EARTHCHECK

BENCHMARKING ASSESSMENT REPORT

DESTINATION BENCHMARKING

MUNICIPIO DE BAIÃO
PORTO, PORTUGAL



REPORT DATE: 15 May 2023

Benchmarking Data Collection Period: 1 January 2022 – 31 December 2022

The planet deserves more than half measures

OVERVIEW

This annual assessment of **Municipio 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	Energy	Energy Consumption (GJ / Person Year) Green Power (Purchased Electricity) (%)[3] Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO_2-e / Person Year) Greenhouse Gas Emissions Breakdown by Scope (t CO_2-e / Person Year) Indirect Emissions (Scope 3) (t CO_2-e / Person Year) Indirect Scope 3 Emissions Breakdown (t CO_2-e / Person Year)
3	Water	Potable Water Consumption (kL / Person Year) Recycled / Captured Water (%)[3]
4	Waste	Waste Sent to Landfill (m^3 / Person Year) Recycled / Reused / Composted Waste (%)[3]
5	Sector Specific	Nitrous Oxides Produced (kg / Person Year / Hectare) Sulphur Dioxide Produced (kg / Person Year / Hectare) Particulate Matter Produced (kg / Person Year / Hectare) Significant Site Maintenance Fund (%) Habitat Conservation Area (%) Green Space (%) Destination Safety – Homicide Rate (%) Destination Safety – Theft Rate (%) Destination Safety –Assault Rate (%) Socio-Economic Benefit – Unemployment Rate (%) Accredited Operations (%) Water Samples Passed (%)
		Lead Agency Indicators
6	Water Savings	Water Savings Rating (Points)
7	Waste Recycling	Waste Recycling Rating (Points)
8	Paper	Paper Products Rating (Points)
9	Cleaning	Cleaning Products Rating (Points)

10	Pesticides	Pesticide Products Rating (Points)
		Optional Indicators
11	Selected Indicators	Carbon Sequestration (%) Renewable Energy (%) Country Products Purchased (%) Monetary Contributions to Communities (%) Monetary Contributions to Conservation (%) Staff Training (%) Complaints (Number of Complaints)

1 Refer to the EarthCheck Sector Benchmarking Indicator (SBI) document for more information. For frequently asked questions (FAQs) about benchmarking or specific help, please log on to 'My EarthCheck' and visit your EarthCheck Benchmarking software.

2 To meet the requirements stipulated in the EarthCheck Company Standard organisations are required to collect and submit Benchmarking data against each of the Core Benchmarking Indicators by way of annual Benchmarking Assessment, and have in place a repeatable system for accurately recording Benchmarking data including a methodology for calculating the organisation's Activity Measure for each consecutive year.

As a standard policy, all EarthCheck indicators are continuously reviewed, along with the performance levels which operators have to achieve in order to meet the requirements of the Company Standard. This review takes into account "business-as-usual" changes in practices and equipment, and is used to update where appropriate Baseline and Best Practice levels.

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

4 There may be a slight variation between total figures presented in the energy table and the data summary due to unit selection and data rounding.

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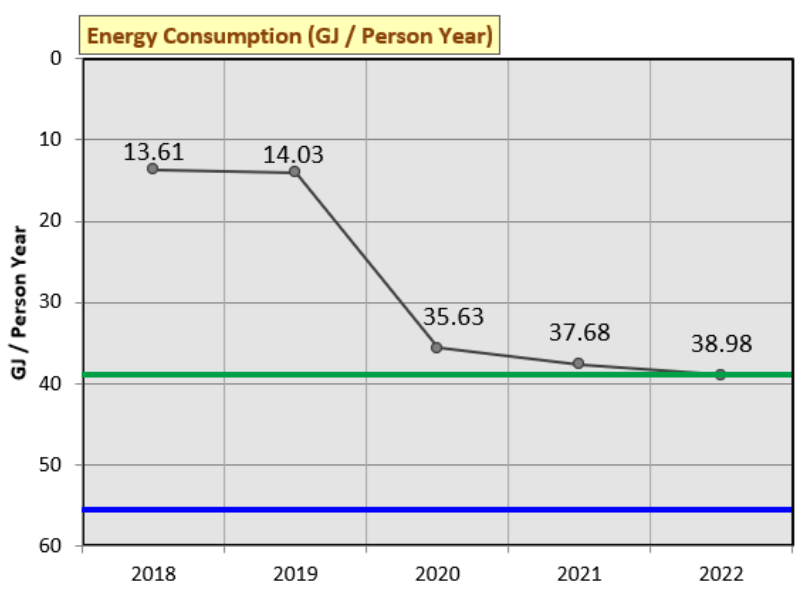
DESTINATION PERFORMANCE BENCHMARKS

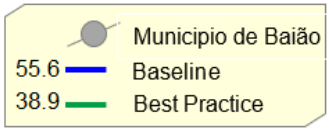
Current performance: *Below Baseline ✖* *At or above Baseline ✓* *At or above Best Practice ★*

1. Policy ★

2. Energy

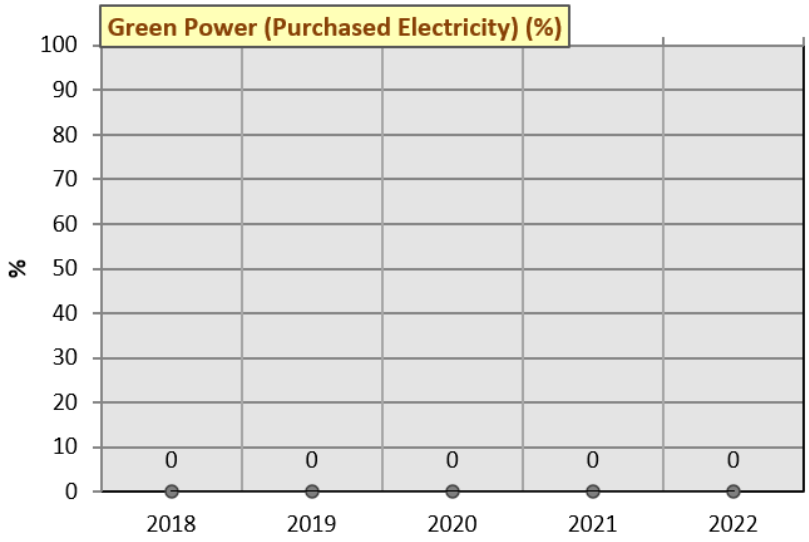
Energy Consumption (GJ / Person Year) ✓





Energy Consumption (GJ / Person Year) for the year 2022 (1 January 2022 – 31 December 2022) was 38.98 GJ / Person Year, which was 29.8% better than the Best Practice level.

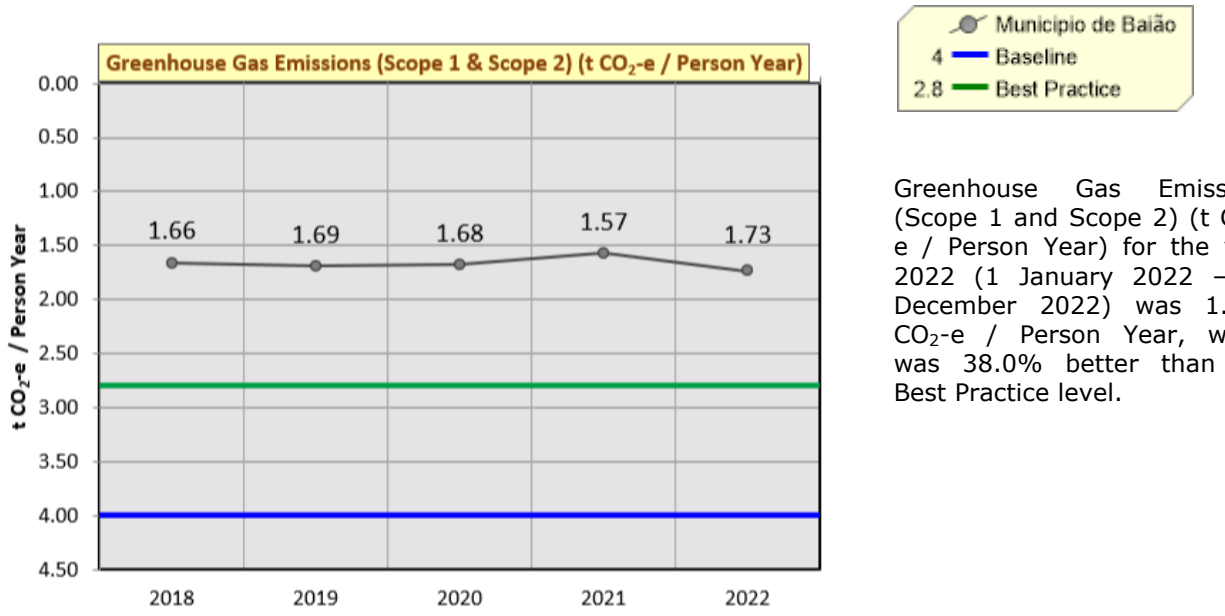
Green Power (Purchased Electricity) (%)





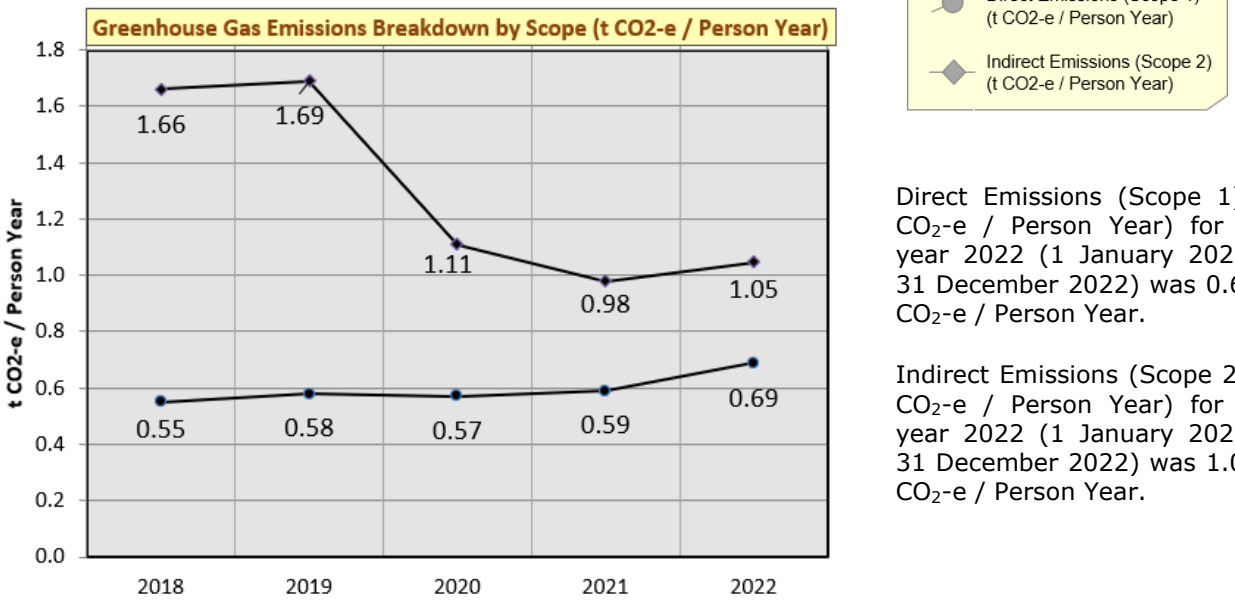
Green Power (Purchased Electricity) (%) for the year 2022 (1 January 2022 – 31 December 2022) was 0%.

Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO_2-e / Person Year) ★



Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO_2-e / Person Year) for the year 2022 (1 January 2022 – 31 December 2022) was 1.7 t CO_2-e / Person Year, which was 38.0% better than the Best Practice level.

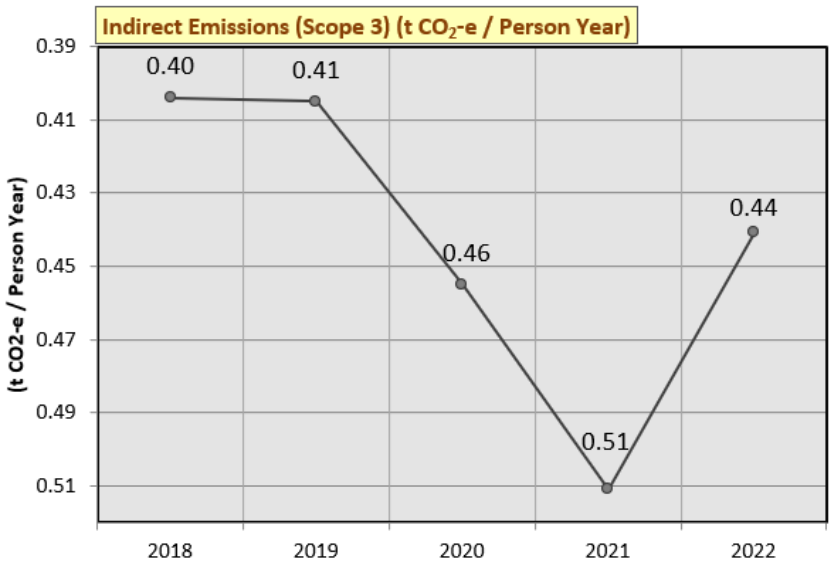
Greenhouse Gas Emissions Breakdown by Scope (t CO_2-e / Person Year)



Direct Emissions (Scope 1) (t CO_2-e / Person Year) for the year 2022 (1 January 2022 – 31 December 2022) was 0.69 t CO_2-e / Person Year.

Indirect Emissions (Scope 2) (t CO_2-e / Person Year) for the year 2022 (1 January 2022 – 31 December 2022) was 1.05 t CO_2-e / Person Year.

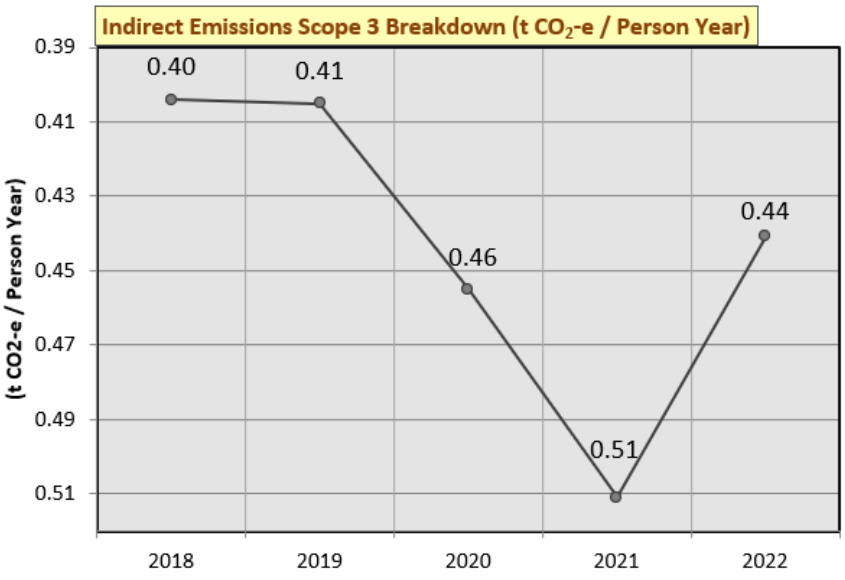
Indirect Emissions (Scope 3) (t CO_2-e / Person Year)





Indirect Emissions (Scope 3) (t CO_2-e / Person Year) for the year 2022 (1 January 2022 – 31 December 2022) was 0.44 t CO_2-e / Person Year.

Greenhouse Gas Emissions Scope 3 Breakdown (t CO_2-e / Person Year)





Waste Indirect Emissions (Scope 3) (t CO_2-e / Person Year) for the year 2022 (1 January 2022 – 31 December 2022) was 0.44 t CO_2-e / Person Year.

Direct Emissions (Scope 1)

Onsite Renewable Energy Generation

2022

Type	Quantity	Unit	Energy Consumption (MJ)	CO_2 Emission Estimate (t CO_2-e)	CH_4 Emission Estimate (t CO_2-e)	N_2O Emission Estimate (t CO_2-e)	Total Emission Estimate (t CO_2-e)
Wind	110,172,934	Kilowatt hour (kWh)	396,622,562.4	0.0	0.0	0.0	0.0

Stationary Fuel Combustion

2022

Type	Quantity	Unit	Energy Consumption (MJ)	CO_2 Emission Estimate (t CO_2-e)	CH_4 Emission Estimate (t CO_2-e)	N_2O Emission Estimate (t CO_2-e)	Total Emission Estimate (t CO_2-e)
Diesel	2,306	kilograms (kg)	104,115.9	7.3	0.03	0.02	7.4

Mobile Fuel Combustion (road)

2022

Type	Quantity	Unit	Energy Consumption (MJ)	CO_2 Emission Estimate (t CO_2-e)	CH_4 Emission Estimate (t CO_2-e)	N_2O Emission Estimate (t CO_2-e)	Total Emission Estimate (t CO_2-e)
Motor gasoline	755,799.3	litres (L)	25,850,210.1	1,701.8	17.2	52.1	1,771.1
Diesel	3,536,057.69	litres (L)	135,705,054.0	9,553.0	14.1	133.2	9,700.3
		subtotal	161,555,264.1	11,254.8	31.3	185.3	11,471.4

Onsite Wastewater Treatment

2022

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_2O Emission Estimate (t CO_2-e)	Total Emission Estimate (t CO_2-e)
Aerobic (BOD Known)	968	1,124	365	0.0	750.6	0.0	750.6
			TOTAL (Scope 1)	**558,281,942.4**	**11,262.1**	**781.9**	**185.3**	**12,229.3**

Indirect Emissions (Scope 2)

Purchased Electricity

2022

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_2O Emission Estimate (t CO_2-e)	Total Emission Estimate (t CO_2-e)
37,306,714	Kilowatt hour (kWh)	0	Portugal, EDP	134,304,170.4	18,504.1	15.2	70.3	18,589.7
			TOTAL (Scope 2)	**134,304,170.4**	**18,504.1**	**15.2**	**70.3**	**18,589.7**

Greenhouse Gas Emissions (Scope 1 and Scope 2)

GRAND TOTAL	**692,586,112.8**	**29,766.3**	**797.1**	**255.6**	**30,819.0**

Indirect Emissions (Scope 3)

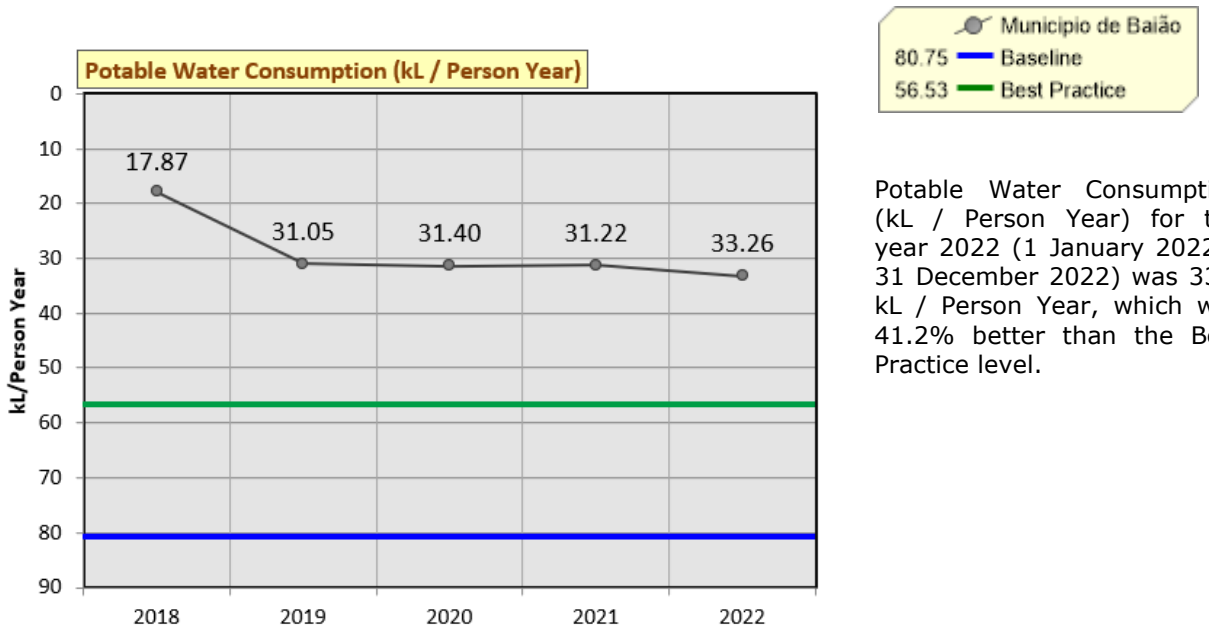
Waste Sent to Landfill

2022

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_2O Emission Estimate (t CO_2-e)	Total Emission Estimate (t CO_2-e)
6,526.33	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	International	0.0	7,831.6	0.0	7,831.6
					TOTAL (Scope 3)	**0.0**	**7,831.6**	**0.0**	**7,831.6**

3. Water

Potable Water Consumption (kL / Person Year)

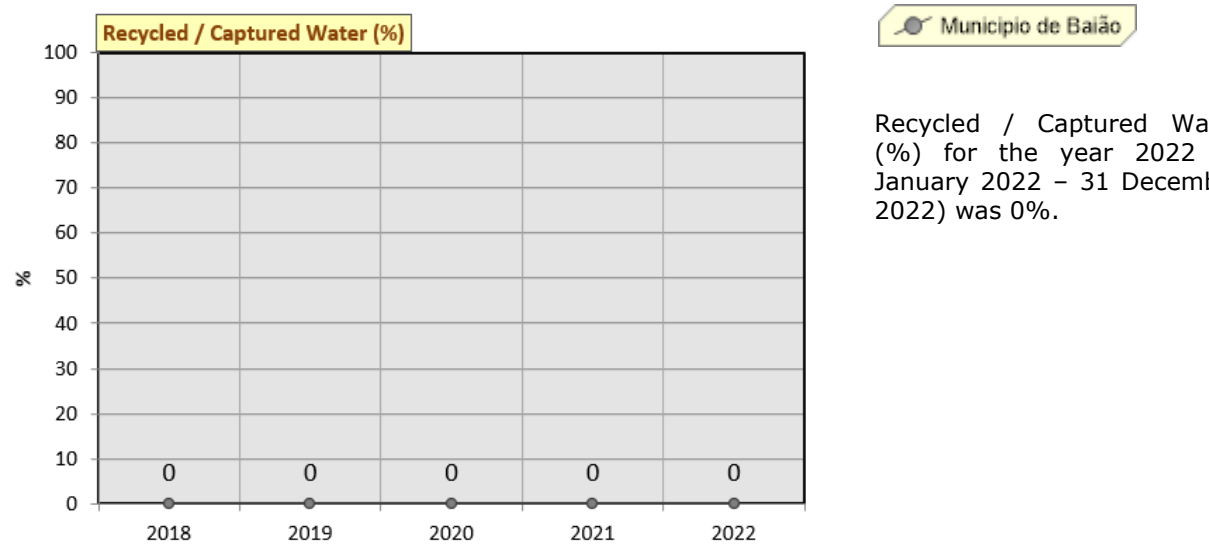


Potable Water Consumption (kL / Person Year) for the year 2022 (1 January 2022 – 31 December 2022) was 33.3 kL / Person Year, which was 41.2% better than the Best Practice level.

