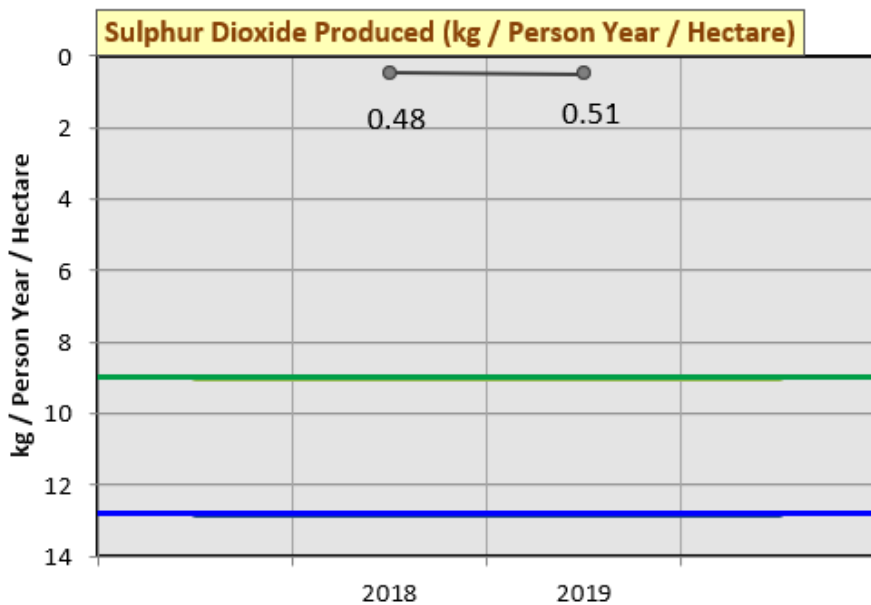
5. Sector Specific

Nitrous Oxides Produced (kg / Person Year / Hectare) ★



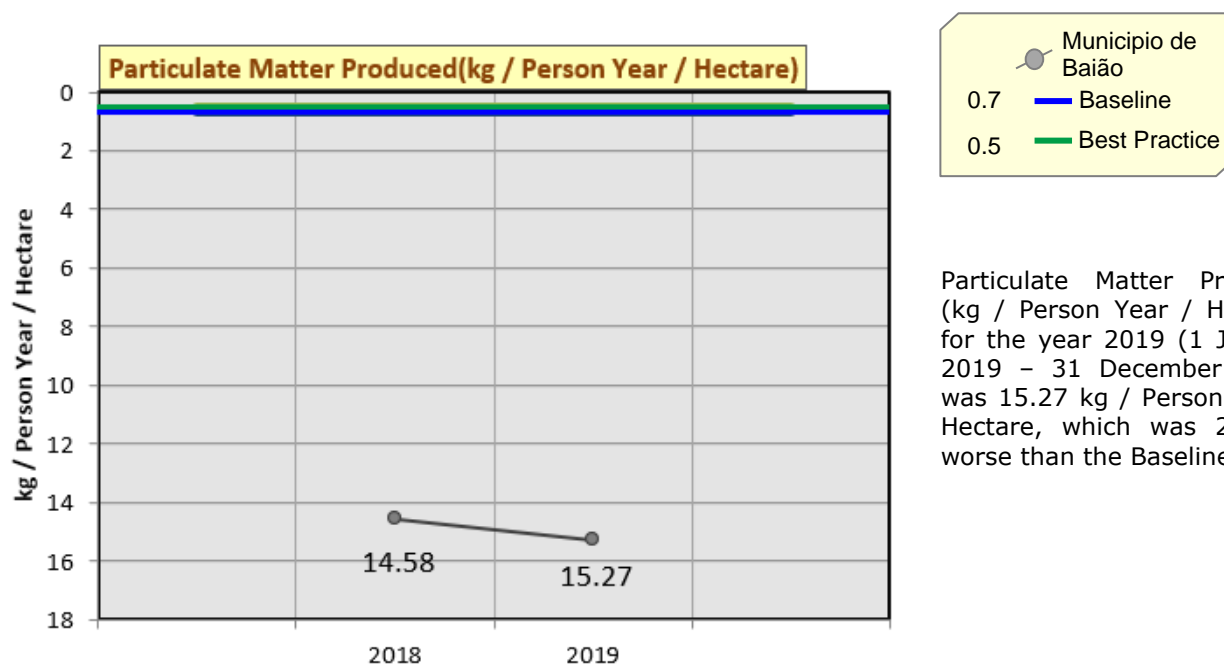
Nitrous Oxides Produced (kg / Person Year) for the year 2019 (1 January 2019 – 31 December 2019) was 561 kg / Person Year / Hectare, which was 11.1% better than the Best Practice level.

