



EARTHCHECK

BENCHMARKING ASSESSMENT REPORT

DESTINATION BENCHMARKING

MUNICIPIO DE MELGACO
MELGACO, PORTUGAL



REPORT DATE: 11 February 2025

Benchmarking Data Collection Period: 1 January 2023 – 31 December 2023

The planet deserves more than half measures

OVERVIEW

This annual assessment of **Municipio de Melgaco** 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) Greenhouse Gas Emissions Scope 3 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) Water Samples Passed (%) Habitat Conservation Area (%) Green Space (%) Accredited Operations (%) Significant Site Maintenance Fund (%) Destination Safety – Homicide Rate (%) Destination Safety – Theft Rate (%) Destination Safety – Assault Rate (%) Socio-Economic Benefit – Unemployment Rate (%)
Lead Agency Performance		
6	Water Saving	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)

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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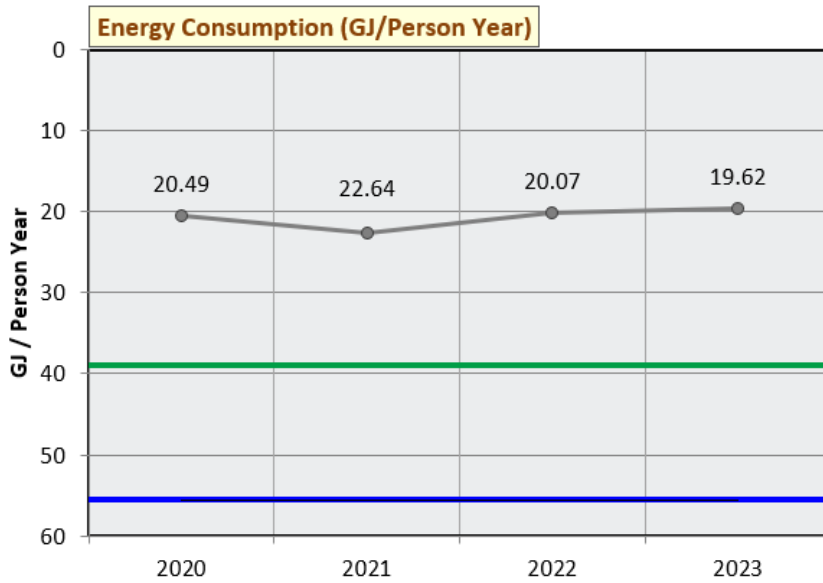
DESTINATION PERFORMANCE BENCHMARKS

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

1. Policy ★

2. Energy

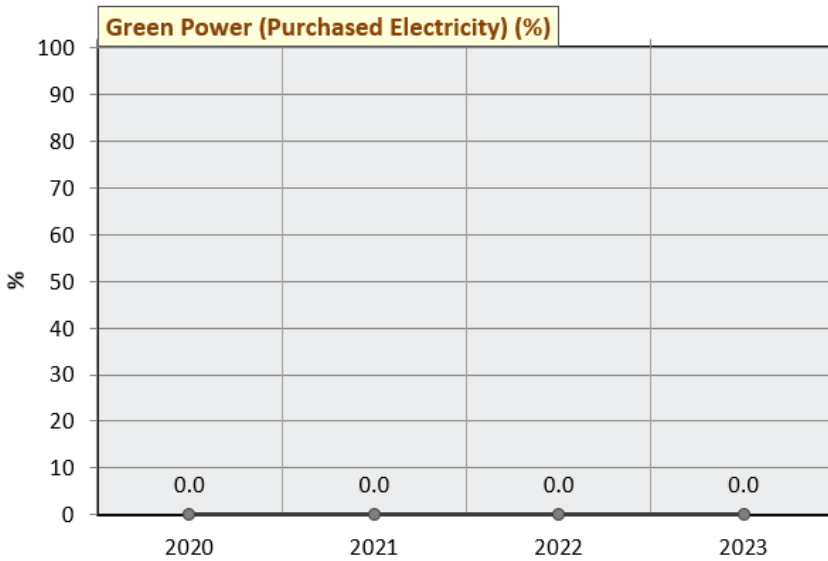
Energy Consumption (GJ / Person Year) ★



● Municipio de Melgaco
— Baseline 55.6
— Best Practice 38.9

Energy Consumption (GJ / Person Year) for the year 2023 (1 January 2023 – 31 December 2023) was 19.62 GJ / Person Year, which was 49.6% better than the Best Practice level.

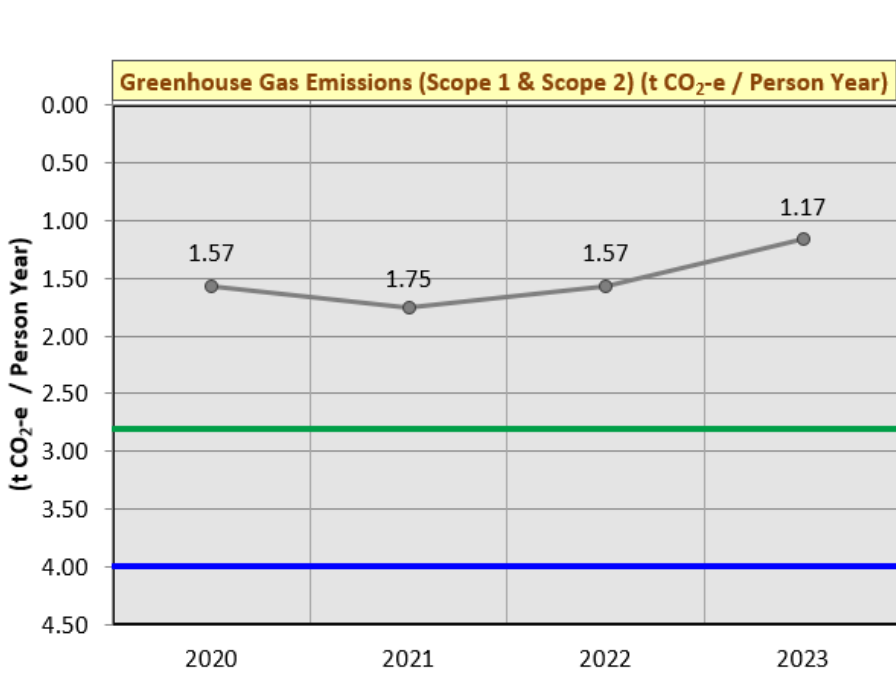
Green Power (Purchased Electricity) (%)



● Municipio de Melgaco

Green Power (Purchased Electricity) (%) for the year 2023 (1 January 2023 – 31 December 2023) was 0%.

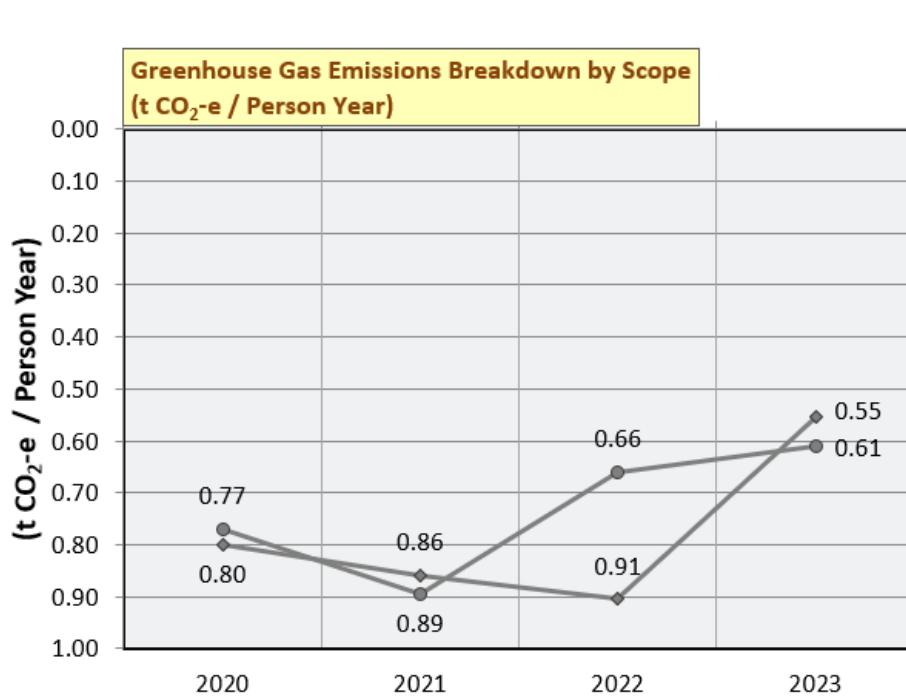
Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year) ★



● Município de Melgaco
— Baseline
— Best Practice

Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year) for the year 2023 (1 January 2023 - 31 December 2023) was 1.17 t CO₂-e / Person Year, which was 58.4% better than the Best Practice level.

