EARTHCHECK

SECTOR BENCHMARKING INDICATORS FOR COMPANIES

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The planet deserves more than half measures

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EARTHCHECK

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EARTHCHECK

EarthCheck is the only global Benchmarking and Certification program for sustainable travel and tourism underpinned by the science and software of EarthCheck. EarthCheck's scientific systems were developed by the Cooperative Research Centre for Sustainable Tourism in Australia over a 10 year period.

EarthCheck is built on the Agenda 21 principles for Sustainable Development endorsed by 182 Heads of State at the United Nations Rio De Janeiro Earth Summit in 1992. EarthCheck provides a framework for organisations to achieve the desired outcomes for sustainable tourism as set out in the final report of the World Summit for Sustainable Development held in Johannesburg in 2002.

The EarthCheck standard is recognised by the Global Sustainable Tourism Criteria (GSTC) and complies with the Mohonk Agreement which outlines the guidelines and principles for an international sustainable tourism certification program.

EarthCheck science and reporting is aligned with the Intergovernmental Panel for Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, the World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol, and the International Organisation for Standardisation (ISO) 14064 range of standards for greenhouse gas accounting.

EarthCheck partners with leading travel and tourism organisations to achieve and maintain good environmental and social practice, deliver maximum benefit to all interested parties and provide confidence for concerned consumers who are seeking a credible program which has integrity, transparency and scientific rigour.

The EarthCheck brand signifies better environmental and social performance, improved community interactions and savings through more efficient use of resources. It provides recognition and promotional support to a global consumer market.

How to use this document

The purpose of this document is to provide a concise guide to the EarthCheck Benchmarking Indicators relevant to your organisation and their measures. It includes a range of useful information about the benchmarking process, the purpose for each indicator being measured, what each indicator measures, and how each indicator is calculated.

This document is best utilised by referring to each of the sections in the given order:

1. Overview

The 'Overview' section provides an introduction to the benchmarking program, lists the types of EarthCheck Benchmarking Indicators and their correlation with the Key Performance Areas, and the requirements for passing a Benchmarking Assessment.

2. Sector Information

'Sector Information' refers to each of the sectors within the program and the relevant Activity Measure that is used to measure and evaluate performance in the EarthCheck consumption indicators.

3. Benchmarking Sectors

'Benchmarking Sectors' outlines each sector's requirements for calculating and submitting benchmarking data; this includes calculating the Activity Measure/s, EarthCheck Core Benchmarking Indicators, and EarthCheck Sector Specific Indicators (if applicable). Please note that only the organisation's registered sector/s will need to be reviewed.

4. EarthCheck Core Benchmarking Indicators

'EarthCheck Core Benchmarking Indicators' provides a detailed overview of all core indicators that relate to each sector, including its purpose, what it measures and how it is calculated.

5. Optional Indicators

'Optional Indicators' relates to indicators that are selected or specified by the organisation for their individual monitoring. Organisations do not need to submit Optional Indicators; however organisations are encouraged to do so in key areas of their operations for their own internal performance monitoring.

6. Glossary of Terms

The 'Glossary of Terms' provides definitions of key terms used throughout this document.

1. OVERVIEW

1.1 The Benchmarking Program

EarthCheck is the only global benchmarking program for travel and tourism. The program is designed to help and encourage the industry to make and benefit from cost savings and worthwhile improvements in key sustainability performance areas.

The 'EarthCheck Sector Benchmarking Indicators for Companies' document covers each of the sectors and lists the EarthCheck indicators used to benchmark key environmental and social performance areas. All the areas assessed can also impact directly and indirectly on operational costs.

EarthCheck assists organisations in addressing each of the 10 Key Performance Areas:

KEY PERFORMANCE AREAS

1. Greenhouse Gas Emissions
2. Energy Efficiency, Conservation and Management
3. Management of Freshwater Resources
4. Ecosystem Conservation and Management
5. Social and Cultural Management
6. Land Use Planning and Management
7. Air Quality Protection
8. Wastewater Management
9. Solid Waste Management
10. Environmentally Harmful Substances

Benchmarking with EarthCheck indicators is a straightforward process and provides practical feedback on relative performance, and demonstrates to stakeholders a responsible commitment to high standards. It can provide the means to:

- Reduce costs;
- Meet sustainability requirements and targets;
- Assist in compliance with government regulation/s;
- Support internal management reporting on performance;
- Promote external performance reporting;
- Accelerate certification and quality assurance; and
- Enhance your public image.

Assessment of the EarthCheck indicator measures is based upon the outcome and its relation to Baseline and Best Practice performance levels of environmental impact. Baseline is an above average standard of performance for the type and location of an organisation. Best Practice is an exemplary standard of performance for the type and location of an organisation. The established benchmarks are reviewed annually and are based upon an organisation's sector, sub-sector (accommodation only), country, and climate zone.

The benchmarking process consists of four types of EarthCheck indicator measurements; EarthCheck consumption/production indicators, EarthCheck checklist rating indicators, EarthCheck percentage rating indicators, and EarthCheck supplementary indicators.

EarthCheck consumption/production indicators are measures that directly evaluate the organisation's performance against a relevant Activity Measure (a measure that reflects the key activity of the organisation and taking into account the type of impact). Energy Consumption, Greenhouse Gas Emissions, Potable Water Consumption, and Waste Sent to Landfill are all benchmarked against an Activity Measure. For details regarding each sector's relevant Activity Measure, please refer to Section 2.0.

EarthCheck checklist rating indicators measure performance in core areas as a percentage range drop-down list that best reflects the organisation's use of products, methods and / or initiatives that are currently in place. By providing a rating guide (a value between 0 and 100), these EarthCheck indicators provide the organisation with a simple overview of operational practices and procedures currently being implemented, that will aid long-term sustainability.

EarthCheck checklist rating indicators are used where access to detailed data may be difficult or extremely time consuming to collect. Whilst these EarthCheck indicators are not as specific as EarthCheck consumption indicators, they do, nevertheless, provide an overview of the organisation's performance and indicate aspects that may warrant improvement. Examples of EarthCheck checklist rating indicators are Water Savings, Waste Recycling and Community Contributions.

EarthCheck percentage rating indicators are measured as a ratio with the performance level calculated as a percentage. These EarthCheck indicators provide offer a holistic overview of performance in a given core area and help to identify possible areas for future improvement. Community Commitment is an example of a percentage rating EarthCheck indicator.

EarthCheck supplementary indicators are measured as a ratio and the performance level is calculated as a percentage. These EarthCheck indicators are not mandatory and do not form part of the formal benchmarking assessment, however they serve to provide organisations with additional information to assist them to identify areas of improvement for future. Examples of EarthCheck supplementary indicators are Renewable Energy Used, Recycled / captured water and recycled / reused / composted waste.

Where appropriate, organisations are encouraged to make realistic annual improvements in order to move towards Best Practice levels of performance in all EarthCheck indicators.

1.2 Sector Selection

To ensure an organisation receives a fair and accurate assessment of its operations, it is important that a sector/s that most accurately reflects the function and scope of the operation is selected

Any organisation who registers as a Resort or Tour Operator will need to identify their relevant sectors (also known as Dominant Components). Dominant Components apply to organisations who;

- Register as a Resort and have more than one (1) sector that uses 10% or more of the total energy consumed by the operation
- Register as a Tour Operator and have more than one (1) sector that uses more than 25% or more of the total energy consumed by the operation

Organisations who register as a Resort or Tour Operator will need to be able to separate the data for each component in order to provide a complete and accurate assessment of the organisation's performance. If an organisation cannot separate their benchmarking data for each Dominant Component, the organisation will need to contact EarthCheck to determine the most appropriate methodology for separating their data.

1.3 Benchmarking Data Requirements

The benchmarking period is a 12 month period for which benchmarking data is assessed. The benchmarking period may be any 12 month period (for example, calendar year or financial year) and must be the same period for each annual benchmarking assessment. This will ensure ease of reporting and accurate comparisons of data, year on year.

Data can be submitted for any Benchmarking Period provided the Benchmarking End Date is no more than 10 months prior to the benchmarking submission date. If there is a corporate mandate specifying a particular Benchmarking Period for your organisation, kindly consult senior management to ensure your reporting is aligned.

1.4 Benchmarking Requirements

Each sector has a list of EarthCheck indicators which are reviewed and compared with the established Baseline and Best Practice performance levels. They have been carefully selected to track performance in key areas of environmental and social performance impact. 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.

Organisations in the EarthCheck Program are part of a unique international, industry-wide program which actively supports positive actions being taken to protect the world's environment. To help promote this work, aggregated performance results of organisations may be used for its environmental reporting purposes, but specific information on an individual organisation is regarded as commercially sensitive and remains strictly confidential.

1.5 Promotion

Organisations in the EarthCheck Program are encouraged to promote their commitment to sustainability to their customers, employees and suppliers by prominently displaying their achievements with respect to the EarthCheck indicators onsite, and in advertising materials.

The primary aim is for an organisation in the EarthCheck Program is to obtain maximum benefit for their business from their continued commitment to overall enhancement of their environmental, social and economic performance.

1.6 Key Performance Areas

Each of the EarthCheck indicators relates directly and indirectly to the established Key Performance Areas, and provides benefits for improving performance in each of the EarthCheck indicators. However, it can be readily argued that better performance in any of the EarthCheck indicators can help improve all the Key Performance Areas.

Table 1 provides an overview of the correlation between the EarthCheck indicators and the Key Performance Areas.

		Key Performance Areas									
		Greenhouse Gas Emissions	Energy Efficiency, Conservation & Management	Management of Freshwater Resources	Ecosystem Conservation & Management	Social and Cultural Management	Land Use Planning & Management	Air Quality Protection	Wastewater Management	Solid Waste Management	Environmentally Harmful Substances
EarthCheck Benchmarking Indicators	Environmental and Social Sustainability Policy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Energy Consumption	✓	✓		✓			✓			
	Greenhouse Gas Emissions	✓	✓		✓			✓			
	Potable Water Consumption	✓	✓	✓	✓		✓		✓	✓	
	Water Savings	✓	✓	✓	✓		✓		✓	✓	
	Waste Sent to Landfill	✓	✓		✓			✓			
	Waste Recycling	✓	✓		✓			✓			
	Community Commitment	✓	✓			✓	✓	✓			
	Community Contributions	✓	✓			✓	✓	✓			
	Paper Products	✓	✓		✓	✓	✓	✓		✓	
	Cleaning Products	✓	✓	✓	✓				✓	✓	✓
	Pesticide Products	✓	✓	✓	✓		✓	✓	✓	✓	✓
	Corporate Social Responsibility					✓					

2. Sector Information

Each sector relates to a particular function and scope for an organisation, measuring three key aspects; Activity Measure, EarthCheck Core Benchmarking Indicators and EarthCheck Sector Specific Indicators.

The EarthCheck consumption indicators are benchmarked by directly evaluating the organisation's performance against a relevant Activity Measure (a measure that reflects the key activity of the organisation and taking into account the type of impact). Energy Consumption, Greenhouse Gas Emissions, Potable Water Consumption and Waste Sent to Landfill are all benchmarked against an Activity Measure.

Activity Measures have been developed for each sector to measure the impact and performance of a particular EarthCheck indicator.

The Activity Measures for each sector are listed below:

Sector	Primary Activity Measure	Secondary Activity Measure
Accommodation – Bed & Breakfast	Guest Nights	Area Under Roof (m^2) Occupied Rooms
Accommodation – Business Hotel	Guest Nights	Area Under Roof (m^2) Occupied Rooms
Accommodation – Hostel	Guest Nights	Area Under Roof (m^2) Occupied Rooms
Accommodation – Motel	Guest Nights	Area Under Roof (m^2) Occupied Rooms
Accommodation – Ryokan	Guest Nights	Area Under Roof (m^2) Occupied Rooms
Accommodation – Serviced Apartment	Guest Nights	Area Under Roof (m^2) Occupied Rooms
Accommodation – Vacation Hotel	Guest Nights	Area Under Roof (m^2) Occupied Rooms
Accommodation – Villa	Guest Nights	Area Under Roof (m^2) Occupied Rooms
Activity	Total Customers	N/A
Administration Office	Area Under Roof (m^2)	N/A
Aerial Cableway	Revenue Passenger Kilometres (RPK)	N/A
Airline	Revenue Passenger Kilometres (RPK)	N/A
Airport	Area Under Roof (m^2)	Total Passengers
Attraction	Total Customers	N/A
Beverage Producer	Total Volume of Beverages Produced (L)	Area Under Roof (m^2)
Catering Services	Total Number of Covers	Total Leased Area (m^2)
Convention Centre	Area Under Roof (m^2)	Total Visitors
Cruise Liner	Passenger Nights	N/A
Cruise Vessel	Revenue Passenger Kilometres (RPK)	N/A
Display & Retail	Area Under Roof (m^2)	N/A
Exhibition Hall	Area Under Roof (m^2)	N/A
Farmstay	Guest Nights	Total Property Area (ha)
Golf Course	Total Property Area (ha)	N/A
Laundry	Kilograms of Laundry (kg)	N/A

Marina	Berth Occupancy Days (BOD)	N/A
Precinct	Person Years	Total Precinct Area (m^2)
Railway	Revenue Passenger Kilometres (RPK)	N/A
Resort	N/A (see note below)	N/A
Restaurant / Pub	Total Customers	N/A
School	Total School Population	Area Under Roof
Spa	Guest Treatment Hours	Area Under Roof (m^2)
Theme Park	Person Years (Theme Park)	Total Property Area (ha)
Tour Company	Area Under Roof (m^2)	N/A
Tour Operator	N/A (see note below)	N/A
Trailer Park	Berth Occupancy Days (BOD)	N/A
Vehicle	Revenue Passenger Kilometres (RPK)	N/A
Vehicle Hire	Total Vehicle Hirings	N/A
Vineyard	Total Volume of Wine Produced (L)	Total Volume of Wine Sold (L)
Visitor Centre	Total Visitors	N/A
Winery	Total Volume of Wine Produced (L)	Total Volume of Wine Sold (L)

Primary Activity Measures underpin the key activity of a an organisation and is predominately reported as the measure for Energy Consumption, Greenhouse Gas Emissions, Potable Water Consumption and Waste Sent to Landfill in the Benchmarking Assessment Report.

Secondary Activity Measures are used as reference data only however it can be used to assist in the calculations for specific sectors and / or the consumption/production EarthCheck indicators within a Benchmarking Assessment Report.

EarthCheck Core Benchmarking Indicators are the indicators which underline the key areas for all organisations registered under the EarthCheck Program. All organisations are required to complete the EarthCheck Core Benchmarking Indicators for their registered sector.

EarthCheck Sector Specific Indicators are indicators which are more relevant to a particular industry component and measured only within a specific sector. Some sectors do not have any EarthCheck Sector Specific Indicators.

Each sector's Activity Measure, EarthCheck Core Benchmarking Indicators and EarthCheck Sector Specific Indicators are provided in Sections 3.1 to 3.29.

***NOTE**: Organisations that register as a Resort or Tour Operator will need to submit data (including the Activity Measure) for each dominant component relevant to the organisation. Please refer to section 1.2 for more information.*

3. BENCHMARKING SECTORS

3.1 Accommodation

Accommodation operations can be built and run to cater for different primary markets (e.g. short / long stay, conventions, sports activities etc.). Due to the variances and different types of accommodations available, the Accommodation sector within the EarthCheck Program is divided up into 8 sub-sectors; Bed & Breakfast, Business Hotel, Hostel, Motel, Ryokan, Serviced Apartment, Vacation Hotel, and Villa.

Page 84 outlines the definitions for each accommodation subsector.

The Accommodation sector has three Activity Measures, 'Guest Nights' (primary) 'Area Under Roof' (secondary) and Occupied Rooms (secondary). 'Guest Nights' is reported within the Benchmarking Assessment Report, whereas 'Area Under Roof' and 'Occupied Rooms' are used as reference data only.

3.1.1 Calculating Activity Measures for Accommodation

a) Guest Nights

To determine total Guest Nights, there are four areas that will need to be taken into account; guests staying overnight, staff living onsite (if applicable), day guests and non-resident restaurant covers (if available) as illustrated in the below equation:

Guest Nights:

= [Total guests staying overnight] + [staff nights] + [Total Day Guests ÷ 3] + [Total Non-resident restaurant covers ÷ 4]

i) Guests Staying Overnight:

The number of guests staying overnight equals the number people staying over each night (including complimentary stays and staff that live on site), added up over the benchmarking period (typically 365 days).

Example: Two people sharing a room for three nights is equal to 6 *guest nights*.

= [Total guests staying overnight]

= [2 x 3]

= 6 guest nights

ii) Staff nights:

Staff Nights equals the number of staff staying overnight in staff accommodation onsite, added up over the benchmarking period. This excludes staff working overnight shifts.

Example: 5 staff members were living onsite during August, which has 31 days would equal to 155 Staff nights.

= [Total number of staff who live onsite x number of days they live onsite]

= [5 x 31]

= 155 Staff nights

iii) Day Guests:

Day guests represents the number of non-resident day guests (for example, the number of people turning up to use on site facilities (such as a spa, golf course, fitness or business centre), but do not stay overnight) added up over the benchmarking period (typically 365 days). Day guests would also include delegates attending day conferences and / or functions. Please note that 'Day Guests' does not include restaurant covers.

Day Guests would include and exclude the following non-overnight guests:

Include ✓	**Exclude** ✘
Non-resident Spa Guests	Restaurant Guests
Non-resident Golf Course Guests	Overnight Guests
Non-resident Fitness Centre / Gym Guests	Eatery Guests
Non-resident Business Centre Guests	Café Guests
Non-resident Function Centre Guests	
Non-resident Conference Guests	
Non-resident Banquet Hall Guests	
Non-resident Construction / Renovation Workers	

Example: Over the 12 month benchmarking period a hotel's fitness centre received 3,750 non-resident day users. Additionally, 660 delegates attended conferences held at the hotel but stayed at another hotel. This would equate to 4,410 Day Guests. A non-resident Day Guest is included as a ⅓ of a Guest Night.