Sulphur Dioxide Produced (kg / Person Year / Hectare) ★

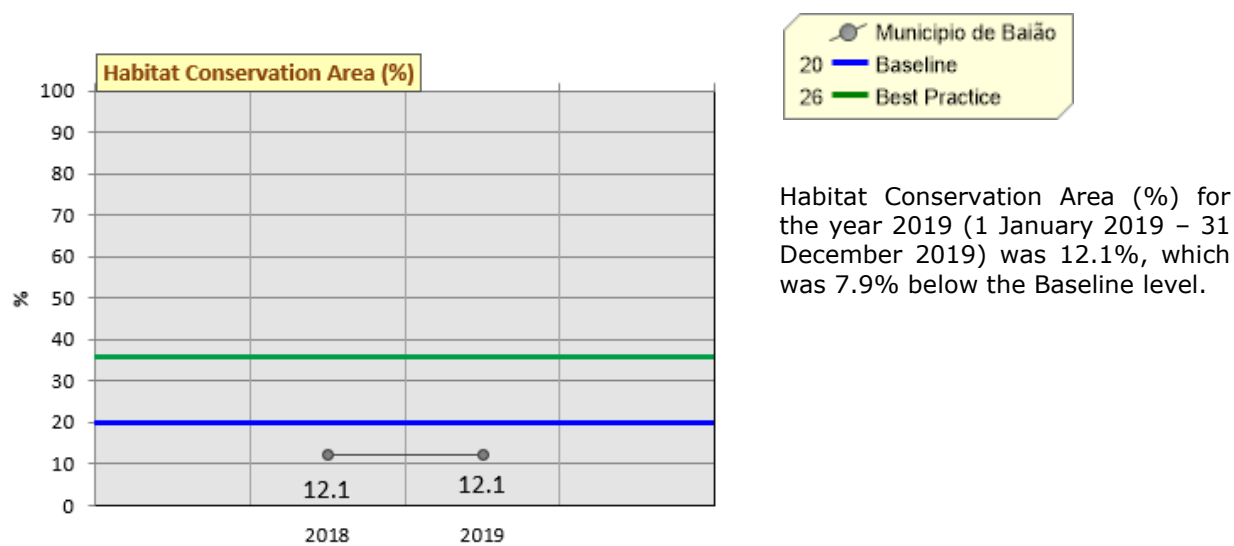


Sulphur Dioxide Produced (kg / Person Year / Hectare) for the year 2019 (1 January 2019 – 31 December 2019) was 0.51 kg / Person Year / Hectare, which was 94.3% better than the Best Practice level.

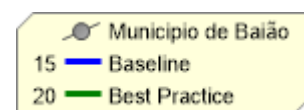
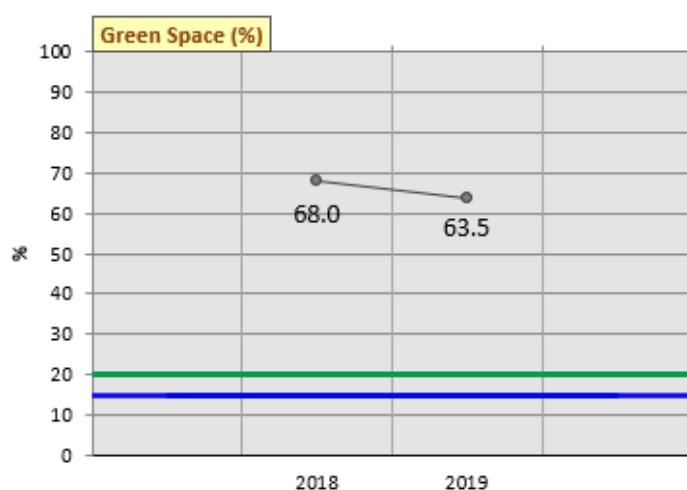
Particulate Matter Produced (kg / Person Year / Hectare) ✕



Habitat Conservation Area (%) ✕

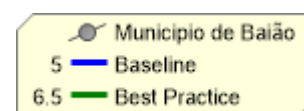
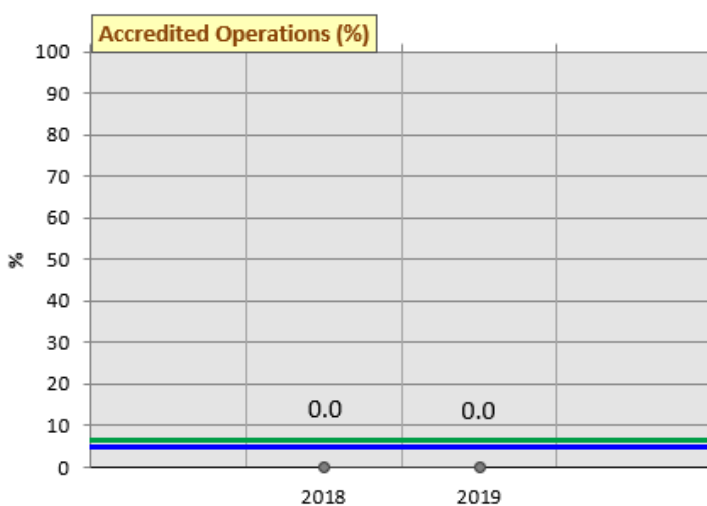


Green Space (%) ★



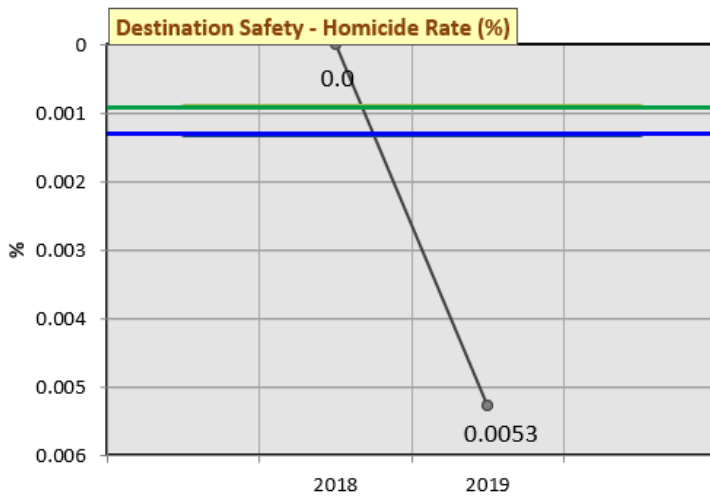
Green Space (%) for the year 2019 (1 January 2019 – 31 December 2019) was 63.5%, which was 43.5% better than the Best Practice level.