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

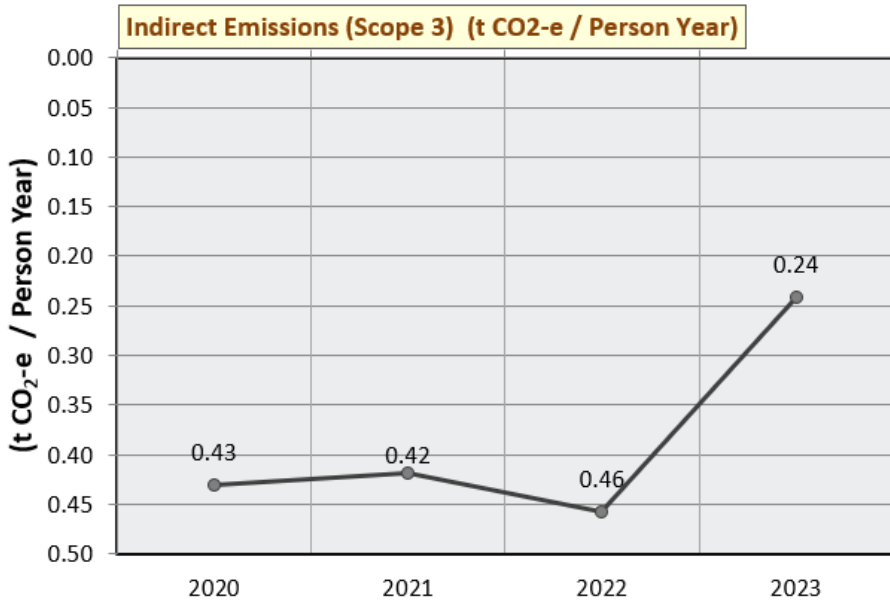


● Direct Emissions (Scope 1) (tonne CO₂-e / Person Year)
◆ Indirect Emissions (Scope 2) (tonne CO₂-e / Person Year)

Direct Emissions (Scope 1) (t CO₂-e / Person Year) for the year 2023 (1 January 2023 - 31 December 2023) was 0.61 t CO₂-e / Person Year.

Indirect Emissions (Scope 2) (t CO₂-e / Person Year) for the year 2023 (1 January 2023 - 31 December 2023) was 0.55 t CO₂-e / Person Year.

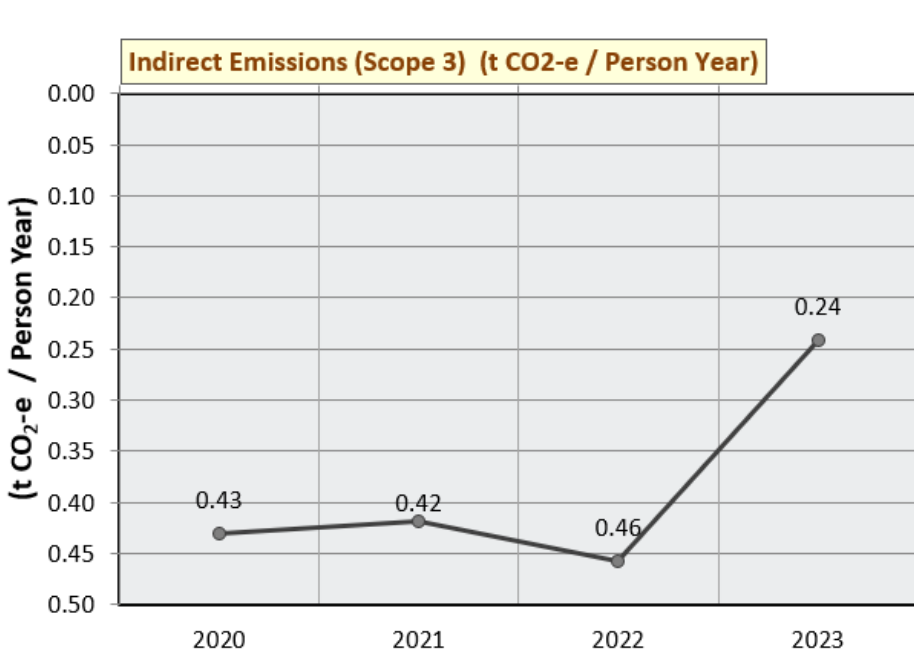
Indirect Emissions (Scope 3) (t CO₂-e / Person Year)



Municipio de Melgaco

Indirect Emissions (Scope 3) (t CO₂-e / Person Year) for the year 2023 (1 January 2023 - 31 December 2023) was 0.24 t CO₂-e / Person Year.

Greenhouse Gas Emissions Scope 3 Breakdown (t CO₂-e / Person Year)



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

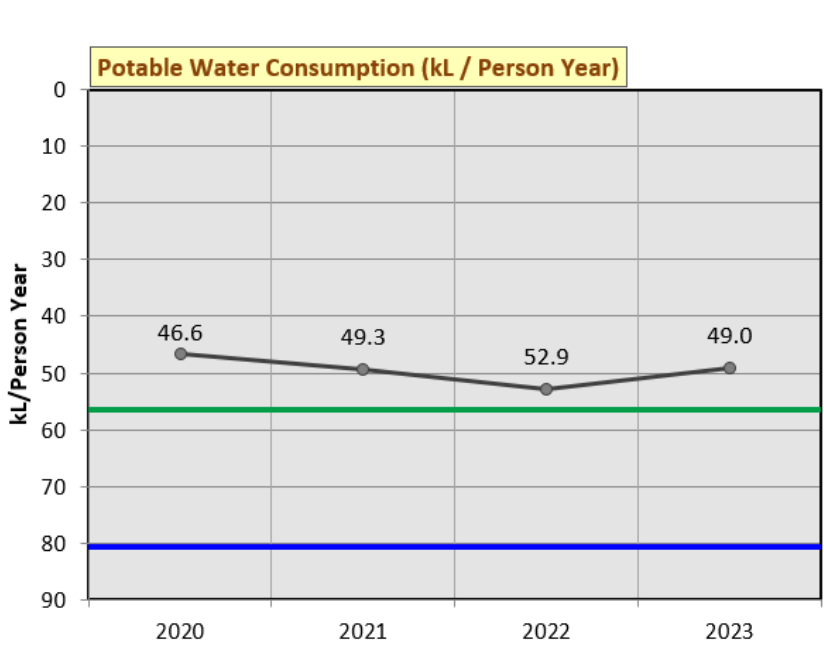
Waste Indirect Emissions (Scope 3) (t CO₂-e / Person Year) for the year 2023 (1 January 2023 - 31 December 2023) was 0.24 t CO₂-e / Person Year.

Direct Emissions (Scope 1)								
Onsite Renewable Energy Generation								
2023								
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)	
Solar	577,756	Kilowatt hour (kWh)	2,079,921.6	0.0	0.0	0.0	0.0	
Stationary Fuel Combustion								
2023								
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	148	tonne	6,682,200.0	470.4	1.8	1.0	473.2	
Natural Gas Liquid - Propane	400	tonne	18,612,000.0	1,075.4	4.7	2.6	1,082.8	
Natural Gas Liquid - Butane	133	tonne	6,188,490.0	357.6	1.5	0.9	360.0	
subtotal			31,482,690.0	1,903.4	8.0	4.5	1,916.1	
Mobile Fuel Combustion (road)								
2023								
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)	
Motor gasoline	139	tonne	6,466,280.0	425.7	4.3	13.0	443.0	
Diesel	635	tonne	28,670,250.0	2,018.2	3.0	28.2	2,049.4	
subtotal			35,136,530.0	2,443.9	7.3	41.2	2,492.4	
Onsite Wastewater Treatment								
2023								
Type	Number of people serviced by system per 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)		
Septic (BOD Unknown)	466	365	0.0	32.2	0.0	32.2		
Aerobic (BOD Unknown)	7,304	365	0.0	302.3	0.0	302.3		
Subtotal			0.0	334.5	0.0	334.5		
TOTAL			68,699,141.6	4,347.3	349.8	45.7	4,743.0	
Indirect Emissions (Scope 2)								
Purchased Electricity								
2023								
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)
23,254,669	Kilowatt hour (kWh)	0	Portugal	83,716,808.4	4,274.2	9.3	25.6	4,309.1
TOTAL				83,716,808.4	4,274.2	9.3	25.6	4,309.1
Greenhouse Gas Emissions (Scope 1 and Scope 2)								
GRAND TOTAL				152,415,950.0	8,621.5	359.1	71.3	9,052.1

Indirect Emissions (Scope 3)								
Waste Sent to Landfill								
2023								
Quantity	Unit	Type of Landfill	Type of Waste	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)
1,564	tonnes (compacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	International	0.0	1,876.8	0.0	1,876.8
TOTAL					0.0	1,876.8	0.0	1,876.8

3. Water

Potable Water Consumption (kL / Person Year) ★



Municipio de Melgaco

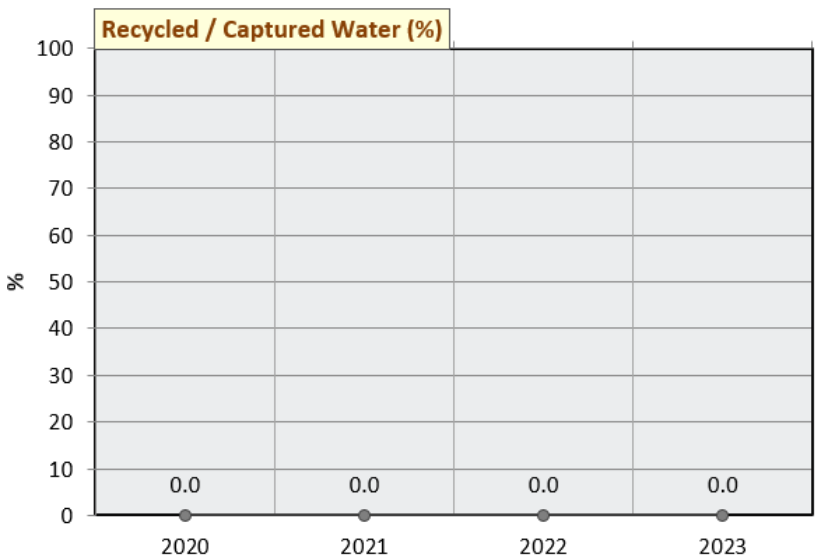
- 80.75 Baseline
- 56.53 Best Practice

Potable Water Consumption (kL / Person Year) for the year 2023 (1 January 2023 – 31 December 2023) was 49.0 kL / Person Year, which was 13.3% better than the Best Practice level.