2022

Quantity	Unit	Potable Water Consumption (kL)
590,912	cubic metres	590,912.0 kL
	TOTAL	**590,912.0 kL**

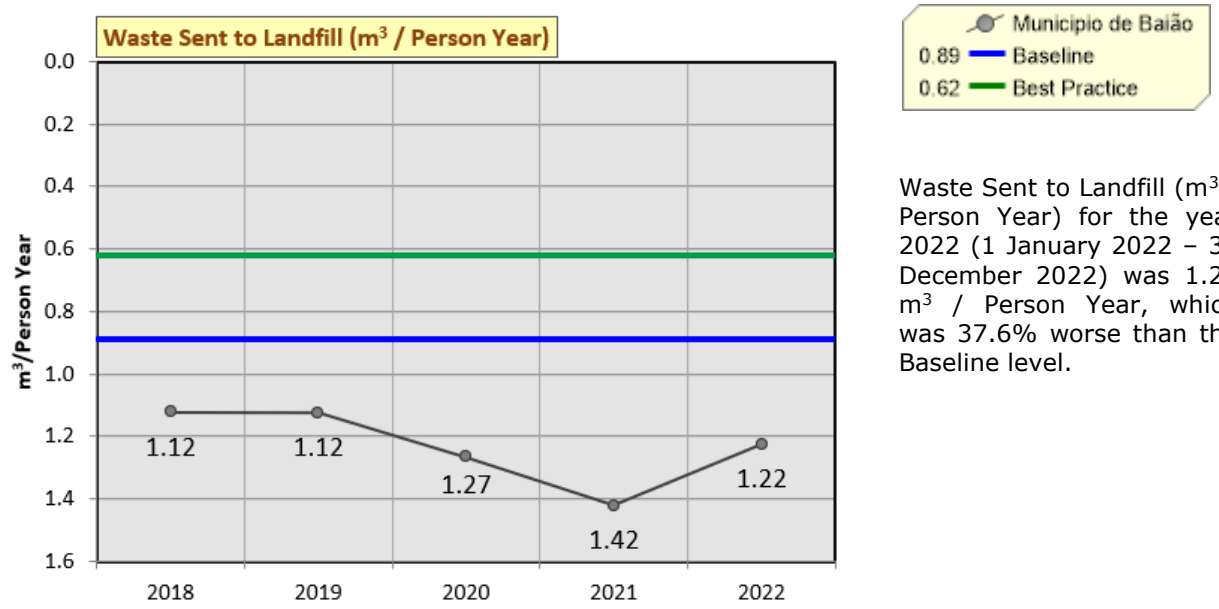
Recycled / Captured Water (%)



Recycled / Captured Water (%) for the year 2022 (1 January 2022 – 31 December 2022) was 0%.

4. Waste

Waste Sent to Landfill (m^3 / Person Year)

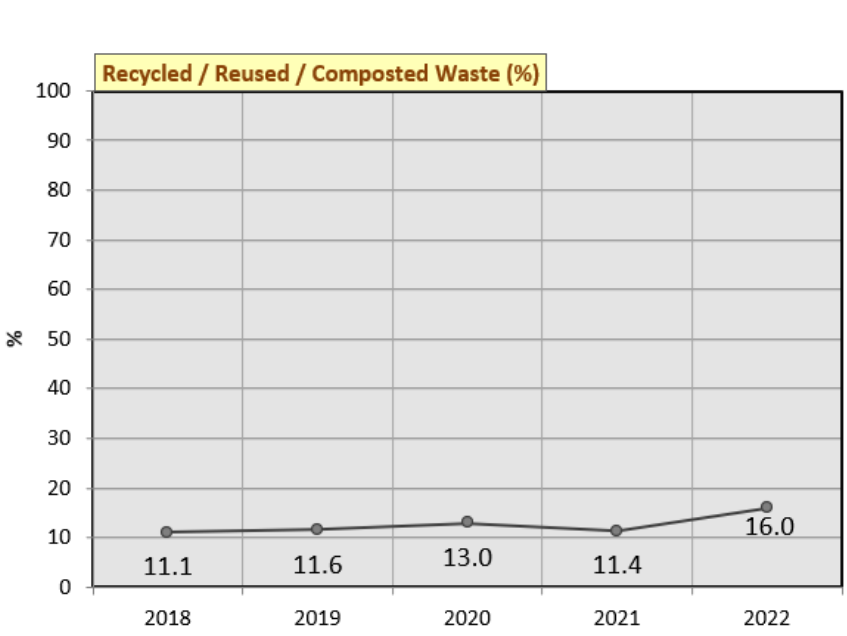


Waste Sent to Landfill (m^3 / Person Year) for the year 2022 (1 January 2022 – 31 December 2022) was 1.22 m^3 / Person Year, which was 37.6% worse than the Baseline level.

2022

Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Waste Sent to Landfill (m^3)
6,526.33	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	21,754.43
				TOTAL	**21,754.43 m^3**

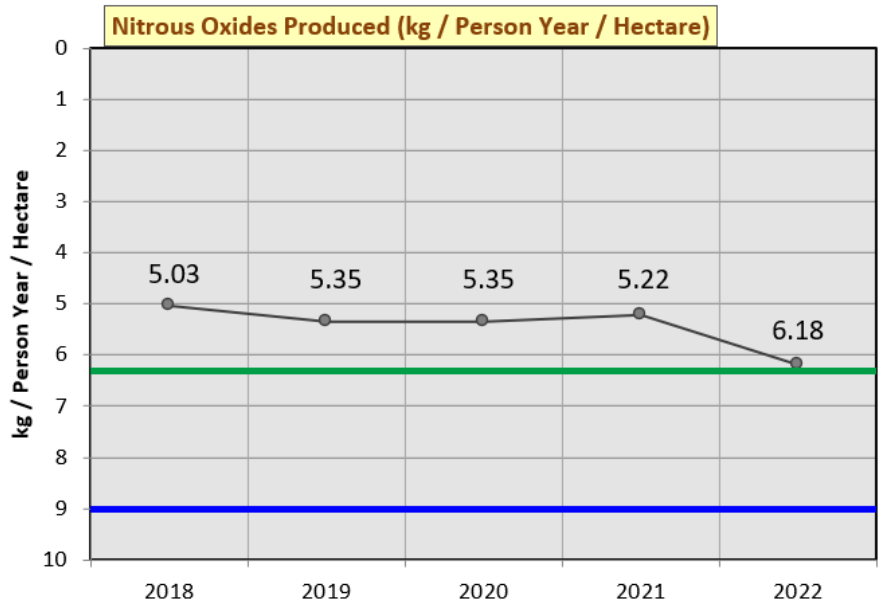
Recycled / Reused / Composted Waste (%)



Recycled / Reused / Composted Waste (%) for the year 2022 (1 January 2022 – 31 December 2022) was 16.0%.

5. Sector Specific

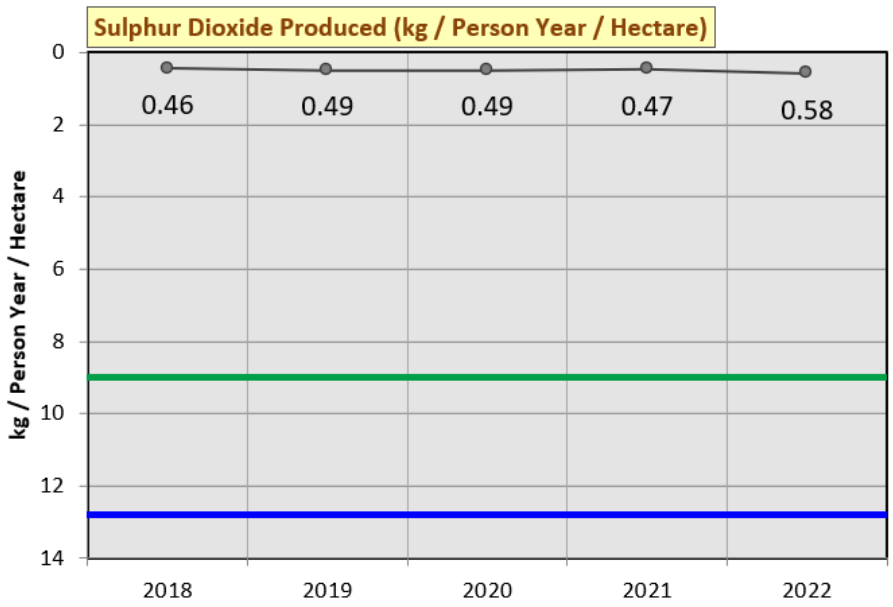
Nitrous Oxides Produced (kg / Person Year / Hectare) ★





Nitrous Oxides Produced (kg / Person Year / Hectare) for the year 2022 (1 January 2022 – 31 December 2022) was 6.18 kg / Person Year / Hectare, which was 1.9% better than the Best Practice level.

