



EARTHCHECK

BENCHMARKING ASSESSMENT REPORT

DESTINATION BENCHMARKING

REGIÃO AUTÓNOMA DA MADEIRA
FUNCHAL, PORTUGAL



REPORT DATE: 7 February 2025

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

The planet deserves more than half measures

OVERVIEW

This annual assessment of **Região Autónoma da Madeira** 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
	Waste Sent for Incineration (m ³ / Person Year) 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 (%)
	Significant Site Maintenance Fund (%)
	Destination Safety – Homicide Rate (%)
	Destination Safety – Theft Rate (%)
	Destination Safety – Assault Rate (%)
	Socio-Economic Benefit – Unemployment Rate (%)
	Accredited Operations (%)
Lead Agency Performance	
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)**

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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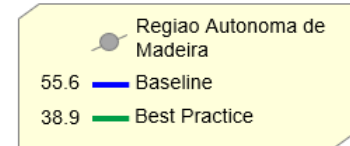
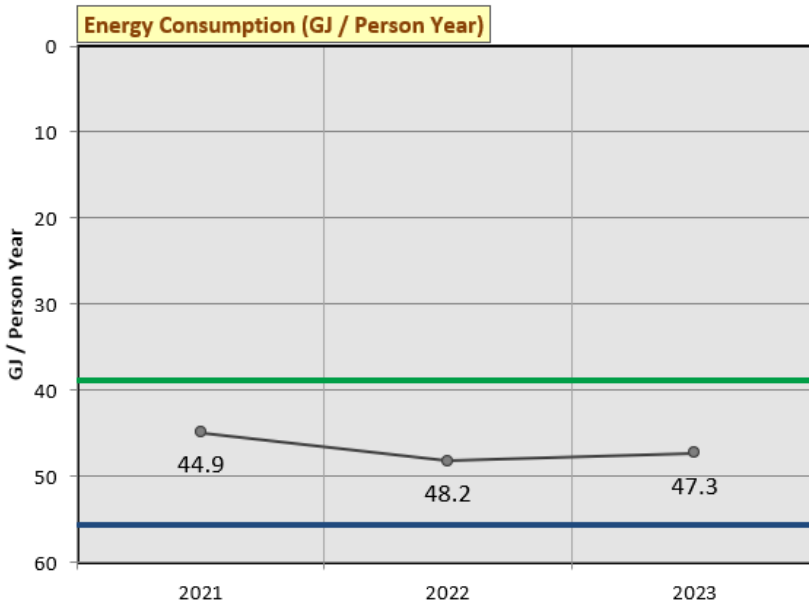
DESTINATION PERFORMANCE BENCHMARKS

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

1. Policy ★

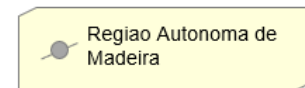
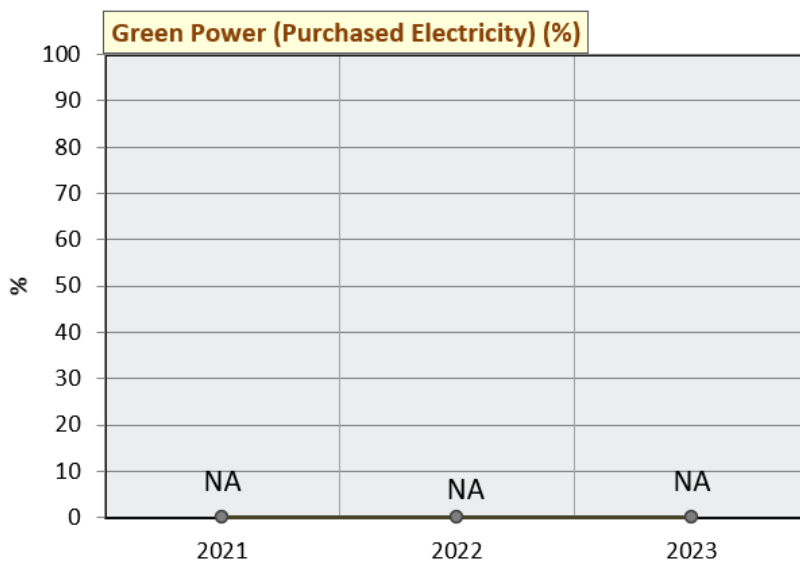
2. Energy

Energy Consumption (GJ / Person Year) ✓



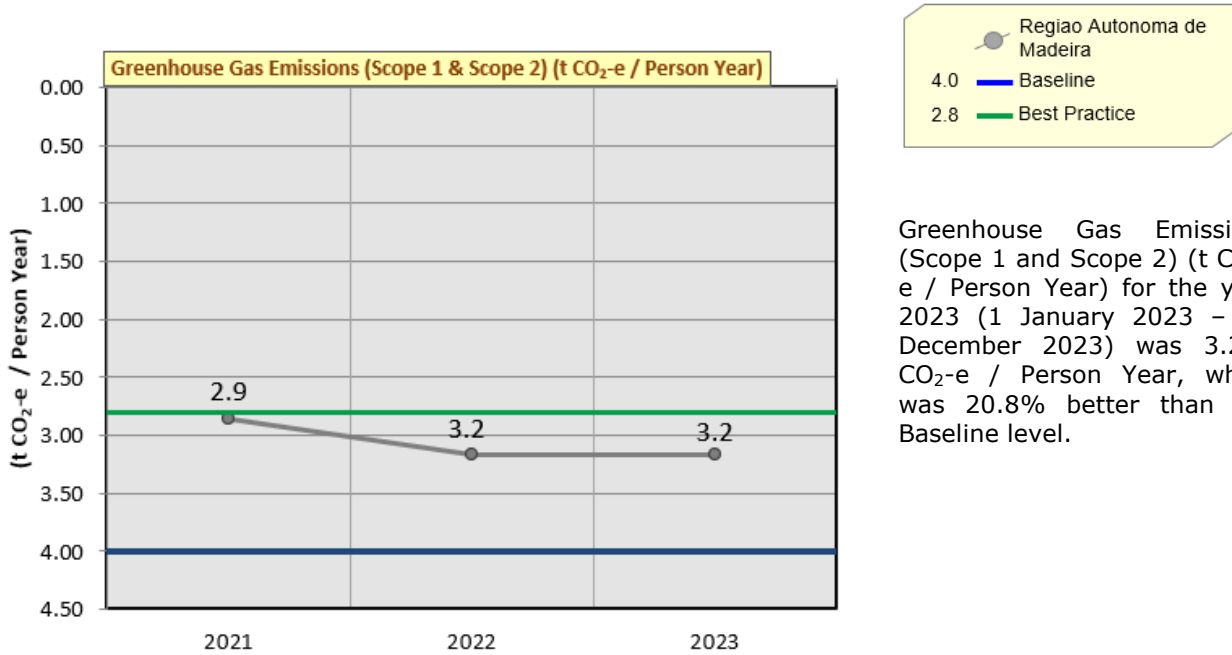
Energy Consumption (GJ / Person Year) for the year 2023 (1 January 2023 - 31 December 2023) was 47.3 GJ / Person Year, which was 14.9% better than the Baseline level.

Green Power (Purchased Electricity) (%)



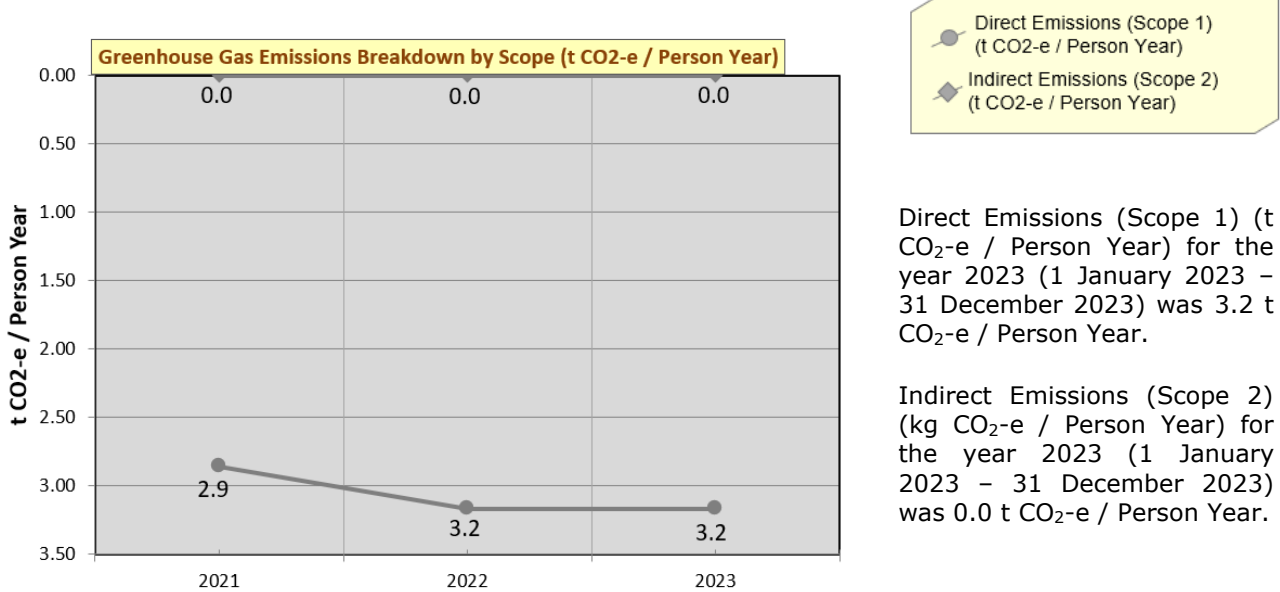
Green Power (Purchased Electricity) (%) for the year 2023 (1 January 2023 - 31 December 2023) is Not Applicable as no Purchased Electricity was reported

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 2023 (1 January 2023 – 31 December 2023) was 3.2 t CO₂-e / Person Year, which was 20.8% better than the Baseline level.