= [Total number of non-resident Day Guests added up over the benchmarking period]

= 3,750 + 660

= 4,410 Day Guests

iv) Non-resident Restaurant Covers:

Non-resident Restaurant Covers represents the number of outside guests (that is, people who come in only to eat and then leave) served through all food outlets.

Example: A group of 5 people who are not staying at the hotel had dinner in the hotel restaurant, this would equate to 5 Non-resident Restaurant Covers. A non-resident restaurant cover is included as a ¼ of a Guest Night.

v) Total Guest Nights:

Example: Over the 12 month benchmarking period a hotel receives 48,905 overnight guests, and hosts numerous functions (including weddings and business conferences) with a total of 12,000 people in attendance, and its fitness centre had 3,750 non-resident users, while the restaurant served 25,000 non-resident diners. Furthermore the hotel also has 1 Resident Manager who lives in the hotel. This would be equivalent to 59,520 guest nights.

= [Total guests staying overnight] + [staff nights] + [Total Day Guests ÷ 3] + [Total Non-resident restaurant covers ÷ 4]

= [48,905] + [1 x 365] + [12,000 ÷ 3] + [25000 ÷ 4]

= 59,520 guest nights

b) Area Under Roof

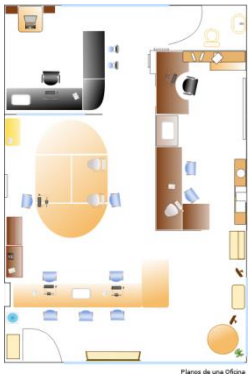
Total Area Under Roof is calculated as follows:

Area Under Roof (m^2):

= Total Area Under Roof of the operation

Area Under Roof is the total number of square metres (m^2) of the organisation's interior area; for example, the internal area of a hotel. This figure would include the area of indoor facilities and undercover outdoor areas (for example; swimming pools and / or gymnasium). It does not include uncovered outdoor facilities (for example; car park, tennis courts, outdoor swimming pool).

The total figure for total Area Under Roof can be obtained from building / floor plans; examples are provided below:



NOTE: Area Under Roof is used as reference data only.

c) Occupied Rooms

Total Occupied Rooms is calculated as follows:

Occupied Room:

= Total number of rooms sold – no-shows + complimentary rooms occupied (unpaid) over the benchmarking period

3.1.2 EarthCheck Core Benchmarking Indicators

The Accommodation sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.1.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Accommodation sector.

3.2 Activity

The Activity sector refers to organisations whose primary function is to administer and operate a specific tourism activity. Examples of organisations registered under this sector may include (but are not limited to): bungee jumping; scenic (round-trip) sightseeing tours; or white water rafting.

The Activity sector uses the Activity Measure 'Total Customers'.

3.2.1 Calculating the Activity Measure for an Activity

Total Customers is calculated as follows:

Customers:

= Total Customers per 12 month benchmarking period

3.2.2 EarthCheck Core Benchmarking Indicators

The Activity sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption

	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.2.3 EarthCheck Sector Specific Indicators

Vehicle Management

Background: The type and number of any vehicles used (e.g. car, truck, boat, coach, 4WD, small plane, and helicopter) and their purpose (e.g. maintenance, staff / customer transport) will be dictated by the activity type and location. The organisation can, however, contribute to minimising energy consumption and any associated emissions through ensuring regular vehicle maintenance as per the manufacturer's schedule.

As part of the service, each vehicle should (where appropriate and the option exists) have its engine's exhaust emissions tested and pass local regulatory standards. Exhaust emissions provide a good overview of the efficiency of combustion, and hence fuel consumption and level of harmful exhaust gases emitted.

Objective: Encourage operation of vehicles are performing to maximum efficiency.

Application: Number of vehicles serviced.

Calculation: To calculate Vehicle Management, the organisation will need to review the total vehicle services completed and the total number of services required, as per the vehicle manufacturer's maintenance schedule and specifications; please refer to the equation below for more information.

Vehicle Management EarthCheck indicator measure:

$$= \left[\frac{\text{Number of completed services per annum}}{\text{Number of services recommended}} \right] \text{ x } 100$$

Greenhouse gas reductions: Reduction in emissions from ensuring efficient vehicle operation.

3.3 Administration Office

The Administration Office sector refers to organisations whose primary function is office based travel and tourism administration. Examples of organisations registered under this sector may include (but are not limited to): environmental consulting firms, media offices, technology firms, or travel agencies.

The Administration Office sector uses the Activity Measure 'Area Under Roof'.

3.3.1 Calculating the Activity Measure for an Administration Office

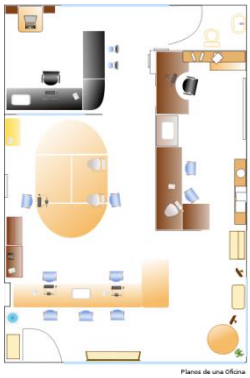
Total Area Under Roof is calculated as follows:

Area Under Roof (m^2):

= Total Area Under Roof of the operation

Area Under Roof is the total number of square metres (m^2) of the organisation's interior area; for example, the internal area of office space. This figure would include the area of indoor facilities and undercover outdoor areas (e.g. car parks). It does not include uncovered outdoor facilities.

The total figure for total Area Under Roof can be obtained from building / floor plans; examples are provided below:



3.3.2 EarthCheck Core Benchmarking Indicators

The Administration Office sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling

Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.3.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Administration Office sector.

3.4 Aerial Cableway

Cableways can cater for different primary markets (e.g. passenger, sightseeing or freight. Examples of organisations registered under the Aerial Cableway sector may include (but are not limited to): gondolas, rainforest cableways, or ski lifts.

The Aerial Cableway sector uses the Activity Measure 'Revenue Passenger Kilometres (RPK)'.

3.4.1 Calculating the Activity Measure for an Aerial Cableway

Total Revenue Passenger Kilometres (RPK) is calculated by multiplying the number of paying passengers by the kilometres travelled by each person transported, as illustrated in the below equation:

Revenue Passenger Kilometres (RPK):

= [Total number of Passengers] x [Total distance travelled]

a) Single Tour Operations:

Example: Over a 12 month period an aerial cableway consists of a 50 km round trip and took a total of 8,897 paying passengers; this would equate to 444,850 RPK

= [Total number of Passengers] x [Total distance travelled]

= 50 x 8,897

= 444,850 revenue passenger kilometres

b) Multiple Tour Operations

RPK for multiple tour operators must be calculated for each type of tour; for example, if three different tours are offered by an organisation, then three sets of calculations are required, all of which will need to be added together to determine total RPK.

Example: Over a 12 month period, an organisation runs three separate cableway tours; the first cableway tour consists of a 50 km round trip and took a total of 8,897 paying passengers; the second cableway tour consists of a 20 km round trip and took a total of 1,346 paying passengers; the third cableway tour consists of a 30 km round trip and took a total of 4,789 paying passengers

This would therefore equate to 615,440 RPK

= [Tour 1 RPK] + [Tour 2 RPK] + [Tours 3 RPK] + [Tour 4 RPK]

= [8,897 x 50] + [1,346 x 20] + [4,789 x 30]

= 444,850 + 26,920 + 143,670

= 615,440 revenue passenger kilometres

The Aerial Cableway sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.4.3 EarthCheck Sector Specific Indicators

Stormwater Management

Background: An organisation will occupy significant tracts of land over which a range of activities occur, some of which have direct impacts on stormwater quality, including oil spillages, oil leaks (e.g. from locomotives on to the track), application of chemicals (e.g. cleaning and pesticides) and the disturbance of vegetated areas.

Chemical and sediment runoff due to natural precipitation and hosing down activities (such as surface cleaning) should end-up in a stormwater management system, which will in turn be discharged off-site, often directly to natural watercourses (after traps), including aquifers, rather than into sewage treatment systems. The goal is to maintain discharged

water at an acceptable level, which minimises environmental impact (including seepage into aquifers).

The requirement is to firstly have stormwater management in place and to then monitor the effectiveness of the organisation's on-site control (through contamination avoidance and treatment).

Objective: High quality of surface water discharged off-site.

Application: Water samples taken to assess quality in relation to local regulatory standards.

Calculation: To calculate Stormwater Management, the organisation will need to review the number of water samples taken over the benchmarking period and determine what proportion of the total water samples taken had passed local regulatory standards, as illustrated in the equation below:

Stormwater Management EarthCheck indicator measure:

$$= \left[\frac{\text{Water samples passed per annum}}{\text{Total water samples taken per annum}} \right]$$

Greenhouse gas reductions: Reduction in emissions from energy required for water contamination treatment.

3.5 Airline

Airlines can cater for different primary markets including the transportation of passengers or cargo. The Airline sector uses the Activity Measure 'Revenue Passenger Kilometres' for organisations who predominately transport passengers. In the event where the Airline predominantly transports cargo, the Activity Measure would reflect 'Revenue Tonne Kilometres (RTK)'.

3.5.1 Calculating the Activity Measure for an Airline

Total Revenue Passenger Kilometres (RPK) is calculated by multiplying the number of paying passengers by the kilometres travelled by each person transported, as illustrated in the below equation:

Revenue Passenger Kilometres (RPK):

= [Total number of Passengers] x [Total distance travelled]

a) Single Tour Operations:

Example: Over a 12 month period, an airline consists of a 1,000 km round trip and took a total of 8,897 paying passengers; this would equate to 8,897,000 RPK

= [Total number of Passengers] x [Total distance travelled]

= 1,000 x 8,897

= 8,897,000 revenue passenger kilometres

b) Multiple Tour Operations:

RPK for multiple tour operators must be calculated for each type of tour; for example, if four different tours / trips are offered by the organisation, then four sets of calculations are required, all of which will need to be added together to determine total RPK.

Example: Over a 12 month period, an airline consists of four separate tours / trips; the first tour / trip consists of a 2,000 km round trip and took a total of 8,897 paying passengers; the second tour / trip consists of a 5,000 km round trip and took a total of 1,346 paying passengers; the third tour / trip consists of a 1,700 km round trip and took a total of 4,789 paying passengers; the fourth tour / trip consists of a 1,000 km round trip and took a total of 9,456 paying passengers

This would therefore equate to 42,121,300 RPK

= [Tour 1 RPK] + [Tour 2 RPK] + [Tours 3 RPK] + [Tour 4 RPK]

= [8,897 x 2,000] + [1,346 x 5,000] + [4,789 x 1,700] + [9,456 x 1,000]

= 17,794,000 + 6,730,000 + 8,141,300 + 9,456,000

= 42,121,300 revenue passenger kilometres

3.5.2 EarthCheck Core Benchmarking Indicators

The Airline sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.5.3 EarthCheck Sector Specific Indicators

Aircraft Noise

Background: In recognition of the significant social nuisance value of noise, many airports now levy charges for aircrafts using runways against the noise associated with them. Some airports have now also banned the use of Chapter II aircrafts or require that hush-kits be installed in the engines of older planes.

A baseline index should be developed for the current fleet that can then be used as a measurement for improvement.

Objective: Minimise social ecological disturbance from aircraft noise.

Application: Assessment of the noise level of aircrafts.

Calculation: The calculation for Aircraft Noise is based on the dimensions of the area that the individual aircraft types used that exceed a certain level (km2/85 dB(A)) and the number of takeoffs per aircraft type, as outlined in the below equation:

Aircraft Noise EarthCheck indicator measure:

$$= \left[\frac{\sum (\text{Aircraft type noise (km2 / 85 dB (A))} \times \text{takeoffs pa}}{\text{Total aircraft takeoffs pa}} \right] \times 100$$

Greenhouse gas reductions: Reduction in emissions.

3.6 Airport

Airports can vary significantly in size and purpose, as well as being built and run to cater for different primary markets (for example: passenger, freight, or recreational / sport flights).

The Airport sector uses two Activity Measures, 'Area Under Roof' and 'Total Passengers'.

3.6.1 Calculating Activity Measures for an Airport

The Airport sector has two Activity Measures which need to be calculated; Area Under Roof and Total Passengers. The calculation for each of these Activity Measures is provided below:

a) Area Under Roof

Total Area Under Roof is calculated as follows:

Area Under Roof (m^2):

= Total Area Under Roof of the operation

For Area Under Roof, the area assessed includes all passenger terminal buildings and directly associated infrastructure (e.g. airport administration, shops, restaurants and recreational facilities) that are under the control of the airport authority. Other buildings within the airport's perimeter, such as aircraft hangers and maintenance sheds (and associated administration), if run independently, are not considered part of the assessment exercise.

The total figure for total Area Under Roof can be obtained from building / floor plans.

b) Total Passengers

Total Passengers is calculated as follows:

Passengers:

= Total Passengers per 12 month benchmarking period

3.6.2 EarthCheck Core Benchmarking Indicators

The Airport sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.6.3 EarthCheck Sector Specific Indicators

Stormwater Management

Background: An organisation will occupy significant tracts of land over which a range of activities occur, some of which have direct impacts on stormwater quality, including oil spillages, oil leaks (e.g. from locomotives on to the track), application of chemicals (e.g. cleaning and pesticides) and the disturbance of vegetated areas.

Chemical and sediment runoff due to natural precipitation and hosing down activities (such as surface cleaning) should end-up in a stormwater management system, which will in turn be discharged off-site, often directly to natural watercourses (after traps), including aquifers, rather than into sewage treatment systems.

The goal is to maintain discharged water at an acceptable level, which minimises environmental impact (including seepage into aquifers). The requirement is to firstly have stormwater management and to then monitor the effectiveness of the organisation's on-site control (through contamination avoidance and treatment).

Objective: High quality of surface water discharged off-site.

Application: Water samples taken to assess quality in relation to local regulatory standards.

Calculation: To calculate Stormwater Management, the organisation will need to review the number of water samples taken over the benchmarking period and

determine what proportion of the total water samples taken had passed local regulatory standards, as illustrated in the equation below:

Stormwater Management EarthCheck indicator measure:

$$= \left[\frac{\text{Water samples passed per annum}}{\text{Total water samples taken per annum}} \right] \text{ x100}$$

Greenhouse gas reductions: Reduction in emissions from energy required for water contamination treatment.

3.6.4 Noise Nuisance

Background: In recognition of the significant social nuisance value of noise, many organisations now levy runway use charges against the noise associated with aircrafts. For example, an organisation can differentiate between Chapter 2 and Chapter 3 planes by a significant difference in fees. Other issues that need to be considered are flight path; using preferential minimised noise impact routes and adhering to any flight curfews.

To gauge the overall success of noise minimisation measures, the number of complaints and proven infringements to local regulations, to the number of plane departures, is monitored.

Objective: Minimise social disturbance from aircraft noise.

Application: Assessment of justified noise infractions from departing aircraft.

Calculation: To calculate Noise Nuisance, the organisation will need to review the number of proven noise infringements and the total aircraft departures over the benchmarking period, as illustrated in the equation below:

Noise Nuisance EarthCheck indicator measure:

$$= \left[\frac{\sum \text{Total number of proven noise infringements per annum}}{\text{Total aircraft departures per annum}} \right] \text{ x 100}$$

Greenhouse gas reductions: Emissions from use of quieter, more fuel-efficient aircraft engines.

3.7 Attraction

The Attraction sector refers to organisations whose primary function is to administer and operate a specific tourism attraction. Examples of organisations registered under this sector may include (but are not limited to): aquarium / aqua parks, caves, gardens, scenic areas, or tree-top walkways.

The Attraction sector uses the Activity Measure 'Total Customers'.

3.7.1 Calculating the Activity Measure for an Attraction

Total Customers is calculated as follows:

Customers:

= Total Customers per 12 month benchmarking period

3.7.2 EarthCheck Core Benchmarking Indicators

The Attraction sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided Section 4.0.

3.7.3 EarthCheck Sector Specific Indicators

Vehicle Management

Background: The type and number of any vehicles used (e.g. car, truck, boat, coach, 4WD, small plane, and helicopter) and their purpose (e.g. maintenance, staff / customer transport) will be dictated by the activity type and location. An organisation can, however, contribute to minimising energy consumption and any associated emissions through ensuring regular vehicle maintenance as per the manufacturer's schedule.

As part of the service, each vehicle should (where appropriate and the option exists) have its engine's exhaust emissions tested and pass local regulatory standards. Exhaust emissions provide a good overview of the efficiency of combustion, and hence fuel consumption and level of harmful exhaust gases emitted.

Objective: Encourage operation of vehicles are performing to maximum efficiency.

Application: Number of vehicles serviced.

Calculation: To calculate Vehicle Management, the organisation will need to review the total vehicle services completed and the total number of services required, as per the vehicle manufacturer's maintenance schedule and specifications; please refer to the equation below for more information.

Vehicle Management EarthCheck indicator measure:

$$= \left[\frac{\text{Number of completed services per annum}}{\text{Number of services recommended}} \right] \text{ x } 100$$

Greenhouse gas reductions: Reduction in emissions from ensuring efficient vehicle operation.

3.8 Beverage Producer

To qualify as a Beverage Producer, the organisation must directly operate a beverage production facility. The Beverage Producer sector uses two Activity Measures, 'Total Volume of Beverages Produced (L)' and 'Area Under Roof (m^2)'.