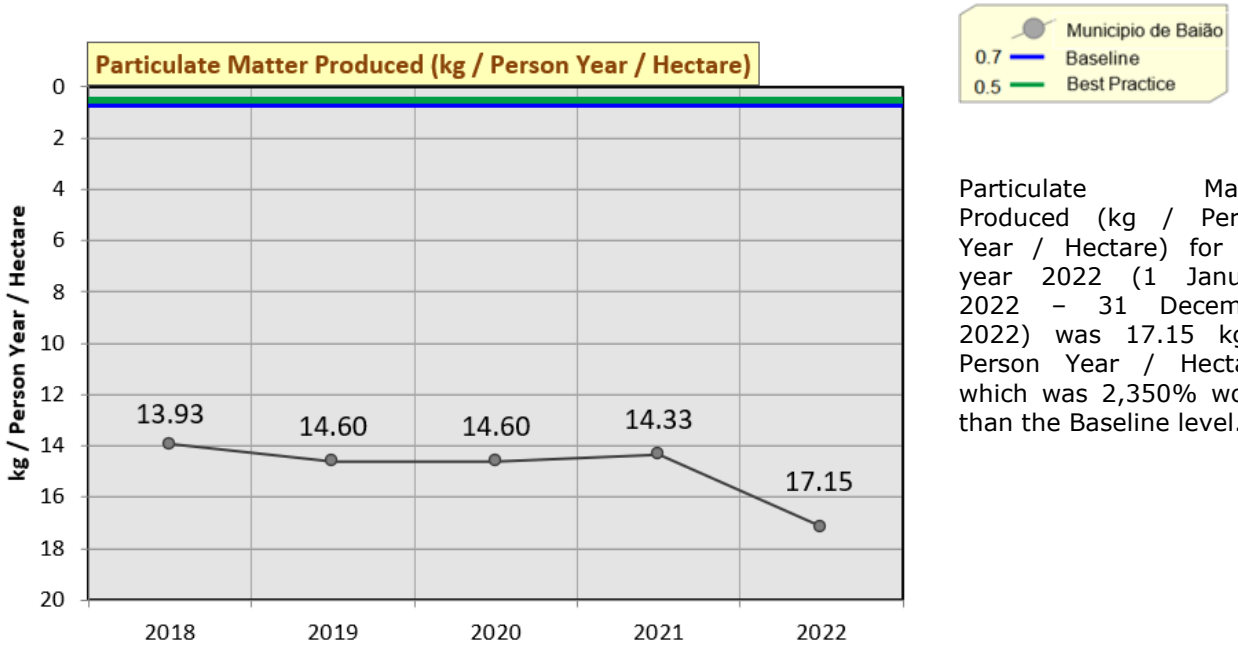
Sulphur Dioxide Produced (kg / Person Year / Hectare) ★





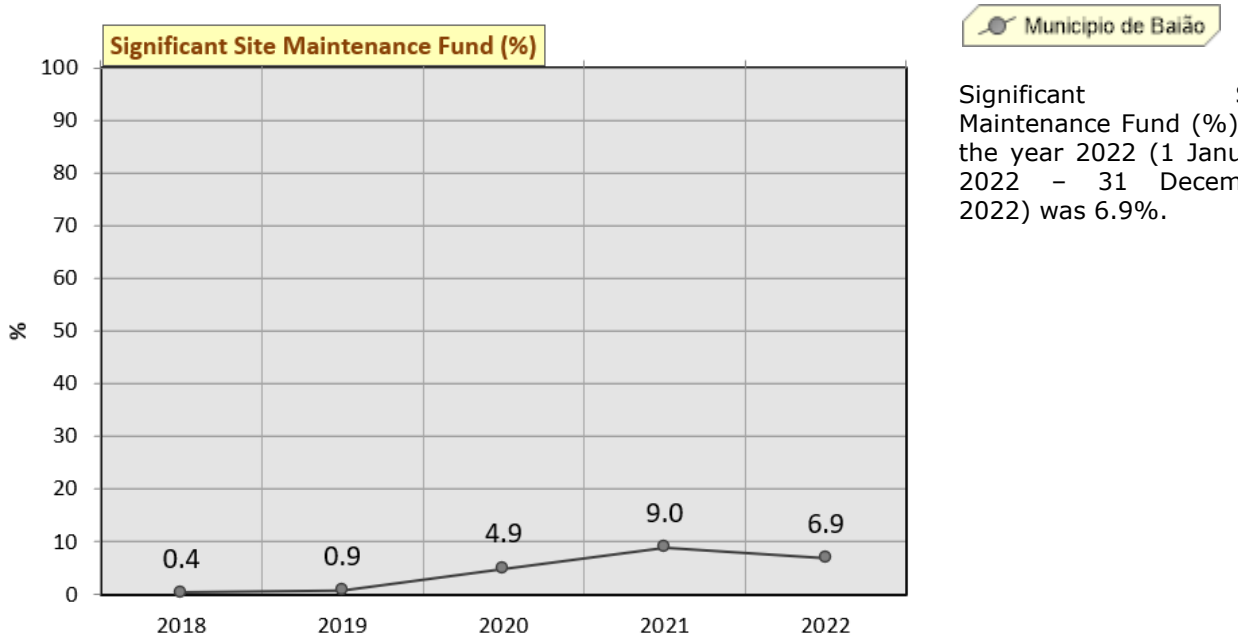
Sulphur Dioxide Produced (kg / Person Year / Hectare) for the year 2022 (1 January 2022 – 31 December 2022) was 0.58 kg / Person Year / Hectare, which was 93.6% better than the Best Practice level.

Particulate Matter Produced (kg / Person Year / Hectare)



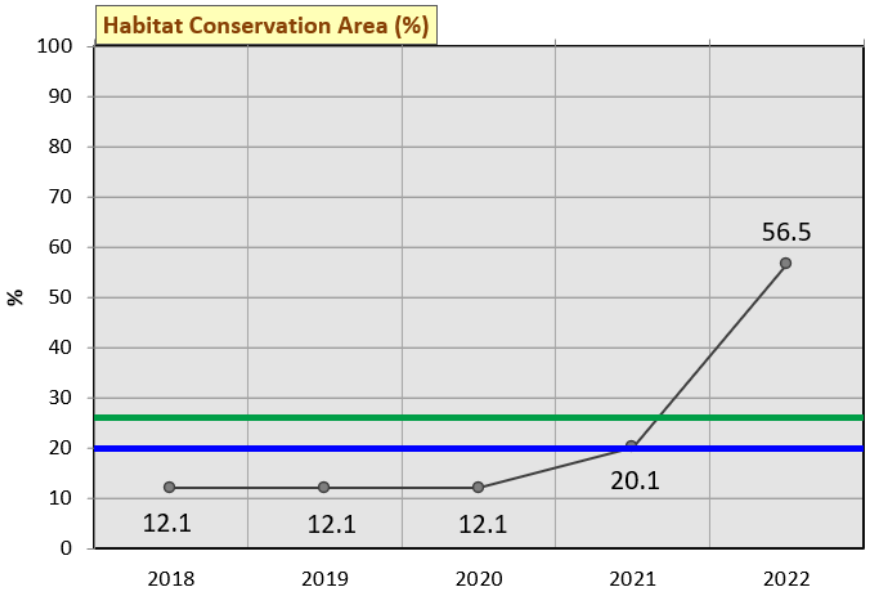
Particulate Matter Produced (kg / Person Year / Hectare) for the year 2022 (1 January 2022 – 31 December 2022) was 17.15 kg / Person Year / Hectare, which was 2,350% worse than the Baseline level.

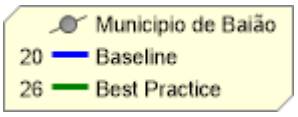
Significant Site Maintenance Fund (%)



Significant Site Maintenance Fund (%) for the year 2022 (1 January 2022 – 31 December 2022) was 6.9%.

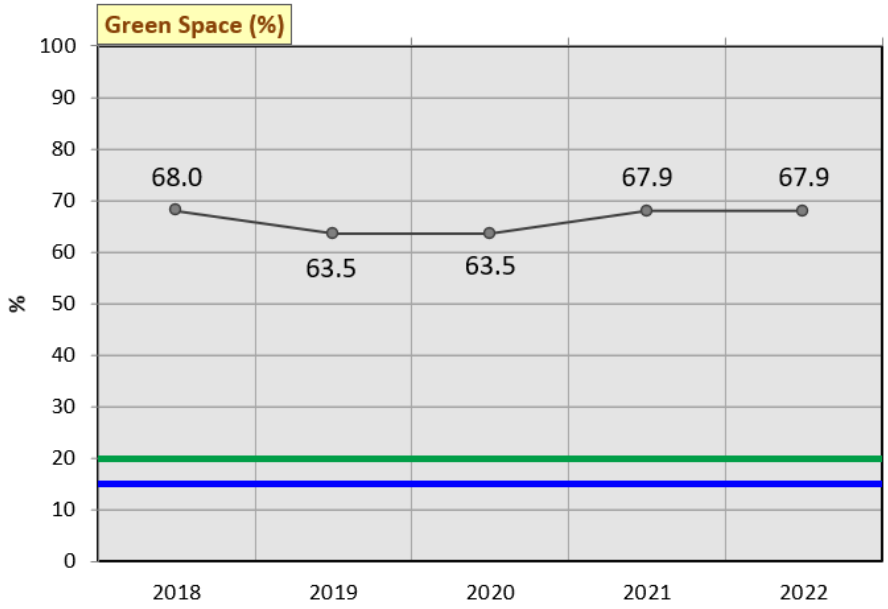
Habitat Conservation Area (%) ★

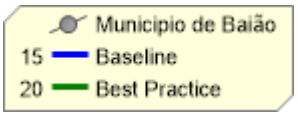




Habitat Conservation Area (%) for the year 2022 (1 January 2022 – 31 December 2022) was 56.5%, which was 30.5% better than the Best Practice level.

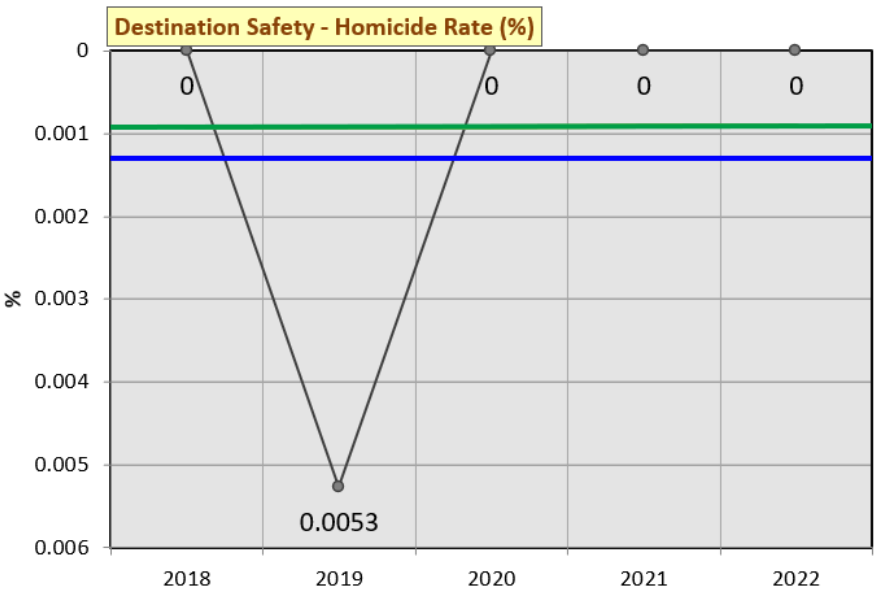
Green Space (%) ★





Green Space (%) for the year 2022 (1 January 2022 – 31 December 2022) was 67.9%, which was 47.9% better than the Best Practice level.