Accredited Operations (%) ✘



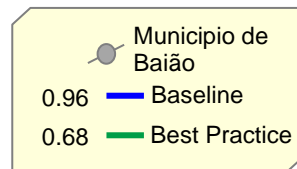
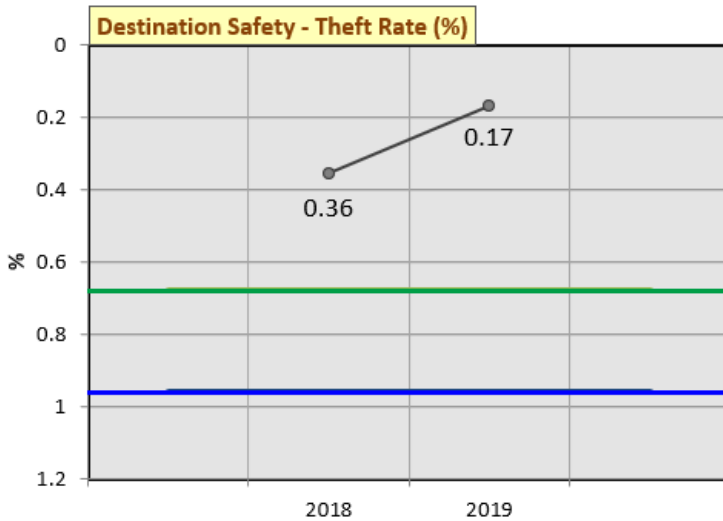
Accredited Operations (%) for the year 2019 (1 January 2019 – 31 December 2019) was 0%, which was 5.0% below the Baseline level.

Destination Safety – Homicide Rate (%) ✘



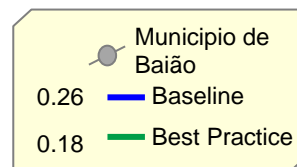
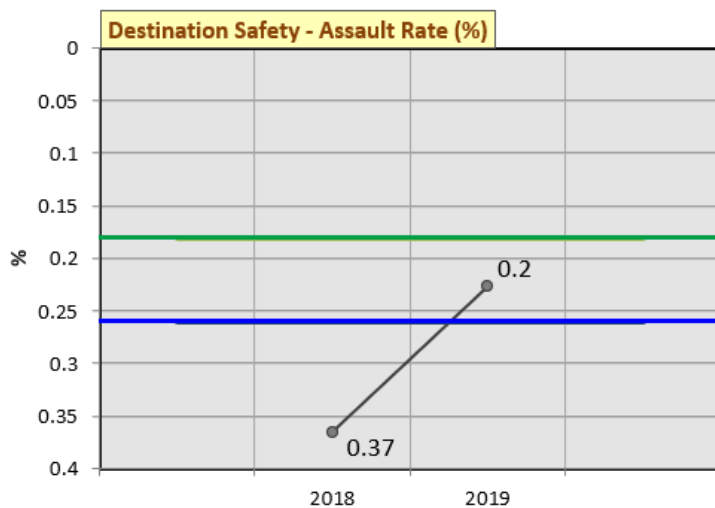
Homicide Rate for the year 2019 (1 January 2019 – 31 December 2019) was 0.0053%, which was 0.0041% better than the Best Practice level.

Destination Safety – Theft Rate (%) ★



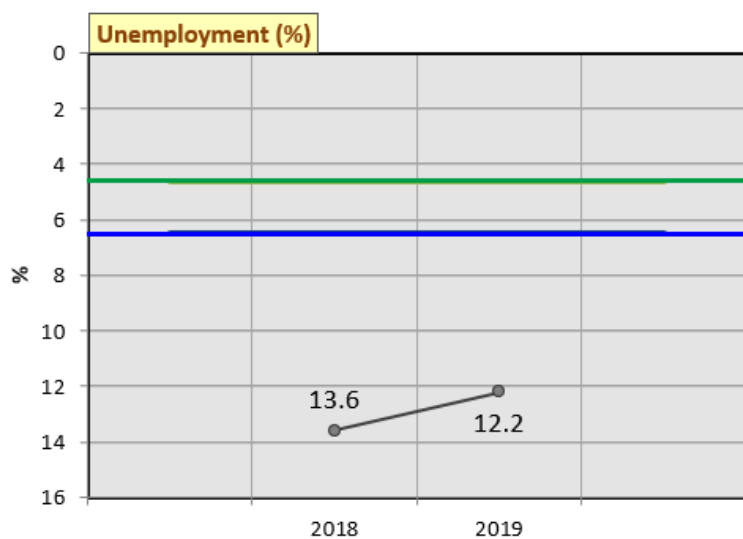
Theft Rate for the year 2019 (1 January 2019 – 31 December 2019) was 0.17%, which was 0.51% better than the Best Practice Level.

Destination Safety – Assault Rate (%) ✔



Assault Rate for the year 2019 (1 January 2019 – 31 December 2019) was 0.20%, which was 0.11% below the Baseline Level.