3.8.1 Calculating Activity Measure for Beverage Producer

a) Total Volume of Beverages Produced (L)

Total Volume of Beverages Produced is calculated as follows:

Total Volume of Beverages Produced:

= Total Volume of Beverages Produced (L)

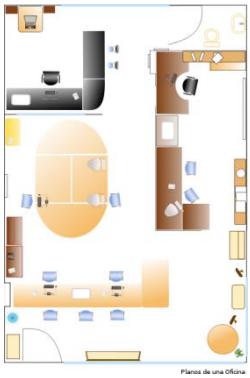
b) Area Under Roof

Area Under Roof (m^2)

= Total Area Under Roof of the operation

Area Under Roof is the total number of square metres (m^2) of the organisation's interior area; for example, the internal area of the facility. This figure would include the area of indoor facilities and undercover outdoor areas. It does not include uncovered outdoor facilities (e.g. car parks).

The total figure for total Area Under Roof can be obtained from building / floor plans. Examples are provided below:



3.8.2 EarthCheck Core Benchmarking Indicators

The Beverage Producer sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.8.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Beverage Producer sector.

3.9 Catering Services

The Catering Services sector is best classified as those organisations whose primary activities involve the following:

- Venue or function space
- Food and beverage catering and;
- The provision of a temporary bar, kitchen and/or onsite restaurant facility

The Catering Services sector uses the Primary Activity Measure 'Total Number of Covers'. The Secondary Activity Measure for this sector is 'Total Leased Area (m^2)'. These measures will be used across all venues into this sector to benchmark performance.

3.9.1 Calculating Activity Measure for Catering Services

Total Covers is calculated as follows:

a) Total Number of Covers

Total Number of Covers is calculated as follows:

Total Number of Covers:

= Total Number of Covers

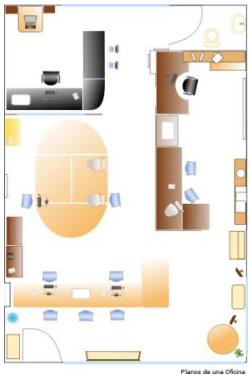
b) Total Leased Area

Total Leased Area (m^2).

= Total Leased Area of the Operation

Total Leased Area is the number of square metres (m^2) of the organisation's interior area. This figure would include the area of indoor facilities and undercover outdoor areas. It does not include uncovered outdoor facilities (e.g. car parks).

The total figure for Total Leased Area can be obtained from building / floor plans; examples are provided below:



3.9.2 EarthCheck Core Benchmarking Indicators

The Catering Services sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.9.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Catering Services sector.

3.10 Convention Centre

The Convention Centre sector refers to organisations whose primary function is non-residential and focused on promotion (whether it is a conference or display). Examples of organisations registered under this sector may include (but are not limited to): conference centres wedding reception centres.

The Convention Centre sector has two Activity Measures, 'Area Under Roof' (primary) and 'Number of Visitors' (secondary). 'Area Under Roof' is reported within the Benchmarking Assessment Report, whereas 'Number of Visitors' are used as reference data only as it is often difficult to accurately gauge the number of customers / attendees / visitors passing through the venue.

3.10.1 Calculating Activity Measures for a Convention Centre

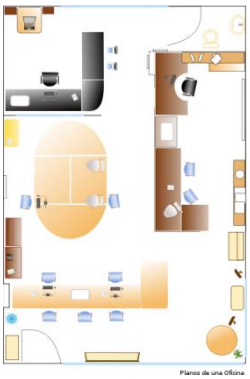
a) Total Area Under Roof is calculated as follows:

Area Under Roof (m^2):

= Total Area Under Roof of the operation

Area Under Roof is the total number of square metres (m^2) of the organisation's interior area; for example, the internal area of the building. This figure would include the area of indoor facilities and undercover outdoor areas (e.g. car parks). It does not include uncovered outdoor facilities.

The total figure for total Area Under Roof can be obtained from building / floor plans; examples are provided below:



b) Number of Visitors is calculated as follows:

Visitors:

= Total Customers/attendees/Visitors passing through venue added up over the benchmarking period

3.10.2 EarthCheck Core Benchmarking Indicators

The Convention Centre sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.10.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Convention Centre sector.

3.11 Cruise Liner

The Cruise Liner sector refers to organisations whose primary function is to provide accommodation and facilities on board a cruise ship for passengers and staff for more than three days per journey.

The Cruise Liner sector uses the Activity Measure 'Passenger Nights'.

3.11.1 Calculating the Activity Measure for a Cruise Liner

To determine total Passenger Nights, there are two primary areas that will need to be included, Overnight Guests and Staff / Crew staying on board, as illustrated below:

Passenger Nights:

= [Total Overnight Guests] + [Total Staff or Crew Nights]

a) Overnight Guests:

The number of Overnight Guests equals the number people staying over each night (including complimentary stays), added up over the benchmarking period (typically 365 days).

Example: Two people sharing a room for three nights is equal to 6 *passenger nights*.

= [Total Overnight Guests]

= [2 x 3]

= 6 passenger nights

Staff / Crew Nights equals the number of staff (FTE) staying over each night, added up over the benchmarking period (typically 365 days).

Example: Over the 12 month benchmarking period, each trip (with a total of 30 trips) has 70 FTE staff working and staying on the Cruise Liner, and each FTE staff an organisation stays 10 nights per trip, this would be equivalent to 21,000 passenger nights.

= [Total Staff or Crew Nights]

= [30 trips] x [10 nights] x [70 FTE]

= 21,000 passenger nights

c) Total Passenger Nights:

Example: Over the 12 month benchmarking period a Cruise Liner receives 30,000 overnight guests, and the Staff / Crew nights equated to 21,000 passenger nights. This would be equivalent to 51,000 passenger nights:

= [Total Overnight Guests] + [Total Staff / Crew Nights]

= [30,000] + [21,000]

= 51,000 passenger nights

3.11.2 EarthCheck Core Benchmarking Indicators

The Cruise Liner sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions

Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.11.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Cruise Liner sector.

3.12 Cruise Vessel

The Cruise Vessel sector refers to organisations whose primary function is to administer and operate on a passenger craft that returns to home dock within at least three days. Examples of organisations registered under this sector may include (but are not limited to): aqua taxis, boats, cruisers, ferries, house boats, motorised marine vessels, or yachts.

The Cruise Vessel sector uses the Activity Measure 'Revenue Passenger Kilometres (RPK)'.

3.12.1 Calculating the Activity Measure for a Cruise Vessel

Total Revenue Passenger Kilometres (RPK) is calculated by multiplying the number of paying passengers by the kilometres travelled by each person transported, as illustrated in the below equation:

Revenue Passenger Kilometres (RPK):

= [Total number of Passengers] x [Total distance travelled]

a) Single Tour Operations:

Example: Over a 12 month period, a cruise vessel tour consists of a 106 km round trip and took a total of 8,897 paying passengers; this would equate to 943,082 RPK

= [Total number of Passengers] x [Total distance travelled]

= 106 x 8,897

= 943,082 revenue passenger kilometres

b) Multiple Tour Operations

RPK for multiple tour operators must be calculated for each type of tour; for example, if four different tours are offered by the organisation, then four sets of calculations are required, all of which will need to be added together to determine total RPK.

Example: Over a 12 month period, an organisation runs four separate cruise vessel tours; the first tour consists of a 106 km round trip and took a total of 8,897 paying passengers; the second tour consists of a 43 km round trip and took a total of 1,346 paying passengers; the third tour consists of a 86 km round trip and took a total of 4,789 paying passengers; the fourth tour consists of a 21 km round trip and took a total of 9,456 paying passengers

This would therefore equate to 1,611,390 RPK

= [Tour 1 RPK] + [Tour 2 RPK] + [Tours 3 RPK] + [Tour 4 RPK]

= [8,897 x 106] + [1,346 x 43] + [4,789 x 86] + [9,456 x 21]

= 943,082 + 57,878 + 411,854 + 198,576

= 1,611,390 revenue passenger kilometres

The Cruise Vessel sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.12.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Cruise Vessel sector.

3.13 Display & Retail

The Display & Retail sector refers to organisations whose primary function is to the display and retail of goods. Examples of organisations registered under this sector may include (but are not limited to): retail outlets or souvenir shops.

The Display & Retail sector uses the Activity Measure 'Area Under Roof', as it is often difficult to accurately gauge the number of customers / attendees passing through the venue.

3.13.1 Calculating the Activity Measure for Display & Retail

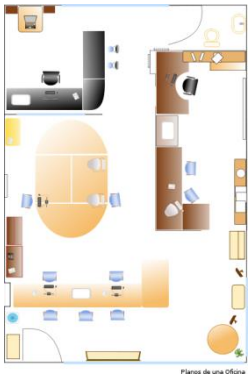
Total Area Under Roof is calculated as follows:

Area Under Roof (m^2):

= Total Area Under Roof of the operation

Area Under Roof is the total number of square metres (m^2) of the organisation's interior area; for example, the internal area of the building. This figure would include the area of indoor facilities and undercover outdoor areas (e.g. car parks). It does not include uncovered outdoor facilities.

The total figure for total Area Under Roof can be obtained from building / floor plans; examples are provided below:



3.13.2 EarthCheck Core Benchmarking Indicators

The Display & Retail sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.13.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Display & Retail sector.

3.14 Exhibition Hall

The Exhibition Hall sector refers to organisations whose primary function is non-residential and focused on promotion (whether it is a conference or display). Examples of organisations registered under this sector may include (but are not limited to): interpretation centres or museums.

The Exhibition Hall sector uses the Activity Measure 'Area Under Roof', as it is often difficult to accurately gauge the number of customers / attendees passing through the venue.

3.14.1 Calculating the Activity Measure for an Exhibition Hall

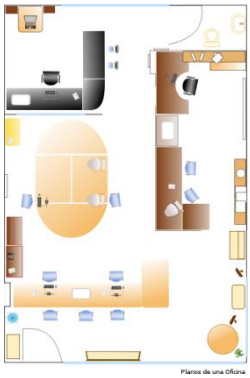
Total Area Under Roof is calculated as follows:

Area Under Roof (m^2):

= Total Area Under Roof of the operation

Area Under Roof is the total number of square metres (m^2) of the organisation's interior area; for example, the internal area of the building. This figure would include the area of indoor facilities and undercover outdoor areas (e.g. car parks). It does not include uncovered outdoor facilities.

The total figure for total Area Under Roof can be obtained from building / floor plans; examples are provided below:



3.14.2 EarthCheck Core Benchmarking Indicators

The Exhibition Hall sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings

Core Area	EarthCheck Indicator
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.14.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Exhibition Hall sector.

3.15 Farmstay

To qualify as a Farmstay, the organisation must generate at least 51% of its gross annual income during the benchmarking period from non-accommodation activities. That is, at least 51% of gross income must be derived directly from commercial farming practices; thereby emphasising a farm focus and associated experiences to be gained from visiting and staying at the associated accommodation.

Examples of organisations registered under this sector may include (but are not limited to): farms providing accommodation, farm experiences, or ranches.

The Farmstay sector has two Activity Measures 'Guest Nights' (primary) and 'Total Property Area' (secondary). 'Guest Nights' is reported within the Benchmarking Assessment Report, whereas 'Total Property Area' is used as reference data only.

3.15.1 Calculating Activity Measures for a Farmstay

a) Guest Nights

To determine total Guest Nights, there are two primary areas that will need to be included; guests staying overnight and day guests, as illustrated in the below equation:

Guest Nights:

$$= [\text{Total guests staying overnight}] + \left[\frac{\text{Total Day Guests}}{3}\right]$$

i) Guests Staying Overnight:

The number of guests staying overnight equals the number people staying over each night (including complimentary stays and staff that live on site), added up over the benchmarking period (typically 365 days).

Example: Two people sharing a room for three nights is equal to 6 *guest nights*.

= [Total guests staying overnight]

= [2 x 3]

= 6 guest nights

Day guests represents the number of non-resident day guests (for example, the number of people turning up to use on site facilities (such as horse riding), but do not stay overnight) added up over the benchmarking period (typically 365 days). Please note that 'Day Guests' does not include restaurant covers.

Example: Over the 12 month benchmarking period a Farmstay's horse riding activity received an additional 3,750 non-resident users. This would be equivalent to 1,250 guest nights.

$$= \left[\frac{\text{Total Day Guests}}{3}\right]$$

$$= \left[\frac{3{,}750}{3}\right]$$

= 1,250 guest nights

iii) Total Guest Nights:

Example: Over the 12 month benchmarking period a Farmstay receives 48,905 overnight guests, and its horse riding activities had 3,750 non-resident users. This would be equivalent to 50,155 guest nights.

$$= \text{[Total Guests staying overnight]} + \left[\frac{\text{Total Day Guests}}{3}\right]$$

$$= [48{,}905] + \left[\frac{3{,}750}{3}\right]$$

= 50,155 guest nights

b) Total Property Area

Total Property Area (hectare) is calculated as follows:

Property Area (ha):

= Total Property Area (ha)

3.15.2 EarthCheck Core Benchmarking Indicators

The Farmstay sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.15.3 EarthCheck Sector Specific Indicators

3.15.4 Farm Chemicals Used

Background: Organisations with large land tracts are typically high users of active chemicals (e.g. artificial fertilisers, pesticides, herbicides and insecticides). Application of these chemicals can lead to pollution of soils, surface water and groundwater, which can adversely affect the balance of an ecosystem.

A reduction in artificial fertilisers or pest control chemicals (e.g. to prevent animal infestations) can be achieved by greater use of biodegradable products with an ecolabel. For land applications (where appropriate), alternative organic options, such as wastewater sludge and composted green waste can be used. Artificial pesticide application can also be reduced by introducing integrated pest management programs. These programs develop locality specific solutions and can include practices such as using grass species suited to the locality, use of micro-organisms to fight pests and avoiding over-application of chemicals.

Chemical usage is based on the relative amount of biodegradable chemical constituents in all solids and solutions used in farming practices (both for direct land application and externally to animals).

Objective: Reduce artificial and non-biodegradable chemicals in the environment.

Application: Weight of biodegradable farm chemicals used.

Calculation: To calculate Farm Chemicals Used, the organisation will need to review the amount of biodegradable farm chemical products used (in kilograms) and the total amount of farm chemical products used (in kilograms), as illustrated in the equation below:

Farm Chemicals Used EarthCheck indicator measure:

$$= \left[\frac{\text{Biodegradable farm chemical products used (kg)}}{\text{Total farm chemical products used (kg)}} \right] \times 100$$

Greenhouse gas reductions: Reduction in emissions from energy required for chemical production and water contamination treatment.

3.16 Golf Course

The Golf Course sector refers to organisations whose primary function is to provide a golf course facility for patrons and / or guests. Examples of organisations registered under this sector may include (but are not limited to): golf clubs or golf links'.

The Golf Course sector uses the Activity Measure 'Total Property Area'.

3.16.1 Calculating the Activity Measure for a Golf Course

Total Property Area (hectares) is calculated as follows:

Property Area (ha):

= Total Property Area of Golf Course (ha)

3.16.2 EarthCheck Core Benchmarking Indicators

The Golf Course sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.16.3 EarthCheck Sector Specific Indicators

Land Applied Chemicals Used

Background: Organisations with large land tracts are typically high users of active chemicals (e.g. artificial fertilisers, herbicides and insecticides). Long term application of these chemicals can lead to pollution of soils, surface water and groundwater, which can adversely affect the balance of ecosystems.

A reduction in artificial fertilisers can be achieved by greater use of biodegradable products and alternative organic options, such as wastewater sludge and composted green waste. Artificial pesticide application can also be reduced by introducing integrated pest management programs. These programs develop locality specific solutions and can include practices such as using grass species suited to the locality, use of micro-organisms to fight pests and avoiding over-application of chemicals. Chemical usage is based on the relative amount of biodegradable chemical constituents in all solids and solutions applied to the land.

Objective: Reduce artificial and non-biodegradable chemicals in the environment.

Application: Weight of biodegradable land applied chemicals used.

Calculation: To calculate Land Applied Chemicals, the organisation will need to review the amount of biodegradable land applied chemicals used (in kilograms) and the total amount of land applied chemicals used (in kilograms), as illustrated in the equation below:

Land Applied Chemicals Used EarthCheck indicator measure:

$$= \left[\frac{\text{Biodegradable land applied chemicals used (kg) per annum}}{\text{Total land applied chemicals used (kg) per annum}} \right] \text{ x } 100$$

Greenhouse gas reductions: Reduction in emissions from energy required for water contamination treatment.

3.17 Laundry

To qualify as a Laundry, the organisation must directly operate a laundry facility that specialises in linen and laundry supply and/or linen sterilisation commercially. Laundry produced could include uniforms, sheeting, towelling, mattress protectors, doonas, and pillows etc.

The Laundry sector uses the Activity Measure 'Kilograms of Laundry'.

3.17.1 Calculating Activity Measure for a Laundry

To determine the amount of Laundry used, calculate the total amount (kg) of linen/laundry washed over the 12 month benchmarking period:

Kilograms of Laundry:

= Total amount of linen/laundry washed over the 12 month benchmarking period

3.17.2 EarthCheck Core Benchmarking Indicators

The Laundry sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.17.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Laundry sector.

3.18 Marina

The Marina sector refers to organisations whose primary function is boat berthing and the servicing of boats that are berthed. Examples of organisations registered under this sector may include (but are not limited to): docks, harbours, ports, quays or wharves.

The Marina sector uses the Activity Measure 'Berth Occupancy Days'.

3.18.1 Calculating the Activity Measure for a Marina

Berth Occupancy Days is calculated as follows:

Berth Occupancy Days:

= [Total berths occupied overnight]

Example: Two people sharing a site for three nights is equal to 6 *berth occupancy days*.

= [Total berths occupied overnight]

= 2 x 3

= 6 berth occupancy days

3.18.2 EarthCheck Core Benchmarking Indicators

The Marina sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.18.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Marina sector.