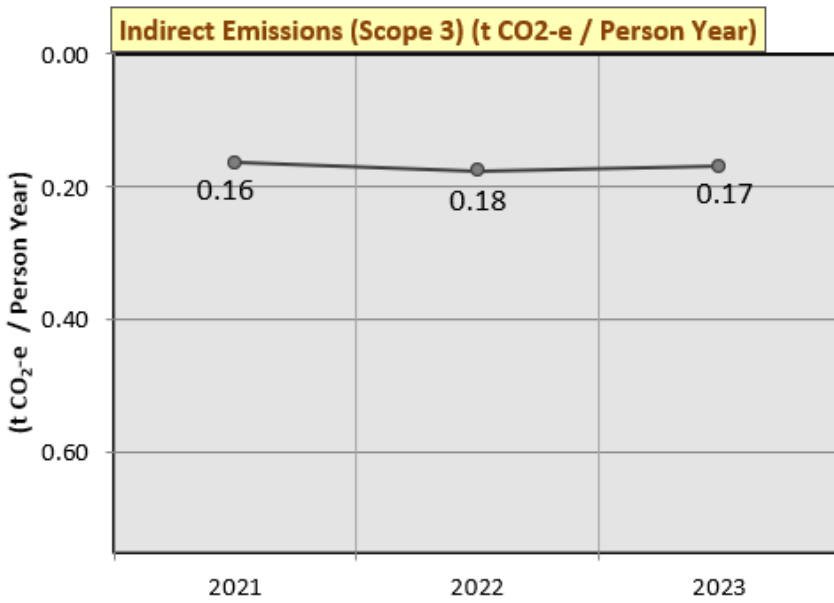
Greenhouse Gas Emissions Breakdown by Scope (t CO₂-e / Person Year)



Direct Emissions (Scope 1) (t CO₂-e / Person Year) for the year 2023 (1 January 2023 – 31 December 2023) was 3.2 t CO₂-e / Person Year.

Indirect Emissions (Scope 2) (kg CO₂-e / Person Year) for the year 2023 (1 January 2023 – 31 December 2023) was 0.0 t CO₂-e / Person Year.

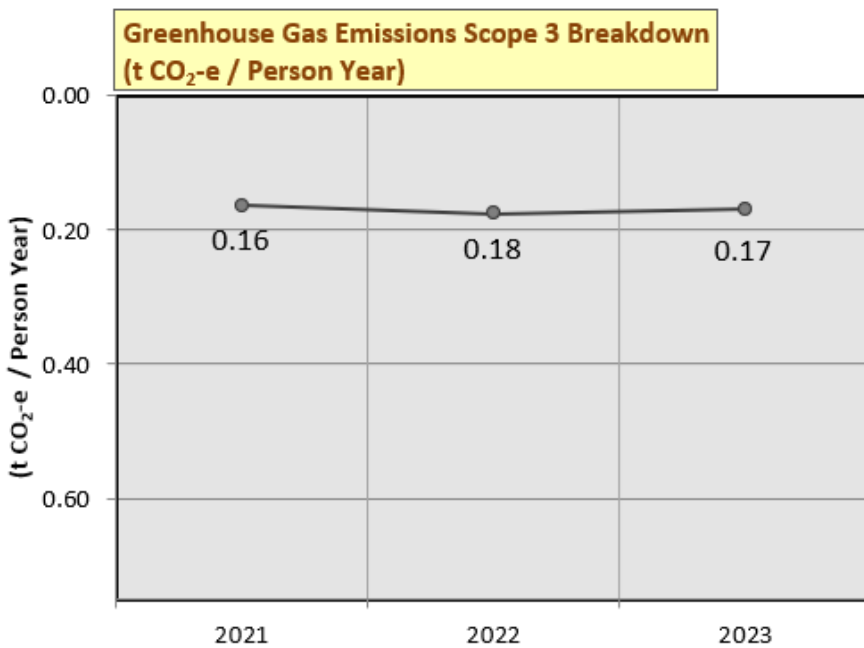
Indirect Emissions (Scope 3) (t CO₂-e / Person Year)



Região Autónoma de Madeira

Indirect Emissions (Scope 3) (kg CO₂-e / Person Year) for the year 2023 (1 January 2023 – 31 December 2023) was 0.17 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)

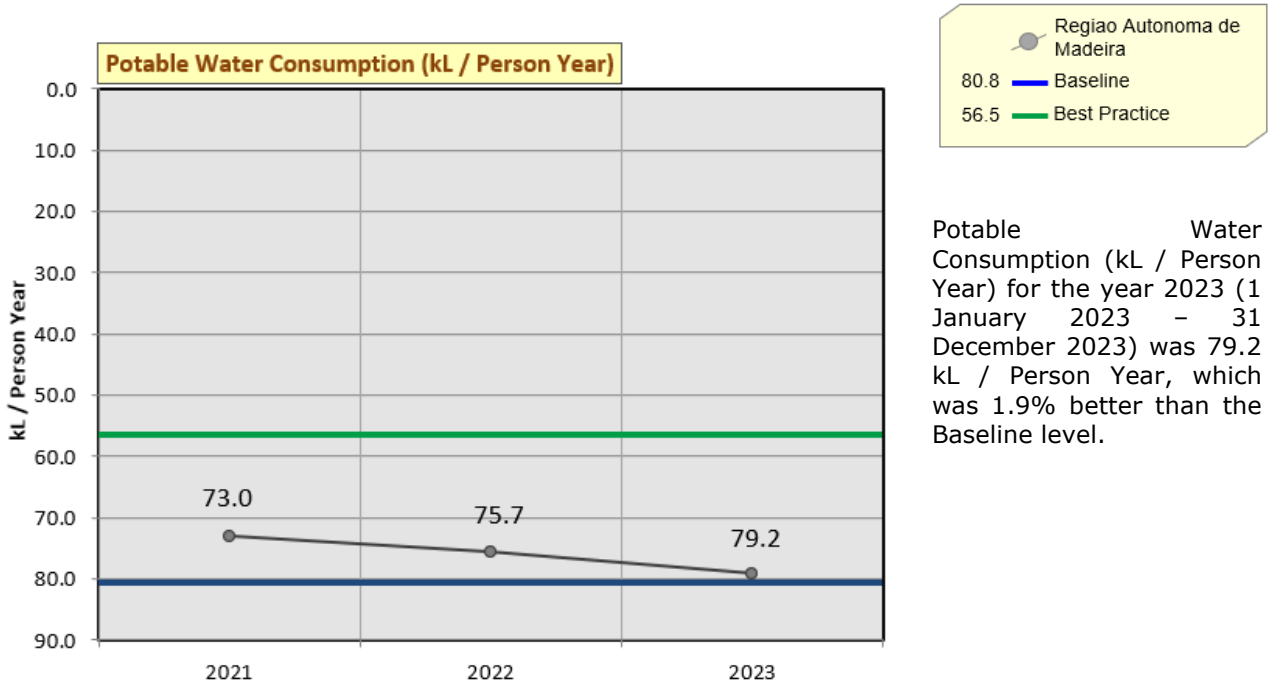
Waste Indirect Emissions (Scope 3) (t CO₂-e / Person Year) for the year 2023 (1 January 2023 – 31 December 2023) was 0.17 t CO₂-e / Person Year.

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	36,246,704	Kilowatt hour (kWh)	130,488,134.4	0.0	0.0	0.0	0.0
Wind	115,828,458	Kilowatt hour (kWh)	416,982,448.8	0.0	0.0	0.0	0.0
Hydro	65,448,157	Kilowatt hour (kWh)	235,613,365.2	0.0	0.0	0.0	0.0
Subtotal			783,083,948.4	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)
Natural Gas Liquid - Propane	11,750,789	kilograms (kg)	546,764,212.2	31,592.0	136.7	76.5	31,810.7
Natural Gas Liquid - Butane	3,840,757	kilograms (kg)	178,710,423.2	10,325.9	44.7	25.0	10,397.4
Natural gas	11,039,805	kilograms (kg)	588,752,800.0	29,726.1	76.5	11.8	29,814.4
Heavy fuel oil	119,621,688	kilograms (kg)	5,074,352,000.0	373,117.1	1,370.1	761.2	375,248.3
subtotal			6,388,579,435.4	444,761.2	1,628.0	874.5	447,270.8
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	51,600,994	litres (L)	1,764,881,939.5	116,191.0	1,173.6	3,554.5	120,912.1
Diesel	108,049,265	litres (L)	4,097,876,424.4	288,470.0	426.2	4,024.1	292,916.2
LPG	144,834	kilograms (kg)	7,535,713.0	428.0	11.8	0.4	440.1
subtotal			5,870,294,076.9	405,089.0	1,611.6	7,578.9	414,268.4
Mobile Fuel Combustion (air)							
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)
Jet Kerosene	12,681,392	litres (L)	463,897,366.7	31,510.2	4.6	231.9	31,749.1
Aviation gasoline	0	litres (L)	0.0	0.0	0.0	0.0	0.0
subtotal			463,897,366.7	31,510.2	4.6	231.9	31,749.1
Mobile Fuel Combustion (water)							
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	1,762,650	litres (L)	66,850,263.9	4,705.9	12.7	33.4	4,751.7
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)	81,476	365	0.0	5,620.6	0.0	5,620.6	
Aerobic (BOD Unknown)	205,717	365	0.0	8,514.8	0.0	8,514.8	
subtotal			0.0	14,135.5	0.0	14,135.5	

Greenhouse Gas Emissions (Scope 1 and Scope 2)									
TOTAL (Scope 1)		13,572,705,091.3	886,066.3	17,392.4	8,718.7	912,175.5			
Indirect Emissions (Scope 2)									
No Scope 2 energy sources were reported									
Greenhouse Gas Emissions (Scope 1 and Scope 2)									
GRAND TOTAL		13,572,705,091.3	886,066.3	17,392.4	8,718.7	912,175.5			
Indirect Emissions (Scope 3)									
Waste Sent to Landfill									
2023									
Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Source	CO₂ Emission Estimate (t CO₂-e)	CH₄ Emission Estimate (t CO₂-e)	N₂O Emission Estimate (t CO₂-e)	Total Emission Estimate (t CO₂-e)
1,797	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	International	0.0	2,156.4	0.0	2,156.4
Waste Sent for Incineration									
2023									
Quantity	Unit	Type of Incineration Technology	Type of Waste	Source	CO₂ Emission Estimate (t CO₂-e)	CH₄ Emission Estimate (t CO₂-e)	N₂O Emission Estimate (t CO₂-e)	Total Emission Estimate (t CO₂-e)	
4,084	tonnes (uncompacted)	Continuous Incineration - Stoker	Textiles	International	1,198.0	0.23	54.1	1,252.3	
6,572	tonnes (uncompacted)	Continuous Incineration - Stoker	Plastics	International	18,073.0	0.37	87.1	18,160.5	
4,575	tonnes (uncompacted)	Continuous Incineration - Stoker	Nappies	International	469.7	0.26	60.6	530.6	
86,351	tonnes (uncompacted)	Continuous Incineration - Stoker	Unknown (mixed waste types)	International	25,329.6	4.84	1,144.2	26,478.6	
subtotal						45,070.3	5.7	1,346.0	46,422.0
TOTAL (Scope 3)						45,070.3	2,162.1	1,346.0	48,578.4