Socio-Economic Benefit – Unemployment (%) ✕

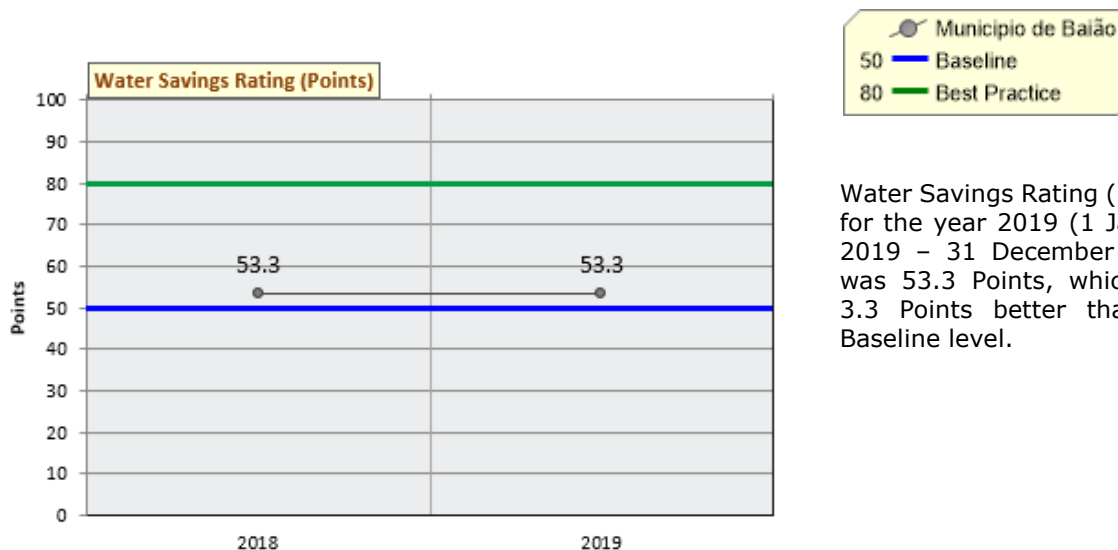


Unemployment Rate for the year 2019 (1 January 2019 – 31 December 2019) was 12.2% which was 12.2%, which was 5.7% below the Baseline level.

Lead Agency Performance

Water

Water Savings Rating (Points) ✓

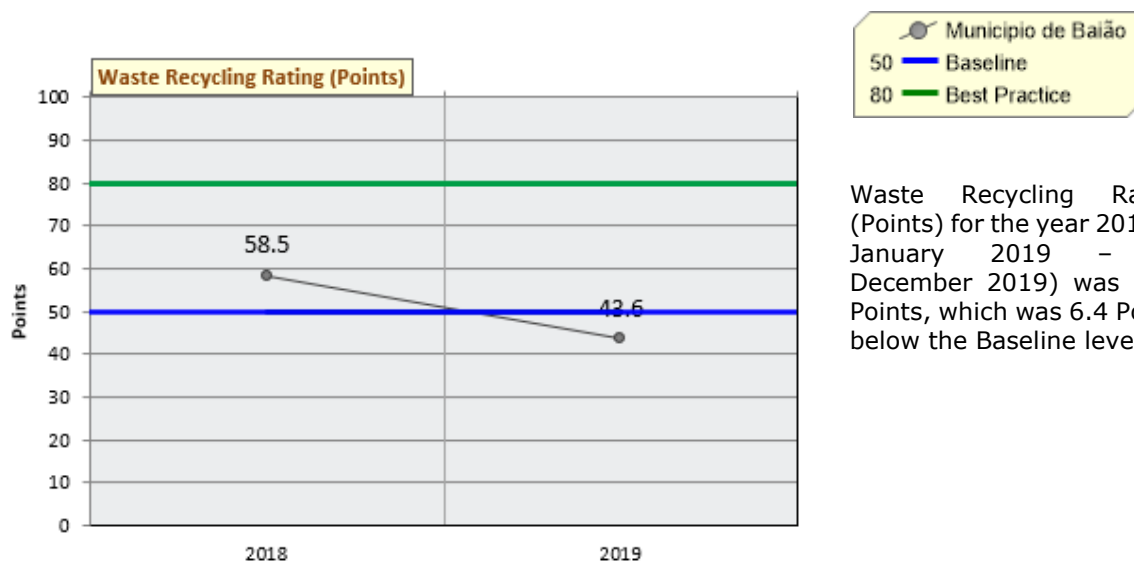


Water Savings Rating (Points) for the year 2019 (1 January 2019 – 31 December 2019) was 53.3 Points, which was 3.3 Points better than the Baseline level.

Water Savings Measures	Frequency / Percentage Rating	Water Savings Rating (Points)
Check for leaks	Every week	100.0 Points
Low/dual flush toilets	40-59%	65.1 Points
Low flow tap fittings	40-59%	65.1 Points
Low flow shower fittings	0%	0.0 Points
Water sprinklers used after dark	80-99%	88.9 Points
Minimal irrigation landscaping	1-19%	54.0 Points
Use of recycle/grey/rain water	0%	0.0 Points
	Overall Rating:	53.3 Points