3.19 Precinct

A Tourism Precinct refers to a designated or specific geographical area in a Town, City or Region committed for the use of tourism operations. This includes dedicated spaces for natural, cultural, social and/or economic activities. A Precinct is managed and administrated by a designated Lead Authority.

The Precinct sector uses the Activity Measure 'Person Years'.

3.19.1 Calculating the Activity Measure for a Precinct

For a precinct, an estimate of the total *Person Years* for a benchmarking period of one year (365 days) can be assessed as equal to the following example:

$$\text{Total Precinct residents} + \frac{\text{Total number of overnight visitor stays}}{365} + \frac{\text{Total number of day visitors}}{(3 \times 365)}$$

Example:

If the Precinct census indicates that 23 700 residents lived there in the benchmarking period (12 months), then the number of *Person Years* due to residents is also 23 700.

If there are a total of 1 245 000 overnight visitor stays over the same 12 month period, then this is equivalent to:

1 245 000 / 365 = 3 411 Person Years

Remember, if a person stays for say 10 nights, then this is equivalent to 10 overnight visitor stays.

If there also 197 500 day visitors over the same 12 month period, then those visitors are equivalent to:

197 500 / (3 x 365) = 180.4 Person Years

The total *Person Years* is, therefore:

23 700 + 3 411 + 180.4 = 27 291.4 Person Years

3.19.2 EarthCheck Core Benchmarking Indicators

The benchmarking indicators for each of the core areas are detailed below.

Core Area	Indicator
Precinct Performance	
Energy	Energy Consumption
Water	Water Consumption
Waste	Waste Sent to Landfill
Greenhouse Gas (CO_2)	Greenhouse Gas (CO_2) Production
Waterways	Waterways Quality
Biodiversity	Habitat Conservation
	Green Space
Travel & Tourism	Travel & Tourism Accreditation
Lead Authority	
Water	Water Saving
Waste	Waste Recycling
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

3.19.3 EarthCheck Sector Specific Indicators

Waterways Quality

Objective: Improve the quality of surface water, groundwater and aquatic habitats (including the sea).

Application: All waterways (fresh and salt) within the defined precinct area

The application of chemicals (e.g. biocides and fertilisers) to the land, and the discharge of effluents and sediments to water bodies can lead to the degradation of natural water resources.

In order to assess both the level of care taken to minimise these impacts on water resources and the subsequent monitoring of performance, the indicator is the proportion of all water samples taken in the area and analysed that pass relevant statutory water standards.

Waterways Quality indicator measure:

$$\frac{\text{Tested waterways samples passing quality guidelines pa}}{\text{Total number of waterways samples tested pa}} = \text{ratio}$$

Greenhouse gas reductions: Reduction in emissions from energy and materials required for contaminated water clean-up activities.

Habitat Conservation and Green Space

Objective: Conserve native habitats and biodiversity

Application: All land and waterways within the defined precinct area.

The loss of biodiversity as a result of habitat destruction, resource depletion and pollution is a significant environmental problem, but an area's biodiversity can be extremely hard to quantify due to difficulties in obtaining credible data (e.g. the number of species present in an area, the size of an area's gene pool etc.), which in turn can make benchmarking performance problematic.

This indicator relates to the relationship between habitat and biodiversity conservation. The measure is based on the percentage of land, wetlands or waterways within the precinct set aside for native or regenerated native vegetation and wildlife species, and designated for conservation. This provides a comparable quantified indication of the area of native habitat in a precinct and reflects the measures being taken by the destination to preserve these habitats and their associated biodiversity. As this measure also encourages regeneration programs, it can provide additional benefits through carbon sequestration.

Habitat Conservation

Habitat Conservation indicator measure:

$$\left[\frac{\text{Area set aside for conservation of native species (ha)}}{\text{Total Precinct area (ha)}}\right] = \text{ratio}$$

Greenhouse gas reductions: Improved CO_2 offsets through sequestration

Green Space

Green Space indicator measure:

$$\left[\frac{\text{Green space area of Precinct (ha)}}{\text{Total Precinct area (ha)}}\right] = \text{ratio}$$

Greenhouse gas reductions: Reduction in emissions from energy required for water contamination treatment.

Travel & Tourism Accreditation

Objective: Assess the contribution that the local Travel and Tourism industry is making to protect the precinct's environment and resources.

Application: All travel and tourism operations located within the defined precinct region (including those off-shore or aerial activities that have an on-land base within the precinct)

The prime focus of EarthCheck is to encourage the travel and tourism industry to make, and benefit from, worthwhile improvements in key environmental and social performance areas.

The involvement of individual travel and tourism operations located within the precinct and incredible environmental accreditation schemes (e.g. EarthCheck, ISO14001 etc.) is used, therefore, as a reflection of the level of commitment made by the local industry to the precinct's environment.

Travel & Tourism Accreditation indicator measure:

$$\left[\frac{\text{Environmentally accredited operators}}{\text{Total number of operators in the precinct}}\right] = \text{ratio}$$

Greenhouse gas reductions: reduction in emissions from energy and materials savings made from a review of practices and facilities.

3.20 Railway

Railways can cater for different primary markets (e.g. passenger, sightseeing or freight). An example of an organisation registered under this sector would be a railroad.

The Railway sector uses the Activity Measure 'Revenue Passenger Kilometres'.

3.20.1 Calculating the Activity Measure for a Railway

Total Revenue Passenger Kilometres (RPK) is calculated by multiplying the number of paying passengers by the kilometres travelled by each person transported, as illustrated in the below equation:

Revenue Passenger Kilometres (RPK):

= [Total number of Passengers] x [Total distance travelled]

a) Single Tour Operations

Example: Over a 12 month period, a railway consists of a 106 km round trip and took a total of 8,897 paying passengers; this would equate to 943,082 RPK

= [Total number of Passengers] x [Total distance travelled]

= 106 x 8,897

= 943,082 revenue passenger kilometres

b) Multiple Tour Operations

RPK for multiple tour operators must be calculated for each type of tour; for example, if four different tours are offered by the organisation, then four sets of calculations are required, all of which will need to be added together to determine total RPK.

Example: Over a 12 month period, an railway runs four separate railway tours; the first tour consists of a 106 km round trip and took a total of 8,897 paying passengers; the second tour consists of a 43 km round trip and took a total of 1,346 paying passengers; the third tour consists of a 86 km round trip and took a total of 4,789 paying passengers; the fourth tour consists of a 21 km round trip and took a total of 9,456 paying passengers

This would therefore equate to 1,611,390 RPK

= [Tour 1 RPK] + [Tour 2 RPK] + [Tours 3 RPK] + [Tour 4 RPK]

= [8,897 x 106] + [1,346 x 43] + [4,789 x 86] + [9,456 x 21]

= 943,082 + 57,878 + 411,854 + 198,576

= 1,611,390 revenue passenger kilometres

3.20.2 EarthCheck Core Benchmarking Indicators

The Railway sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.20.3 EarthCheck Sector Specific Indicators

Stormwater Management

Background: The organisation will occupy significant tracts of land over which a range of activities occur, some of which have direct impacts on stormwater quality, including oil spillages, oil leaks (e.g. from locomotives on to the track),

application of chemicals (e.g. cleaning and pesticides) and the disturbance of vegetated areas.

Chemical and sediment runoff due to natural precipitation and hosing down activities (such as surface cleaning) should end-up in a stormwater management system, which will in turn be discharged off-site, often directly to natural watercourses (after traps), including aquifers, rather than into sewage treatment systems.

The goal is to maintain discharged water at an acceptable level, which minimises environmental impact (including seepage into aquifers). The requirement is to firstly have stormwater management and to then monitor the effectiveness of the organisation's on-site control (through contamination avoidance and treatment).

Objective: High quality of surface water discharged off-site.

Application: Water samples taken to assess quality in relation to local regulatory standards.

Calculation: To calculate Stormwater Management, the organisation will need to review the number of water samples taken over the benchmarking period and determine what proportion of the total water samples taken had passed local regulatory standards, as illustrated in the equation below:

Stormwater Management EarthCheck indicator measure:

$$= \left[\frac{\text{Water samples passed per annum}}{\text{Total water samples taken per annum}} \right] \times 100$$

Greenhouse gas reductions: Reduction in emissions from energy required for water contamination treatment.

3.21 Restaurant / Pub

The Restaurant / Pub sector refers to organisations whose primary function is to provide food and beverage services to guests and customers. Examples of organisations registered under this sector may include (but are not limited to): bistros, cafés or eateries.

The Restaurant / Pub sector uses the Activity Measure 'Total Customers'.

3.21.1 Calculating Activity Measure for a Restaurant / Pub

Total Customers is calculated as follows:

Customers:

= Total Customers per 12 month benchmarking period

Example: A guest has 2 meals per day in the restaurant (breakfast and dinner) over 5 days; this would equate to 10 customers

= [Total number patrons / guests] x [Total number of meals per patron / guest]

= 1 x [2 x 5]

= 10 customers

3.21.2 EarthCheck Core Benchmarking Indicators

The Restaurant / Pub sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.21.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Restaurant / Pub sector.

3.22 School

The School sector refers to organisations whose primary function is education. Examples of organisations registered under this sector may include (but are not limited to): Primary Schools, High Schools, Colleges, or Universities.

The School sector has two Activity Measures 'Total school population' (primary) and 'Area under roof' (secondary). 'Total school population' is reported within the Benchmarking Assessment Report, whereas 'Area under roof is used as reference data only.

3.22.1 Calculating the Activity Measure for a School

a) Total school population:

The total school population is calculated by determining the total number of staff and students on site at the school *per day*. The figure would exclude any student attending the school but away from the campus for the day (e.g. field trips, excursions, school camp, illness, etc.), and should include all staff working onsite each day such as teachers, administration staff, support staff, maintenance staff, etc.

It is recommended that the 'Total school population' is reported on a monthly basis to capture variation in student numbers due to holiday periods.

Example: On average per day for the month of March, 720 Students and 50 Teachers were onsite.

= [Total number of Students x No. of school days in March] + [Total number of Staff x No. of work days in March]

= [720 x 23] + [50 x 23]

=17,710 Total school population for March

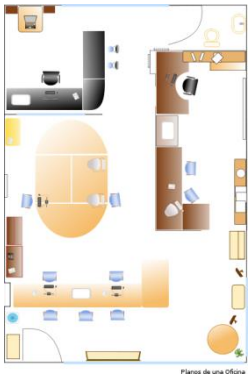
b) Total Area Under Roof is calculated as follows:

Area Under Roof (m^2):

= Total Area Under Roof of the operation

Area Under Roof is the total number of square metres (m^2) of the school's interior area; for example, the internal area of office space. This figure would include the area of indoor facilities and undercover outdoor areas (e.g. car parks). It does not include uncovered outdoor facilities.

The total figure for total Area Under Roof can be obtained from building / floor plans; examples are provided below:



3.22.2 EarthCheck Core Benchmarking Indicators

The School sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.22.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the School sector.

3.23 Spa

The Spa sector refers to organisations whose primary function is to provide spa services to guests and customers. Examples of organisations registered under this sector may include (but are not limited to): bathhouses, day spas, rejuvenation spas or wellness spas.

The Spa sector has two Activity Measures 'Guest Treatment Hours' (primary) and 'Area Under Roof' (secondary). 'Guest Treatment Hours' is reported within the Benchmarking Assessment Report, whereas 'Area Under Roof' is used as reference data only.

3.23.1 Calculating Activity Measures for a Spa

a) Guest Treatment Hours

Guest Treatment Hours represents the number of hours each guest undergoes treatment for. All individual figures will need to be added together over the benchmarking period to determine the total number of treatment hours for the year, as illustrated in the equation below:

Guest Treatment Hours:

= [Total number of Guests] x [Total time of spa treatment]

i) Single Spa Treatments:

Example: Over a 12 month period, 5,000 Guests each underwent a 1 hour spa treatment; this would equate to 5,000 guest treatment hours

= [Total number of Guests] x [Total number of hours of spa treatment]

= 5,000 x 1

= 5,000 guest treatment hours

Guest Treatment Hours for multiple spa treatment operators must be calculated for each type of spa treatment; for example, if four different spa treatments are offered, then four sets of calculations are required, all of which will need to be added together to determine total Guest Treatment Hours.

Example: Over the 12 month benchmarking period a spa treatment centre determines that 3000 guests underwent a 1 hour spa treatment, 1000 guests underwent a 2 hour spa treatment, and 4000 guests underwent a 3 hour spa treatment; therefore this would be equivalent to 17,000 guest treatment hours:

= [Spa treatment 1] + [Spa treatment 2] + [Spa treatment 3]

= [3,000 x 1] + [1,000 x 2] + [4,000 x 3]

= 17,000 guest treatment hours

b) Area Under Roof

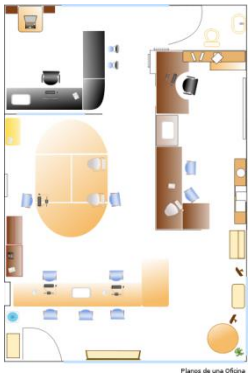
Total Area Under Roof is calculated as follows:

Area Under Roof (m^2):

= Total Area Under Roof of the operation

Area Under Roof is the total number of square metres (m^2) of the organisation's interior area; for example, the internal area of the building. This figure would include the area of indoor facilities and undercover outdoor areas (e.g. car parks). It does not include uncovered outdoor facilities.

The total figure for total Area Under Roof can be obtained from building / floor plans; examples are provided below:



3.23.2 EarthCheck Core Benchmarking Indicators

The Spa sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.23.3 EarthCheck Sector Specific Indicators

Breakdown of Onsite Facilities

It is recognised that spas can vary significantly, not just in size and location, but also in the number and type of facilities offered. As a consequence, a breakdown of the on-site facilities is requested in order to ensure a reasonable comparison between operations is made during the benchmarking assessment.

Facility	Available (Yes/No)	Number within the Spa
Treatment beds		
Saunas		
Steam rooms		
Spa Baths		
Exercise / relaxation pools		
Herbal Steam Baths		
Facial Steamers		
Cold Showers		
Gym		
Change Rooms		
Japanese Style Baths		
Outdoor Baths		
Plunge Pools		
Hair Salon		
Swimming Pool		

Whirlpool		
Hammas		
Bathrooms		
Kitchen		
Juice Bar		
Salas		
Onsite laundry		
Other (please specify)		

Water Sources

Background: Potable water is a limited natural resource and should be only be used when alternative water sources (for example; recycled / grey / rain water) would not suffice (i.e. for drinking water). Consideration should also be taken into account of what water sources an organisation's total water consumption is derived from and how this water is being 'delivered' to the organisation.

Understanding the origins of the water sources enables the organisation to gain insight into using possible alternatives which in turn could reduce associated costs (for example: energy consumption and delivery charges).

Objective: Minimise the use of potable water and the energy consumption required for potable water treatment, distribution and disposal.

Application: Determine proportion of water sources' origin used by the organisation.

Calculation: To calculate the rating for the Water Sources EarthCheck checklist indicator, the organisation will need to review and allocate a percentage range of what water sources their total water consumption is derived from. Each component's percentage breakdown added together must equate to 100%.

Water sources EarthCheck checklist indicator measure:

- What percentage of total water consumption was from rainwater?
- What percentage of total water consumption was from deep well?
- What percentage of total water consumption was from a municipal supply?
- What percentage of total water consumption was delivered by truck or boat?
- What percentage of total water consumption was from a desalination plant?

Greenhouse gas reductions: Emissions from energy required for potable water treatment, distribution and disposal.

Treatment & Cleaning Products

Background: The active (non-water) chemical ingredients of treatment and cleaning products (for example: lotions, hand and body soaps, shampoos, laundry detergents, surface degreasers and cleansers etc.), and those used to condition water facilities (for example: in pools to control bacteria, additives to soften water etc.) can end up in wastewater (from cleaned toilets, washbasins, washing machines, kitchen sinks etc.), as well as the ground and stormwater systems (for example: from pool draining, run-off from roofs, windows, driveways etc.). Cleaning and treatment products can represent a significant source of environmental contamination in terms of

toxicity and disturbance of the natural balance of ecosystems (for example: phosphates contributing to eutrophication).

Objective: Reduce non-biodegradable chemicals discharged into the environment.

Application: Identifying all chemicals used by the spa for personal treatments and cleansing, cleaning surfaces and laundry, and to condition water, and identify what percentage of these products are biodegradable / ecolabelled.

Calculation: To calculate the Treatment & Cleaning Products EarthCheck checklist indicator, the organisation will need to identify what proportion of the cleaning product used that is purchased, is a biodegradable or ecolabelled product.

Treatment & Cleaning Products EarthCheck checklist indicator measure:

- What percentage of body lotion products used by the organisation are biodegradable / ecolabelled?
- What percentage of body cleansing agents used by the organisation are biodegradable / ecolabelled?
- What percentage of shampoo products used by the organisation are biodegradable / ecolabelled?
- What percentage of massage oil products used by the organisation are biodegradable / ecolabelled?
- What percentage of oil burning products used by the organisation are biodegradable / ecolabelled?
- What percentage of essential oil products used by the organisation are biodegradable / ecolabelled?
- What percentage of moisturiser products used by the organisation are biodegradable / ecolabelled?
- What percentage of face/body mask products used by the organisation are biodegradable / ecolabelled?
- What percentage of hard floor products used by the organisation are biodegradable / ecolabelled?
- What percentage of carpet products used by the organisation are biodegradable / ecolabelled?
- What percentage of interior surface products used by the organisation are biodegradable / ecolabelled?
- What percentage of exterior surface products used by the organisation are biodegradable / ecolabelled?
- What percentage of glass cleaning products used by the organisation are biodegradable / ecolabelled?
- What percentage of laundry detergent products used by the organisation are biodegradable / ecolabelled?
- What percentage of water conditioner products used by the organisation are biodegradable / ecolabelled?