3. Water

Potable Water Consumption (kL / Person Year) ✓

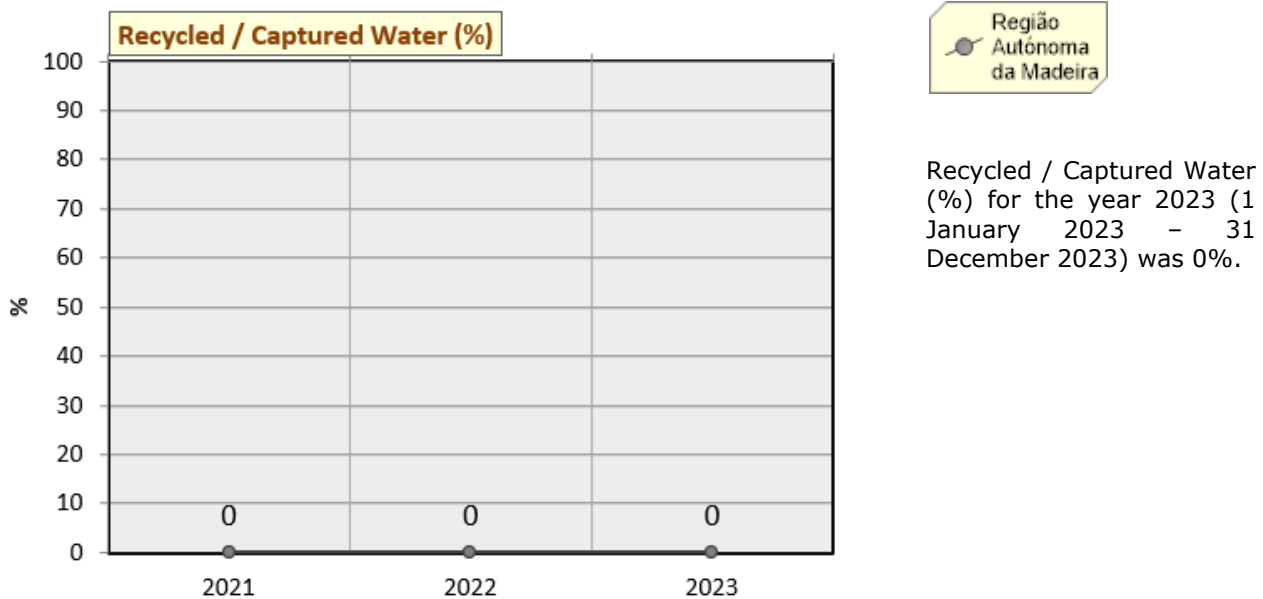


Potable Water Consumption (kL / Person Year) for the year 2023 (1 January 2023 - 31 December 2023) was 79.2 kL / Person Year, which was 1.9% better than the Baseline level.

2023

Quantity	Unit	Potable Water Consumption (kL)
22,753,964	cubic metres	22,753,964.0 kL
	TOTAL	22,753,964.0 kL

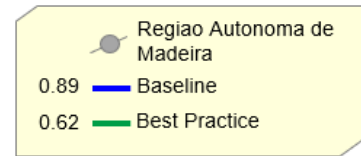
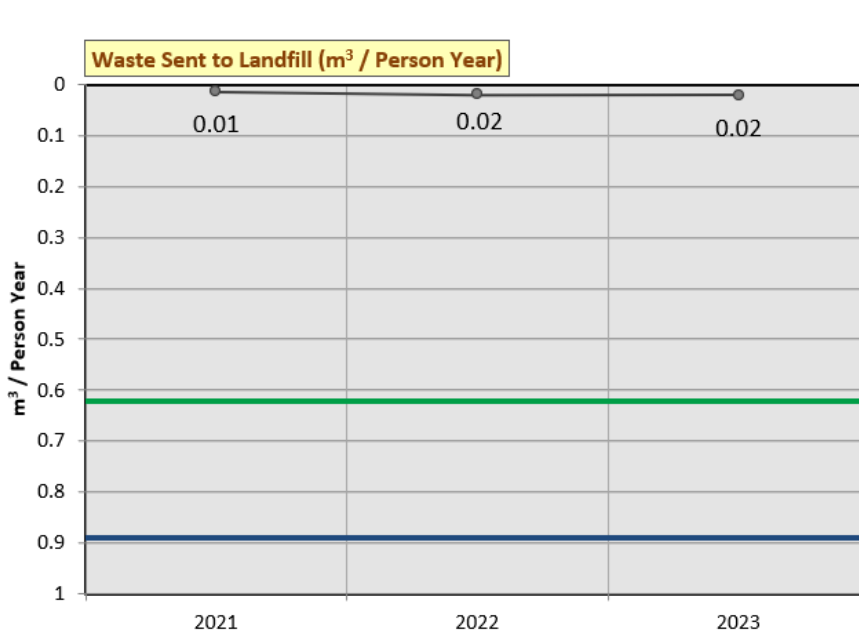
Recycled / Captured Water (%)



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

4. Waste

Waste Sent to Landfill (m³ / Person Year) ★

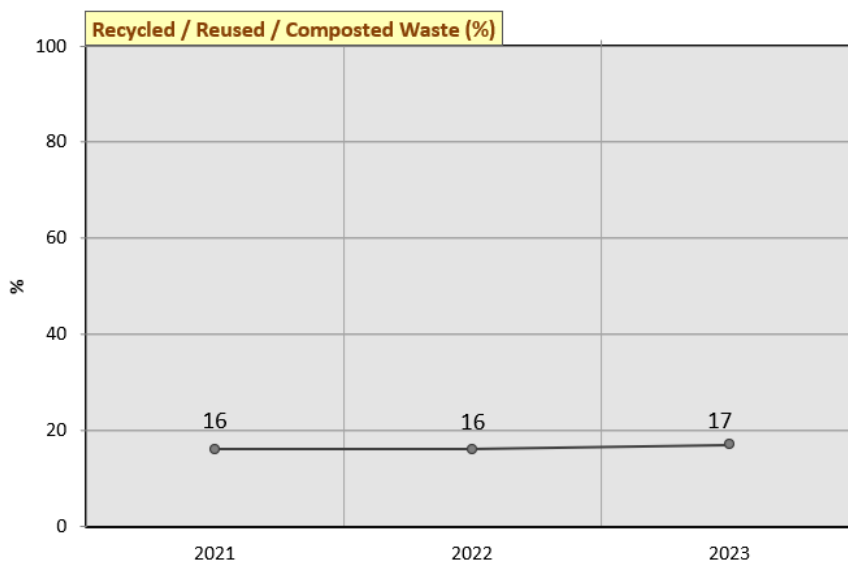


Waste Sent to Landfill (m³ / Person Year) for the year 2023 (1 January 2023 – 31 December 2023) was 0.02 m³ / Person Year, which was 96.6% better than the Best Practice level.

2023

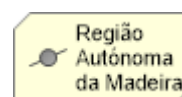
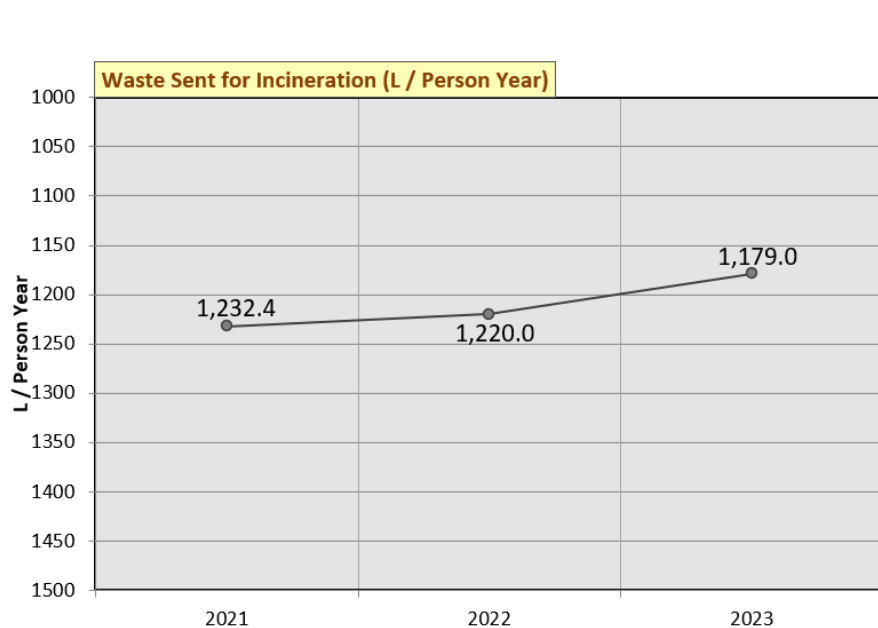
Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Waste Sent to Landfill (m ³)
1,797	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	5,990.0
Total					5,990.0 m³

Recycled / Reused / Composted Waste (%)



Recycled / Reused / Composted Waste (%) for the year 2023 (1 January 2023 – 31 December 2023) was 17%.