Waste

Waste Recycling Rating (Points) ✕

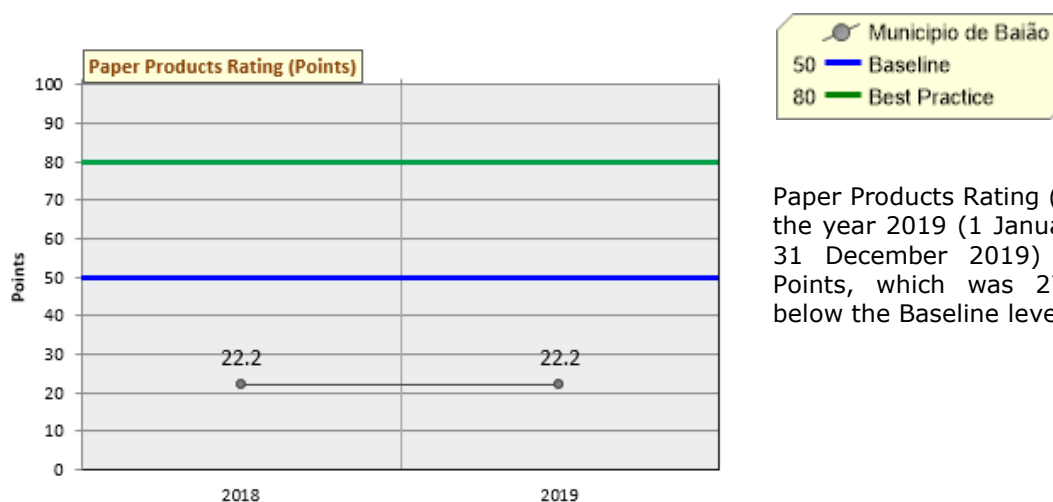


Waste Recycling Rating (Points) for the year 2019 (1 January 2019 – 31 December 2019) was 43.6 Points, which was 6.4 Points below the Baseline level.

Waste Recycling Measures	Frequency / Percentage Rating	Waste Recycling Rating (Points)
Glass	1-19%	54.0 Points
Paper/card	1-19%	54.0 Points
Iron & steel (ferrous metals)	0%	0.0 Points
Other metals (non-ferrous)	0%	0.0 Points
Plastics	1-19%	54.0 Points
Rubber	1-19%	54.0 Points
Green waste	80-99%	88.9 Points
	Overall Rating:	43.6 Points

6. Paper

Paper Products Rating (Points) ✕

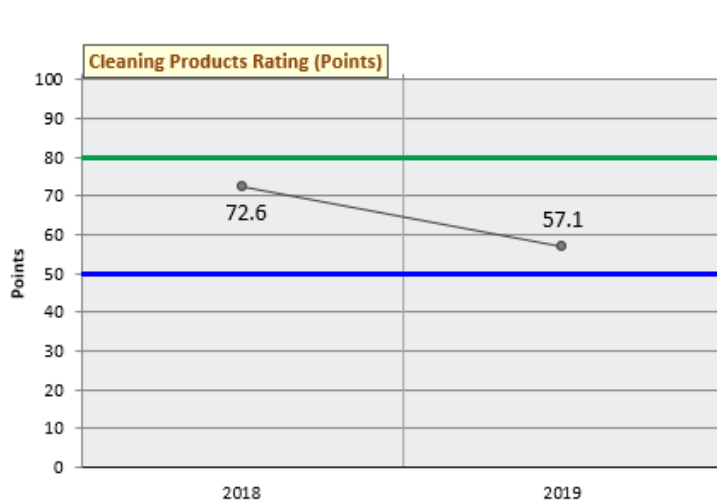


Paper Products Rating (Points) for the year 2019 (1 January 2019 – 31 December 2019) was 22.2 Points, which was 27.8 Points below the Baseline level.

Paper Products Measures	Frequency / Percentage Rating	Paper Products Rating (Points)
Office paper	80-99%	88.9 Points
Serviettes	0%	0.0 Points
Tissues	0%	0.0 Points
Toilet tissue	0%	0.0 Points
Paper towels	Not Relevant / Not Available	
	Overall Rating:	22.2 Points

7. Cleaning

Cleaning Products Rating (Points) ✓

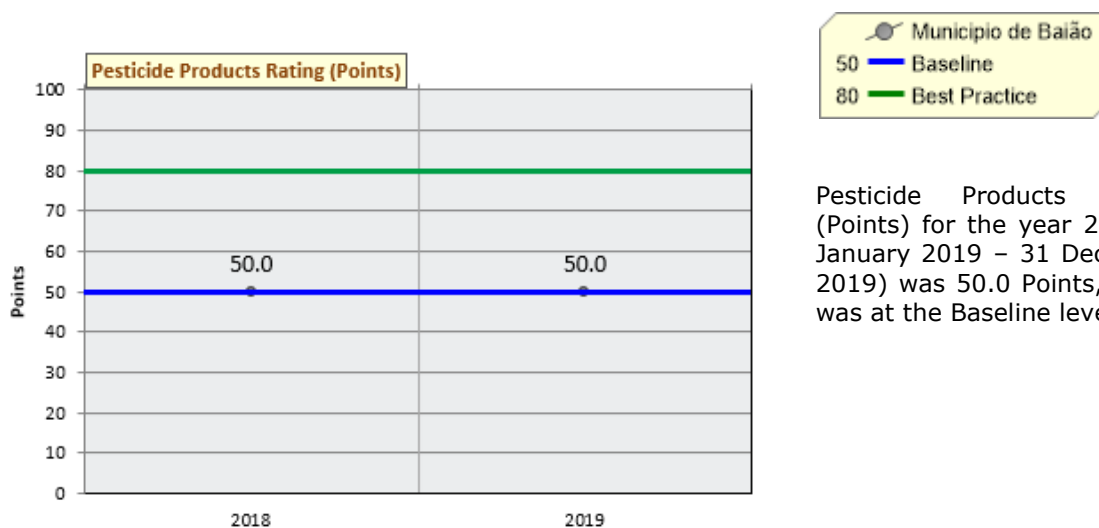


Cleaning Products Rating (Points) for the year 2019 (1 January 2019 – 31 December 2019) was 57.1 Points, which was 7.1 Points better than the Baseline level.