Greenhouse gas reductions: Emissions from energy required for chemical production and water contamination treatment.

Vehicle Management

Background: The type and number of any vehicles used (e.g. car, truck, boat, coach, 4WD, small plane, and helicopter) and their purpose (e.g. maintenance, staff / customer transport) will be dictated by the activity type and location. The organisation can, however, contribute to minimising energy consumption and any associated emissions through ensuring regular vehicle maintenance as per the manufacturer's schedule.

As part of the service, each vehicle should (where appropriate and the option exists) have its engine's exhaust emissions tested and pass local regulatory standards. Exhaust emissions provide a good overview of the efficiency of combustion, and hence fuel consumption and level of harmful exhaust gases emitted.

Objective: Encourage operation of vehicles are performing to maximum efficiency.

Application: Number of vehicles serviced.

Calculation: To calculate Vehicle Management, the organisation will need to review the total vehicle services completed and the total number of services required, as per the vehicle manufacturer's maintenance schedule and specifications; please refer to the equation below for more information.

Vehicle Management EarthCheck indicator measure:

$$= \left[\frac{\text{Number of completed services per annum}}{\text{Number of services recommended}} \right] \text{ x } 100$$

Greenhouse gas reductions: Reduction in emissions from ensuring efficient vehicle operation.

Wellness

Background: An active policy to provide humane and responsive services and benefits to staff to maintain a safe and healthy work environment promotes a beneficial working relationship for both staff and management.

Objective: To measure wellness initiatives offered to staff.

Application: Specific staff conditions offered by the spa.

Calculation: To calculate the Wellness EarthCheck checklist indicator, the organisation will need to identify what proportions of the wellness initiatives are currently being implemented.

Wellness EarthCheck checklist indicator measure:

- What percentage of staff's salaries are above local minimum wage?
- What percentage of staff are offered a retirement fund?
- How many weeks of paid leave do staff receive per year?
- On average, how many hours are worked per Full Time Equivalent (FTE) staff member per week?
- What is the percentage of staff turnover?
- What percentage of staff are offered dental & medical benefits?

3.24 Theme Park

The Theme Park sector refers to organisations whose primary function is to operate a theme park in a fixed location. Examples of organisations registered under this sector may include (but are not limited to): amusement parks.

The Theme Park sector has two Activity Measures 'Person Years' (primary) and 'Total Property Area' (secondary). 'Person Years' is reported within the Benchmarking Assessment Report, whereas 'Total Property Area' is used as reference data only.

3.24.1 Calculating Activity Measures for a Theme Park

a) Person Years

A Person Year is equivalent to 365 full person days, which is calculated as follows:

Person Years:

$$= \frac{\left[\frac{\text{Total Day Visitors}}{3}\right] + \left[\frac{\text{Total Day Staff (FTE)}}{3}\right] + \left[\text{Total Staff Living Onsite}\right]}{365}$$

Staff Living Onsite: is the number of staff members (including contractors) living onsite each night, added up over the benchmarking period. One staff living onsite is equal to one person day.

Day Visitors: is the number of day visitors added up over the benchmarking period (typically 365 days). One visitor day is equal to one-third of a person day.

Day Staff: is equivalent to the number full time equivalent employees (FTE) and contractors working on-site each day added up over the benchmarking period (not including staff living and working on-site). One staff day is equal to one-third of a person day.

Example: Over the 12 month benchmarking period, a theme park has received 2,067,000 day visitors, accommodated 2,000 staff living onsite and recorded 147,900 FTE staff days; this would equate to 2,028 person years.

$$= \frac{\left[\frac{\text{Total Day Visitors}}{3}\right] + \left[\frac{\text{Total Day Staff (FTE)}}{3}\right] + \left[\frac{\text{Total Day Visitors}}{3}\right]}{365}$$

$$= \frac{\left[\frac{2{,}067{,}000}{3}\right] + \left[\frac{147{,}900}{3}\right] + \left[2{,}000\right]}{365}$$

$$= \frac{\left[\ 689{,}000 + 49{,}300\ \right] + \left[\ 2{,}000\ \right]}{365}$$

= 2,028 person years

c) Total Property Area

Total Property Area (hectare) is calculated as follows**:**

Property Area (ha):

= Total Property Area (ha)

3.24.2 EarthCheck Core Benchmarking Indicators

The Theme Park sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

Waterways Quality

Background: The application of chemicals (e.g. biocides and fertilisers) to the land, and the discharge of effluents and sediments to water bodies can lead to the degradation of natural water resources.

In order to assess both the level of care taken to minimise these impacts on water resources and the subsequent monitoring of performance, the Waterways Quality EarthCheck indicator is the proportion of all water samples taken in the area and analysed that pass relevant statutory water standards.

Objective: Improve the quality of surface water, groundwater and aquatic habitats (including the sea).

Application: All waterways (fresh and salt) within the defined theme park area

Calculation: To calculate Waterways Quality, the organisation will need to review the number of tested waterways samples passing quality guidelines over the benchmarking period and the total number of waterways samples tested, as illustrated in the below equation:

Waterways Quality EarthCheck indicator measure:

$$= \left[\frac{\text{Tested waterways samples passing quality guidelines per annum}}{\text{Total number of waterways samples tested per annum}} \right] \text{ x } 100$$

Greenhouse gas reductions: Reduction in emissions from energy and materials required for contaminated water clean-up activities.

Habitat Conservation (biodiversity)

Background: The loss of biodiversity as a result of habitat destruction, resource depletion and pollution is a significant environmental problem, but an area's biodiversity can be extremely hard to quantify due to difficulties in obtaining credible data (e.g. the number of species present in an area, the size of an area's gene pool etc.).

This EarthCheck indicator relates to the relationship between habitat and biodiversity conservation. The measure is based on the percentage of land, wetlands or waterways within the operation set aside for native or regenerated native vegetation and wildlife species, and designated for conservation. This provides a comparable quantified indication of the area of native habitat within the operation and reflects the measures being taken by the organisation to preserve these habitats and their associated biodiversity. As this measure also encourages regeneration programs, it can provide additional benefits through carbon sequestration.

Objective: Conserve native habitats and biodiversity.

Application: All land and waterways within the defined theme park area.

Calculation: To calculate Habitat Conservation (Biodiversity), the organisation will need to review the amount of area set aside for conservation of native species (in hectares) and the total theme park area (in hectares), as illustrated in the below equation:

Habitat Conservation EarthCheck indicator measure:

$$= \left[\frac{\text{Area set aside for conservation of native species (ha)}}{\text{Total theme park area (ha)}} \right] \text{ x } 100$$

Greenhouse gas reductions: Improved Greenhouse Gas Emission offsets through sequestration.

Green Space

Background: The loss of biodiversity as a result of habitat destruction, resource depletion and pollution is a significant environmental problem, but an area's biodiversity can be extremely hard to quantify due to difficulties in obtaining credible data (e.g. the number of species present in an area, the size of an area's gene pool etc.).

This EarthCheck indicator relates to the relationship between habitat and biodiversity conservation. The measure is based on the percentage of land, wetlands or waterways within the operation set aside for native or regenerated native vegetation and wildlife species, and designated for conservation. This provides a comparable quantified indication of the area of native habitat within the operation and reflects the measures being taken by the organisation to preserve these habitats and their associated biodiversity.

As this measure also encourages regeneration programs, it can provide additional benefits through carbon sequestration.

Objective: Conserve native habitats and biodiversity

Application: All land and waterways within the defined theme park area.

Calculation: To calculate Green Space, the organisation will need to review the amount of green space area of the theme park (in hectares) and the total theme park area (in hectares), as illustrated in the below equation:

Green Space EarthCheck indicator measure:

$$= \left[\frac{\text{Green space area of theme park (ha)}}{\text{Total theme park area (ha)}} \right] \text{ x } 100$$

Greenhouse gas reductions: Improved Greenhouse Gas Emission offsets through sequestration.

Vehicle Management

Background: The type and number of any vehicles used (e.g. car, truck, boat, coach, 4WD, small plane, and helicopter) and their purpose (e.g. maintenance, staff / customer transport) will be dictated by the activity type and location. The organisation can, however, contribute to minimising energy consumption and any associated emissions through ensuring regular vehicle maintenance as per the manufacturer's schedule.

As part of the service, each vehicle should (where appropriate and the option exists) have its engine's exhaust emissions tested and pass local regulatory standards. Exhaust emissions provide a good overview of the efficiency of combustion, and hence fuel consumption and level of harmful exhaust gases emitted.

Objective: Encourage operation of vehicles are performing to maximum efficiency.

Application: Number of vehicles serviced.

Calculation: To calculate Vehicle Management, the organisation will need to review the total vehicle services completed and the total number of services required, as per the vehicle manufacturer's maintenance schedule and specifications; please refer to the equation below for more information.

Vehicle Management EarthCheck indicator measure:

$$= \left[\frac{\text{Number of completed services per annum}}{\text{Number of services recommended}} \right] \text{ x } 100$$

Greenhouse gas reductions: Reduction in emissions from ensuring efficient vehicle operation.

3.25 Tour Company

The Tour Company sector refers to organisations which purchase travel and tourism products and on-sell to others in the wholesale or retail chain, and which the organisation may or may not directly own individual travel and tourism operations.

Tour companies can vary from large international businesses owning subsidiary operations such as airlines, cruise ships and hotels, to companies that operate principally in one country and purchase the majority of its travel and tourism product from other suppliers, which they then wholesale to travel agents or retail direct to consumers.

The Tour Company sector uses the Activity Measure 'Area Under Roof'.

3.25.1 Calculating the Activity Measure for a Tour Company

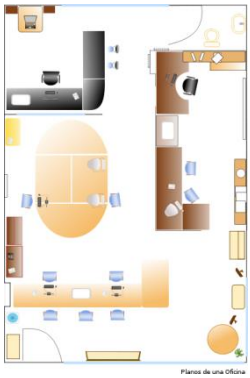
Total Area Under Roof is calculated as follows:

Area Under Roof (m^2):

= Total Area Under Roof of the operation

Area Under Roof is the total number of square metres (m^2) of the organisation's interior area; for example, the internal area of the building. This figure would include the area of indoor facilities and undercover outdoor areas (e.g. car parks). It does not include uncovered outdoor facilities.

The total figure for total Area Under Roof can be obtained from building / floor plans; examples are provided below:



3.25.2 EarthCheck Core Benchmarking Indicators

The Tour Company sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste

	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.25.3 EarthCheck Sector Specific Indicators

Subsidiary Operations

Background: Travel and Tourism operations, such as airlines, cruise ships and accommodation, consume large amounts of energy, scarce water and other natural resources, and also produce large amounts of solid, liquid and gaseous waste, including greenhouse gases. They can have both positive and negative impacts on local societies, economies and cultures.

EarthCheck provides benchmarking and certification for many different sectors. Each subsidiary operation (e.g. airline, hotel, cruise ship, tour operation (dive operation, trekking operation, 4WD operation etc.)) should be individually benchmarked under the appropriate sector.

Alternatively, the individual operations may be accredited using other sector suitable international (e.g. ISO14001) or national schemes. These schemes must be approved by EarthCheck as meeting minimum standards of measured performance and qualified auditing.

Objective: Improve the sustainability of subsidiary operations.

Application: Number of subsidiary operations certified.

Calculation: To calculate Subsidiary Operations, the organisation will need to review the \ number of subsidiary operations certified and the number of subsidiary operations owned, as illustrated in the below equation:

Subsidiary Operations EarthCheck indicator measure:

$$= \left[\frac{\text{Number of subsidiary operations certified}}{\text{Total number of subsidiary operations owned}} \right] \text{x } 100$$

Greenhouse gas reductions: Emissions from energy and other resource use, and waste sent to landfill.

Travel & Tourism Product Purchased

Background: Tour companies purchasing practices are extremely influential in determining the type and quality of Travel and Tourism operations that transport, accommodate and entertain tourists at a destination. Consequently, if tour companies give preference to Travel and Tourism operations that

demonstrate improving social and environmental performance, then this will drive the introduction of more sustainable practices.

Tour companies should purchase their Travel and Tourism products and services (e.g. travel, accommodation, entertainment etc.) from operators who have been certified by EarthCheck, or other reliable certification schemes (e.g. ISO14001), as performing at acceptable levels of environmental performance.

Objective: Purchase Travel and Tourism products from companies that have demonstrated good and improving social and environmental performance.

Application: Amount of environmentally certified Travel & Tourism Products purchased.

Calculation: To calculate Travel & Tourism Product Purchased, the organisation will need to review the value of environmentally certified Travel & Tourism products purchased (in local currency) and the total value of Travel & Tourism products purchased (in local currency), as illustrated in the below equation:

Travel & Tourism Product Purchased EarthCheck indicator measure:

$$= \left[\frac{\text{Value of environmentally certified Travel \& Tourism product purchased (local currency) per annum}}{\text{Total value of Travel \& Tourism product purchased (local currency) per annum}} \right] \text{x } 100$$

Greenhouse gas reductions: emissions from energy used and subsequent waste transposition and disposal.

Social Commitment

Background: A key issue in achieving sustainability is to consider the social as well as environmental impact of the organisation on local communities. Respecting (where appropriate), local traditions and customs, and purchasing (where possible), local goods and services are positive contributions that can be made, and should be incorporated into an organisation's Environmental and Social Sustainability Policy. Other considerations should include active participation in local committees and organisations.

Objective: Develop and maintain positive, productive and sustainable contributions to the local community.

Application: Monitor the value of contributions to social or environmental projects in destinations in which the tour operator purchases products or sends visitors to. These projects might be local education, health, employment or business development schemes or environmental, cultural or heritage improvement projects

Calculation: To calculate Social Commitment, the organisation will need to review the value of contributions to social and environmental projects in destinations (in local currency) and the gross turnover of the tour company (in local currency), as illustrated in the below equation:

Social commitment EarthCheck indicator measure:

$$= \left[\frac{\text{Value of contributions to social and environmental projects in destinations (local currency) per annum}}{\text{Gross turnover of tour company (local currency) per annum}} \right] \text{x } 100$$

3.26 Trailer Park

The Trailer Park sector refers to organisations whose primary function is to provide accommodation in the form of cabins, caravans, and / or campsites to guests. Examples of organisations registered under this sector may include (but are not limited to): campsites, caravan parks, holiday parks or motor camps.

The Trailer Park sector uses the Activity Measure 'Berth Occupancy Days'.

3.26.1 Calculating the Activity Measure for a Trailer Park

Berth Occupancy Days is calculated as follows:

Berth Occupancy Days:

= [Total berths occupied overnight]

Example: Two people sharing a site for three nights is equal to 6 *berth occupancy days*.

= [Total berths occupied overnight]

= 2 x 3

= 6 berth occupancy days

3.26.2 EarthCheck Core Benchmarking Indicators

The Trailer Park sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.26.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Trailer Park sector.

3.27 Vehicle

The Vehicle sector refers to organisations whose primary function is to operate vehicle based tours and / or provide transportation to customers / guests. Examples of organisations registered under this sector may include (but are not limited to): coach companies, limousines or 4WD companies.

The Vehicle sector uses the Activity Measure 'Revenue Passenger Kilometres'.

3.27.1 Calculating the Activity Measure for a Vehicle

Total Revenue Passenger Kilometres (RPK) is calculated by multiplying the number of paying passengers by the kilometres travelled by each person transported, as illustrated in the below equation:

Revenue Passenger Kilometres (RPK):

= [Total number of Passengers] x [Total distance travelled]

a) Single Tour Operations:

Example: Over a 12 month period, a bus tour consists of a 106 km round trip and took a total of 8,897 paying passengers; this would equate to 943,082 RPK

= [Total number of Passengers] x [Total distance travelled]

= 106 x 8,897

= 943,082 revenue passenger kilometres

b) Multiple Tour Operations

RPK for multiple tour operators must be calculated for each type of tour; for example, if four different tours are offered by the organisation, then four sets of calculations are required, all of which will need to be added together to determine total RPK.

Example: Over a 12 month period, an organisation runs four separate bus tours; the first tour consists of a 106 km round trip and took a total of 8,897 paying passengers; the second tour consists of a 43 km round trip and took a total of 1,346 paying passengers; the third tour consists of a 86 km round trip and took a total of 4,789 paying passengers; the fourth tour consists of a 21 km round trip and took a total of 9,456 paying passengers

This would therefore equate to 1,611,390 RPK

= [Tour 1 RPK] + [Tour 2 RPK] + [Tours 3 RPK] + [Tour 4 RPK]

= [8,897 x 106] + [1,346 x 43] + [4,789 x 86] + [9,456 x 21]

= 943,082 + 57,878 + 411,854 + 198,576

= 1,611,390 revenue passenger kilometres

3.27.2 EarthCheck Core Benchmarking Indicators

The Vehicle sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.27.3 EarthCheck Sector Specific Indicators

Vehicle Management

Background: The type and number of any vehicles used (e.g. car, truck, boat, coach, 4WD, small plane, and helicopter) and their purpose (e.g. maintenance, staff / customer transport) will be dictated by the activity type and location. The organisation can, however, contribute to minimising energy consumption and any associated emissions through ensuring regular vehicle maintenance as per the manufacturer's schedule.

As part of the service, each vehicle should (where appropriate and the option exists) have its engine's exhaust emissions tested and pass local regulatory standards. Exhaust emissions provide a good overview of the efficiency of combustion, and hence fuel consumption and level of harmful exhaust gases emitted.

Objective: Encourage operation of vehicles are performing to maximum efficiency.

Application: Number of vehicles serviced.

Calculation: To calculate Vehicle Management, the organisation will need to review the total vehicle services completed and the total number of services required, as per the vehicle manufacturer's maintenance schedule and specifications; please refer to the equation below for more information.