Waste Sent for Incineration (L / Person Year)



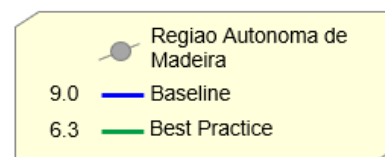
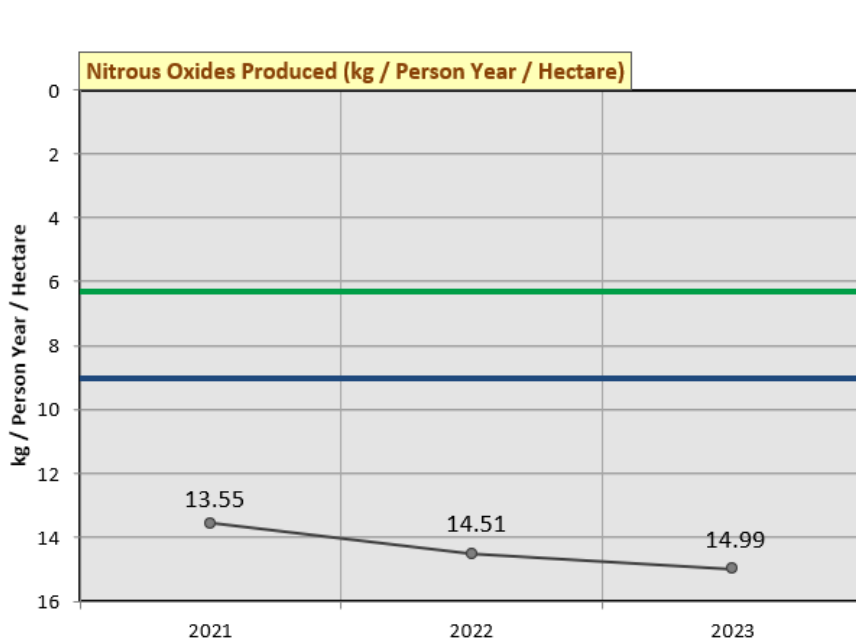
Waste Sent for Incineration (L / Person Year) for the year 2023 (1 January 2023 – 31 December 2023) was 1,179.0 L / Person Year.

2023

Quantity	Unit	Type of Incineration Technology	Type of Waste	Waste Sent for Incineration (m ³)
4,575	tonnes (uncompacted)	Continuous Incineration - Stoker	Nappies	15,250.0 m ³
4,084	tonnes (uncompacted)	Continuous Incineration - Stoker	Textiles	13,613.3 m ³
6,572	tonnes (uncompacted)	Continuous Incineration - Stoker	Plastics	21,906.7 m ³
86,351	tonnes (uncompacted)	Continuous Incineration - Stoker	Unknown (mixed waste types)	287,836.7 m ³
			TOTAL	338,606.7 m³

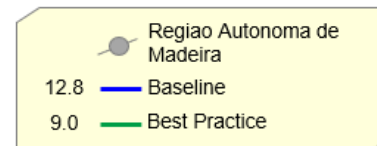
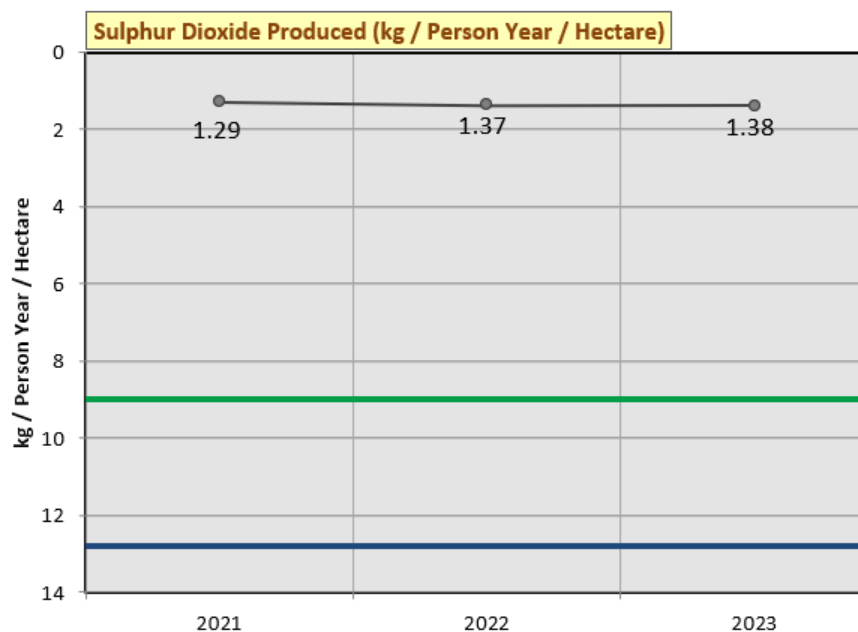
5. Sector Specific

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



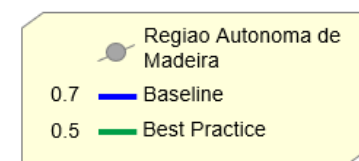
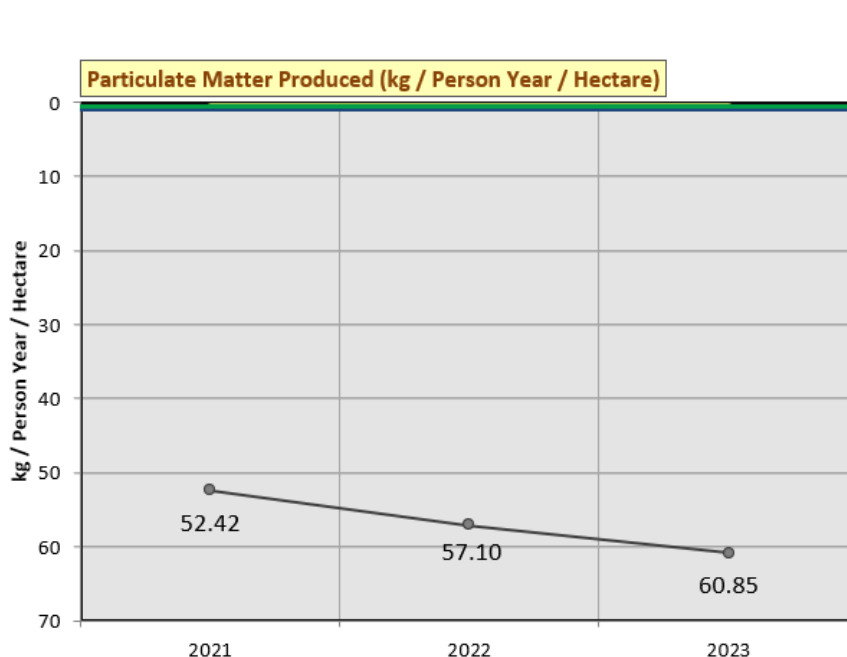
Nitrous Oxides Produced (kg / Person Year / Hectare) for the year 2023 (1 January 2023 – 31 December 2023) was 14.99 kg / Person Year / Hectare, which was 66.5% below the baseline level.

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



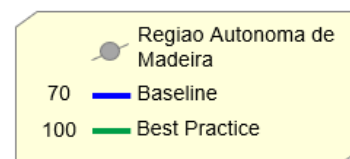
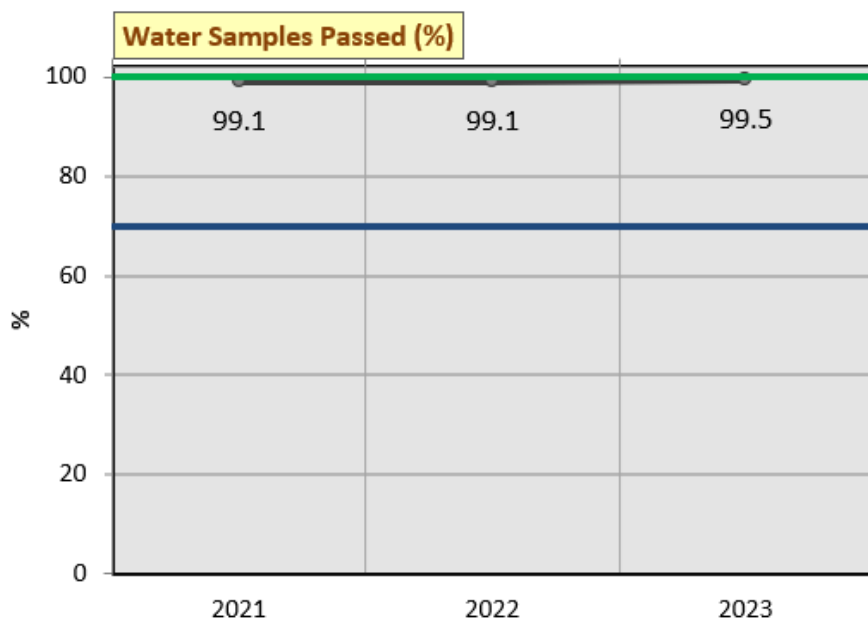
Sulphur Dioxide Produced (kg / Person Year / Hectare) for the year 2023 (1 January 2023 – 31 December 2023) was 1.38 kg / Person Year / Hectare, which was 84.8% better than the Best Practice level.

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



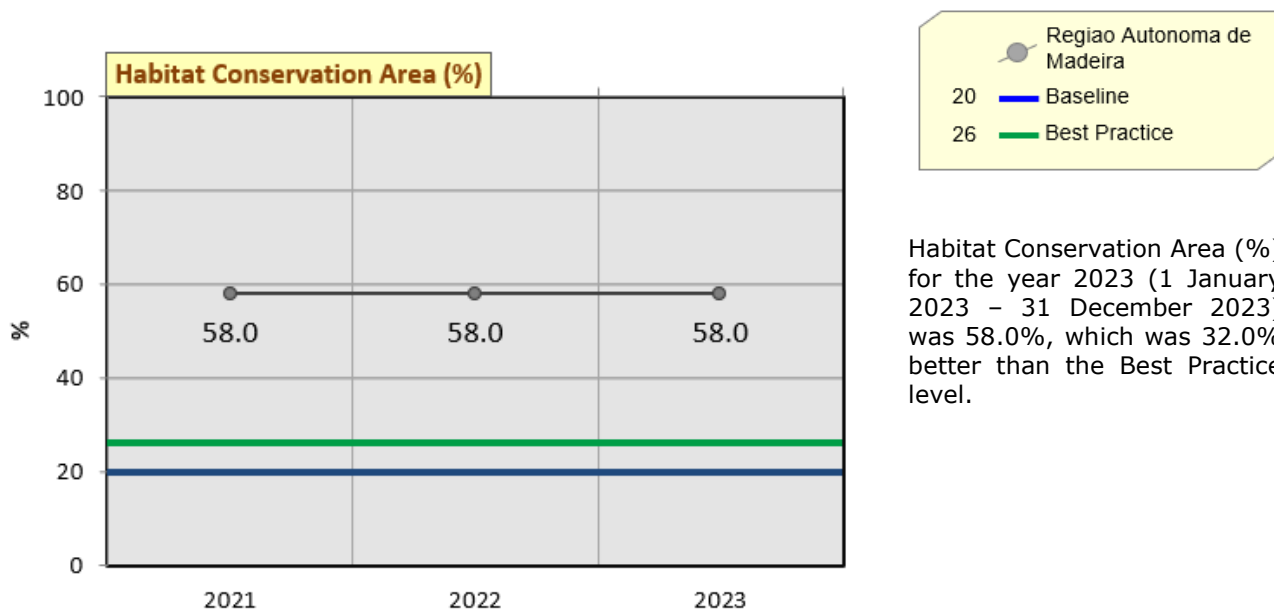
Particulate Matter Produced (kg / Person Year / Hectare) for the year 2023 (1 January 2023 - 31 December 2023) was 60.85 kg / Person Year / Hectare, which was 8,592.8% below the Baseline level.