Cleaning Products Measures	Frequency / Percentage Rating	Cleaning Products Rating (Points)
Hard floor cleaners	Not Relevant / Not Available	100.0 Points
Carpet cleaners	Not Relevant / Not Available	100.0 Points
Interior surface cleaners	0%	0.0 Points
External surface cleaners	Not Relevant / Not Available	100.0 Points
Glass cleaners	0%	0.0 Points
Detergents	0%	0.0 Points
Personal hygiene	100%	100.0 Points
	Overall Rating:	57.1 Points

8. Pesticides

Pesticide Products Rating (Points) ✓



Pesticide Products Rating (Points) for the year 2019 (1 January 2019 – 31 December 2019) was 50.0 Points, which was at the Baseline level.

Pesticide Products Measures	Frequency / Percentage Rating	Pesticide Products Rating (Points)
Weed killers	Not Relevant / Not Available	100.0 Points
Fungal killers	0%	0.0 Points
Rodent killers	Not Relevant / Not Available	100.0 Points
Insect killers	0%	0.0 Points
	Overall Rating:	50.0 Points

OPTIONAL BENCHMARKING INDICATORS

Município de Baião has also nominated optional Operation Selected and Specified Indicator/s that they consider relevant to their specific operation and locality. The Operation Selected and Specified Indicator/s do not form part of the formal annual benchmarking exercise.

Selected Indicators

Selected Indicators are from a supplied list of EarthCheck indicators.

Complaints



*The supplied data has been compiled by **Município de Baião** in the prescribed manner, authorised by a senior executive of the destination and submitted for an annual assessment.*

*The supplied data has been compiled by **Município de Baião** in the prescribed manner, authorised by a senior executive of the company and submitted for an annual assessment.*

CONCLUSION AND RECOMMENDATIONS

Congratulations, **Município de Baião** has met the requirements to be recognised as an EarthCheck Benchmarked Community.

In addition to having a Sustainability Policy in place, eleven of the assessed EarthCheck indicators are at or above the Baseline level.

From the benchmarking data provided, seven indicators, *Energy Consumption, Greenhouse Gas Emissions (Scope 1 and Scope 2), Potable Water Consumption, Green Space, Nitrous Oxides Produced, Sulphur Dioxide Produced* and *Theft Rate* are at or above the Best Practice level.

The eight indicators that fell below the Baseline level were *Waste Sent to Landfill, Particulate Matter Produced, Homicide Rate, Unemployment Rate, Waste Recycling Rating, Paper Products Rating, Habitat Conservation Area, and Accredited Operations*.

The value for Waste Sent to Landfill was 26.3% below the Baseline level. A high level for this indicator may be a reflection of assessing the volume of disposal bins and/or garbage trucks as full when they are not. In addition, disposal of large quantities of low-density, uncompacted waste (e.g. paper and packaging, or green waste such as branches and/or large leaves) can also have an adverse impact on the overall volume. Furthermore, if the situation is that the **Município de Baião** does not have ready access to appropriate external recycling facilities (for paper, cardboard, metals, plastics etc.), then the difficulties operations may face in disposing of waste off-site in an environmentally friendly manner is recognised. However, if this is the case, the **Município de Baião** should indicate this in their submission and is encouraged to review existing practices and procedures in order to not only more accurately assess, but also reduce, the amount of material that has to be sent to landfill. The latter can include increasing on-site recycling and reuse (e.g. green wastes), donating recyclable materials to local crafts and trades people, and avoiding purchases with excessive disposable packaging.

The value for **Particulate Matter Produced** was 15.27 kg / Person Year / Hectare, where the Baseline was 0.7 kg / Person Year / Hectare. The **Município de Baião** is encouraged to promote the use of public transport within the destination and to investigate opportunities of switching to cleaner and more efficient combustion fuels (e.g. renewables, LPG) and processes.

The percentage of Homicide Rate is 0.0041% below the Baseline. The **Município de Baião** is encouraged to work with the local hotel and tourism association to identify common threats and how they could assist the community in providing more support to the police in reporting of crime.

The value for Waste Recycling was 6.4 Points below the Baseline level. A low rating for this indicator may be a reflection of the limited availability of external recycling facilities (for paper, cardboard, metals, plastics etc). The **Município de Baião** are encouraged to review existing practices and procedures. This can include increasing on-site recycling and reuse (e.g. green wastes), donating recyclable materials to local crafts and trades people, and avoiding purchases with excessive disposable packaging.

The rating for Paper Products was 27.8 Points below the Baseline level. The **Município de Baião** are encouraged, therefore, to further investigate available ecolabel or recyclable paper products (for office paper, serviettes, tissues, toilet tissue, and paper towels). Products which carry an ecolabel usually avoid the use of chlorine-based bleaches, and use biodegradable inks and dyes and use timber from sustainable plantations. Sourcing these types of products minimises the consumption of natural resources and results in the reduction of greenhouse gas emissions associated with raw material consumption.

The value for Habitat Conservation Area was 7.9% below the Baseline level. The **Município de Baião** is encouraged to promote habitat conservation of land, wetlands and waterways to aid biodiversity conservation and support habitat protection within the region.

The value for Accredited Operations was 0%. The **Município de Baião** is encouraged to promote environmental accreditation to hotels, restaurants and other business within the destination.

The **Município de Baião** is encouraged to continue to make improvements in the above indicators and to ensure that any indicators below baseline is addressed in the organisation's risk assessment and long term sustainability approach.