Vehicle Management EarthCheck indicator measure:

$$= \left[\frac{\text{Number of completed services per annum}}{\text{Number of services recommended}} \right] \text{ x } 100$$

Greenhouse gas reductions: Reduction in emissions from ensuring efficient vehicle operation.

3.28 Vehicle Hire

The Vehicle Hire sector refers to organisations whose primary function is to provide hired vehicles for customers / guests. Examples of organisations registered under this sector may include (but are not limited to): campervan hire companies or rent-a-car companies.

The Vehicle Hire sector uses the Activity Measure 'Vehicle Hirings'.

3.28.1 Calculating the Activity Measure for Vehicle Hire

Total Vehicle Hirings is calculated as follows:

Vehicle Hirings:

= Total Vehicle Hirings per 12 month benchmarking period

3.28.2 EarthCheck Core Benchmarking Indicators

The Vehicle Hire sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.28.3 EarthCheck Sector Specific Indicators

Vehicle Management

Background: The type and number of any vehicles used (e.g. car, truck, boat, coach, 4WD, small plane, and helicopter) and their purpose (e.g. maintenance, staff

/ customer transport) will be dictated by the activity type and location. The organisation can, however, contribute to minimising energy consumption and any associated emissions through ensuring regular vehicle maintenance as per the manufacturer's schedule.

As part of the service, each vehicle should (where appropriate and the option exists) have its engine's exhaust emissions tested and pass local regulatory standards. Exhaust emissions provide a good overview of the efficiency of combustion, and hence fuel consumption and level of harmful exhaust gases emitted.

Objective: Encourage operation of vehicles are performing to maximum efficiency.

Application: Number of vehicles serviced.

Calculation: To calculate Vehicle Management, the organisation will need to review the total vehicle services completed and the total number of services required, as per the vehicle manufacturer's maintenance schedule and specifications; please refer to the equation below for more information.

Vehicle Management EarthCheck indicator measure:

$$= \left[\frac{\text{Number of completed services per annum}}{\text{Number of services recommended}} \right] \text{ x } 100$$

Greenhouse gas reductions: Reduction in emissions from ensuring efficient vehicle operation.

3.29 Vineyard

To qualify as a Vineyard, the organisation must directly operate a vineyard and a production facility that produces commercially sold wine. At least 51% of gross income must be derived directly from commercial Vineyard practices (e.g. juice processing, wine making and wine sales). This emphasises a working vineyard focus and the associated experiences to be gained from visiting the operation.

The Vineyard sector uses two Activity Measures 'Total Volume of Wine Produced' and 'Total Volume of Wine Sold'.

3.29.1 Calculating Activity Measures for a Vineyard

The calculation for the two Activity Measures is provided below:

a) Total Volume of Wine Produced

Total Volume of Wine Produced is calculated as follows:

Total Volume of Wine Produced (L):

= Total volume of wine produced by the an organisation

a) Total Volume of Wine Sold

Total Volume of Wine Sold is calculated as follows:

Total Volume of Wine Sold (L):

= Total volume of wine sold by the an organisation

3.29.2 EarthCheck Core Benchmarking Indicators

The Vineyard sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.29.3 EarthCheck Sector Specific Indicators

Land Applied Chemicals Used

Background: Operations with large land tracts are typically high users of active chemicals (e.g. artificial fertilisers, herbicides and insecticides). Long term application of these chemicals can lead to pollution of soils, surface water and groundwater, which can adversely affect the balance of ecosystems.

A reduction in artificial fertilisers can be achieved by greater use of biodegradable products and alternative organic options, such as wastewater sludges and composted green waste. Artificial pesticide application can also be reduced by introducing integrated pest management programs. These programs develop locality specific solutions and can include practices such as using grass species suited to the locality, use of micro-organisms to fight pests and avoiding over-application of chemicals. Chemical usage is based on the relative amount of biodegradable chemical constituents in all solids and solutions applied to the land.

Objective: Reduce artificial and non-biodegradable chemicals in the environment.

Application: Weight of biodegradable land applied chemicals used.

Calculation: To calculate Land Applied Chemicals, the organisation will need to review the amount of biodegradable land applied chemicals used (in kilograms) and the

total amount of land applied chemicals used (in kilograms), as illustrated in the equation below:

Land Applied Chemicals Used EarthCheck indicator measure:

$$= \left[\frac{\text{Biodegradable land applied chemicals used (kg) per annum}}{\text{Total land applied chemicals used (kg) per annum}} \right] \text{ x } 100$$

Greenhouse gas reductions: Reduction in emissions from energy required for water contamination treatment.

3.30 Visitor Centre

The Visitor Centre sector refers to organisations whose primary function is to provide information services to visitors of a designated area of interest. Examples of organisations registered under this sector may include (but are not limited to): tourist information centres.

The Visitor Centre sector uses the Activity Measure 'Total Visitors'.

3.30.1 Calculating the Activity Measure for a Visitor Centre

Total Visitors is calculated as follows:

Visitors:

= Total Visitors per 12 month benchmarking period

3.30.2 EarthCheck Core Benchmarking Indicators

The Visitor Centre sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment
	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.30.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific Indicators relevant to the Visitor Centre sector.

3.31 Winery

To qualify as a Winery, the organisation does not necessarily have to directly operate a significant vineyard, but must directly operate a wine production facility that produces at least 25% of the winery's sales volume. If more than 33% of the juice (by volume) used by the winery originates directly from their own vineyards, then the operation can be benchmarked as a Vineyard.

At least 51% of gross income must be derived directly from commercial winery practices (e.g. juice processing, wine making and wine sales). This emphasises a working winery focus and the associated experiences to be gained from visiting the operation.

The Winery sector uses two Activity Measures 'Total Volume of Wine Produced' and 'Total Volume of Wine Sold'.

3.31.1 Calculating Activity Measures for a Winery

The calculation for the two Activity Measures is provided below:

a) Total Volume of Wine Produced

Total Volume of Wine Produced is calculated as follows:

Total Volume of Wine Produced (L):

= Total volume of wine produced by the an organisation

b) Total Volume of Wine Sold

Total Volume of Wine Sold is calculated as follows:

Total Volume of Wine Sold (L):

= Total volume of wine sold by the an organisation

3.31.2 EarthCheck Core Benchmarking Indicators

The Winery sector includes the following EarthCheck Core Benchmarking Indicators:

Core Area	EarthCheck Indicator
Policy	Environmental and Social Sustainability Policy
Energy	Energy Consumption
	Greenhouse Gas Emissions
	Green Power
Water	Potable Water Consumption
	Recycled / Captured Water
	Water Savings
Waste	Waste Sent to Landfill
	Recycled / Reused / Composted Waste
	Waste Recycling
Community	Community Commitment

	Community Contributions
Paper	Paper Products
Cleaning	Cleaning Products
Pesticides	Pesticide Products

An overview of the background, objective, application and calculation for each of the EarthCheck Core Benchmarking Indicators is provided in Section 4.0.

3.31.3 EarthCheck Sector Specific Indicators

There are no EarthCheck Sector Specific indicators relevant to the Winery sector.

4. Core Benchmarking Indicators

4.1 Environmental & Social Sustainability Policy

Background: The Environmental and Social Sustainability Policy is an organisation's statement with respect to its assessment, control and (where appropriate) continual improvement of environmental and local social impacts. The areas that need to be covered are: the scope and extent of the organisation's operations; the existing and potential environmental and social impacts (including risks of ecological harm) relative to its location, the sensitivity of the local environment and the nature and scale of the services provided; relates to the organisation's Risk Assessment. Section 1 'Policy' of the EarthCheck Company Standard provides further information about what is required in the Policy.

Objective: Addresses key sustainability issues raised in section 1 of the EarthCheck Company Standard.

Application: A documented description of the organisation's approach to sustainability in the form of an agreed and written policy.

Calculation: A copy of the Environmental and Social Sustainability Policy will need to be uploaded as part of the completion of the Self Assessment Checklist, available online.

Environmental and Social Sustainability Policy EarthCheck indicator measure:

An Environmental and Social Sustainability Policy has been established and endorsed at the highest managerial level of the organisation.

4.2 Energy Consumption

Background: Significant levels of energy can be consumed by infrastructure (e.g. within buildings), external services (e.g. lighting) and operation run transport (e.g. for customer and staff transfers, and onsite maintenance and delivery). An overall reduction in energy consumed can have major economic and environmental benefits, with the latter primarily through the conservation of natural resources and lowering associated greenhouse gas emissions.

Energy can be obtained from a variety of sources (e.g. Coal (Black), Hydro, Natural Gas, Diesel etc.). Energy generated at power stations is commonly measured in kilowatt hours (kWh); energy generated from other sources is measured in various units, depending on the energy source, ranging from a volume (e.g. litres) to a weight (e.g. kilograms) to energy (kilowatt hours). All energy sources, however, are converted to Megajoules (MJ), the standard unit for measuring energy, using supplied conversion factors within the Online Benchmarking Software.

Objective: Minimise overall energy consumption.

Application: Total energy consumed relating to the organisation's activities.

Calculation: Total Energy Consumption is calculated by summing the inputs from the following calculators, Stationary Fuels, Mobile Fuels (road), Mobile Fuels (air), Mobile Fuels (water), Onsite Wastewater Treatment and Purchased Electricity.

Stationary Fuels

Stationary fuels are fuels used for combustion in for example boilers, hot water heaters, oil heaters, fuel stoves and onsite generators to produce electricity.

Mobile Fuels

Mobile fuels are fuels used for combustion in for example on and off road vehicles as well as rail, air and waterborne craft.

Purchased Electricity

Purchased Electricity is electricity consumed which is purchased from a supplier producing electricity at a power station and supplying the electricity via a grid.

Green Power

Some travel and tourism operations may choose to purchase additional electricity from offsite renewable sources through a "green power" agreement with their electricity supplier. This is where the supplier guarantees to provide a percentage of the site's purchased electricity with electricity generated from renewable energy sources (e.g. Wind, Solar or Hydro).

Energy Consumption EarthCheck indicator measure:

$$= \frac{\text{Total energy used (MJ)}}{\text{Activity Measure}}$$

Greenhouse gas reductions: Emissions from energy production and distribution.

4.3 Greenhouse Gas Emissions

Background: Whilst reducing overall energy consumption is essential to reducing greenhouse gas production, the organisation can also address the issue through a variety of other ways. These are predominantly using either lower greenhouse gas-producing fuels (such as LPG) or preferably increasing the use of renewable sources of energy (e.g. wind, solar or hydro).

Objective: Minimise the net production of the greenhouse gas, carbon dioxide (CO_2) from energy consumption.

Application: Assessment of total Greenhouse Gas emissions due to the organisation's activities.

Calculation: Greenhouse Gas emissions are calculated based on the energy sources the organisation enters within the energy calculator within the Online Benchmarking Software. In order to evaluate Scope 1, 2 and 3 Greenhouse Gas emissions from energy sources used it is essential to break all sources down using the following criteria (where possible)

Scope 1 – Direct emissions from fuel combustion

Fuel combustion activities include stationary fuel combustion (e.g. for boilers, hot water heaters, oil heaters, fuel stoves, generators to produce electricity)

and mobile fuel combustion (e.g. on and off road vehicles as well as rail, air and waterborne craft).

Combustion is the oxidation of substances into water vapour, Carbon Dioxide (CO_2) plus very small quantities of Methane (CH_4) and Nitrous Oxide (N_2O), typically less than 1% on a CO_2 equivalent (CO_2-e) basis. CO_2-e quantifies the global warming effect (Global Warming Potential) of a given greenhouse gas (CO_2, CH_4 and N_2O) using CO_2 as a reference gas. Oxidation also releases energy in the form of heat. IPCC default factors assume complete oxidation.

If an Earthcheck tool user is unable to breakdown their fuel use into stationary and mobile combustion activities (e.g. diesel is on site and used for both types of fuel combustion activities) then they should use stationary emission factors to calculate their greenhouse gas estimate. This assumption should be documented in all reporting.

If the type of fuels used for mobile and stationary activities are not included in the tool, tool users are advised to contact EarthCheck who will endeavour to include these fuels in future revisions of the tool.

Scope 2 – Indirect emissions from purchased electricity

Typical uses for electricity include lighting, space and water heating, ventilation and cooling, appliances, white goods, electronics, lawn mowers and cars, wastewater treatment systems and pool heaters. Electricity can be generated onsite through fuel combustion or renewable energy systems or can be purchased by an external electricity supplier.

Greenhouse gas emissions from electricity generation through fuel combustion include Carbon Dioxide (CO_2), Methane (CH_4) and Nitrous Oxide (N_2O). Emissions from onsite electricity generation should be included under Scope 1 – direct emissions from fuel combustion.

Scope 2 covers emissions from fuel combustion at power stations associated with the consumption of purchased electricity from the grid. Although emissions are not directly generated onsite, greenhouse gas emissions are generated during production of electricity.

NB: *The organisation will not be required to calculate this indicator themselves. The system will automatically do this using the energy sources, quantities and units submitted.*

Greenhouse Gas Emissions EarthCheck indicator measure:

$$= \frac{\text{Total Greenhouse Gas emissions (Scope 1 and Scope 2) produced (kg) per annum}}{\text{Activity Measure}}$$

Greenhouse gas reductions: Reduction in emissions from use of more suitable energy sources.

Scope 3 – Indirect emissions from other activities not controlled and/or managed by the operation

This optional reporting category allows operations to estimate other indirect greenhouse gas emissions. Scope 3 greenhouse gas emissions cover Carbon

Dioxide (CO_2), Methane (CH_4) and Nitrous Oxide (N_2O). Activities covered under Scope 3 include:

- solid waste disposal at centralised landfill sites;
- solid waste disposal at centralised incineration sites; and
- Employee and Visitor travel to and from the operation's boundary

Other indirect emissions include those resulting from the extraction and production of purchased materials, contractor owned vehicles and outsourced activities, however these are viewed beyond the scope of the EarthCheck tool at this stage.

Indirect emissions from solid waste sent to a centralised landfill site

The breakdown of waste at centralised landfill sites releases CO_2, CH_4 and small amounts of N_2O. The CO_2 released is considered part of the short term carbon cycle and subsequently CO_2 emission estimates for waste sent to landfill are not included within the tool. No methodology is provided for N_2O emissions from centralised landfill sites because they are considered insignificant.

Indirect emissions from solid waste sent to a centralised incineration site

The 2006 IPCC Guidelines define waste incineration as the combustion of waste in controlled incineration facilities. Open burning is defined as the combustion of waste in the open air or in open dumps or incineration devices that do not control combustion air to ensure complete combustion. Incineration and open burning produce CO_2 and some CH_4 and N_2O.

The only Scope 3 emissions calculated within the tool from the incineration of solid waste are emissions generated from the offsite incineration of fossil based wastes (such as plastics, rubber, oil etc.).

Onsite and offsite incineration of non-fossil based wastes (such as burning biomass, garden wastes, wood, paper and food wastes) are considered part of the short term carbon cycle and have thus not been included in the tool. CH_4 and N_2O emissions from incineration of non-fossil based wastes are considered insignificant.

Emissions generated onsite from the incineration of fossil based wastes (e.g. plastic and rubber) are also not included in the tool due to a lack of significance to the travel and tourism industry. It was assumed that users of the tool would not be engaged in onsite incineration of fossil based wastes such as plastics and rubber.

If the incineration of waste is used for energy purposes it should be reported as a Scope 1 stationary fuel combustion emission.

If CH_4 from degrading waste is recovered (flared or combusted for energy) it is excluded from the emissions footprint as long as the CH_4 does not enter the atmosphere.

Visitor and Employee Transport

Emissions that are considered Scope 3 are those from passenger transport that is not under the control of the operation.

For example:

- Transport of clients and employees by means not owned or controlled by the business, such as commercial airline flights to the site.
- Transport of staff to work in private or third party transport e.g. car, rail, taxi. The tool allows users to estimate Scope 3 emissions from employee travel to and from work using private or third party transport or the travel of clients to their business.

NB: *The organisation will not be required to calculate this indicator themselves. The system will automatically do this using the data and information submitted for Employee and Visitor Transport.*

Greenhouse Gas Emissions EarthCheck indicator measure:

$$= \frac{\text{Total Greenhouse Gasemissions(Scope 3) produced (kg) per annum}}{\text{Activity Measure}}$$

Greenhouse gas reductions: Reduction in emissions by minimising waste sent to offsite centralised landfills and/or offsite centralised incineration sites. Reduction in emissions associated with transport that is not under the control of the company by minimising unnecessary employee/visitor travels or by utilising more energy efficient vehicles.

4.4 Green Power

Background: Whilst reducing overall energy consumption is essential to reducing greenhouse gas production, the organisation can also address the issue through a variety of other ways. These are predominantly using either lower greenhouse gas-producing fuels (such as LPG) or preferably increasing the use of renewable sources of energy (e.g. wind, solar or hydro).

Objective: Minimise the net production of the greenhouse gas, carbon dioxide (CO_2) from energy consumption.

Application: Assessment of total Greenhouse Gas emissions due to the organisation's activities.

Calculation: This is the percentage (%) of total purchased electricity over the 12 month benchmarking period that is sourced through a "green power" agreement.

A green power agreement is where the supplier guarantees to provide a percentage of the site's purchased electricity with electricity generated from renewable energy sources (e.g. Wind, Solar or Hydro).

Green Power % EarthCheck indicator measure:

Percentage (%) of total purchased electricity that is sourced through a "green power" agreement.

Greenhouse gas reductions: Reduction in emissions from use of more suitable energy sources.

4.5 Potable Water Consumption

Background: Potable water resources can be consumed by a wide range of activities, including cleansing (e.g. bathrooms, kitchens and laundries), recreational facilities (e.g. pools and ponds), grounds watering and the cleaning of surfaces (e.g. vehicles, floors, walls, gutters, patios, decks, paths and equipment).