2023

Quantity	Unit	Potable Water Consumption (kL)
380,808	kilolitres (kL)	380,808.0 kL
	TOTAL	380,808.0 kL

Recycled / Captured Water (%)

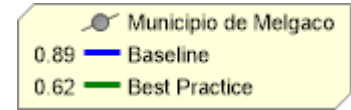
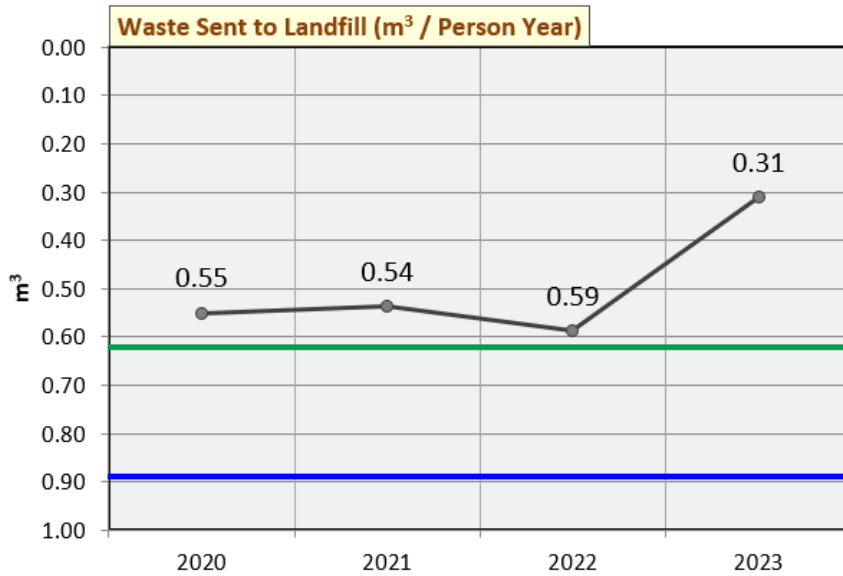


Municipio de Melgaco

Recycled / Captured Water (%) for the year 2023 (1 January 2023 – 31 December 2023) was 0%.

4. Waste

Waste Sent to Landfill (m³ / Person Year) ★

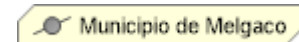
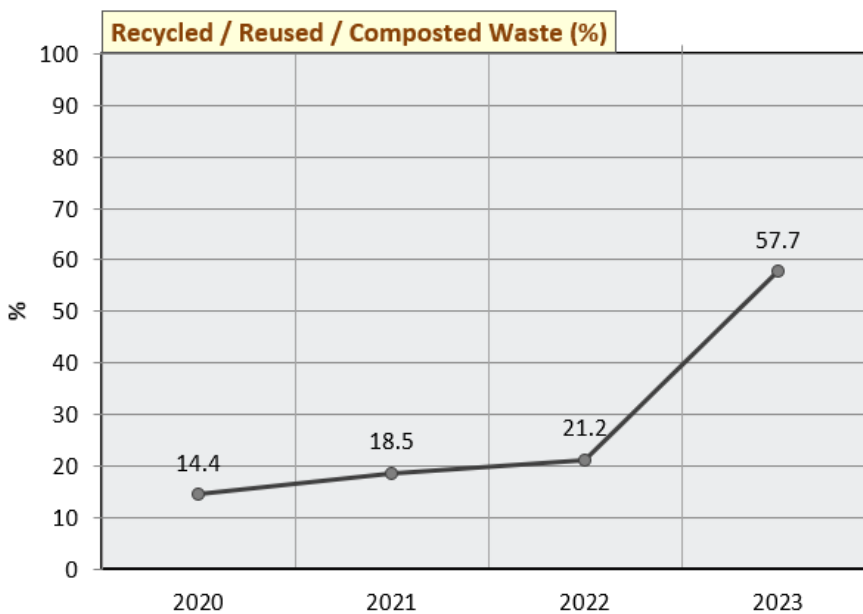


Waste Sent to Landfill (m³ / Person Year) for the year 2023 (1 January 2023 - 31 December 2023) was 0.31 m³ / Person Year, which was 50.1% better than the Best Practice level.

2023

Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Waste Sent to Landfill (m ³)
1,564	tonnes (compacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	2,406.2
				TOTAL	2,406.2 m³

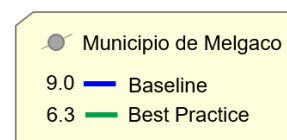
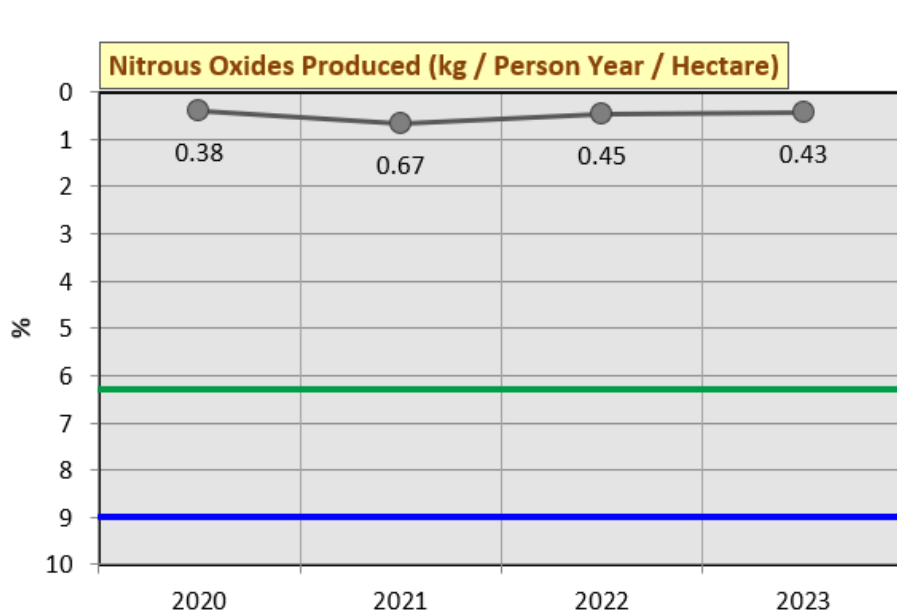
Recycled / Reused / Composted Waste (%)



Recycled / Reused / Composted Waste (%) for the year 2023 (1 January 2023 - 31 December 2023) was 57.7%.

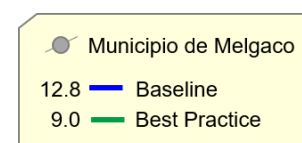
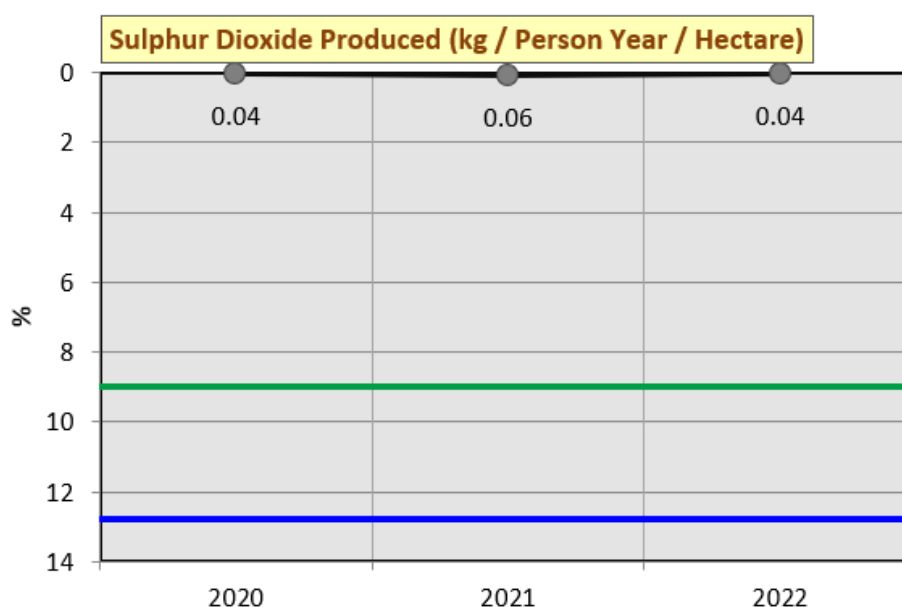
5. Sector Specific

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



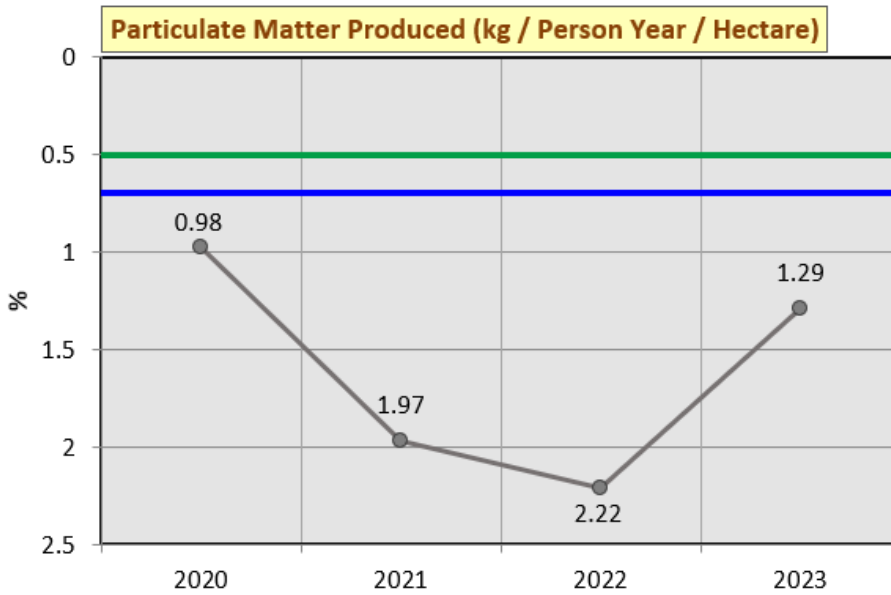
Nitrous Oxides Produced (kg / Person Year / Hectare) for the year 2023 (1 January 2023 - 31 December 2023) was 0.43 kg / Person Year / Hectare, which was 93.2% better than the Best Practice level.