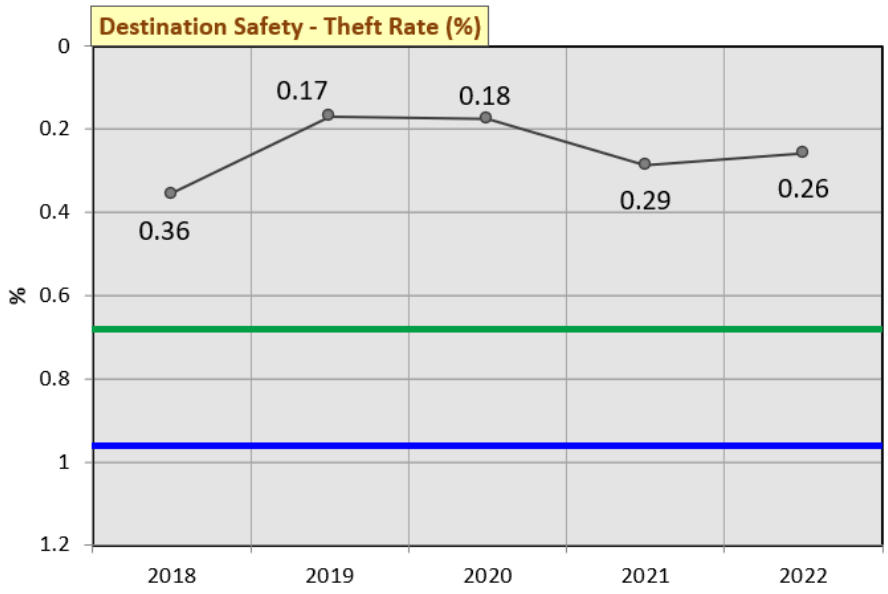
Destination Safety – Homicide Rate (%) ★





Destination Safety – Homicide Rate (%) for the year 2022 (1 January 2022 – 31 December 2022) was 0.0%, which was 0.0009% better than the Best Practice level.

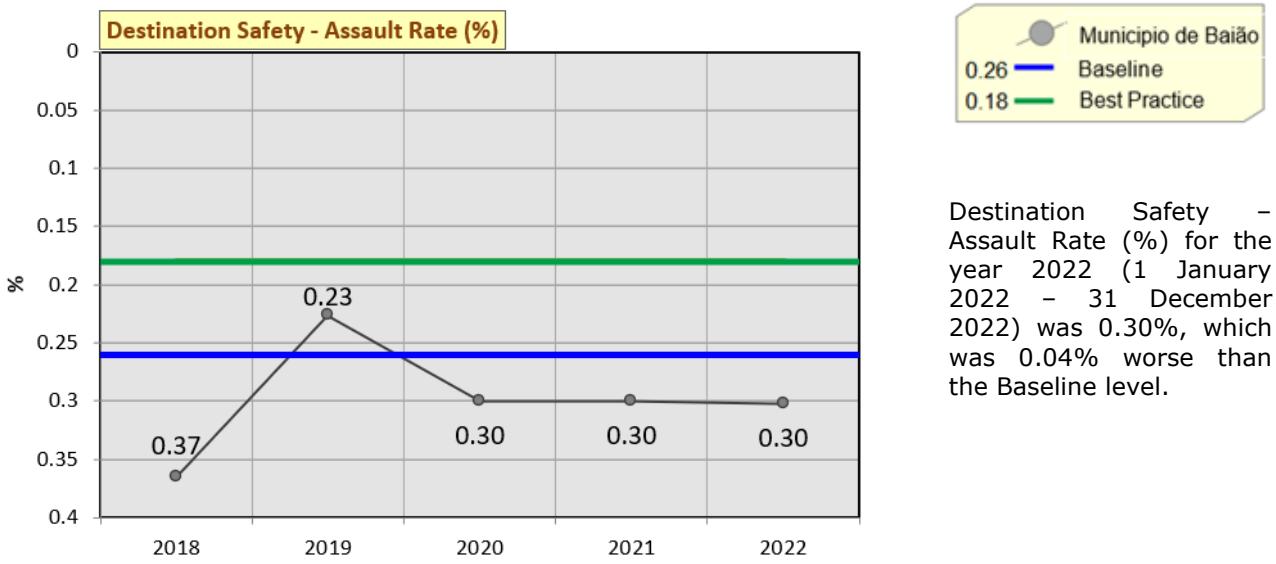
Destination Safety – Theft Rate (%) ★





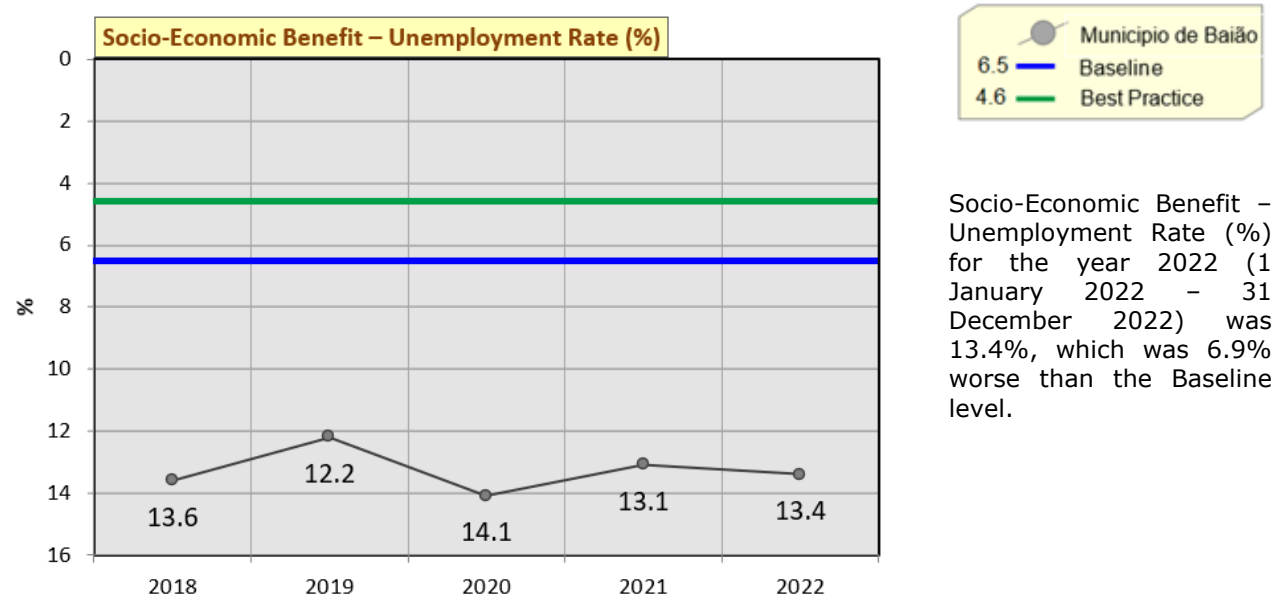
Destination Safety – Theft Rate (%) for the year 2022 (1 January 2022 – 31 December 2022) was 0.26%, which was 0.42% better than the Best Practice level.

Destination Safety – Assault Rate (%)



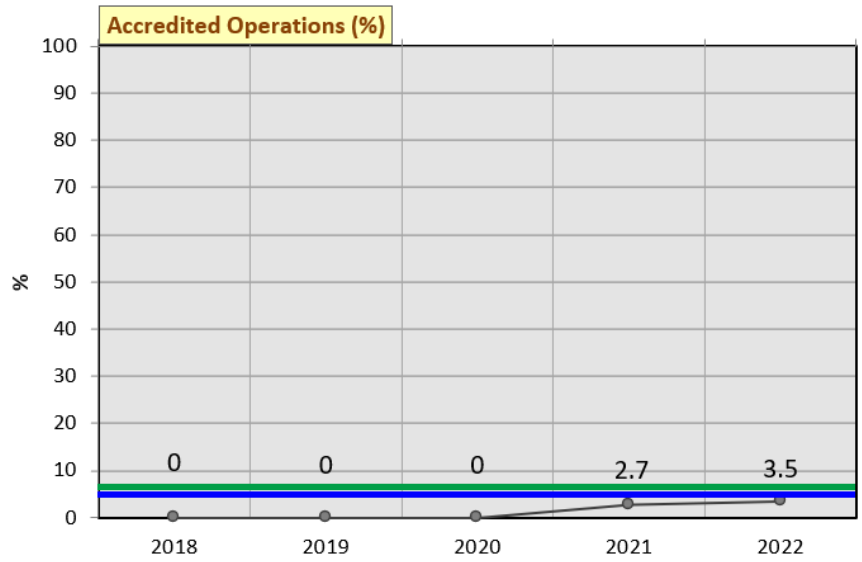
Destination Safety – Assault Rate (%) for the year 2022 (1 January 2022 – 31 December 2022) was 0.30%, which was 0.04% worse than the Baseline level.

Socio-Economic Benefit – Unemployment Rate (%)



Socio-Economic Benefit – Unemployment Rate (%) for the year 2022 (1 January 2022 – 31 December 2022) was 13.4%, which was 6.9% worse than the Baseline level.

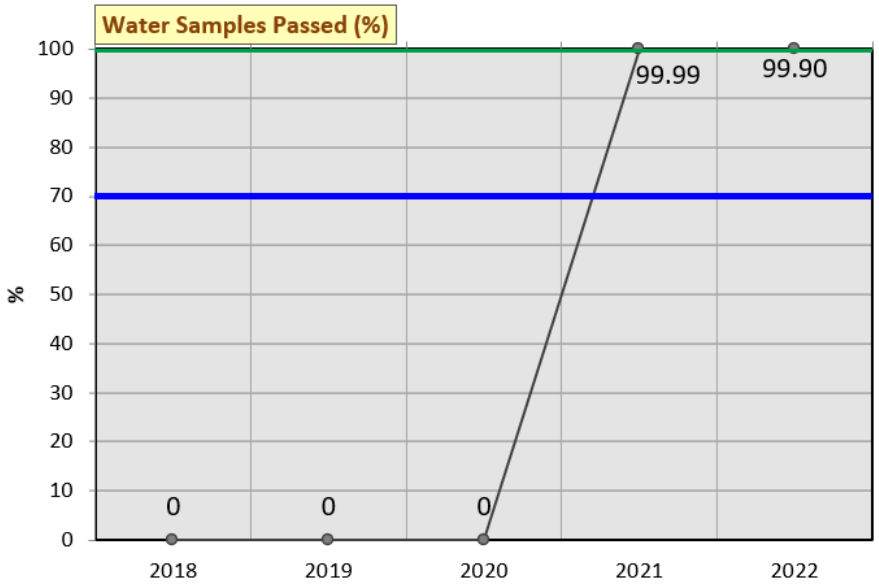
Accredited Operations (%) ✘

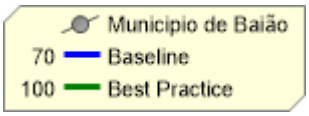




Accredited Operations (%) for the year 2022 (1 January 2022 – 31 December 2022) was 3.5%, which was 1.5% below the Baseline level.