Water Samples Passed (%) ✔



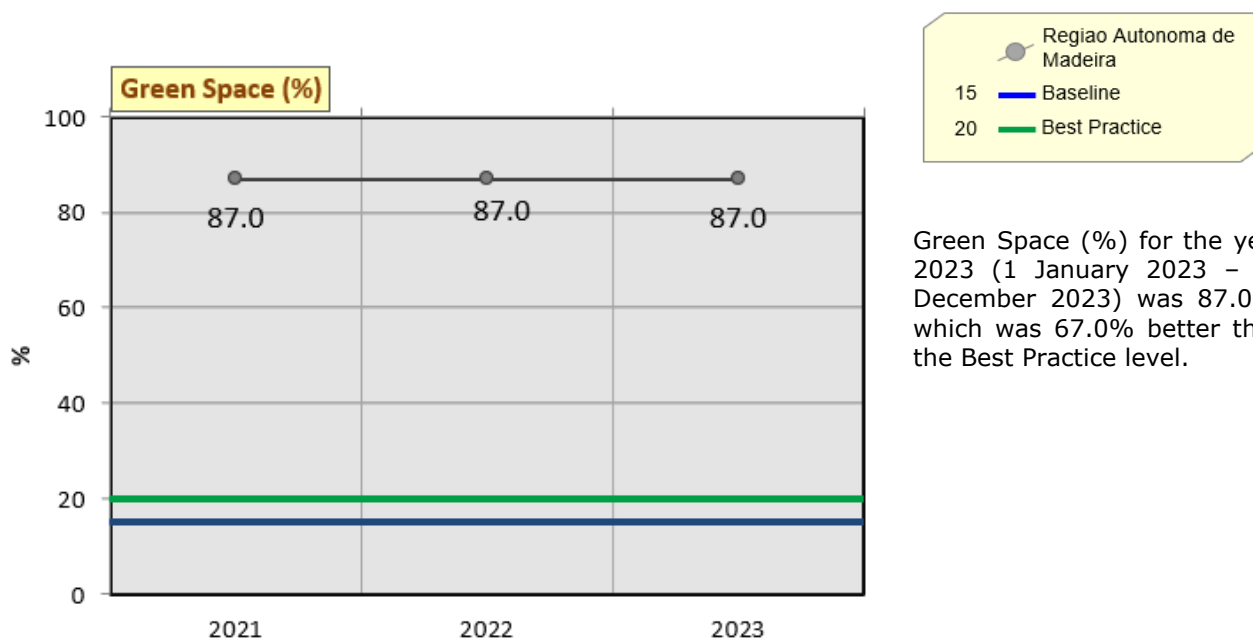
Water Samples Passed (%) for the year 2023 (1 January 2023 - 31 December 2023) was 99.5%, which was 29.5% better than the Baseline level

Habitat Conservation Area (%) ★



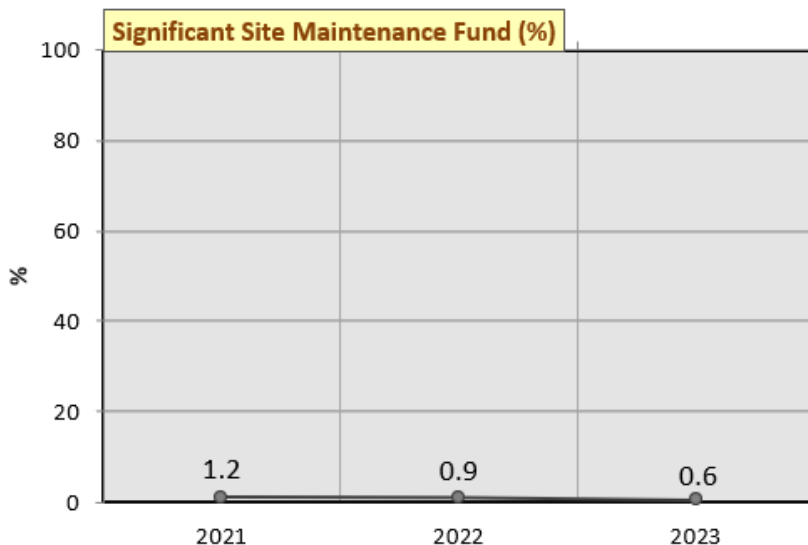
Habitat Conservation Area (%) for the year 2023 (1 January 2023 – 31 December 2023) was 58.0%, which was 32.0% better than the Best Practice level.

Green Space (%) ★



Green Space (%) for the year 2023 (1 January 2023 – 31 December 2023) was 87.0%, which was 67.0% better than the Best Practice level.

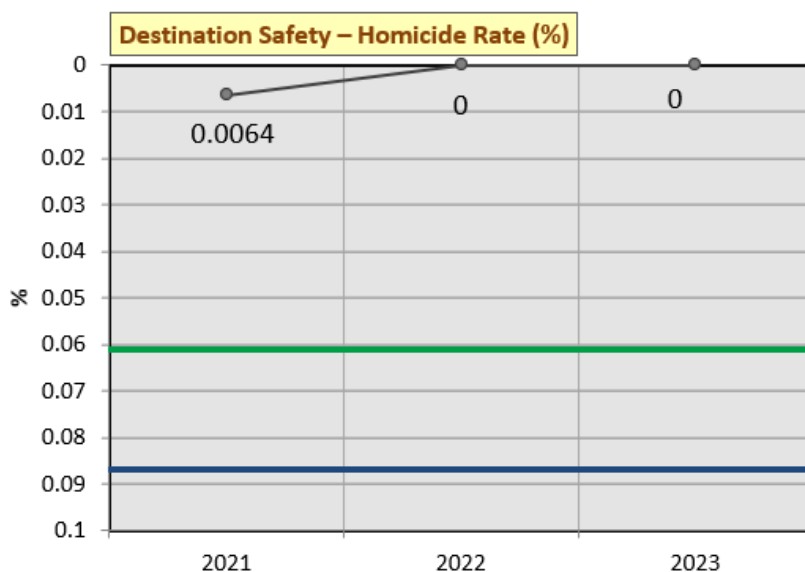
Significant Site Maintenance Fund (%)



Regiao Autonoma de Madeira

Significant Site Maintenance Fund (%) for the year 2023 (1 January 2023 – 31 December 2023) was 0.6%.

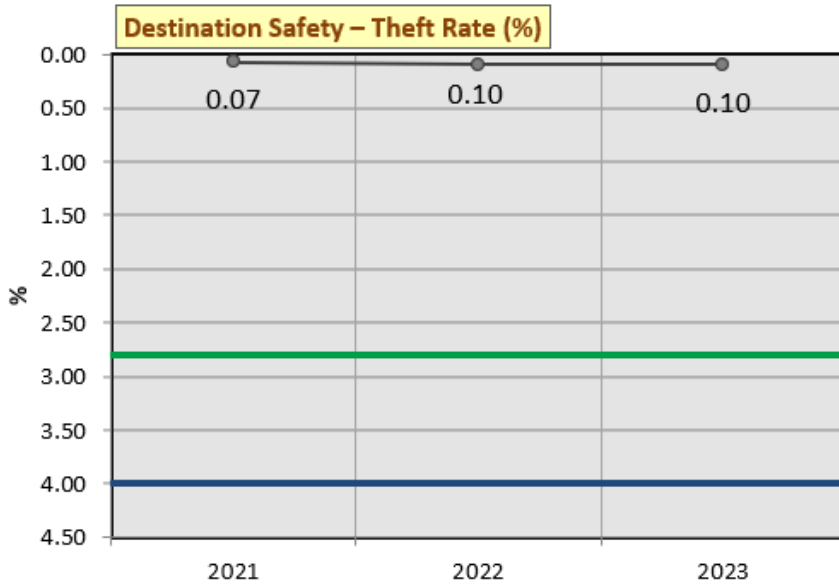
Destination Safety – Homicide Rate (%) ★



Regiao Autonoma de Madeira
 0.087 — Baseline
 0.061 — Best Practice

Destination Safety – Homicide Rate (%) for the year 2023 (1 January 2023 – 31 December 2023) was 0%, which was 0.061% better than the Best Practice level.