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



Sulphur Dioxide Produced (kg / Person Year / Hectare) for the year 2023 (1 January 2023 - 31 December 2023) was 0.04 kg / Person Year / Hectare, which was 99.6% better than the Best Practice level.

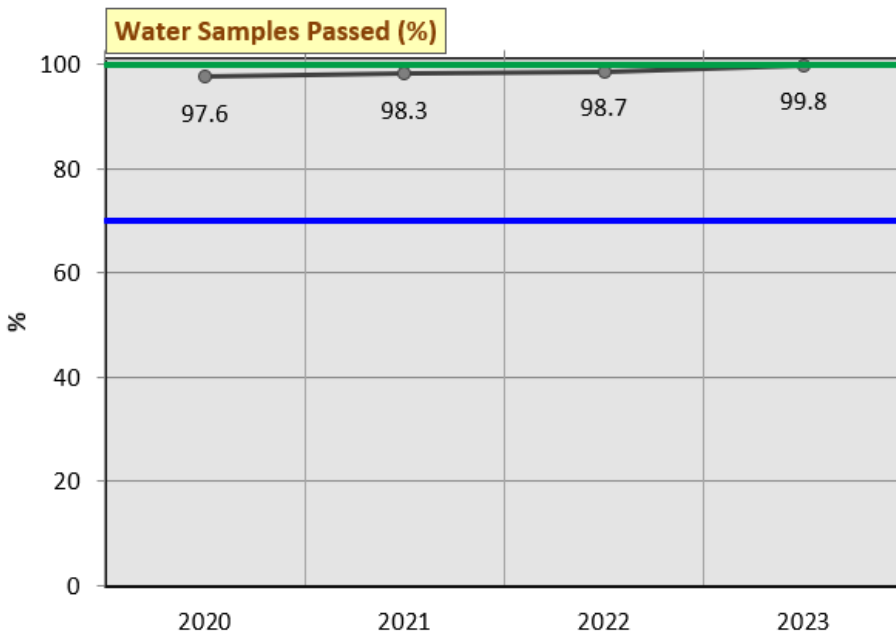
Particulate Matter Produced (kg / Person Year / Hectare) ✘



● Municipio de Melgaco
— 0.7 Baseline
— 0.5 Best Practice

Particulate Matter Produced (kg / Person Year / Hectare) for the year 2023 (1 January 2023 - 31 December 2023) was 1.29 kg / Person Year / Hectare, which was 84.6% below the Baseline level.

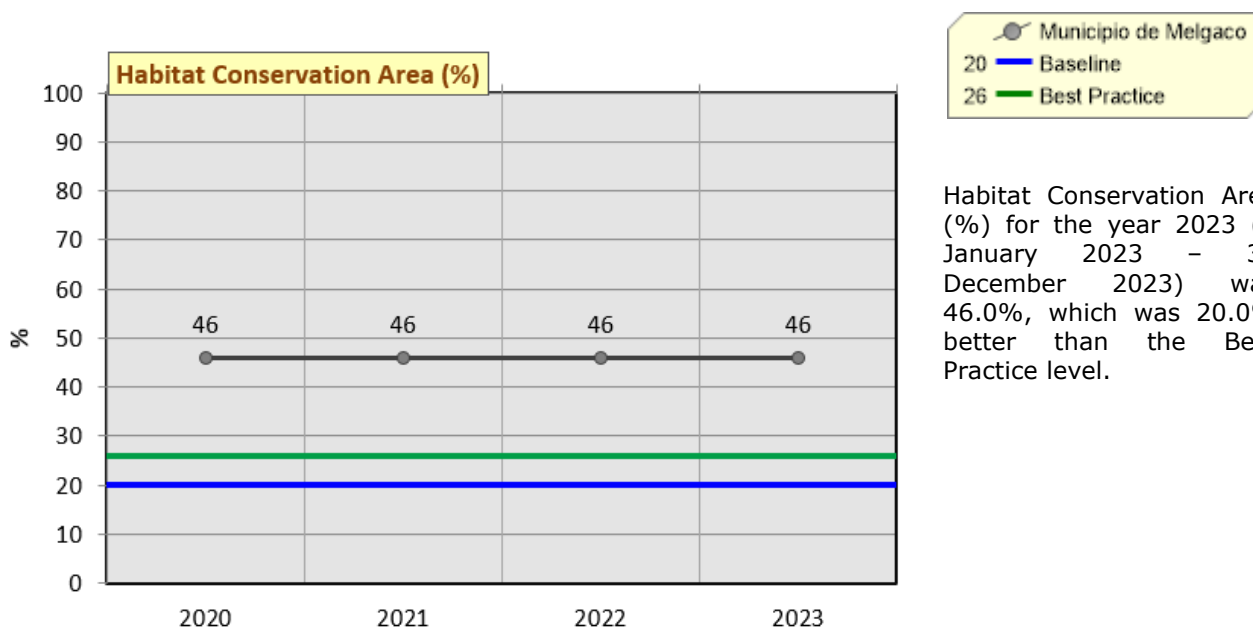
Water Samples Passed (%) ✔



● Municipio de Melgaco
— 70 Baseline
— 100 Best Practice

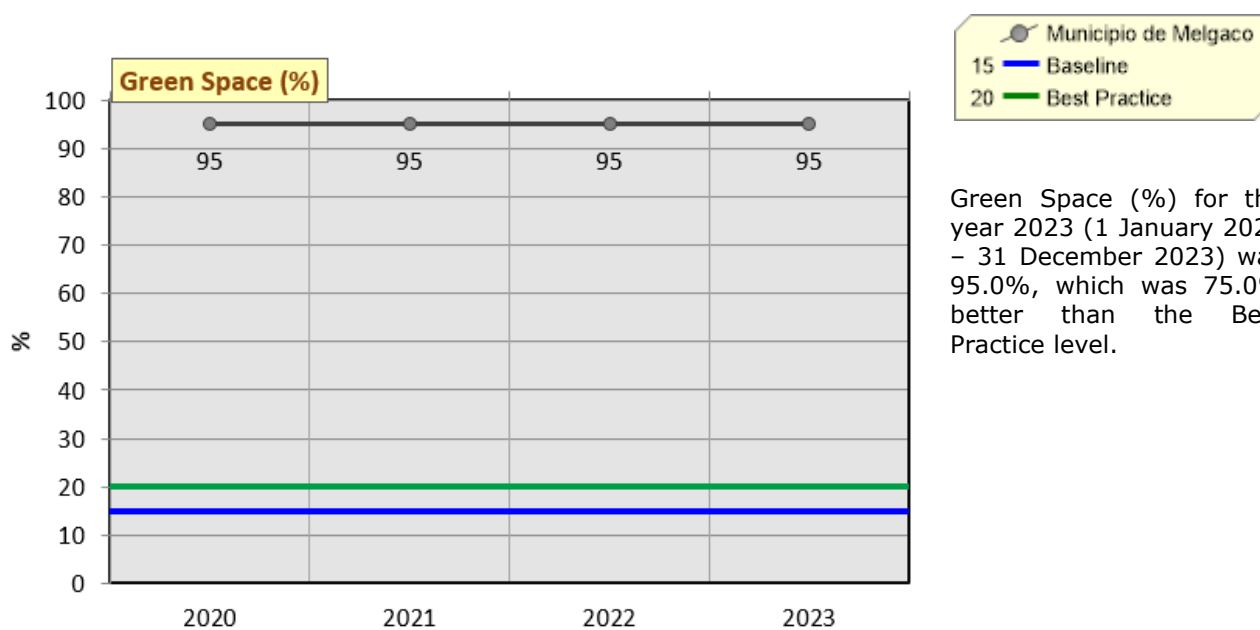
Water Samples Passed (%) for the year 2023 (1 January 2023 - 31 December 2023) was 99.8%, which was 29.8% better than the Baseline level.

Habitat Conservation Area (%) ★



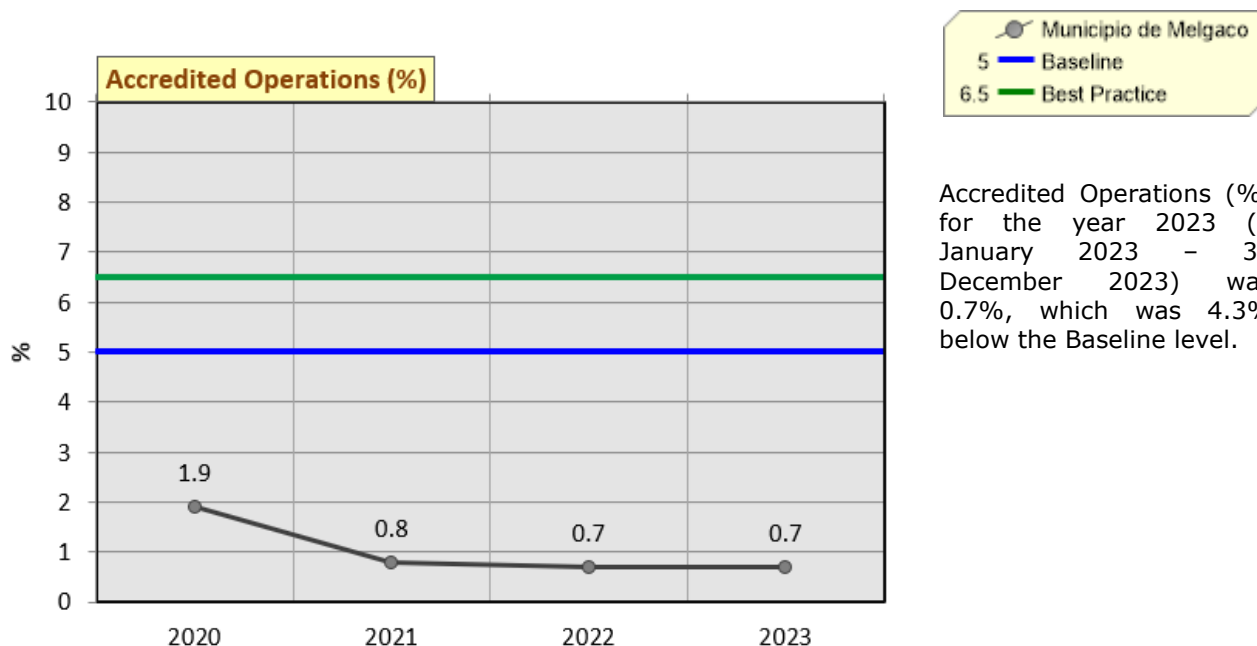
Habitat Conservation Area (%) for the year 2023 (1 January 2023 – 31 December 2023) was 46.0%, which was 20.0% better than the Best Practice level.