Water Samples Passed (%) ✓

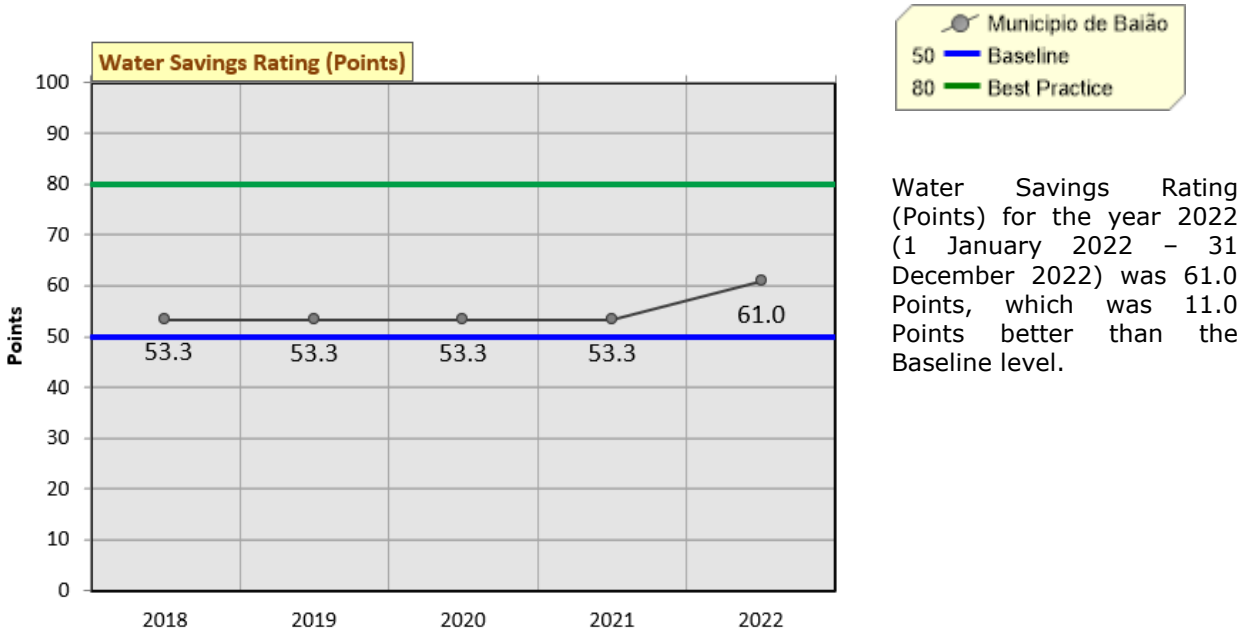




Water Samples Passed (%) for the year 2022 (1 January 2022 – 31 December 2022) was 99.9%, which was 29.9% better than the Baseline level.

6. Water Savings

Water Savings Rating (Points)

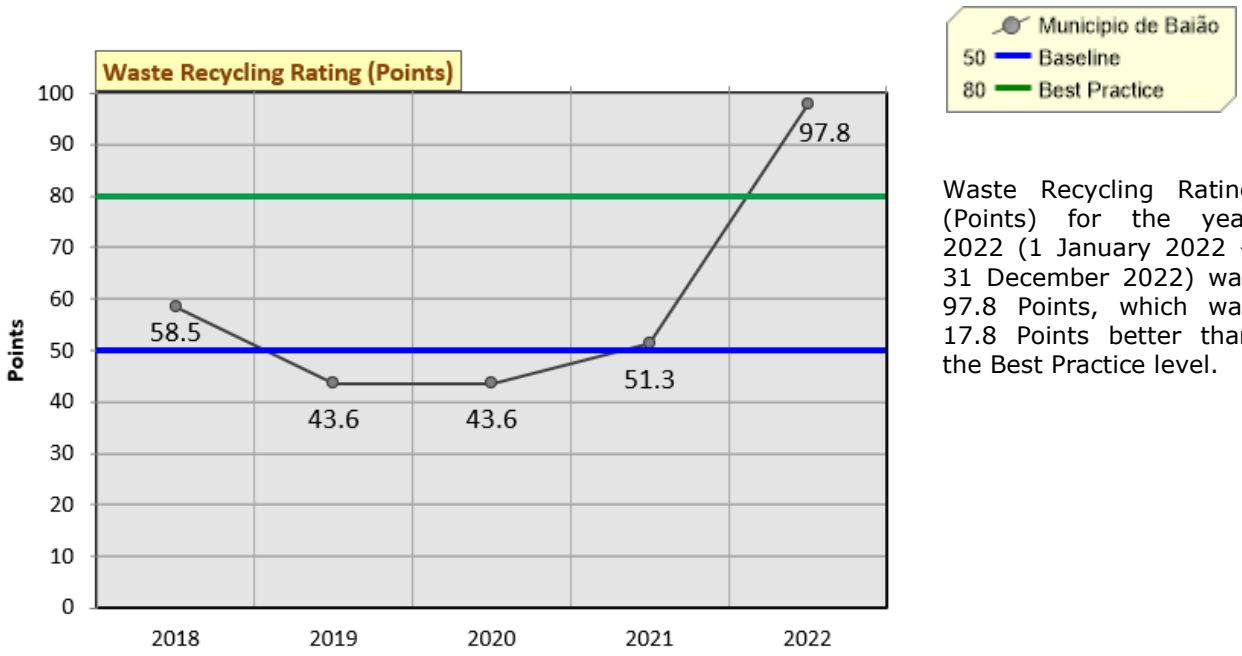


Water Savings Rating (Points) for the year 2022 (1 January 2022 – 31 December 2022) was 61.0 Points, which was 11.0 Points better than the Baseline level.

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	1-19%	54.0 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:	**61.0 Points**

7. Waste Recycling

Waste Recycling Rating (Points) ★

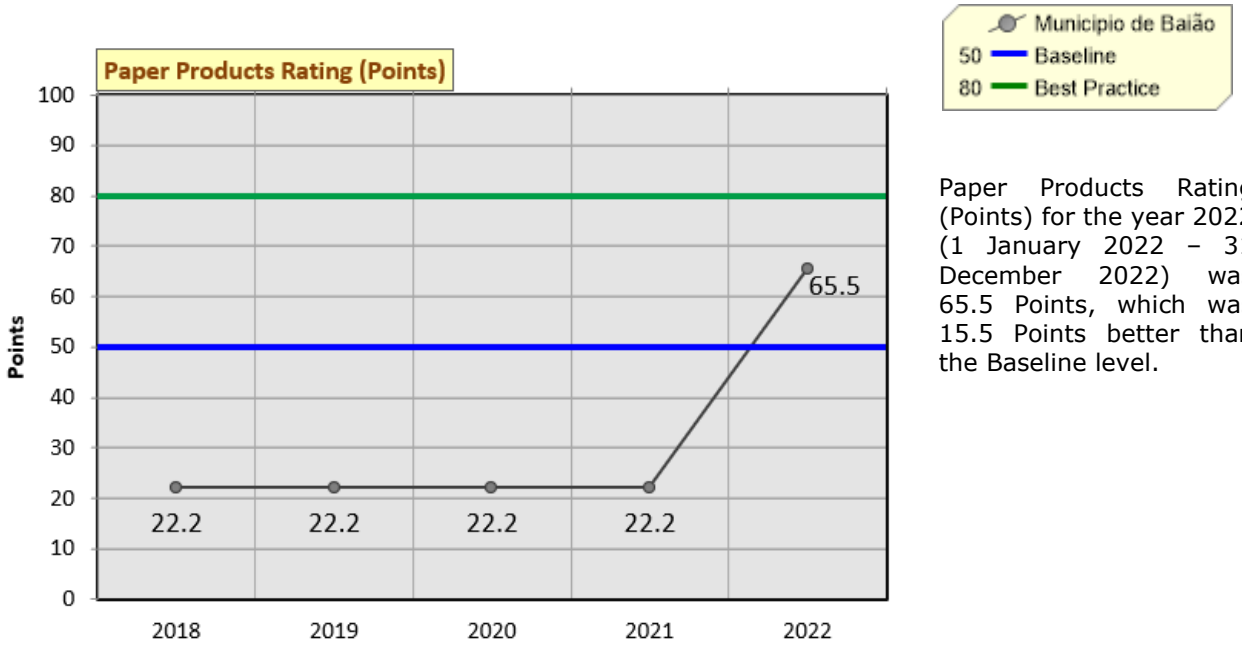


Waste Recycling Rating (Points) for the year 2022 (1 January 2022 – 31 December 2022) was 97.8 Points, which was 17.8 Points better than the Best Practice level.

Waste Recycling Measures	Frequency / Percentage Rating	Waste Recycling Rating (Points)
Glass	100%	100.0 Points
Paper/card	100%	100.0 Points
Iron & steel (ferrous metals)	100%	100.0 Points
Other metals (non-ferrous)	Not Relevant / Available	
Plastics	100%	100.0 Points
Rubber	Not Relevant / Available	
Green waste	80-99%	88.9 Points
	Overall Rating:	**97.8 Points**

8. Paper

Paper Products Rating (Points) ✓

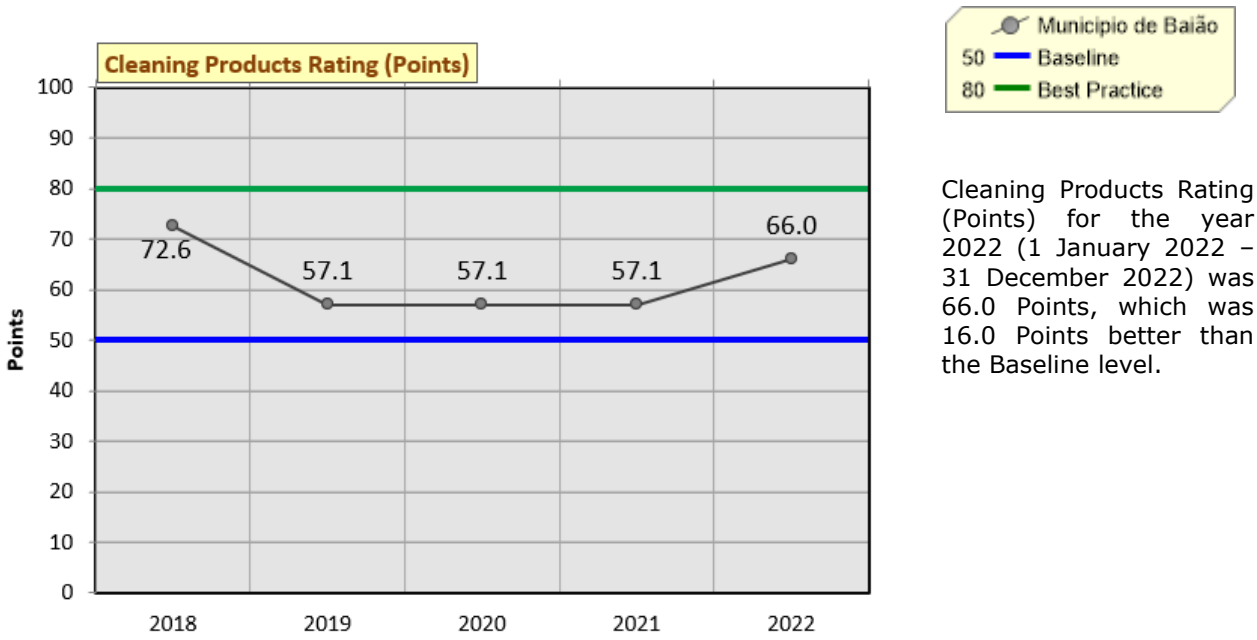


Paper Products Rating (Points) for the year 2022 (1 January 2022 – 31 December 2022) was 65.5 Points, which was 15.5 Points better than the Baseline level.