Improvements in all the EarthCheck indicators will not only help the environment, but can also help reduce operational costs. Due to the positive commitment that **Município de Baião** has demonstrated to the environment, the assessors are confident that they can maintain or improve performance, where appropriate and practical, in all indicators. In particular over the next 12 months, the **Município de Baião** is encouraged to ensure that Waste Sent to Landfill, Particulate Matter Produced, Homicide Rate, Unemployment Rate, Waste Recycling Rating, Paper Products Rating, Habitat Conservation Area, and Accredited Operations are at Baseline performance or better. In line with EarthCheck Policy this would enable the **Município de Baião** to continue to meet the benchmarking requirements of the EarthCheck program.

APPENDIX

ONSITE WASTEWATER TREATMENT

The Benchmarking Assessors sought clarification with regards to the submission for *Onsite Wastewater Treatment* being reported on using average BOD, while in the 2018 this value was unknown.

The **Município de Baião** provided the following response for clarification:

“In 2019 the values of waste water volume and average BOD were not provided to us in time, so we had only considered the number of days in use and the population served. Since we have those data now, we ask to change the values to the following:”

Onsite Wastewater Treatment	2018	2019
Number of days in use	365	365
Number of people serviced per day	11748	12430
Average BOD (mg/L)	809 mg/l	773 mg/l
Wastewater Volume (kL/day)	1052 m3/dia	1015 m3/dia

Therefore the Benchmarking Assessors updated the 2018 figure.

POTABLE WATER CONSUMPTION

The Benchmarking Assessors sought clarification with regards to an increase in *Potable Water Consumption* since the previous reporting period.

The **Município de Baião** provided the following response for clarification:

“The values indicated are accurate, according to what the company Águas do Norte provided us. The expansion of the supply network and the consequent increase in the number of connection requests may be the explanation for this increase in consumption compared to the previous year.”

Therefore the Benchmarking Assessors maintained the initial data submission.

STATIONARY FUEL COMBUSTION

The Benchmarking Assessors sought clarification with regards to the diesel usage being identical to the 2019 submission.

The **Município de Baião** provided the following response for clarification:

“The value for stationary fuel combustion is accurate. The explanation for the equality of values in 2018 and 2019 is that on the website PORDATA, the last available value of consumption for this type of fuel is for 2017. This was the value we used in the 2018 benchmarking. The lack of values for 2018 and 2019, led us to assume the same value, in the absence of another.”

The **Município de Baião** provided a follow-up response in reference to *Mobile Fuel Combustion (Road)*:

“By confirming this data on the Pordata web, we could see now that there are already data regarding consumption in 2019 for the Mobile fuel consumption, so we ask to change the quantities and costs that had been placed for the following:”

Mobile Fuel Combustion (2019)	Quantity	Cost
Motor gasoline	605.333,3 l	914.128,0 €
Diesel (L)	3.085.336,54 l	4.300.959,13 €

Therefore the Benchmarking Assessors updated the *Mobile Fuel Combustion (Road)* figures.



EARTHCHECK

Benchmarks Assessed by EarthCheck

SUMMARY OF SUPPLIED BENCHMARKING DATA

Activity Measures

Person Years	19042.07
Total Destination Area	17450

Supplied Benchmarking Data

Energy

Energy Consumption (GJ / Person Year)

Supplied	267103.89 GJ
Calculated	14.03 GJ / Person Year
Baseline	55.56 GJ / Person Year
Best Practice	38.90 GJ / Person Year
Difference	63.9% better than the Best Practice level

Green Power (Purchased Electricity) (%)

Supplied	0%
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Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year)

Supplied	32129.8 t CO ₂ -e
Calculated	1.7 t CO ₂ -e / Person Year
Baseline	4 t CO ₂ -e / Person Year
Best Practice	2.8 t CO ₂ -e / Person Year
Difference	39.7% better than the Best Practice level

Direct Emissions (Scope 1) (t CO₂-e / Person Year)

Supplied	10951.75 t CO ₂ -e
Calculated	0.58 t CO ₂ -e / Person Year

Indirect Emissions (Scope 2) (t CO₂-e / Person Year)

Supplied	21178.1 t CO ₂ -e
Calculated	1.1 t CO ₂ -e / Person Year

Indirect Emissions (Scope 3) (t CO₂-e / Person Year)

Supplied	7704.4 t CO ₂ -e
Calculated	0.405 t CO ₂ -e / Person Year

Waste Indirect Emissions (Scope 3) (t CO₂-e / Person Year)

Supplied	7704.4 t CO ₂ -e
Calculated	0.405 t CO ₂ -e / Person Year

Water

Potable Water Consumption (kL / Person Year)

Supplied	591223.0 kL
Calculated	31.0 kL / Person Year
Baseline	80.75 kL / Person Year
Best Practice	56.53 kL / Person Year
Difference	45.1% better than the Best Practice level

Recycled / Captured Water (%)

Supplied	0%
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Water Savings Rating (Points)

Calculated	53.3 Points
Baseline	50 Points
Best Practice	80 Points
Difference	3.3 Points better than the Baseline level

Waste

Waste Sent to Landfill (m³ / Person Year)

Supplied	21401.1 m ³
Calculated	1.124 m ³ / Person Year
Baseline	0.89 m ³ / Person Year
Best Practice	0.62 m ³ / Person Year
Difference	26.3% worse than the Baseline Level

Recycled / Reused / Composted Waste (%)

Supplied	11.6%
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Waste Recycling Rating (Points)

Calculated	43.6 Points
Baseline	50 Points
Best Practice	80 Points
Difference	6.4 Points below the Baseline level

Paper

Paper Products Rating (Points)