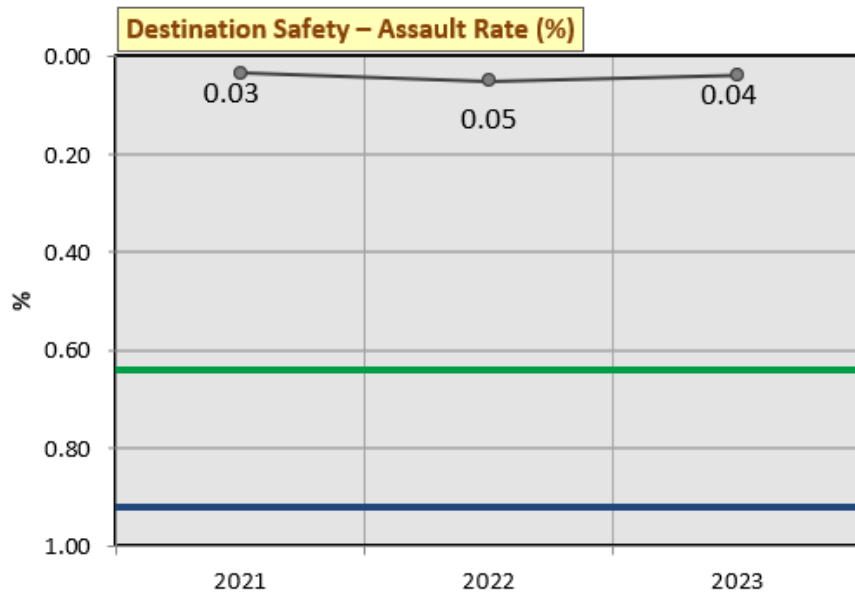
Destination Safety – Theft Rate (%) ★



● Regiao Autonoma de Madeira
— 4.0 Baseline
— 2.8 Best Practice

Destination Safety – Theft Rate (%) for the year 2023 (1 January 2023 – 31 December 2023) was 0.10%, which was 2.7% better than the Best Practice level.

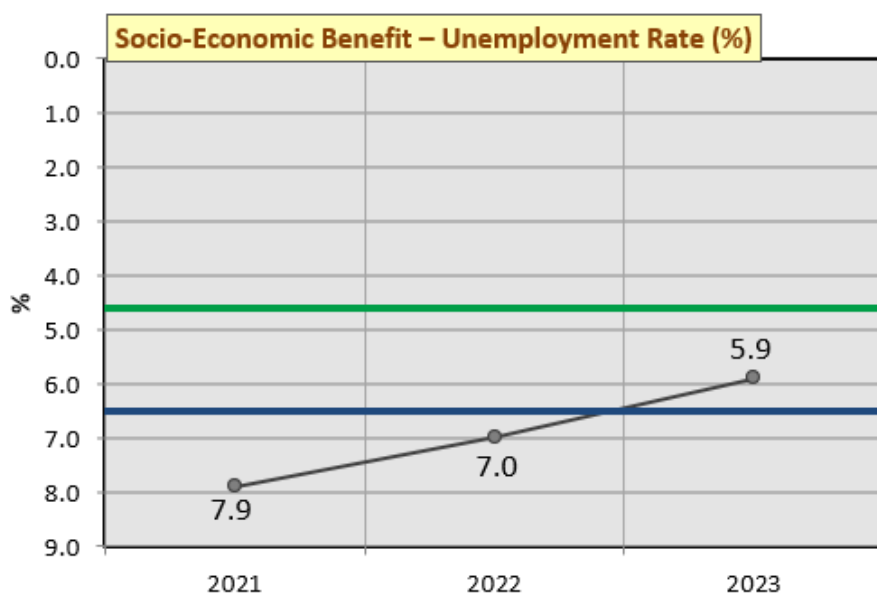
Destination Safety – Assault Rate (%) ★



● Regiao Autonoma de Madeira
— 0.92 Baseline
— 0.64 Best Practice

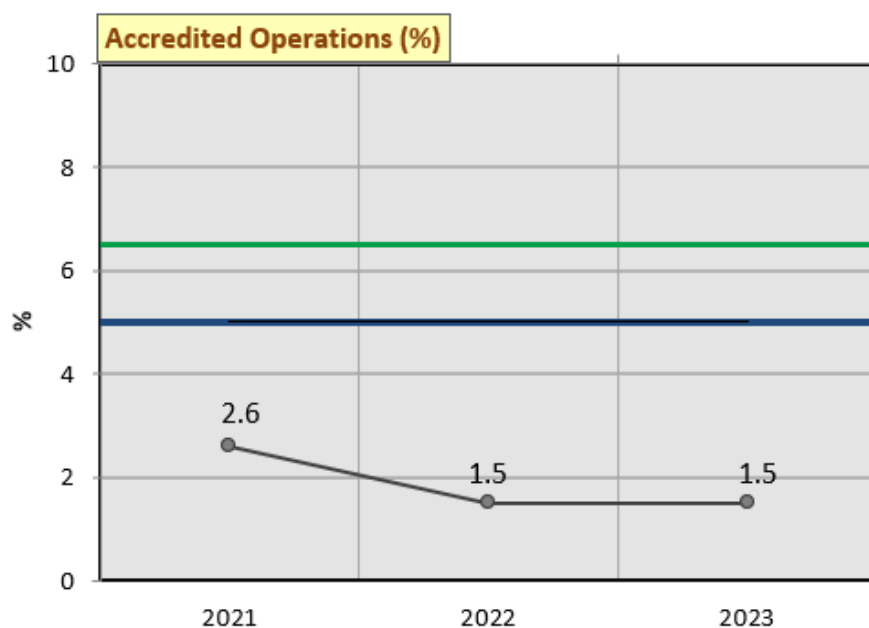
Destination Safety – Assault Rate (%) for the year 2023 (1 January 2023 – 31 December 2023) was 0.04%, which was 0.6% better than the Best Practice level.

Socio-Economic Benefit – Unemployment Rate (%) ✓



Socio-Economic Benefit – Unemployment Rate (%) for the year 2023 (1 January 2023 – 31 December 2023) was 5.9%, which was 0.6% better than the Baseline level.

Accredited Operations (%) ✗

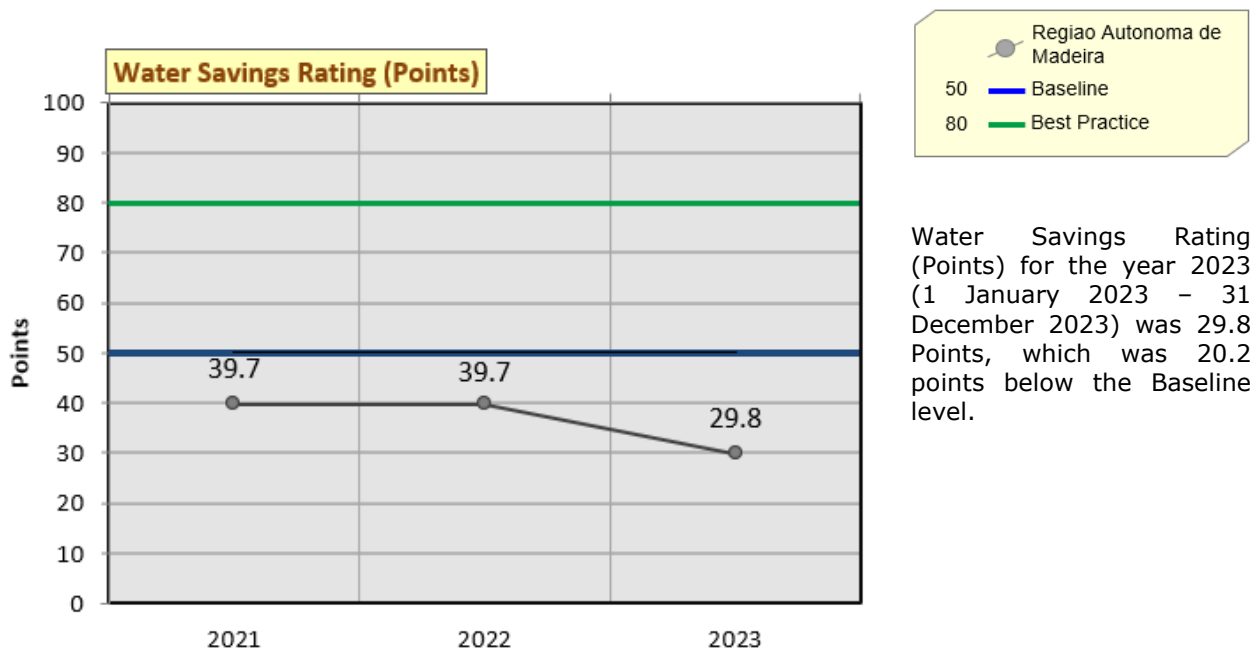


Accredited Operations (%) for the year 2023 (1 January 2023 – 31 December 2023) was 1.5%, which was 3.5% below the Baseline level.

LEAD AGENCY PERFORMANCE

6. Water Savings

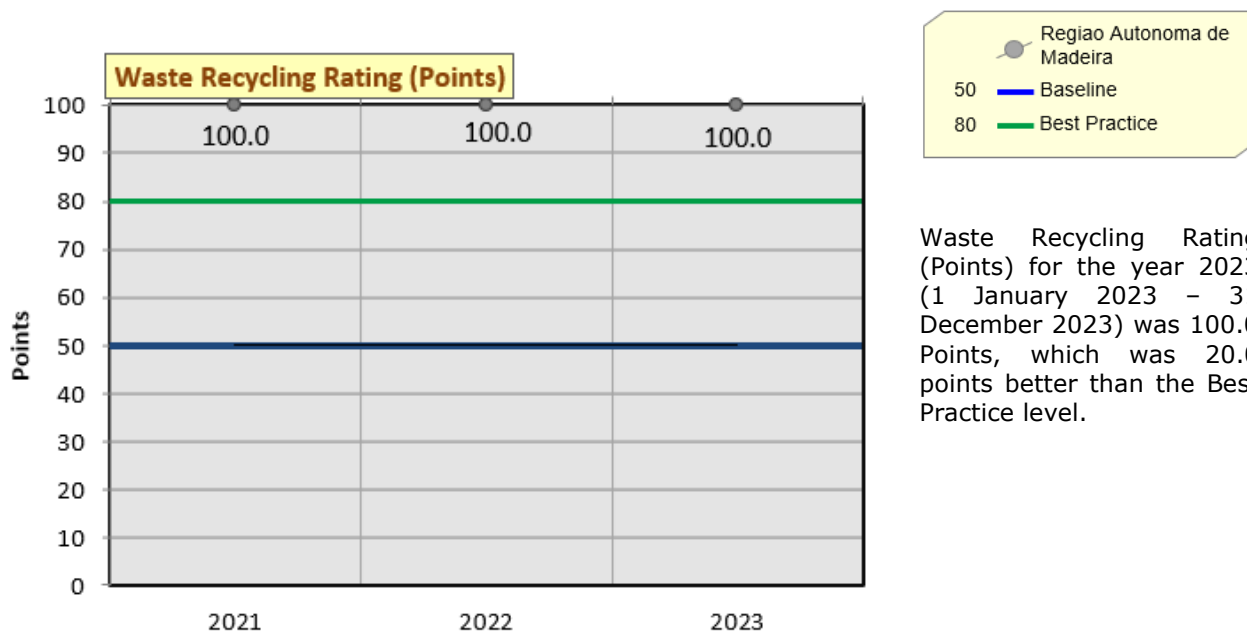
Water Savings Rating (Points) ✕



Water Savings Measures	Frequency / Percentage Rating	Water Savings Rating (Points)
Check for leaks	Once a year	54.0 Points
Low/dual flush toilets	40-59%	65.1 Points
Low flow tap fittings	0%	0.0 Points
Low flow shower fittings	Not Relevant / Not Available	
Water sprinklers used after dark	Not Relevant / Not Available	
Minimal irrigation landscaping	Not Relevant / Not Available	
Use of recycle/grey/rain water	0%	0.0 Points
	Overall Rating:	29.8 Points