Paper Products Measures	Frequency / Percentage Rating	Paper Products Rating (Points)
Office paper	100%	100.0 Points
Serviettes	1-19%	54.0 Points
Tissues	1-19%	54.0 Points
Toilet tissue	1-19%	54.0 Points
Paper towels	Not Relevant / Not Available	
	Overall Rating:	**65.5 Points**

9. Cleaning

Cleaning Products Rating (Points)

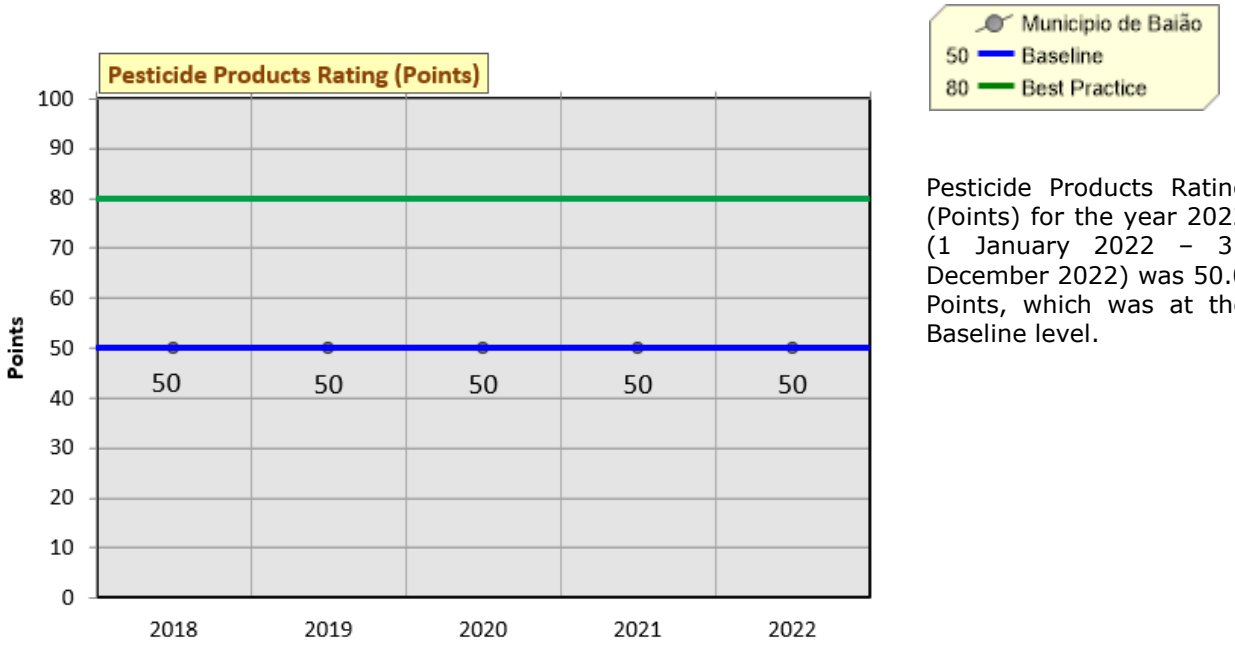


Cleaning Products Rating (Points) for the year 2022 (1 January 2022 – 31 December 2022) was 66.0 Points, which was 16.0 Points better than the Baseline level.

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	1-19%	54.0 Points
External surface cleaners	1-19%	54.0 Points
Glass cleaners	0%	0.0 Points
Detergents	1-19%	54.0 Points
Personal hygiene	100%	100.0 Points
	Overall Rating:	**66.0 Points**

10. Pesticides

Pesticide Products Rating (Points)



Pesticide Products Rating (Points) for the year 2022 (1 January 2022 – 31 December 2022) 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**

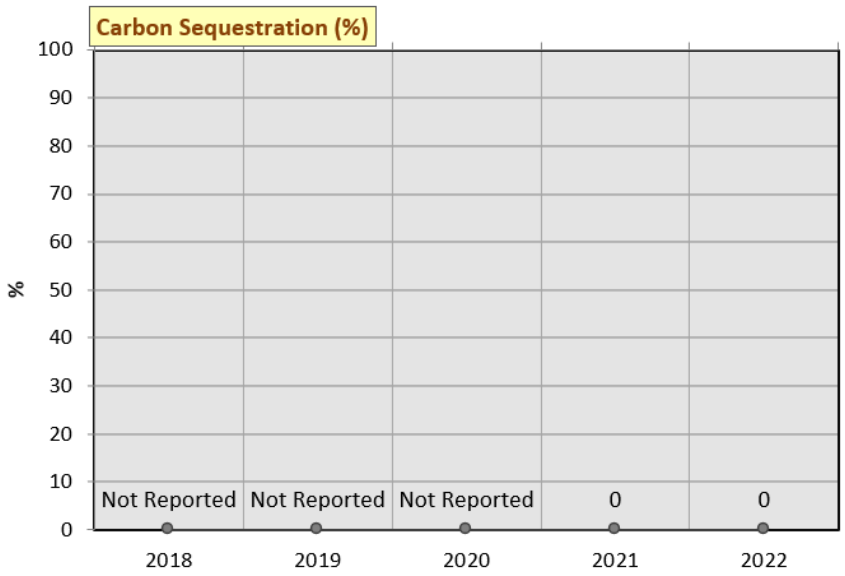
Optional Benchmarking Indicators

Municipio 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.

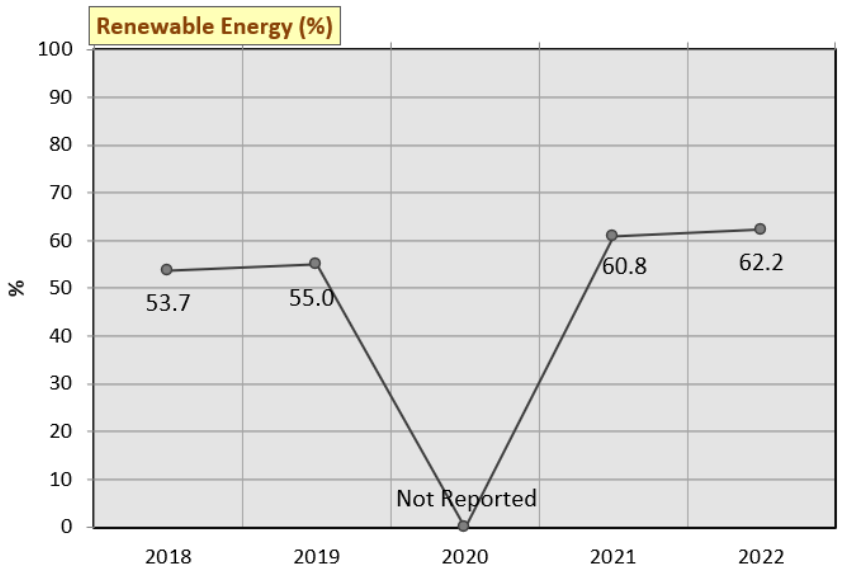
11. Selected Indicators

Selected Indicators are from a supplied list of EarthCheck indicators.

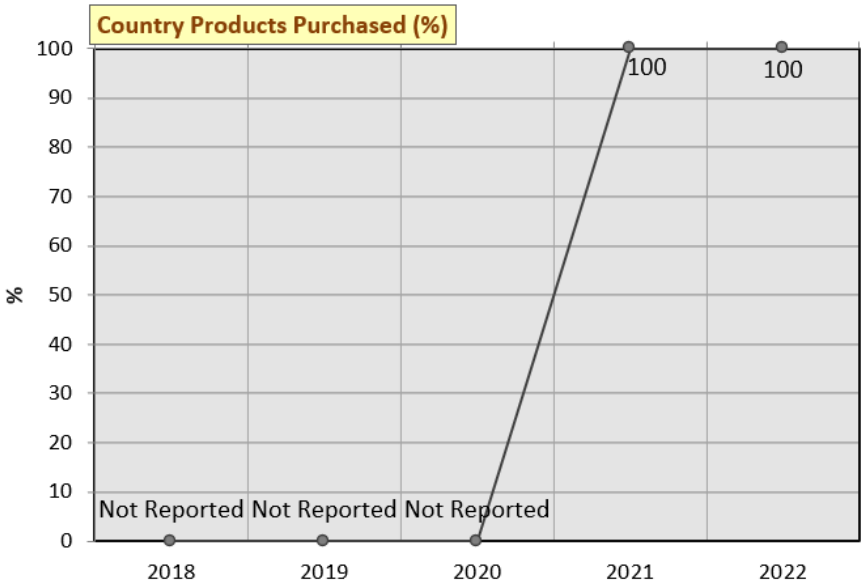
Carbon Sequestration (%)



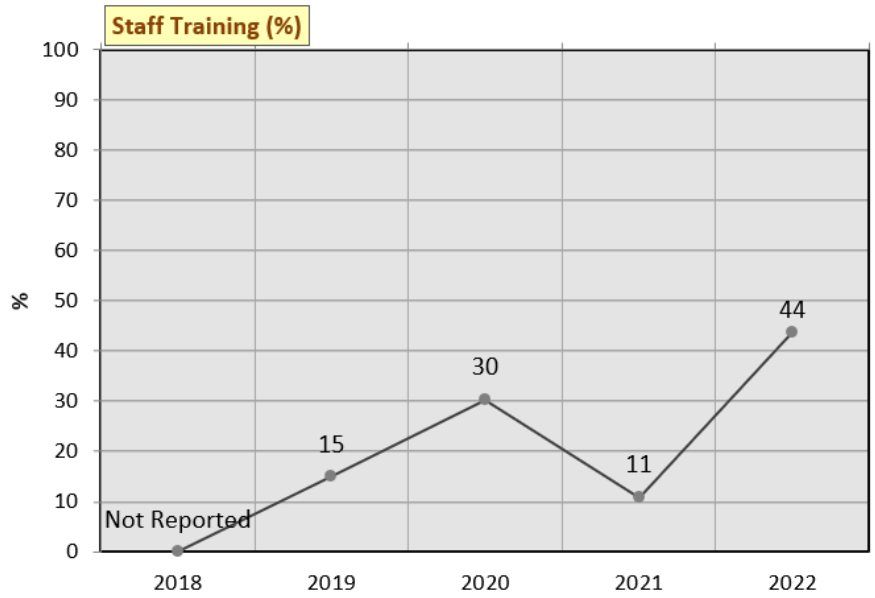
Renewable Energy (%)