Calculated	22.2 Points
Baseline	50 Points
Best Practice	80 Points
Difference	27.8 Points below the Baseline level

Cleaning

Cleaning Products Rating (Points)

Calculated	57.1 Points
Baseline	50 Points
Best Practice	80 Points
Difference	7.1 Points better than the Baseline level

Pesticides

Pesticide Products Rating (Points)

Calculated	50.0 Points
Baseline	50 Points
Best Practice	80 Points
Difference	at the Baseline level

Sector Specific

Nitrous Oxides Produced (kg / Person Year / Hectare)

Calculated	5.61 kg / Person Year / Hectare
Baseline	6.1 kg / Person Year / Hectare
Best Practice	9 kg / Person Year / Hectare
Difference	11.1% better than the Best Practice level

Sulphur Dioxide Produced (kg / Person Year/ Hectare)

Calculated	0.51 kg / Person Year / Hectare
Baseline	12.8 kg / Person Year / Hectare
Best Practice	9 kg / Person Year / Hectare
Difference	94.3% better than the Best Practice level

Particulate Matter Produced (kg / Person Year/ Hectare)

Calculated	15.27 kg / Person Year / Hectare
Baseline	0.7 kg / Person Year / Hectare
Best Practice	0.5 kg / Person Year / Hectare
Difference	2,081% below the Baseline Level

Habitat Conservation Area (%)

Supplied	12.1%
Baseline	20 %
Best Practice	26 %
Difference	7.9% below the Baseline level

Green Space (%)

Supplied	63.5%
Baseline	15 %
Best Practice	20 %
Difference	43.5% better than the Best Practice level

Accredited Operations (%)

Supplied	0%
Baseline	5 %
Best Practice	6.5 %
Difference	5.0% below the Baseline level

Habitat Conservation (%)

Supplied	12.1%
Calculated	12.1%

Destination Safety

Homicide Rate (%)

Calculated	0.0053%
Baseline	0.0013%
Best Practice	0.0009%
Difference	0.0041% better than Best Practice

Theft Rate (%)

Calculated	0.17%
Baseline	0.96%
Best Practice	0.68%
Difference	0.51% better than the Best Practice level

Homicide Rate (%)

Calculated	0.2%
Baseline	0.26%
Best Practice	0.18%
Difference	0.11% better than the Baseline Level

Socio-Economic Benefit

Unemployment Rate (%)

Calculated	12.2%
Baseline	6.5%
Best Practice	4.6%
Difference	5.7% below the Baseline Level

DETERMINATION OF BASELINE AND BEST PRACTICE LEVELS

General

The values for the Baseline and Best Practice levels for each indicator are derived from extensive worldwide research into available and appropriate case studies, industry surveys, engineering design handbooks, energy, water and waste audits, and climatic and geographic conditions.

National and regional data for per capita energy use, greenhouse gas and other emissions, wastes to landfill and water consumption, where available provide background data for normalisation of the expected performance values for per customer or employee, and/or overall performance of an enterprise being benchmarked. They are used to gauge the regional or national situation and environmental performances that an enterprise is based in, and hence what are reasonable levels to expect the enterprise to achieve.

A benchmarking result at, or above, the Baseline level demonstrates to all stakeholders that the enterprise is achieving above average performance. A result below the Baseline level indicates that an enterprise can and should carry out actions that will make beneficial improvements in performance.

Consideration of Climate

A major determinant of energy consumption in some sectors, primarily those centred on buildings such as accommodation, visitor centres and administration offices will be the dominant climatic conditions in which the enterprise is located. In general, to maintain the same level of indoor comfort, enterprises operating in hot or cold climates will consume more energy than those in temperate climates.

Similarly, it is recognised that in certain sectors a major determinant of potable water consumption will be the climate in which an enterprise is located, in particular those with large grounds and/or significant water-based facilities or activities. That is, enterprises located in hot climates are more likely to consume more potable water than equivalent ones located in cooler climates. Factors that are likely to lead to a higher level of potable water consumption, for example in the accommodation sector, include increased evaporation rates of swimming pools, personal bathing and irrigation demands of grounds. In consideration of this factor, Baseline and Best Practice levels can vary in relation to country location.

Waste Sent to Landfill

The benchmark indicator used for Waste Sent to Landfill is given in litres as waste bins are usually calibrated by volume, and it has been found that the majority of operations do not have access to the weight of material disposed of. However, if a weight is supplied, standard factors are used to convert from weight (e.g., kilograms (kg)) to volume (e.g., cubic metres (m³) or litres (L)). These are: 1 kg (uncompacted waste) = 0.00333333 m³ or 3.33333 L and 1 kg (compacted waste) = 0.00153846 m³ or 1.53846 L.

Operations should make note of the level of compaction when submitting data for assessment by EarthCheck.

Review of Performance Levels

The Baseline and Best Practice performance levels for EarthCheck indicators are continuously reviewed and are likely to change over time. This review by a team of international experts, takes into account "business-as-usual" changes in practices, equipment and facilities, as well as regulations and general improvement trends in performance and procedures. This review is used to update the levels of Baseline and Best Practice, and provides useful feedback to the user of the indicators.

The list below summarises the basic generic rules used to determine Baseline and Best Practice levels for EarthCheck indicators.

- If relevant enterprise sector specific case studies are not available for a type of activity in a designated region, then national averages will be used to ascertain the Baseline level. In this case, the Best Practice level will be set at a minimum of 30% better performance than the Baseline.
- If case study or national data are not available for a specific indicator, then the first enterprise that benchmarks will have its results set as 15% better than Baseline (i.e., half way between Baseline and Best Practice).