Green Space (%) ★



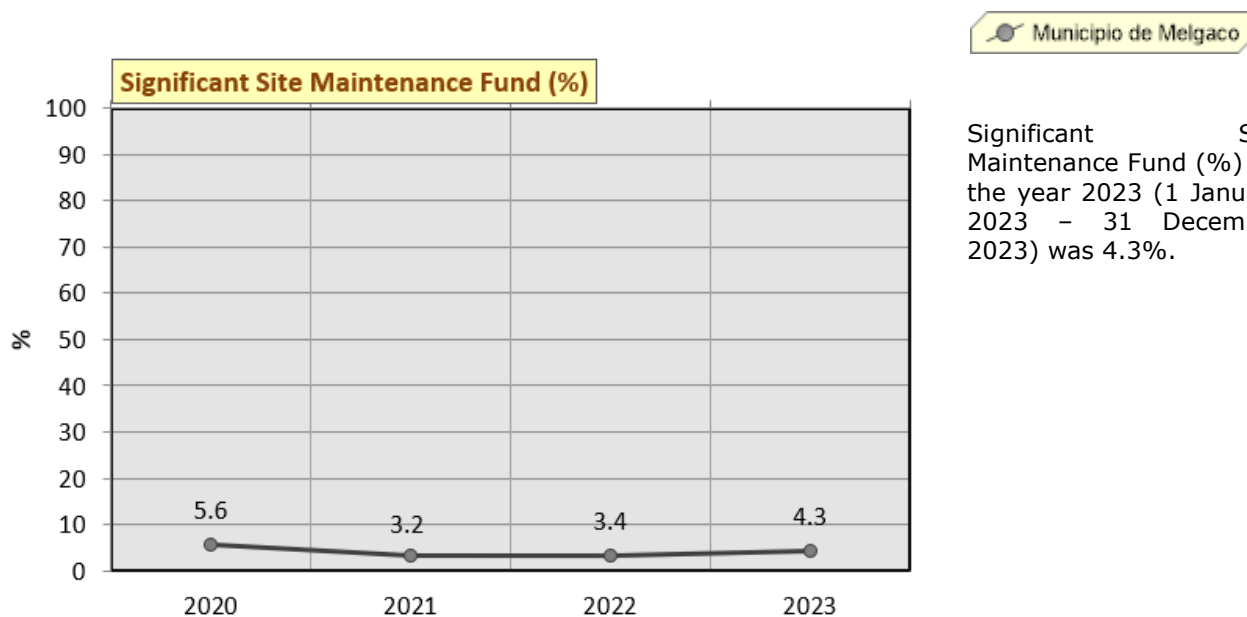
Green Space (%) for the year 2023 (1 January 2023 – 31 December 2023) was 95.0%, which was 75.0% better than the Best Practice level.

Accredited Operations (%) ✕



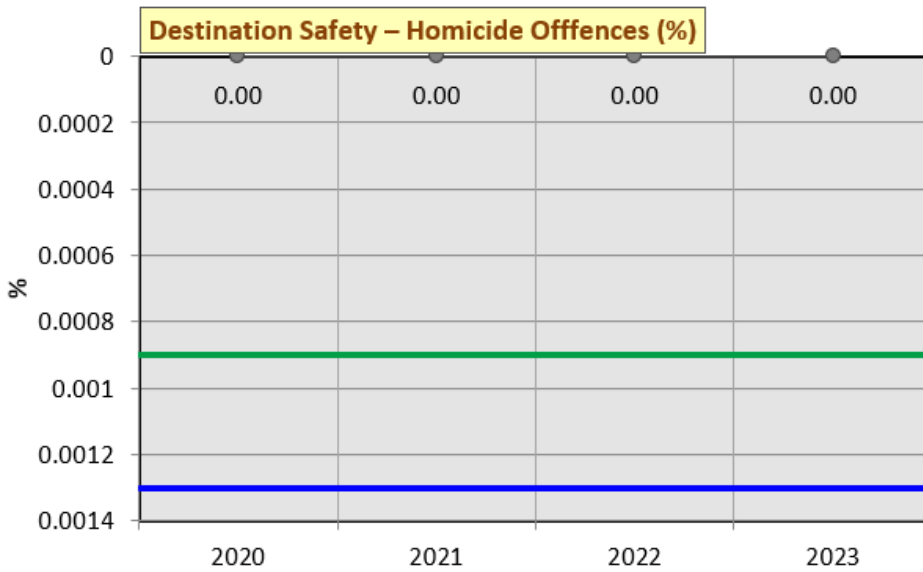
Accredited Operations (%) for the year 2023 (1 January 2023 - 31 December 2023) was 0.7%, which was 4.3% below the Baseline level.

Significant Site Maintenance Fund (%)



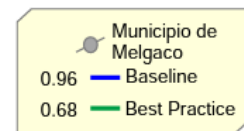
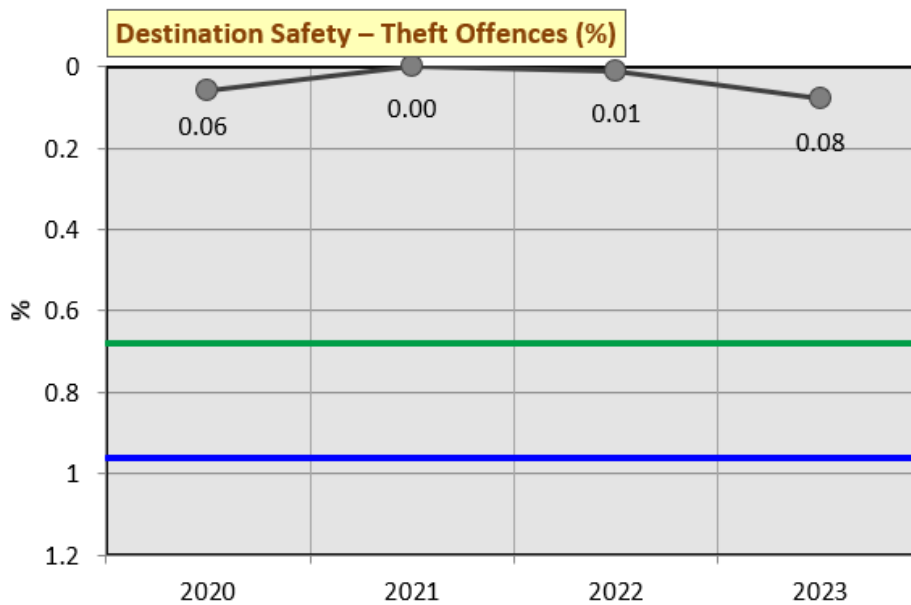
Significant Site Maintenance Fund (%) for the year 2023 (1 January 2023 - 31 December 2023) was 4.3%.

Destination Safety – Homicide Rate (%) ★



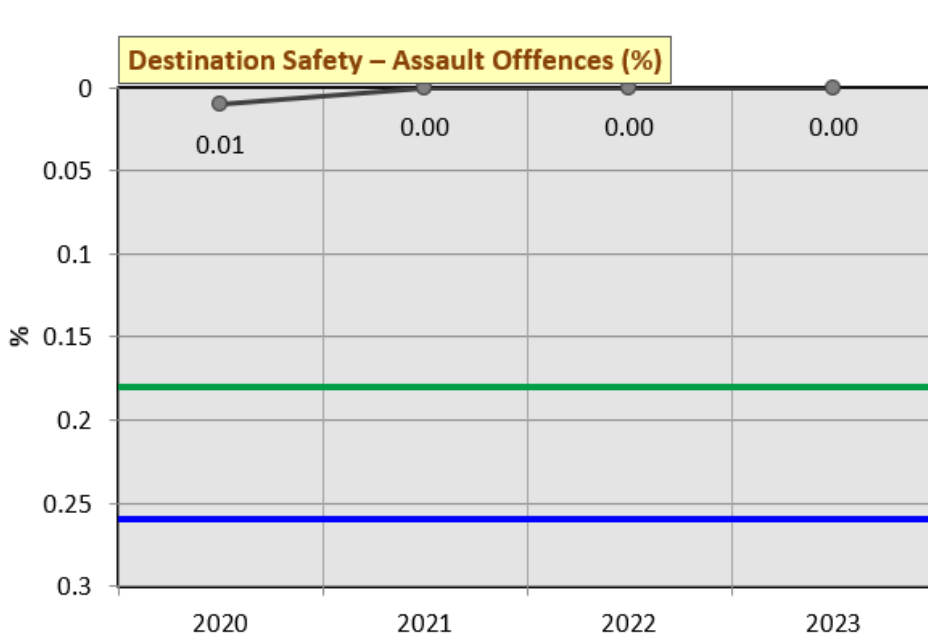
Destination Safety – Homicide Rate (%) for the year 2023 (1 January 2023 – 31 December 2023) was 0%, which was 0.0009% better than the Best Practice level.