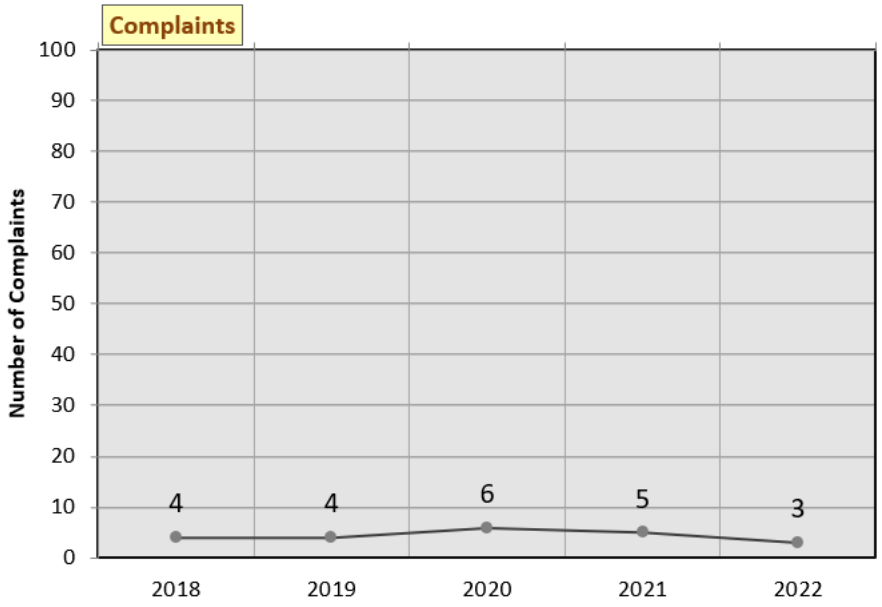
Country Products Purchased (%)



Staff Training (%)



Complaints


Complaints
Number of Complaints
100
90
80
70
60
50
40
30
20
10
0
4
4
6
5
3
2018
2019
2020
2021
2022

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

Conclusion And Recommendations

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

In addition to having a Sustainability Policy in place, fifteen of the assessed EarthCheck indicator(s) are at or above the Baseline level.

From the benchmarking data provided, nine indicator(s), *Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO2-e / Person Year), Potable Water Consumption (kL / Person Year), Nitrous Oxides Produced (kg / Person Year / Hectare), Sulphur Dioxide Produced (kg / Person Year / Hectare), Habitat Conservation Area (%), Green Space (%), Destination Safety – Homicide Rate (%), Destination Safety – Theft Rate (%), and Waste Recycling Rating (Points),* are at or above the Best Practice level, which is an achievement to be highly commended.

The five indicator(s) that fell below the Baseline level were *Waste Sent to Landfill (m3 / Person Year), Particulate Matter Produced (kg / Person Year / Hectare), Destination Safety – Assault Rate (%), Socio-Economic Benefit – Unemployment (%), and Accredited Operations (%)*.

The percentage of Assault Rate is 0.04% worse than the Baseline level. **Municipio 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 Accredited Operations was 1.5% worse than the Baseline level. **Municipio de Baião** is encouraged to promote environmental accreditation to hotels, restaurants and other business within the destination.

The **Municipio de Baião** is encouraged to continue to make improvements in the above indicator/s and to ensure that any indicator/s 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 **Municipio 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 **Municipio de Baião** is encouraged to ensure that Accredited Operations are at Baseline performance or better. In line with EarthCheck Policy this would enable the **Municipio de Baião** to continue to meet the benchmarking requirements of the EarthCheck program.

APPENDIX

MONETARY CONTRIBUTIONS TO COMMUNITIES/CONSERVATION

The Benchmarking Assessors sought clarification with regards to the reported value changing from 0% in 2021 to 100% in 2022 for both Monetary Contributions to Communities and Monetary Contributions to Conservation.

Municipio de Baião provided the following response for clarification:

> *"The municipality, a local public entity, under the terms of the law, has attributions in several areas, such as rural and urban equipment; Energy; Transport and communications; Education, teaching and vocational training; Heritage, culture and science; Leisure time and sports; Health; Social action; Housing; Civil protection; Environment and basic sanitation; Consumer defense; Promotion of development and Spatial planning and urbanism.*
>
> *The City Council's annual budget is divided into 4 essential functions: Social, economic, general and others. These functions include support for communities, families, associations, social institutions and firefighters. They also include all investment in the conservation of the municipality's tangible and intangible heritage, such as buildings, churches, ecosystems, landscape, among others.*
>
> *Thus, the two indicators in question are difficult to quantify, given also the fact that the City Council does not have a Net Operational Turnover, since it is a public entity and not a private company.*
>
> *That is why in 2021 the indicated 0%. However, this value is not correct, since the municipality's activity is carried out to meet the needs of people, the territory and our local heritage. Therefore, in 2022, we set the value of 100% for both indicators. However, if EarthCheck has a different understanding, we will correct the indicated value."*

As the council does not have a figure for Net operational turnover, it is suggested these two indicators be removed from the annual reporting data and the report has been processed accordingly.

HABITAT CONSERVATION AREA

The Benchmarking Assessors also noticed that Habitat Conservation Area had increased significantly compared to previous reporting periods. It is recommended that the auditor examine this at time of audit.



EARTHCHECK

Benchmarks Assessed by EarthCheck

Summary Of Supplied Benchmarking Data

Activity Measures

Person Years	17,767.06
Total Destination Area	17,450

Supplied Benchmarking Data

Energy

Energy Consumption (GJ / Person Year)

Supplied	692,586.2 GJ
Calculated	38.98 GJ / Person Year
Baseline	55.6 GJ / Person Year
Best Practice	38.9 GJ / Person Year
Difference	29.8% better than the Baseline level

Green Power (Purchased Electricity) (%)

Supplied	0%
Calculated	0%

Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO_2-e / Person Year)

Supplied	30,819.0 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	38.0% better than the Best Practice level

Direct Emissions (Scope 1) (t CO_2-e / Person Year)

Supplied	12,229.4 t CO_2-e
Calculated	0.69 t CO_2-e / Person Year

Indirect Emissions (Scope 2) (t CO_2-e / Person Year)

Supplied	18,589.7 t CO_2-e
Calculated	1.05 t CO_2-e / Person Year

Indirect Emissions (Scope 3) (t CO_2-e / Person Year)

Supplied	7,831.6 t CO_2-e
Calculated	0.44 t CO_2-e / Person Year

Waste Indirect Emissions (Scope 3) (t CO_2-e / Person Year)

Supplied	7,831.6 t CO_2-e
Calculated	0.44 t CO_2-e / Person Year

Water

Potable Water Consumption (kL / Person Year)

Supplied	590,912.0 kL
Calculated	33.3 kL / Person Year
Baseline	80.75 kL / Person Year
Best Practice	56.53 kL / Person Year
Difference	41.2% better than the Best Practice level

Recycled / Captured Water (%)

Supplied	0%
Calculated	0%

Waste

Waste Sent to Landfill (m^3 / Person Year)

Supplied	21,754.4 m^3
Calculated	1.22 m^3 / Person Year
Baseline	0.89 m^3 / Person Year
Best Practice	0.62 m^3 / Person Year
Difference	37.6% worse than the Baseline level

Recycled / Reused / Composted Waste (%)

Supplied	16.0%
Calculated	16.0%

Sector Specific

Nitrous Oxides Produced (kg / Person Year / Hectare)

Supplied	6.18 kg / Person Year / Hectare
Calculated	6.18 kg / Person Year / Hectare
Baseline	9 kg / Person Year / Hectare
Best Practice	6.3 kg / Person Year / Hectare
Difference	1.9% better than the Best Practice level

Sulphur Dioxide Produced (kg / Person Year / Hectare)

Supplied	0.58 kg / Person Year / Hectare
Calculated	0.58 kg / Person Year / Hectare

Baseline	12.8 kg / Person Year / Hectare
Best Practice	9.0 kg / Person Year / Hectare
Difference	93.6% better than the Best Practice level

Particulate Matter Produced (kg / Person Year / Hectare)

Supplied	17.15 kg / Person Year / Hectare
Calculated	17.15 kg / Person Year / Hectare
Baseline	0.7 kg / Person Year / Hectare
Best Practice	0.5 kg / Person Year / Hectare
Difference	2,350% worse than the Baseline level

Significant Site Maintenance Fund (%)

Supplied	6.9%
Calculated	6.9%

Habitat Conservation Area (%)

Supplied	56.5%
Calculated	56.5%
Baseline	20 %
Best Practice	26 %
Difference	30.5% better than the Best Practice level

Green Space (%)

Supplied	67.9%
Calculated	67.9%
Baseline	15 %
Best Practice	20 %
Difference	47.9% better than the Best Practice level

Destination Safety – Homicide Rate (%)

Supplied	0.0%
Calculated	0.0%
Baseline	0.0013%
Best Practice	0.0009%
Difference	0.0009% better than the Best Practice level

Destination Safety – Theft Rate (%)

Supplied	0.26%
Calculated	0.26%
Baseline	0.96%
Best Practice	0.68%
Difference	0.42% better than the Best Practice level

Destination Safety – Assault Rate (%)

Supplied	0.30%
Calculated	0.30%
Baseline	0.26%
Best Practice	0.18%
Difference	0.04% worse than the Baseline level

Socio-Economic Benefit – Unemployment Rate (%)

Supplied	13.4%
Calculated	13.4%
Baseline	6.5%
Best Practice	4.6%
Difference	6.9% worse than the Baseline level

Accredited Operations (%)

Supplied	3.5%
Calculated	3.5%
Baseline	5 %
Best Practice	6.5 %
Difference	1.5% below the Baseline level

Water Samples Passed (%)

Supplied	99.9%
Calculated	99.9%
Baseline	70 %
Best Practice	100 %
Difference	29.9% better than the Baseline level

Water Savings

Water Savings Rating (Points)

Supplied	61.0 Points
Calculated	61.0 Points
Baseline	50 Points
Best Practice	80 Points
Difference	11.0 Points better than the Baseline level

Waste Recycling

Waste Recycling Rating (Points)

Supplied	97.8 Points
Calculated	97.8 Points
Baseline	50 Points
Best Practice	80 Points
Difference	17.8 Points better than the Best Practice level

Paper

Paper Products Rating (Points)

Supplied	65.5 Points
Calculated	65.5 Points
Baseline	50 Points
Best Practice	80 Points
Difference	15.5 Points better than the Baseline level

Cleaning

Cleaning Products Rating (Points)

Supplied	66.0 Points
Calculated	66.0 Points
Baseline	50 Points
Best Practice	80 Points
Difference	16.0 Points better than the Baseline level

Pesticides

Pesticide Products Rating (Points)

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

Optional Indicators

Carbon Sequestration (%)

Supplied	0.0%
Calculated	0.0%

Renewable Energy (%)

Supplied	62.2%
Calculated	62.2%

Country Products Purchased (%)

Supplied	100.0%
Calculated	100.0%

Staff Training (%)

Supplied	44.0%
Calculated	44.0%

Complaints

Supplied	3
Calculated	3

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 (m^3) or litres (L)). These are: 1 kg (uncompacted waste) = 0.00333333 m^3 or 3.33333 L and 1 kg (compacted waste) = 0.00153846 m^3 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).