7. Waste Recycling

Waste Recycling Rating (Points) ★

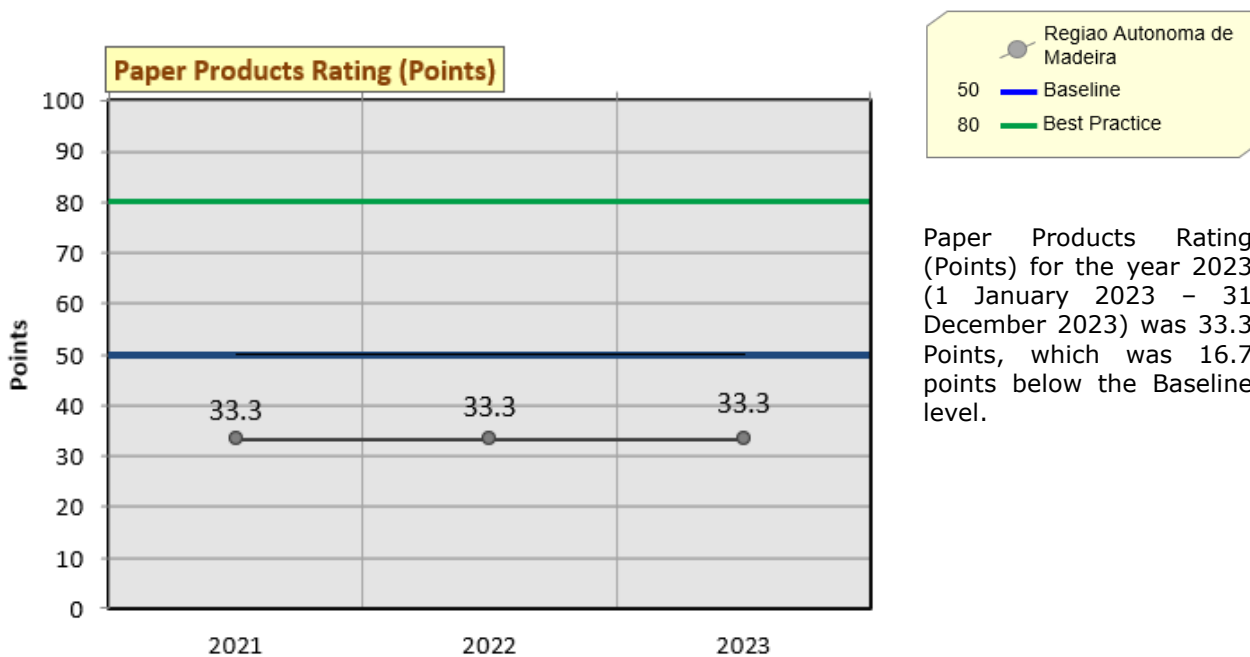


Waste Recycling Rating (Points) for the year 2023 (1 January 2023 – 31 December 2023) was 100.0 Points, which was 20.0 points better than the Best Practice level.

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	Not Relevant / Not Available	
	Overall Rating:	100.0 Points

8. Paper

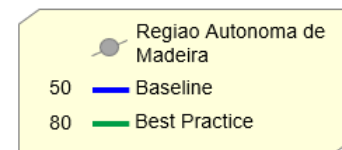
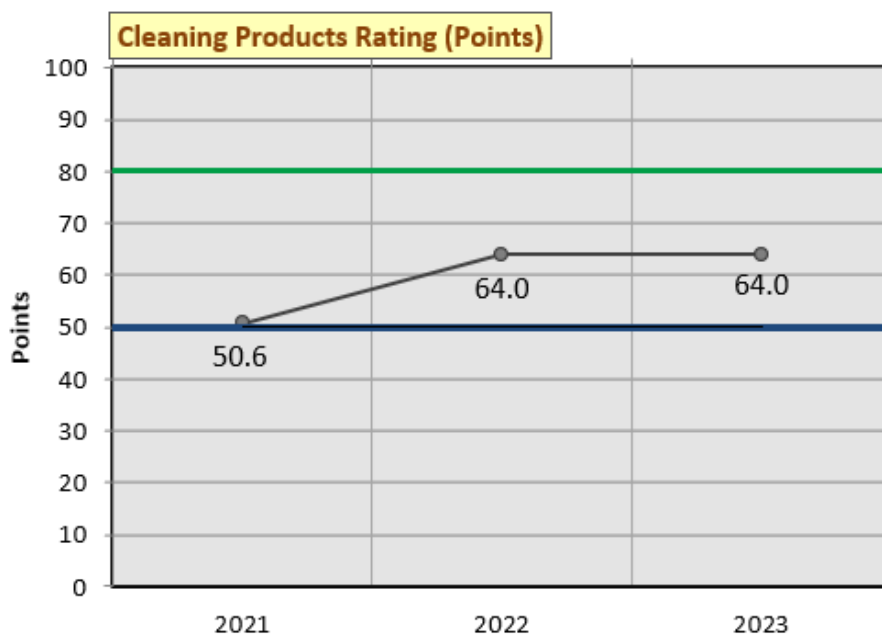
Paper Products Rating (Points) ✕



Paper Products Measures	Frequency / Percentage Rating	Paper Products Rating (Points)
Office paper	0%	0.0 Points
Serviettes	Not Relevant / Not Available	
Tissues	Not Relevant / Not Available	
Toilet tissue	100%	100.0 Points
Paper towels	0%	0.0 Points
	Overall Rating:	33.3 Points

9. Cleaning

Cleaning Products Rating (Points) ✓

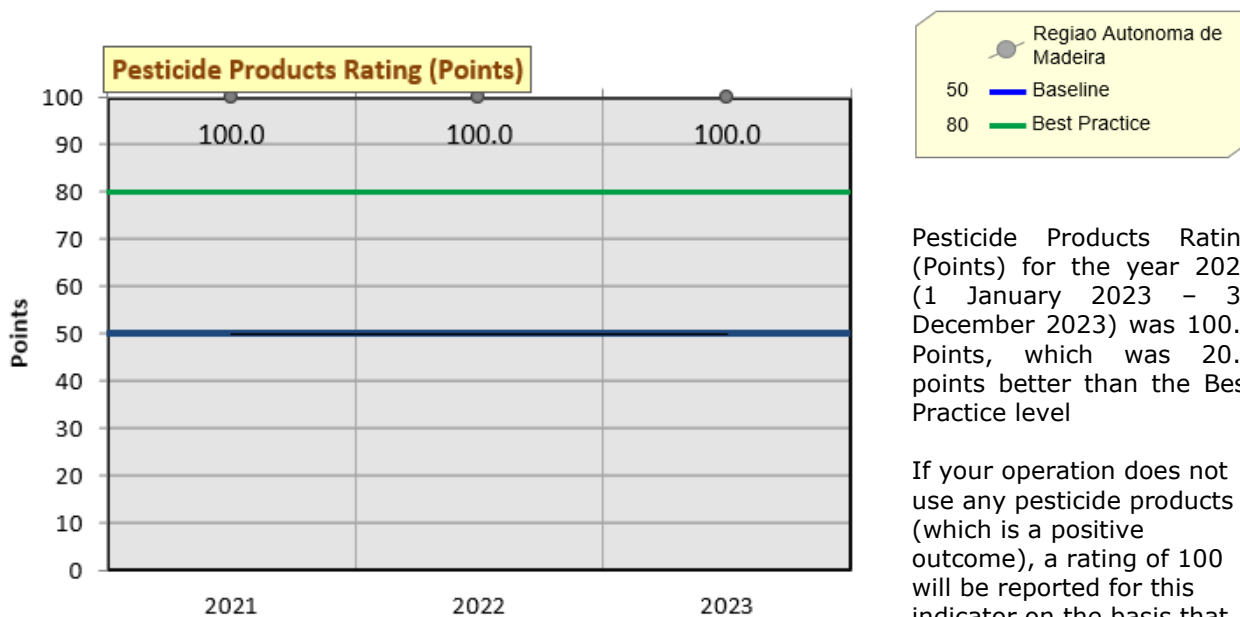


Cleaning Products Rating (Points) for the year 2023 (1 January 2023 – 31 December 2023) was 64.0 Points, which was 14.0 points better than the Baseline level.

Cleaning Products Measures	Frequency / Percentage Rating	Cleaning Products Rating (Points)
Hard floor cleaners	40-59%	65.1 Points
Carpet cleaners	Not Relevant / Not Available	100.0 Points
Interior surface cleaners	20-39%	58.8 Points
External surface cleaners	Not Relevant / Not Available	100.0 Points
Glass cleaners	0%	0.0 Points
Detergents	20-39%	58.8 Points
Personal hygiene	40-59%	65.1 Points
	Overall Rating:	64.0 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

OPTIONAL BENCHMARKING INDICATORS

Região Autónoma da Madeira did not submit data for any of the optional Operation Selected and Specified Indicators. These indicators do not form part of the formal annual benchmarking exercise.

The supplied data has been compiled by **Região Autónoma da Madeira** in the prescribed manner, authorised by a senior executive of the company and submitted for an annual assessment.