Destination Safety – Theft Rate (%) ★



Destination Safety – Theft Rate (%) for the year 2023 (1 January 2023 – 31 December 2023) was 0.08%, which was 0.6% better than the Best Practice level.

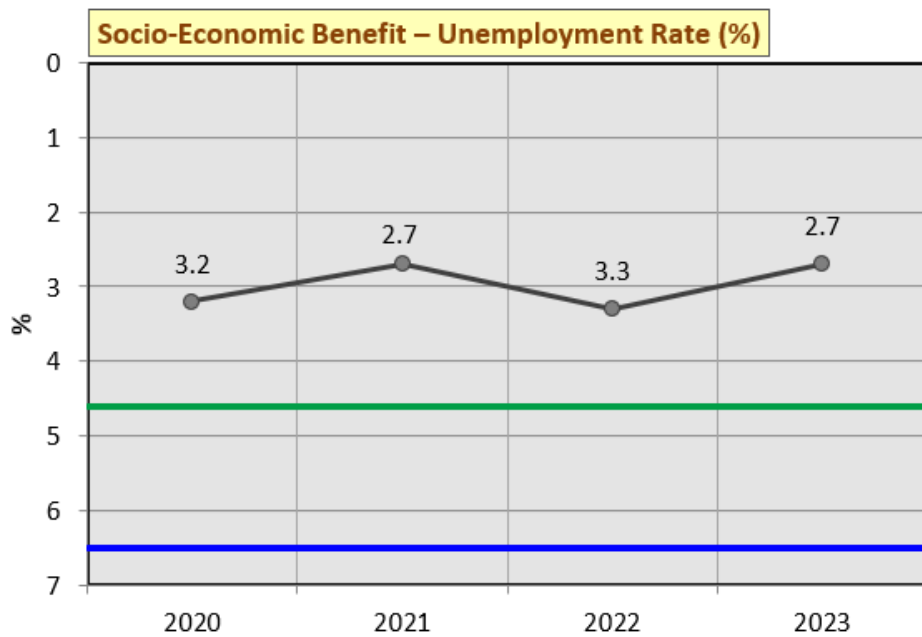
Destination Safety – Assault Rate (%) ★



● Municipio de Melgaco
— 0.26 Baseline
— 0.18 Best Practice

Destination Safety – Assault Rate (%) for the year 2023 (1 January 2023 – 31 December 2023) was 0%, which was 0.18% better than the Best Practice level.

Socio-Economic Benefit – Unemployment Rate (%) ★

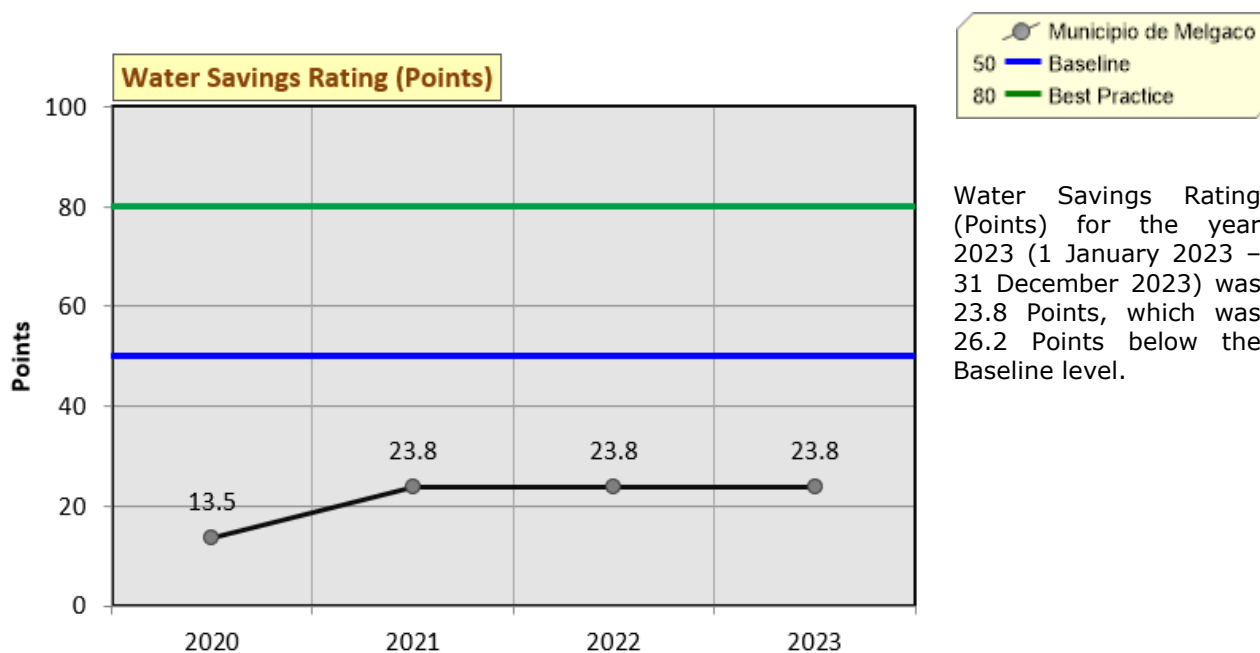


● Municipio de Melgaco
— 6.5 Baseline
— 4.6 Best Practice

Socio-Economic Benefit – Unemployment Rate (%) for the year 2023 (1 January 2023 – 31 December 2023) was 2.7%, which was 1.9% better than the Best Practice level.

6. Water Savings

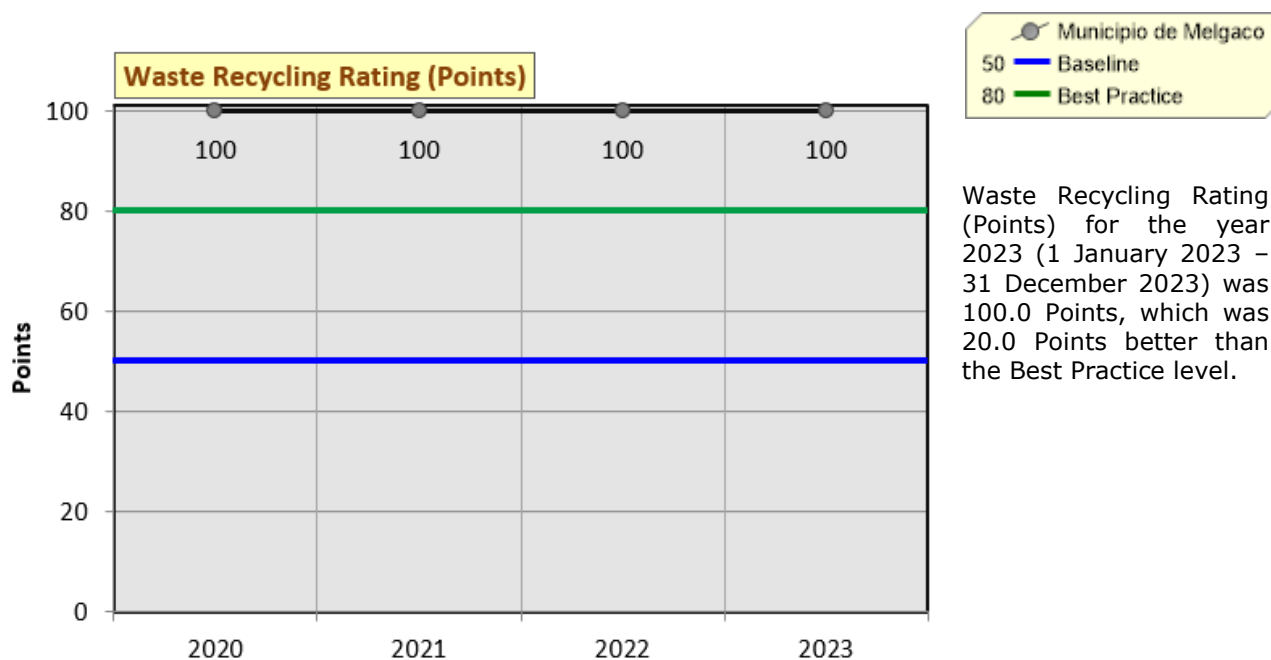
Water Savings Rating (Points) ✕



Water Savings Measures	Frequency / Percentage Rating	Water Savings Rating (Points)
Check for leaks	Once a year	54.0 Points
Low/dual flush toilets	0%	0.0 Points
Low flow tap fittings	0%	0.0 Points
Low flow shower fittings	0%	0.0 Points
Water sprinklers used after dark	80-99%	88.9 Points
Minimal irrigation landscaping	Not Relevant / Not Available	
Use of recycle/grey/rain water	0%	0.0 Points
	Overall Rating:	23.8 Points