Furthermore, many organisations worldwide are located in regions where year round access to fresh water is limited. Strategies leading to an overall reduction in water usage (by reducing demand and increasing reuse and recycling options) will be a major contribution to the long-term sustainability of both the local environment and the organisation.

It is recognised that in certain regions of the world, not all organisations have any or sufficient water monitoring meters to accurately gauge consumption volume. Whilst installation of meters worldwide is becoming common practice, in some jurisdictions water charges are set at a non-metered rate. In addition, if all or part of the water supply is obtained as a result of direct extraction (e.g. from a well), it again may not be metered.

Nevertheless, all organisations are encouraged to meter their water consumption as this not only provides a guide to sustainable performance, but also associated costs (e.g. in pumping, treating, heating and disposing of water).

Objective: Minimise consumption of potable water.

Application: Total potable water consumed relating to the organisation's activities.

Calculation: The calculation of total Potable Water Consumption is available from water bills issued by an organisation's water supplier or directly from the organisation's water meter gauge. In the event where a water meter is currently not installed, an organisation can estimate their total Potable Water Consumption based on the following table:

Use or Appliance:	Average flow rate:	Average total water used:	Average per person:
Single-flush toilet (used 10 times/day) [1]	11 litres per flush	110 litres per day	44 L per person per day (used 4 times/day)
Dual-flush toilet (used 10 times/day) [1]	6 or 3 litres per flush	45 litres per day	15 L per person per day (used 4 times/day)
Shower with normal shower	15 L per minute	60 L per shower	60 L per shower

[1] Queensland Urban Utilities, 2010. "Fact Sheet for Business - A Guide for Plumbers" [Online], Available at: http://www.urbanutilities.com.au/uploads/File/brisbane/31351_Fact_Sheet_A_Guide_for_Plumbers_v1.pdf. Accessed 12 July 2012. Queensland Urban Utilities: Brisbane.

Use or Appliance:	Average flow rate:	Average total water used:	Average per person:
rose (4 minutes) [1]			
Shower with water-saver rose (4 minutes) [1]	9 L per minute	36 L per shower	36 L per shower
Bath (half full) (used twice a day) [2]	n/a	10 000 L per day	5000 L per bath
Tap Flows (e.g. washing hands) (with normal tap) [1]	12 L per minute	16 L per person	16 L per person (20 second wash 4 times/day)
Tap Flows (e.g. washing hands) (with efficient tap) [1]	9 L per minute	12 L per person	12 L per person (20 second wash 4 times/day)
Dishwasher (personal home) (2 cycles) [3]	13 - 25 L per cycle	26 - 50 L per day	n/a
Dishwasher (hood) (2 cycles) [4]	156 – 230 L per hour	312 – 460 L per day	n/a
Dishwasher (rack conveyor) (2 cycles) [4]	320 – 600 L per hour	640 – 1200 L per day	n/a
Washing machine (top loader) (1 wash) [3]	140 L per wash	140 L per day	n/a
Washing machine (front loader) (1 wash) [3]	65 L per wash	65 L per day	n/a
Washing machine (twin tub) (1 wash) [5]	40 L per wash	40 L per day	n/a
Laundry tub (half filled once a day) [2]	20 L per fill	140 L per day	n/a
Cooking and cleaning [2]	2 L per minute	4 L per day	4 L per person per day (2 minutes per day)
Brushing teeth (water running) (4 people) [2]	1 litres per brush	8 L per day	2 L per person per day (twice a day)
Watering by sprinkler/hand-held hose (once a week) [2]	200 L per week	10 400 L per year	n/a
Watering by bucket (once a	40 L per week	2 080 L per year	n/a

[2] Green Plumbers, 2003. "50 Point Environmental Household Inspection Report". Master Plumbers and Mechanical Services Association of Australia: Melbourne.
[3] Brisbane City Council, 2012. "Indoor Ideas" [Online], Available at: http://www.brisbane.qld.gov.au/environment-waste/water/for-home/indoor-ideas/index.htm. Accessed 12 July 2012. Brisbane City Council: Brisbane.
[4] Queensland Urban Utilities, 2012. "Fact Sheet for Business - Commercial Kitchens" [Online], Available at: http://www.urbanutilities.com.au/uploads/file/NEW%20Business%20Water%20Efficiency/Commercial%20Kitchens_Water%20efficiency.pdf. Accessed 13 July 2012. Queensland Urban Utilities: Brisbane.
[5] Kempsey Shire Council, 2012. "Water Services - FAQs" [Online], Available at: http://kempsey.nsw.gov.au/water/faqs.html. Accessed 12 July 2012. Kempsey Shire Council: West Kempsey.

Use or Appliance:	Average flow rate:	Average total water used:	Average per person:
week with an 8 L bucket and 5 buckets [2]			
Drip system (operating for 24 hours) [2]	4 L per hour	96 L per day	n/a
Hosing path/driveways (10 minutes) [2]	15 L per minute	150 L per day	n/a
Washing the car (with hose running) (5 minute wash) [6]	15 – 20 L per minute	100 L per wash	n/a
Filling a swimming pool (once a year) [2]	n/a	up to 110 000 L	n/a
Topping up a swimming pool (once a year) [2]	n/a	700 L	n/a
Cooling towers (for an 80 000 m^2 area) [7]	250 kL per day	91 250 kL a year	n/a
Other specific figures:			
Drinking [2]	n/a	n/a	1 L per person per day

Potable Water Consumption EarthCheck indicator measure:

$$= \frac{\text{Total potable water used (L or kL)}}{\text{Activity Measure}}$$

Greenhouse gas reductions: emissions from energy required for potable water treatment, distribution and disposal.

4.6 Recycled / Captured Water

Background: Potable water is a limited natural resource and should be only be used when alternative water sources (for example; recycled / grey / rain water) would not suffice (i.e. for drinking water). Consideration should also be taken into account regarding the installation of water saving devices which can reduce the consumption of water significantly. Examples of water saving devices include low / dual flush toilets, low flow tap fittings and low flow shower fittings.

Objective: Minimise use of potable water.

[6] Sunshine Coast Regional Council, 2012. "Fact Sheet - Vehicle Washing" [Online], Available at: http://www.sunshinecoast.qld.gov.au/addfiles/documents/water/vehicle_cleaning_factsheet.pdf. Accessed 12 July 2012. Sunshine Coast Regional Council: Sunshine Coast.

[7] Queensland Urban Utilities, 2012. "Fact Sheet for Business - Cooling Towers" [Online], Available at: http://www.urbanutilities.com.au/uploads/file/NEW%20Business%20Water%20Efficiency/Cooling%20towers_Water%20efficiency.pdf. Accessed 13 July 2012. Queensland Urban Utilities: Brisbane.

Application: Proportion of total water consumption derived from recycled / captured water sources.

Calculation: To complete the Recycled / Captured EarthCheck supplementary indicator, the organisation will be required to determine the proportion of total water consumed by the organisation that was from recycled / captured sources. This can be calculated using the following equation:

Recycled / Captured Water EarthCheck indicator measure:

$$= \left[\frac{\text{Total water consumption from recycled, captured water sources (L) per annum}}{\text{Total water consumption (L) per annum}} \right] \text{x } 100$$

4.7 Water Savings

Background: Potable water is a limited natural resource and should be only be used when alternative water sources (for example; recycled / grey / rain water) would not suffice (i.e. for drinking water). Consideration should also be taken into account regarding the installation of water saving devices which can reduce the consumption of water significantly. Examples of water saving devices include low / dual flush toilets, low flow tap fittings and low flow shower fittings.

All organisations are also encouraged to review the regularity of checks that are currently in place to identify leaks and using landscaping materials (i.e. plants) that require minimal water, taking into account the local climate.

Objective: Minimise use of potable water.

Application: Water saving devices and measures currently in use / installed.

Calculation: To complete the Water Savings EarthCheck checklist indicator, the organisation will be required to review each of the water saving devices and / or measures and evaluate its relevancy and current use within the operation.

Water Savings EarthCheck checklist indicator measure:

- How often does the organisation check for leaks?
- What percentage of all toilets installed are low / dual flush?
- What percentage of all tap fittings installed are low flow?
- What percentage of all shower fittings installed are low flow?
- What percentage of water sprinklers are used / operated after dark?
- What percentage of the landscaping requires minimal irrigation?
- What percentage of total water consumption is from recycled / grey / rain water sources?

4.8 Waste Sent to Landfill

Background: Used or waste materials sent to landfills not only creates a negative environmental impact from the transportation used, but also through a loss of resources and the risk from the leaking of contaminants and greenhouse gas emissions from the breakdown of organic materials. The replacement of

materials sent to landfill will also increase greenhouse gas emissions from the production and transport of such materials.

To reduce these impacts, the first step for the organisation should be to focus on three fundamental elements; reduce, reuse and recycle. For example; reducing quantities of materials consumed (including packaging); reusing materials including bottles and retreading of tyres; and recycling, which may include sending plastics, glass and paper to a contractor for recycling or composting green wastes (e.g. food waste and / or garden waste) onsite or offsite.

As part of the Environmental and Social Sustainability Policy, consideration should be given to the options that have the best local environmental impact. For example, recycling may not always be feasible (e.g. no local facility) and onsite waste to energy systems may be a better route, obtaining both energy and a reduction in the volume of waste disposed (measured either as uncompacted or mechanically compacted material).

It is recognised that in certain regions of the world, not all organisations have any or sufficient means to monitor accurately the amount of materials sent to landfill. Whilst assessment of waste collected (due to charges levied) is generally a common practice worldwide, in some jurisdictions collection charges may be at a set rate (i.e. not based on a volume or a weight).

Nevertheless, all organisations are encouraged to measure the quantity of waste disposed of as this not only provides a guide to sustainable performance, but also associated costs (e.g. in collection and disposal charges).

Objective: Reduce the amount of solid waste generated.

Application: All material sent to landfill by the operation.

Calculation: The calculation of total Waste Sent to Landfill is available from bills issued by an organisation's waste contractor. In the event where total Waste Sent to Landfill cannot be determined or is not measured, the organisation should adopt a sampling method over a given period of time and extrapolate the data over the benchmarking period.

Waste Sent to Landfill EarthCheck indicator measure:

$$= \frac{\text{Total waste sent to landfill (L or t)}}{\text{Activity Measure}}$$

Greenhouse gas reductions: Emissions from energy required for material production, and subsequent waste transposition and disposal.

4.9 Recycled / Reused / Composted Waste

Background: Reducing the amount of materials that are sent to landfill that could potentially be recycled / reused / composted will not only reduce costs (e.g. in collection and disposal charges), but also the impact on the environment, particularly in relation to greenhouse gas emissions from the production and transport of such materials.

The first step for the organisation should be to focus on three fundamental elements; reduce, reuse and recycle. For example; reducing quantities of

materials consumed (including packaging); reusing materials including bottles and retreading of tyres; and recycling, which may include sending plastics, glass and paper to a contractor for recycling or composting green wastes (e.g. food waste and / or garden waste) onsite or offsite.

Objective: Increase the recycling / reuse / composting of materials.

Application: Proportion of total waste produced that is recycled / reused / composted.

Calculation: To complete the Recycled / Reused / Composted EarthCheck supplementary indicator, the organisation will be required to review what proportion of total waste produced by the organisation was recycled / reused / composted, by using the following equation:

Recycled / Reused / Composted EarthCheck indicator measure:

$$= \left[\frac{\text{Total waste recycled, reused, composted (L) per annum}}{\text{Total waste produced (L) per annum}} \right] \text{ x } 100$$

4.10 Waste Recycling

Background: Reducing the amount of materials that are sent to landfill that could potentially be recycled / reused / composted will not only reduce costs (e.g. in collection and disposal charges), but also the impact on the environment, particularly in relation to greenhouse gas emissions from the production and transport of such materials.

The first step for the organisation should be to focus on three fundamental elements; reduce, reuse and recycle. For example; reducing quantities of materials consumed (including packaging); reusing materials including bottles and retreading of tyres; and recycling, which may include sending plastics, glass and paper to a contractor for recycling or composting green wastes (e.g. food waste and / or garden waste) onsite or offsite.

Objective: Increase the recycling / reuse / composting of materials.

Application: Proportion of waste materials recycled / reused / composted.

Calculation: To complete the Waste Recycling EarthCheck checklist indicator, the organisation will be required to review each of the waste material types and evaluate its relevancy and the proportion that the organisation is currently recycling / reusing / composting.

Waste Recycling EarthCheck checklist indicator measure:

- What percentage of total glass used by the organisation was recycled / reused / composted?
- What percentage of total paper / card used by the organisation was recycled / reused / composted?
- What percentage of total iron and steel (ferrous) metals used by the organisation was recycled / reused / composted?
- What percentage of total other metals (non-ferrous) used by the organisation was recycled / reused / composted?
- What percentage of total plastics used by the organisation was recycled / reused / composted?
- What percentage of total rubber used by the organisation was recycled / reused / composted?
- What percentage of total green waste produced by the organisation was recycled / reused / composted?

4.11 Community Commitment

Background: A key issue in achieving sustainability is to consider the social as well as environmental impact of the organisation on local communities. Respecting (where appropriate) local traditions and customs, and purchasing (where possible) local goods and services are positive contributions that can be made. Other considerations may include active participation in local committees and organisations.

Community Commitment monitors the number of owners, managers and / or employees that live close to the organisation's permanent location. Organisations located in remote areas, such as on small populated islands or wilderness regions, the nearest permanent township can be used instead of the organisation's location. This highlights and encourages local employment, and thereby economic contribution to the local communities, as well as minimising environmental impacts due to transportation of staff / employees.

Objective: Encourage local employment to develop and maintain positive, productive and sustainable contributions to, and relations with, the local community.

Application: Distance employees live from their place of work.

Calculation: To calculate Community Commitment, the organisation will need to review each employee's (FTE) residential address and determine what proportion of employees live onsite and / or live within 20 km of the organisation's location.

Community Commitment EarthCheck indicator measure:

$$= \left[\frac{\text{Employees (FTE) with a residential address within 20 km of the operation + employees living onsite}}{\text{Total number of employees (FTE)}} \right] \text{ x } 100$$

Greenhouse gas reductions: Emissions from long distance transport energy consumption.

4.12 Community Contributions

Background: Supporting the local community is fundamental in social sustainability. Respecting (where appropriate) local traditions and customs, and purchasing (where possible) local goods and services are positive contributions that can be made. Other considerations may include active participation in local committees and organisations.

Community Contributions monitors the initiatives an organisation is undertaking in supporting their local community, economically, socially and / or environmentally. It also takes into account the educational value of sustainability issues for staff members.

Objective: Encourage support for the local community economically, socially, and environmentally, and to educate employees on sustainability issues.

Application: Community initiatives and training programs currently in place.

Calculation: To complete the Community Contributions EarthCheck checklist indicator, the organisation will be required to review each of the community initiative types and evaluate its relevancy and the proportion that the organisation is currently implementing.

Community Contributions EarthCheck checklist indicator measure:

- What percentage of total net income was spent on sustainability programs?
- What percentage of total perishable goods purchased are of local origin?
- What percentage of total service contracts are given to local contractors?
- What percentage of total staff members have received training on sustainability issues?

- ***Net income spent on sustainability programs:***

  Net income is an organisations total profit (i.e. total revenue – total expenses = profit / loss). Therefore, this component refers to the percentage of Net Income spent or donations in-kind (e.g. staff members volunteering work hours) donated to sustainability programs that are of environmental, social or economic benefit to communities. Examples of sustainability programs may include but not limited to: tree planting, charitable monetary donations, providing assistance for the under-privileged, clean up days and carbon sequestration programs.

$$= \left[\frac{\text{Total Net income spent on sustainability programs}}{\text{Total Net income}} \right] \text{x } 100$$

- ***Perishable goods purchased that are of local origin:***

  In defining local it is unrealistic to specify a specific distance as not all required produce may be available (or indeed be possible to produce) within that distance. As a consequence, the definition is assigned to perishable goods produced within the country of the organisation. The intent with this component is to encourage the consumption of perishable goods (typically fruits, vegetables, dairy products and meats) that are produced locally, both in terms of supporting the local economy and reducing environmental impact relating to transportation.

$$= \left[\frac{\text{Total perishable goods purchased of local origin}}{\text{Total perishable goods purchased}} \right] \text{x } 100$$

- ***Service contracts given to local contractors:***

  Local is defined as within 20km of the operation; organisations located in remote areas, such as on small populated islands or wilderness regions, the nearest permanent township can be used instead of the organisation's location.

  Service contracts are defined as any written contract that is between the organisation and another organisation / entity whereby the organisation receives physical services (e.g. builder performing renovations), and / or intellectual services (e.g. legal advice). A written contract would also include purchase orders or any statement that appears within the organisation's financial records.

$$= \left[\frac{\text{Total number of service contracts given to local contractors}}{\text{Total number of service contracts}} \right] \text{x } 100$$

- ***Staff received training on sustainability issues:***

  This purpose of this component is to ensure that all staff are aligned with the goals of the program and that they are aware of methods they can use to reduce the environmental, social and economic impacts of the organisation. It is also an opportunity to encourage staff to source local products, recycled products and biodegradable products wherever possible.

$$= \left[\frac{\text{Total number of staff received training on sustainability issues}}{\text{Total number of staff}} \right] \text{ x } 100$$

4.13 Paper Products

Background: An active policy of purchasing supplies of materials from sources using environmentally sound ingredients and processes can be a major contribution to resource conservation and biodiversity through less impact on the local ecosystem.

A strategy of reuse and recycle where possible, coupled with the use of products proven to be environmentally friendly (such as products carrying credible ecolabels / products that are recycled) should be adopted. For paper products, desirable qualities include avoidance of chlorine-based bleaches, use of biodegradable inks and dyes, and use of wood from sustainable plantations.