CONCLUSION AND RECOMMENDATIONS

Congratulations, **Região Autónoma da Madeira** has met the requirements to be recognised as an EarthCheck Benchmarking Destination.

In addition to having a Sustainability Policy in place, 15 of the assessed EarthCheck indicators are at or above the Baseline level.

From the benchmarking data provided, nine indicators, *Waste Sent to Landfill, Habitat Conservation Area, Sulphur Dioxide Produced, Green Space, Destination Safety - Homicide Rate, Destination Safety - Theft Rate, Destination Safety - Assault Rate, Waste Recycling Rating, and Pesticide Products Rating*, are at or above the Best Practice level.

The 5 indicators that fell below the Baseline level were *Nitrous Oxides Produced, Particulate Matter Produced, Accredited Operations, Water Savings Rating, and Paper Products Rating*.

The values for Nitrous Oxides Produced and Particulate Matter Produced were below the Baseline level. **Região Autónoma da Madeira** 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 value for Accredited Operations was 5% worse than the Baseline level. **Região Autónoma da Madeira** is encouraged to promote environmental accreditation to hotels, restaurants and other business within the destination.

The value for Water Saving was 20.2 Points below the Baseline level. **Região Autónoma da Madeira** 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). **Região Autónoma da Madeira** 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 rating for Paper Products was 16.7 Points below the Baseline level. **Região Autónoma da Madeira** 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 **Região Autónoma da Madeira** 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 **Região Autónoma da Madeira** has demonstrated to the environment, the assessors are confident that they can maintain or improve performance, where appropriate and practical, in all indicators. In line with EarthCheck Policy this would enable the **Região Autónoma da Madeira** to continue to meet the benchmarking requirements of the EarthCheck program.

APPENDIX

NOTE

Please note that this report has been revised as per the information provided below. It should be noted that the previous version of the report also included an appendix outlining clarifications and data concern at the time of processing.

PURCHASED ELECTRICITY AND STATIONARY FUEL COMBUSTION

Regiao Autónoma da Madeira requested data updates regarding Purchased Electricity and Stationary Fuel Combustion:

"The electrical systems on the islands of the Madeira Archipelago operate independently, without connections to other national or international systems. As a result, all electricity produced and consumed on each island is generated locally, and the associated GHG emissions are classified as "Direct". However, in the benchmarking report, these emissions were classified as "Indirect". We therefore kindly request that this classification can be corrected, reassigning these emissions to SCOPE 1."

The **Benchmarking Team** confirmed:

"If no electricity is purchased from external sources, this indicator should not be reported. Please instead report the sources of energy generation used to provide the destination with energy (i.e. fuel burning, renewables) and confirm if these were included in the previously reported energy data. Please confirm this data for 2021 and 2022 also."

Regiao Autónoma da Madeira provided the following information:

"The table below summarises the fuel consumption used in electricity production in Madeira. These figures are based on the data collection methodology utilised for benchmarking and are provided in the Excel file labelled MAD07, which is available for all audits."

Combustível	Indicador	2021	2022	2023
Fuel oil	Quantity (kg)	73 927 149	108 182 717	119 621 688
Natural Gás	Quantity (kg)	25 143 602	17 930 231	11 039 805
Gasóleo (Diesel)	Quantity (kg)	1 222 754	0	0

Therefore, the Benchmarking Assessors removed the data in Purchased Electricity and uploaded the provided data to Stationary Fuel Combustion for the past three periods.

WASTE SENT FOR INCINERATION

Regiao Autónoma da Madeira requested data updates regarding incorrect waste sent to incineration data:

"The graphs related to emissions from incinerated waste (page 5) and quantities produced per person-year (page 10) need to be updated based on the values for this specific waste category in 2021 and 2022 (see the figures in the following table). Please

note that in previous years, the MyEarthCheck platform form did not include the "OTHERS" option. Consequently, only the categories Nappies, Plastics, Rubber/Leather and Textiles were reported. These figures are also documented in the attached Excel tables detailing the data collection methodology and were part of the evidence submitted during the certification processes for each year. Therefore, we request that you kindly recalculate the figures presented in the graphs for 2021 and 2022 to ensure they accurately reflect the data and allow for consistent year-on-year comparisons.

The values attributed to "Other incinerated waste" on page 7 of the report (see figure below) appear to be incorrect, as they are excessively high. We kindly ask you to review the calculations and adjust the values accordingly."

Type of Waste	Type of Incineration	2021 (ton)	2022 (ton)	2023 (ton)
Textiles	Continuous incineration – Stoker	4323	5134	4084
Rubber and Leather	Continuous incineration – Stoker	0	0	0
Plastics	Continuous incineration – Stoker	5477	6907	6572
Nappies	Continuous incineration – Stoker	7433	5831	4575
Others	Continuous incineration – Stoker	80 573	84 600	86 351
TOTAL Residuos incinerados		97 806	102 472	101 582

Therefore, the Benchmarking Assessors reviewed the emission factors used for 'other incinerated waste' and updated the data for the past three periods. Please note that previously a figure of 86,531 was provided for 'others' incineration in 2023, which differs from the 86,351 reported above. The more recently reported figure of 86,351 was used.



EARTHCHECK

Benchmarks Assessed by EarthCheck

SUMMARY OF SUPPLIED BENCHMARKING DATA

Activity Measures

Person Years	287,193
Total Destination Area	80,110

Supplied Benchmarking Data

Energy

Energy Consumption (GJ / Person Year)

Supplied	13,572,705.10 GJ
Calculated	47.26 GJ / Person Year
Baseline	55.6 GJ / Person Year
Best Practice	38.9 GJ / Person Year
Difference	14.9% better than the Baseline level

Green Power (Purchased Electricity) (%)

Supplied	Not Applicable as Purchased
Calculated	Electricity was not reported

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

Supplied	912,175.50 t CO ₂ -e
Calculated	3.2 t CO ₂ -e / Person Year
Baseline	4.0 t CO ₂ -e / Person Year
Best Practice	2.8 t CO ₂ -e / Person Year
Difference	20.8% better than the Baseline level

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

Supplied	912,175.50 t CO ₂ -e
Calculated	3.2 t CO ₂ -e / Person Year

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

Supplied	0 t CO ₂ -e
Calculated	0 t CO ₂ -e / Person Year

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

Supplied	48,578.4 t CO ₂ -e
Calculated	0.17 t CO ₂ -e / Person Year

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

Supplied	48,578.4 t CO ₂ -e
Calculated	0.17 t CO ₂ -e / Person Year

Water

Potable Water Consumption (kL / Person Year)

Supplied	22,753,964.0 kL
Calculated	79.2 kL / Person Year
Baseline	80.8 kL / Person Year
Best Practice	56.5 kL / Person Year
Difference	1.9% better than the Baseline level

Recycled / Captured Water (%)

Supplied	0%
Calculated	0%

Waste

Waste Sent to Landfill (m³ / Person Year)

Supplied	5,990 m ³
Calculated	0.02 m ³ / Person Year
Baseline	0.89 m ³ / Person Year
Best Practice	0.62 m ³ / Person Year
Difference	96.6% better than the Best Practice level

Recycled / Reused / Composted Waste (%)

Supplied	16.8%
Calculated	16.8%

Waste Sent for Incineration (m³ / Person Year)

Supplied	338,606.7 m ³
Calculated	1.18 m ³ / Person Year

Sector Specific

Nitrous Oxides Produced (kg / Person Year / Hectare)

Supplied	3,360,965 kg
Calculated	14.99 kg / Person Year / Hectare
Baseline	0.93 kg / Person Year / Hectare
Best Practice	0.65 kg / Person Year / Hectare
Difference	1,511.7% below the Baseline level

Sulphur Dioxide Produced (kg / Person Year / Hectare)

Supplied	308,715.8 kg
Calculated	1.38 kg / Person Year / Hectare
Baseline	0.90 kg / Person Year / Hectare
Best Practice	0.63 kg / Person Year / Hectare
Difference	52.2% below the Baseline level

Particulate Matter Produced (kg / Person Year / Hectare)

Supplied	13,644,667.5 kg
Calculated	60.85 kg / Person Year / Hectare
Baseline	0.7 kg / Person Year / Hectare
Best Practice	0.5 kg / Person Year / Hectare
Difference	8,592.8% below the Baseline level

Water Samples Passed (%)

Supplied	99.5%
Calculated	99.5%
Baseline	70%
Best Practice	100%
Difference	29.5% better than the Baseline level

Habitat Conservation Area (%)

Supplied	58.0%
Calculated	58.0%
Baseline	20%
Best Practice	26%
Difference	32% better than the Best Practice level

Green Space (%)

Supplied	87.0%
Calculated	87.0%
Baseline	15%
Best Practice	20%
Difference	67% better than the Best Practice level

Accredited Operations (%)

Supplied	1.5%
Calculated	1.5%

Significant Site Maintenance Fund (%)

Supplied	0.6%
Calculated	0.6%

Destination Safety – Homicide Rate (%)

Supplied	0%
Calculated	0%
Baseline	0.087%
Best Practice	0.061%
Difference	0.061% better than the Best

Practice level

Destination Safety – Theft Rate (%)

Supplied	0.1%
Calculated	0.1%
Baseline	4.0%
Best Practice	2.8%
Difference	2.7% better than the Best Practice level

Destination Safety – Assault Rate (%)

Supplied	0.04%
Calculated	0.04%
Baseline	0.92%
Best Practice	0.64%
Difference	0.6% better than the Best Practice level

Socio-Economic Benefit – Unemployment Rate (%)

Supplied	5.9%
Calculated	5.9%
Baseline	6.5%
Best Practice	4.6%
Difference	0.6% better than the Baseline level

Lead Agency Performance

Water Savings

Water Savings Rating (Points)

Supplied	29.8 Points
Calculated	29.8 Points
Baseline	50 Points
Best Practice	80 Points
Difference	20.2 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	33.3 Points
Calculated	33.3 Points
Baseline	50 Points
Best Practice	80 Points
Difference	16.7 Points below the Baseline level

Cleaning

Cleaning Products Rating (Points)

Supplied	64.0 Points
Calculated	64.0 Points
Baseline	50 Points
Best Practice	80 Points
Difference	14 Points better than 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).