7. Waste Recycling

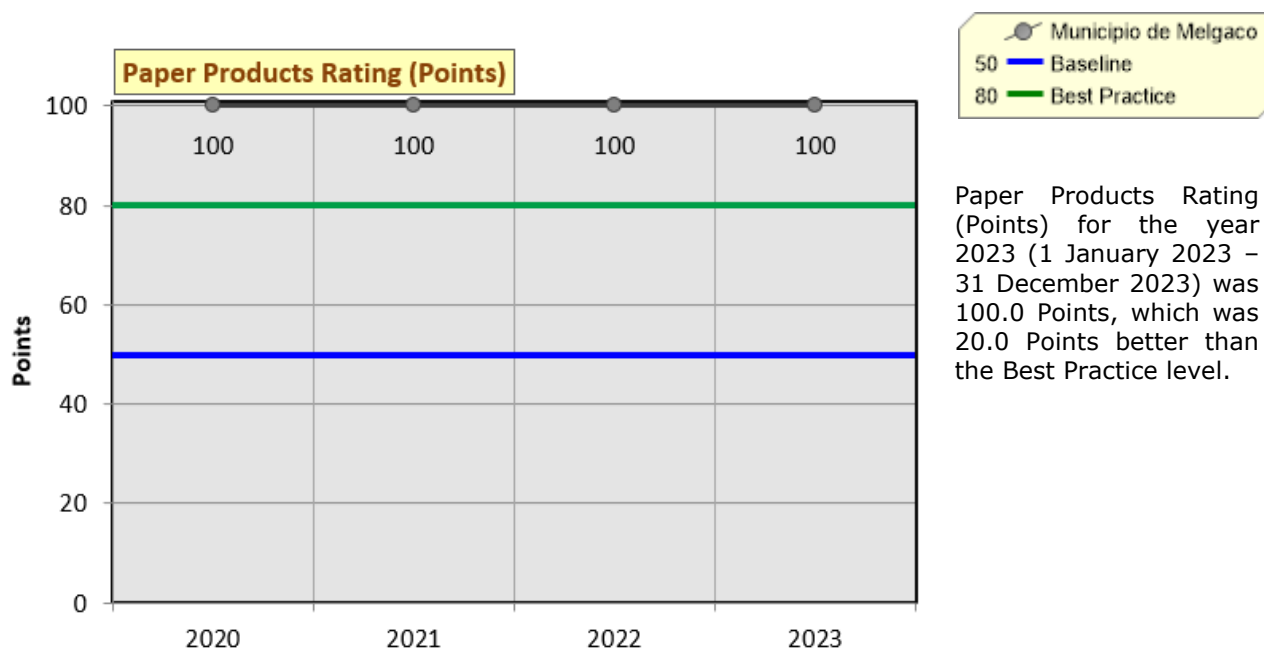
Waste Recycling Rating (Points) ★



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)	Not Relevant / Not Available	
Other metals (non-ferrous)	Not Relevant / Not Available	
Plastics	100%	100.0 Points
Rubber	Not Relevant / Not Available	
Green waste	100%	100.0 Points
	Overall Rating:	100.0 Points

8. Paper

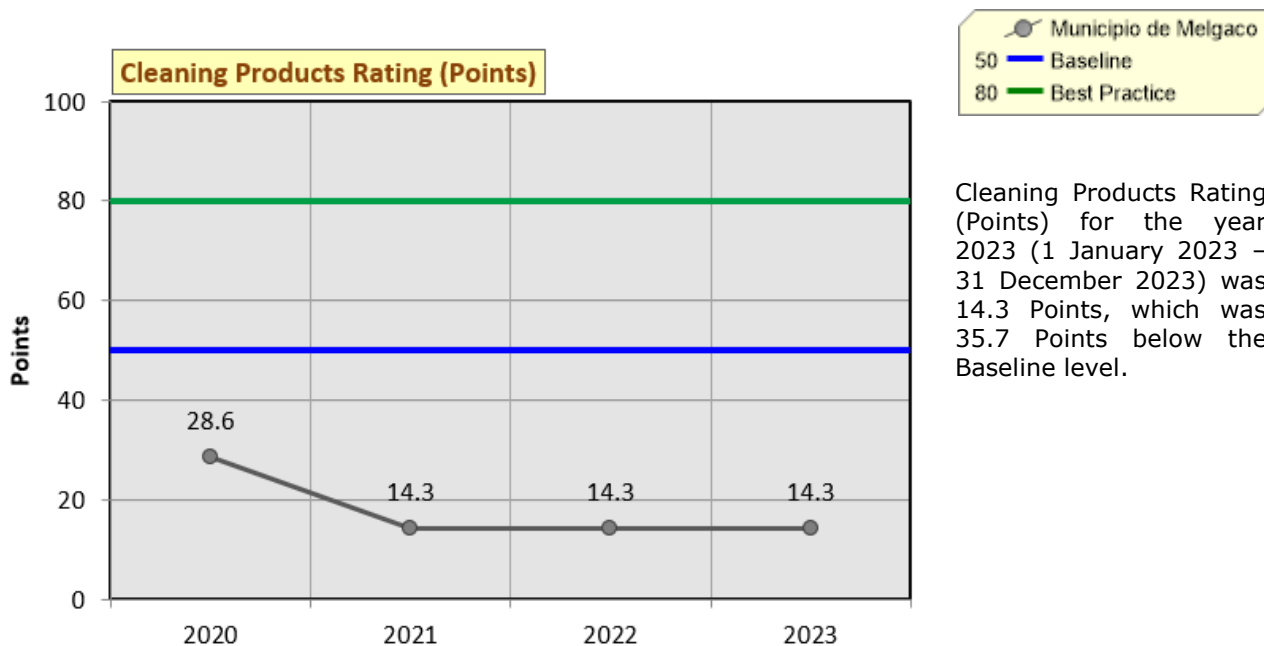
Paper Products Rating (Points) ★



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

9. Cleaning

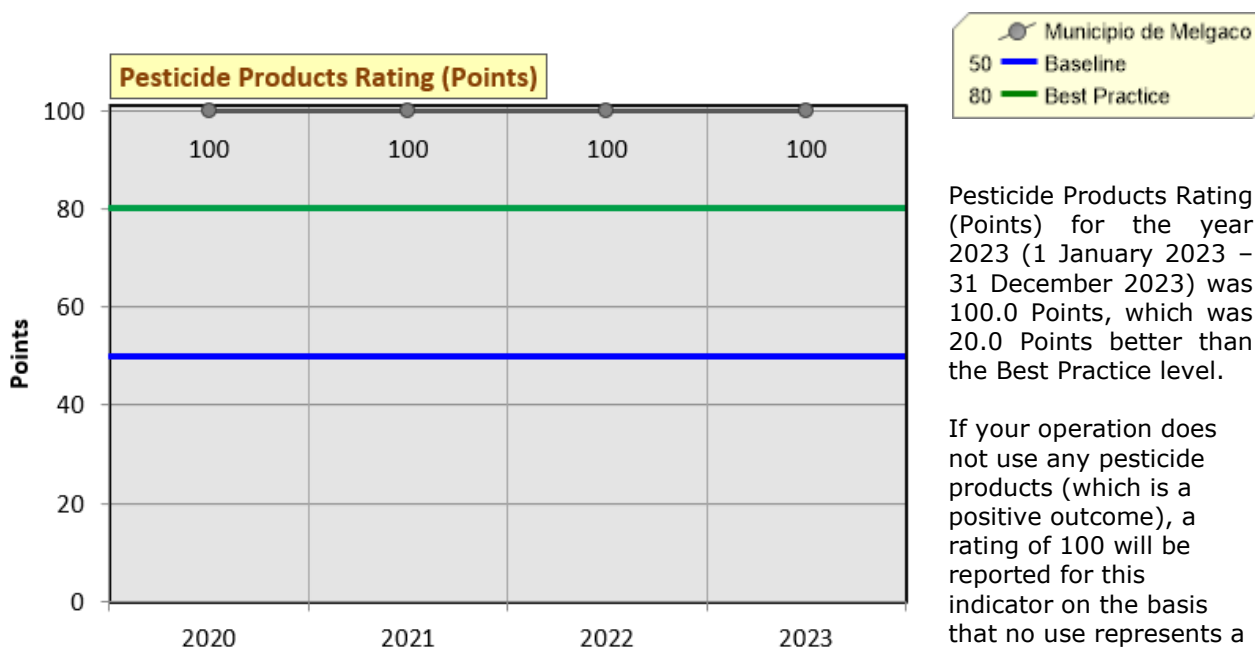
Cleaning Products Rating (Points) ✕



Cleaning Products Measures	Frequency / Percentage Rating	Cleaning Products Rating (Points)
Hard floor cleaners	0%	0.0 Points
Carpet cleaners	Not Relevant / Not Available	100.0 Points
Interior surface cleaners	0%	0.0 Points
External surface cleaners	0%	0.0 Points
Glass cleaners	0%	0.0 Points
Detergents	0%	0.0 Points
Personal hygiene	0%	0.0 Points
	Overall Rating:	14.3 Points

10. Pesticides

Pesticide Products Rating (Points) ★



Pesticide Products Rating (Points) for the year 2023 (1 January 2023 - 31 December 2023) was 100.0 Points, which was 20.0 Points better than the Best Practice level.

If your operation does not use any pesticide products (which is a positive outcome), a rating of 100 will be reported for this indicator on the basis that no use represents a Best Practice achievement.

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

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

CONCLUSION AND RECOMMENDATIONS

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

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

From the benchmarking data provided, fifteen indicators, *Energy Consumption, Greenhouse Gas Emissions (Scope 1 and Scope 2), Potable Water Consumption, Waste Sent to Landfill, Nitrous Oxides Produced, Sulphur Dioxide Produced, Habitat Conservation Area, Green Space, Destination Safety - Homicide Rate, Destination Safety - Theft Rate, Destination Safety - Assault Rate, Socio-Economic Benefit - Unemployment Rate, Waste Recycling Rating, Paper Products Rating, and Pesticide Products Rating*, are at or above the Best Practice level.

The four indicators that fell below the Baseline level were *Particulate Matter Produced, Water Savings Rating, Cleaning Products Rating, and Accredited Operations*.

The value for Accredited Operations was 4.3% worse than the Baseline level. **Municipio de Melgaco** is encouraged to promote environmental accreditation to hotels, restaurants and other business within the destination.

The value for Water Saving was 26.2 Points below the Baseline level. **Municipio de Melgaco** are encouraged, therefore, to review current on-site water use and the possibility of increasing on-site recycling and reuse (e.g. using non-hazardous rain water and/or grey water for watering plants and washing exterior surfaces). **Municipio de Melgaco** are also encouraged to regularly check for possible leaks, and fitting (where appropriate) water saving devices such as low-flow shower heads and dual flush toilet cisterns.

The value for Cleaning Products was 35.7 Points below the Baseline level. **Municipio de Melgaco** are encouraged, therefore, to review existing practices and procedures. This review should aim to look to increasing where practical the use of biodegradable chemicals in order to replace and phase out those that are non-biodegradable, and more likely to cause environmental harm.

Municipio de Melgaco 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 Melgaco** 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, **Municipio de Melgaco** is encouraged to ensure that Water Savings Rating, Cleaning Products Rating, and Accredited Operations are at Baseline performance or better. In line with EarthCheck Policy this would enable the **Municipio de Melgaco** to continue to meet the benchmarking requirements of the EarthCheck program.

APPENDIX

ONSITE RENEWABLE ENERGY GENERATION

The Benchmarking Assessors sought clarification regarding the generations and the consumptions wind and solar energy.

Município de Melgaco provided the following response for clarification:

"1. The electricity consumption data available on the DGEG (Directorate-General for Energy and Geology) website now includes self-consumption data resulting from the installation of photovoltaic panels. Portugal has made significant investments in supporting this type of solution, leading to a substantial increase in installed capacity in the municipality of Melgaço. As shown in the table below, self-consumption in Melgaço for 2023 was 577.756 kWh, while grid consumption amounted to 23.254.689 kWh. Therefore, both figures have been reported on the MyEarthCheck platform."

Direção-Geral de Geologia e Energia		Direção de Serviços de Planeamento Energético e Estatística		Como utilizar	
				29/11/2024	
CONSUMO DE ENERGIA ELÉTRICA POR TIPO DE CONSUMIDOR EM 2023					
unidade: kWh					
NUTs II V05434 (2024) (Tudo)		NUTsI (Tudo)			
NUTs III V05434 (2024) (Tudo)		Distrito/Ilha (Tudo)			
NUTs II V00030 (1989) (Tudo)		Município Melgaço			
		Tensão			
		Alta			
		Baixa			
		Autoconsumo			
		Total			
Agricultura e pescas	0	83 942	0	83 942	
Indústria	2 379 552	734 245	169 768	3 283 565	
Não doméstico	1 393 756	2 881 133	192 592	4 467 481	
Edifícios do estado	429 183	1 397 769	22 565	1 849 517	
Iluminação de vias públicas	0	1 395 281	0	1 395 281	
Doméstico	0	12 559 808	192 832	12 752 640	
Total	4 202 491	19 052 178	577 756	23 832 425	
total		23 254 669			

"2. We note that the calculation of energy consumption per person per year includes the renewable wind energy produced in Melgaço, which totaled 343.132.739 kWh in 2023, as reported on the MyEarthCheck platform. However, this energy is not consumed locally in Melgaço and, therefore, should not be included in the specific calculation of energy consumed per person."

For clarifying the data of renewable energy used by the destination, the member provided the following information:

"The wind figures are the same as those reported in previous years and are presented again in the table below.

The solar figures are also included in the same table. These values for solar have been obtained from the tables in the attached files, as reported by DGEG."

kWh	2020	2021	2022	2023
Wind	331 121 246	323 641 630	315 821 268	343 132 739
Solar	0	0	396 319	577 756

Since wind energy generated was not consumed by the destination, the Benchmarking Assessors removed the wind energy data reported. Solar data was maintained since it is consistent with the original data.

WASTE SENT TO LANDFILL

The Benchmarking Assessors sought clarification regarding the significant decrease of landfilled waste.

Município de Melgaco provided the following response for clarification:

"In 2023, organic waste (food waste) was separated and sent for composting, thereby being diverted from landfill. This was made possible by the investments of VALORMINHO, which established a Mechanical Treatment Station in the municipality of Monção, where the separation is carried out. Please consider the following values (the figures for 2021 and 2022 are the same as those reported in the benchmarking of previous years):"

	2021	2022	2023
Resíduos enviados para aterros (toneladas) - compactados (mixed waste types) ; covered landfill	2 758	2 963	1 564
Resíduos enviados para incineração (toneladas) - incineration	0	0	0
Resíduos reciclados, reutilizados ou enviados para compostagem - Recycling	627	769	2 131
%Resíduos reciclados, reutilizados ou enviados para compostagem - % recycling	18,5%	21,2%	57,7%
Resíduos Totais Produzidos (toneladas) - Total	3 385	3 631	3 695

The landfilled data clarified matches with the data submission, therefore the Benchmarking Assessors maintained the original data.



EARTHCHECK

Benchmarks Assessed by EarthCheck

SUMMARY OF SUPPLIED BENCHMARKING DATA

Activity Measures

Person Years	7,770
Total Destination Area	23,825

Supplied Benchmarking Data

Energy

Energy Consumption (GJ / Person Year)

Supplied	152,415.9 GJ
Calculated	152,415.9 GJ / Person Year
Baseline	55.6 GJ / Person Year
Best Practice	38.9 GJ / Person Year
Difference	49.6% better than the Best Practice level

Green Power (Purchased Electricity) (%)

Supplied	0%
Calculated	0%

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

Supplied	9,052.0 t CO ₂ -e
Calculated	1.2 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	58.4% better than the Best Practice level

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

Supplied	4,743.0 t CO ₂ -e
Calculated	0.61 t CO ₂ -e / Person Year

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

Supplied	4309.1 t CO ₂ -e
Calculated	0.55 kg CO ₂ -e / Person Year

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

Supplied	1,876.8 t CO ₂ -e
Calculated	0.24 t CO ₂ -e / Person Year

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

Supplied	1,876.8 t CO ₂ -e
Calculated	0.24 t CO ₂ -e / Person Year

Water

Potable Water Consumption (kL / Person Year)

Supplied	380,808.0 kL
Calculated	49.0 kL / Person Year
Baseline	80.75 kL / Person Year
Best Practice	56.53 kL / Person Year
Difference	13.3% better than the Best Practice level

Recycled / Captured Water (%)

Supplied	0%
Calculated	0%

Waste

Waste Sent to Landfill (m³ / Person Year)

Supplied	2,406.2 m ³
Calculated	0.31 m ³ / Person Year
Baseline	0.89 m ³ / Person Year
Best Practice	0.62 m ³ / Person Year
Difference	50.1% better than the Best Practice level.

Recycled / Reused / Composted Waste (%)

Supplied	57.7%
Calculated	57.7%

Sector Specific

Nitrous Oxides Produced (kg / Person Year / Hectare)

Supplied	23,968 kg
Calculated	0.43 kg / Person Year / Hectare
Baseline	9.0 kg / Person Year / Hectare
Best Practice	6.3 kg / Person Year / Hectare
Difference	93.2% better than the Best Practice level

Sulphur Dioxide Produced (kg / Person Year / Hectare)

Supplied	2,138 kg
Calculated	0.04 kg / Person Year / Hectare

Baseline	12.8 kg / Person Year / Hectare
Best Practice	9.0 kg / Person Year / Hectare
Difference	99.6% better than the Best Practice level

Particulate Matter Produced (kg / Person Year / Hectare)

Supplied	68,760 kg
Calculated	1.29 kg / Person Year / Hectare
Baseline	0.7 kg / Person Year / Hectare
Best Practice	0.5 kg / Person Year / Hectare
Difference	84.6% below the Baseline level

Water Samples Passed (%)

Supplied	99.8%
Calculated	99.8%
Baseline	70 %
Best Practice	100 %
Difference	29.8% better than the Baseline level

Habitat Conservation Area (%)

Supplied	46.0%
Calculated	46.0%
Baseline	20 %
Best Practice	26 %
Difference	20.0% better than the Best Practice level

Green Space (%)

Supplied	95.0%
Calculated	95.0%
Baseline	15 %
Best Practice	20 %
Difference	75.0% better than the Best Practice level

Accredited Operations (%)

Supplied	0.7%
Calculated	0.7%
Baseline	5 %
Best Practice	6.5 %
Difference	4.3% below the Baseline level

Significant Site Maintenance Fund (%)

Supplied	4.3%
Calculated	4.3%

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	0.08%
Calculated	0.08%
Baseline	0.96 %
Best Practice	0.68 %
Difference	0.6% better than the Best Practice level

Destination Safety – Assault Rate (%)

Supplied	0.0%
Calculated	0.0%
Baseline	0.26 %
Best Practice	0.18 %
Difference	0.18% better than the Best Practice level

Socio-Economic Benefit – Unemployment Rate (%)

Supplied	2.7%
Calculated	2.7%
Baseline	6.5 %
Best Practice	4.6 %
Difference	1.9% better than the Best Practice level

Water Savings

Water Savings Rating (Points)

Supplied	23.8 Points
Calculated	23.8 Points
Baseline	50 Points
Best Practice	80 Points
Difference	26.2 Points below the Baseline level

Waste Recycling

Waste Recycling Rating (Points)

Supplied	100.0 Points
Calculated	100.0 Points
Baseline	50 Points
Best Practice	80 Points
Difference	20.0 Points better than the Best Practice level

Paper

Paper Products Rating (Points)

Supplied	100.0 Points
Calculated	100.0 Points
Baseline	50 Points
Best Practice	80 Points
Difference	20.0 Points better than the Best Practice level

Cleaning

Cleaning Products Rating (Points)

Supplied	14.3 Points
Calculated	14.3 Points
Baseline	50 Points
Best Practice	80 Points
Difference	35.7 Points below the Baseline level

Pesticides

Pesticide Products Rating (Points)

Supplied	100.0 Points
Calculated	100.0 Points
Baseline	50 Points
Best Practice	80 Points
Difference	20.0 Points better than the Best Practice 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).