Objective: Reduce consumption of natural resources and the impact on ecosystem biodiversity.

Application: Specific paper products purchased by the operation.

Calculation: To complete the Paper Products EarthCheck checklist indicator, the organisation will be required to review each of the paper product types and evaluate its relevancy and the proportion that the organisation is currently purchasing as a recycled / ecolabelled product.

Paper Products EarthCheck checklist indicator measure:

- What percentage of total office paper purchased by the organisation are recycled / ecolabelled products?
- What percentage of total serviettes purchased by the organisation are recycled / ecolabelled products?
- What percentage of total tissues purchased by the organisation are recycled / ecolabelled products?
- What percentage of total toilet tissues purchased by the organisation are recycled / ecolabelled products?
- What percentage of total paper towels purchased by the organisation are recycled / ecolabelled products?

Greenhouse gas reductions: Emissions associated with raw material consumption.

4.14 Cleaning Products

Background: The active (non-water) chemical ingredients of cleaning products (e.g. detergents, degreasers, surface cleansers, hand soaps, shampoos etc.) can end up in wastewater (from cleaned toilets, washbasins, washing machines, kitchen sinks etc.), as well as the ground and stormwater systems (from

run-off from cleaning bays, roofs, windows, car parks etc.). They can represent a significant source of environmental contamination in terms of toxicity and disturbance of the natural balance of ecosystems (for example, phosphates contributing to eutrophication).

Objective: Reduce non-biodegradable chemicals discharged into the environment.

Application: All chemicals used by the operation for cleaning purposes.

Calculation: To complete the Cleaning Products EarthCheck checklist indicator, the organisation will be required to review each of the cleaning product types and evaluate its relevancy and the proportion that the organisation is currently purchasing as a biodegradable / ecolabelled product.

Cleaning Products EarthCheck checklist indicator measure:

- What percentage of total hard floor cleaners purchased by the organisation are biodegradable / ecolabelled products?
- What percentage of total carpet cleaners purchased by the organisation are biodegradable / ecolabelled products?
- What percentage of total interior surface cleaners purchased by the organisation are biodegradable / ecolabelled products?
- What percentage of total external surface cleaners purchased by the organisation are biodegradable / ecolabelled products?
- What percentage of total glass cleaners purchased by the organisation are biodegradable / ecolabelled products?
- What percentage of total detergents purchased by the organisation are biodegradable / ecolabelled products?
- What percentage of total personal hygiene products purchased by the organisation are biodegradable / ecolabelled products?

Greenhouse gas reductions: Emissions from energy required for chemical production and water contamination treatment.

4.15 Pesticide Products

Background: A reduction in the ecological impact of pesticides can be achieved by greater use of biodegradable products (usually based on natural plant extracts) and alternative practices including integrated pest management programs (programs that develop locality specific solutions and can include practices such as using grass species suited to the locality and avoiding over-application of chemicals).

Objective: Reduce use of non-biodegradable chemicals in the environment.

Application: All types of pesticides used.

Calculation: To complete the Pesticide Products EarthCheck checklist indicator, the organisation will be required to review each of the pesticide product types and evaluate its relevancy and the proportion that the organisation is currently purchasing as a biodegradable / ecolabelled product.

Pesticide Products EarthCheck checklist indicator measure:

- What percentage of total weed killers purchased by the organisation are biodegradable / ecolabelled products?
- What percentage of total fungal killers purchased by the organisation are biodegradable / ecolabelled products?
- What percentage of total rodent killers purchased by the organisation are biodegradable / ecolabelled products?
- What percentage of total insect killers purchased by the organisation are biodegradable / ecolabelled products?

Greenhouse gas reductions: Emissions from energy required for chemical production and water contamination treatment.

4.16 Corporate Social Responsibility

Background: A continuing commitment to Corporate Social Responsibility (CSR) by businesses will contribute to the economic development of the region while improving the quality of life of the workforce and their families, as well as of the community and society at large.

Objective: To ensure the employment equality and well-being of staff, thus improving overall quality of life and sustainability of the socio-economic system.

Application: All corporate aspects of employment entitlements and benefits.

Calculation: To complete the Corporate Social Responsibility EarthCheck checklist indicator, the organisation will be required to review each of the social measures and evaluate its current implementation within the operation.

Corporate Social Responsibility EarthCheck checklist indicator measure:

- What percentage of male staff salaries are above local minimum wage?
- What percentage of female staff salaries are above local minimum wage?
- What percentage of staff are offered a retirement fund?
- How many weeks of paid leave do staff receive per year?
- How many hours are worked per staff (FTE) in your organisation?
- What is the percentage of staff turnover?
- What percentage of staff is offered dental & medical benefits?
- What percentage of the management team is female?
- What percentage of staff are female?
- What percentage of staff receives vocational training provided by the employer/ organisation?
- Do gender equity / equality appear specifically in your organization's values / vision / mission / similar statement?

5. OPTIONAL INDICATORS

Organisations can also nominate Optional Indicators which allow them to select or specify particular indicators for their individual monitoring.

Optional Indicators are encouraged but do not form part of the formal benchmarking evaluation that assesses whether the organisation has successfully met the requirements to pass a benchmarking assessment.

There are two types of Optional Indicators an organisation can include in their benchmarking assessment; Operation Selected Indicators and Operation Specified Indicators.

Operation Selected Indicators are selected from a supplied list within the Online Benchmarking Software, whereas Operation Specified Indicators are devised by the organisation for their own internal performance monitoring.

5.1 Operation Selected Indicators

Background: Although optional, the organisation can select one or more indicators from a list provided. These indicators and their measures should be considered particularly relevant to the organisation and its environmental / social / economic impacts, and worthy of promotion.

Objective: Positive commitment to the local environment, society and economy.

Application: Selection of one or more indicators from the supplied list within the Online Benchmarking Software.

Calculation: To measure an Operation Selected Indicator, the organisation will be required to select the indicator/s they wish to monitor and calculate based on the relevant equation, as illustrated below:

Carbon Sequestration:

$$= \left[\frac{CO_2 \text{ sequestered (tonnes) per annum}}{\text{Total } CO_2 \text{ generated (tonnes) per annum}} \right] \text{ x } 100$$

Renewable Energy:

$$= \left[\frac{\text{Renewable energy consumed(MJ) per annum}}{\text{Total energy consumed(MJ) per annum}} \right] \text{ x } 100$$

Environmentally Accredited Operators:

$$= \left[\frac{\text{Environmentally accredited operators and suppliers dealt with per annum}}{\text{Total number of operators and suppliers dealt with per annum}} \right] \text{ x } 100$$

Habitat Conservation:

$$= \left[\frac{\text{Property area used for habitat conservation (ha)}}{\text{Total property area (ha)}} \right] \text{ x } 100$$

Country Products Purchased:

$$= \left[\frac{\text{Own country produced consumable products purchased per annum}}{\text{All consumable products purchased per annum}} \right] \text{x } 100$$

Monetary Contributions to Communities:

$$= \left[\frac{\text{Monetary local community activity contributions per annum}}{\text{Net operational turnover per annum}} \right] \text{x } 100$$

Staff Training:

$$= \left[\frac{\text{Total number of service staff formally trained}}{\text{Total number of service staff}} \right] \text{x } 100$$

Monetary Contributions to Conservation:

$$= \left[\frac{\text{Total of direct monetary and /or in kind monetary contributions to conservation per annum}}{\text{Net operational turnover per annum}} \right] \text{x } 100$$

5.2 Operation Specified Indicators

Background: Although optional, the organisation can specify one or more indicators. These indicators and their measures should be considered particularly relevant to the organisation and its environmental / social / economic impacts, and worthy of promotion.

These indicators can reflect the organisation's commitment to improving local issues (e.g. water quality, endangered species, habitat preservation, cultural heritage, community development etc.), and it may often be a reflection of staff activities.

Objective: Positive commitment to the local environment, society and economy.

Application: One or more indicators devised by the operation.

Calculation: To measure an Operation Specified Indicator, the organisation will be required to devise the indicator/s they wish to monitor and calculate based on a relevant equation; some examples are illustrated below:

Litter Program Participation:

$$= \left[\frac{\text{Total number of employees participating in litter clean-up programs}}{\text{Total number of employees}} \right] \text{x } 100$$

Training Attendance:

$$= \left[\frac{\text{Total number of employees attending training and education programs}}{\text{Total number of employees}} \right] \text{x } 100$$

6. DEFINITION OF ACCOMMODATION SUBSECTORS

Accommodation Subsectors
Due to the significant differences in accommodation types offered to guests, the Accommodation sector is broken down into sub-sectors; each with their own Baseline and Best Practice data associated with it. For a definition of each sub-sector, please see below:

Business Hotel
As a general classification, establishments where guests stay an average of two or less nights are classified as business hotels. There are varying levels of services provided within this classification, although restaurant and other facilities, such as swimming and exercise rooms are usually found onsite. They may also, depending upon national regulations, be licensed to operate a general public access bar. Due to their nature, most rooms and on-site facilities are generally not extensively used during the day, unless the establishment caters for functions, conventions and conferences.

Business hotels generally also provide guests with extensive business facilities and / or services, which include but are not exclusive to; high speed internet access, business centre, courier service, printer etc.

Bed & Breakfast
Establishments that provide accommodation on a room-by-room basis, which are generally not licensed to sell alcohol, but the tariff will be expected to include both accommodation and breakfast. In some cases additional meals may be also available from the proprietors at an additional charge. Enterprises placed within this category have generally five or fewer bedrooms and the infrastructure originally built for non-commercial purposes (although it may have undergone subsequent renovations). The owner generally lives on the premises.

Hostel
Establishments that provide accommodation primarily on a per bed, rather than a per room basis. Furthermore, accommodation is often, but not essentially, dormitory style with four or more guests sharing a room. In general, bathrooms and cooking facilities are also shared or communal. This type of accommodation is typically aimed at those travelling on low cost budgets.

Motel
Usually this style of accommodation is designed to cater for travelling motorists, with parking facilities located outside, or close to each room. Breakfast is usually available at an additional charge to the room tariff. Within this category, some motels may have attached restaurants, which depending upon national regulations, may also have a limited liquor license that enables proprietors to serve only guests and persons accompanying guests.

Ryokan
As a general classification Ryokan would be classified as accommodation establishment that utilises hot springs in the form of indoor and outdoor baths. There are varying levels of services provided within this classification such as spa treatments, food and beverage facilities and other services offered onsite. Due to their nature, most rooms and on-site facilities are generally used throughout the day.

Serviced Apartments
A Serviced apartment is a type of furnished apartment available for short-term or long-term stays, which provides amenities for daily use. Serviced apartments are all fully furnished and equipped with appliances such as a microwave, oven, television, DVD, washing machine, dryer and often internet access. The size of the apartment is generally larger in size than a traditional accommodation room and offers a living away from home experience.

Vacation Hotel
As a general classification, establishments where guests stay an average of three or more nights are classified as vacation hotels. There are varying levels of services provided within this classification, although restaurant and other facilities, such as swimming and exercise rooms are usually found onsite. They may also, depending upon national regulations, be licensed to operate a general public access bar. Due to their nature, most rooms and on-site facilities are generally used throughout the day.
Vacation hotels generally also provide guests with extensive entertainment and recreation facilities and / or services, which include but are not exclusive to; aromatherapy and spa services, tennis, golf course, water sports etc.

Villa
Villas are establishments which are all-inclusive resorts or luxurious villas with exclusive facilities for guests, including (but not exclusive to) individual plunge pools and spas. Due to their nature, most rooms and on-site facilities are generally used throughout the day.

Villas generally also provide guests with extensive entertainment and recreation facilities and / or services, which include but are not exclusive to; aromatherapy and spa services, tennis, golf course, water sports etc.

7. GLOSSARY OF TERMS

Activity Measure: A measure that reflects the key activity of the organisation, taking into account the type of impact.

Baseline Level: Performance level of an EarthCheck indicator that if exceeded demonstrates an organisation is achieving sound environmental and social performance.

Benchmarking Assessment Report: A document issued by EarthCheck at its discretion after conducting the Benchmarking Assessment and stating whether or not the organisation has met the benchmarking requirements.

Benchmarking Period: A 12 month period (selected by the organisation), which represents an overview of an organisation's performance. This period must not be more than 10 months old at time of submission. Suggested benchmarking periods (for ease of reporting and data collection) are the calendar year and the financial year.

Best Practice Level: Performance level of an EarthCheck indicator that demonstrates the organisation is achieving exemplary performance.

Biodegradable: A material that can be broken down rapidly by micro-organisms, such as bacteria and fungi, into simple molecules, such as carbon dioxide or water; without leaving harmful residues in the environment.

Biodiversity: A concept relating to the degree of nature's variety. It encompasses all species of plants, microorganisms, animals and ecological processes within the ecosystem of which they are part.

Biomass: Material produced naturally by plants as part of their growing cycle (e.g. wood and leaves).

Captured water: Captured water is water captured from natural sources which would otherwise feed into the natural water course. For example, rain water fed from a rain water tank would be regarded as captured water.

Carbon Sequestration: A process where plants as they grow capture and store the carbon in the gas carbon dioxide (CO2) in biomass. CO2 is emitted to the atmosphere as the result of a variety of activities including burning fossil fuels and its build up is thought to encourage global warming.

Cleaner Production: Adoption of new / modified processes / activities that are more efficient, thereby consuming less material and energy resources, and producing less waste and emissions, and hence have a lower impact on the environment.

CO_2-e Production: A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential (GWP). Carbon dioxide equivalents are commonly expressed as 'million metric tonnes of carbon dioxide equivalents (MMTCDE)'. The carbon dioxide equivalent for a gas is derived by multiplying the tonnes of the gas by the associated GWP. MMTCDE = (million metric tonnes of a gas) * (GWP of the gas). For example, the GWP for methane is 21 and for nitrous oxide 310. This means that emissions of 1 million metric tonnes of methane and nitrous oxide respectively is equivalent to emissions of 21 and 310 million metric tonnes of carbon dioxide.

Dominant Components: Relate to the aspects of an organisation's operation that consume the most energy and resources within the operation. To ensure an organisation is benchmarked accurately, an organisation will need to identify the correct dominant components (refer to section 1.2 for more information).

EarthCheck indicators: Represent measures of an organisation's performance in a specific area which relates directly or indirectly to one or more of the Key Performance Areas.

Ecoefficiency: See cleaner production.

Ecolabel: A label supported by a national or international accredited body that identifies a product as manufactured in an environmentally friendly manner and that during and after use, it and its by-products are environmentally safe.

Ecosystem: Community of plant and animal species and their surrounding physical environment. Depending on their living requirements, plants and animals may rely on others and their physical environment to differing extents.

Environmental impacts: Effects that an organisation has on the environment as a consequence of its activities.

Eutrophication: A build-up of nutrients (for example: nitrogen and phosphorus) in water bodies. The consequence is encouragement of some naturally occurring species, such as algae to grow to disproportionately high numbers and cause algal blooms. This may occur naturally, over the life cycle of a water body, or artificially, when manufactured chemicals enter the water from surface runoff, stormwater and / or wastewater.

Exterior surfaces: Any surface that is considered outdoors; this may include but is not exclusive to tables, outdoor swimming pools, etc.

Ferrous metals: A term given to any metal that has a presence of iron.

Full Time Equivalent (FTE): Represents the measure of time for a person's involvement in a project, job or work environment. An individual who works full time would equate to 1.0 FTE, whereas an individual who works half the time of a full time staff members would equate to 0.5 FTE.

Global warming: A build-up of greenhouse gases is generally believed to be causing a steady warming of the Earth's atmosphere that could trigger glacier melting, potentially disastrous rises in sea level, and changes in various climatic regimes. It can be readily argued, therefore, that due to their location, a very significant number of Travel and Tourism activities worldwide have a direct interest in ensuring that the potentially disastrous consequences are prevented.

Greenhouse gases: Human activities, such as burning fossil fuels (oil, gas and coal), are unleashing emissions of gases, in particular carbon dioxide (CO2), that act as an atmospheric blanket, trapping thermal radiation emitted from the Earth's surface, causing the greenhouse effect.

Green waste: Any waste that is considered biodegradable; in other words, any waste (typically food and garden waste) that can be broken down by other living organisms.

Gross turnover: Represents an organisation's total revenue.

Interior surfaces: Any surface that is considered indoors; this may include but is not exclusive to bench tops, tables, kitchen equipment, desks etc.

Net income: Represents an organisation's total profit / loss. In other words; Net income = Total revenue – Total expenses.

Non-ferrous metals: A term given to any metal that does not have a presence of iron.

Online Benchmarking Software: The tool used to enter and submit an organisation's benchmarking data for a nominated benchmarking period. This tool is available from an organisation's 'My EarthCheck' home.

Organisations: Companies, organisations, corporations; or enterprises, whether or not incorporated.

Perishable goods: Any product that is subject to spoilage and / or decay within in minimal time period; these products are typically in the form of fruits, vegetables, dairy products and meats.

Personal hygiene: Any product that is used to care for one's bodily health and cleanliness by an individual. This may include but is not exclusive to: deodorant, shampoo, conditioner, shower gels and soaps.

Potable water: Water suitable for drinking (i.e. typically treated to remove harmful elements), although can be used for other purposes (e.g. washing, irrigation, swimming pools etc.).

Recycled water: Water taken from any waste (effluent) stream and treated to a level suitable for further use, where it is used safely and sustainably for beneficial purposes.

Sector: A category which reflects an organisation's scope and operational function/s.

Service contracts: Any written contract that is between the organisation and another organisation / entity. A written contract also includes purchase orders or any statement that appears within the organisation's financial records.

Stakeholders: All individuals and groups that interact with the organisation (for example: shareholders, employees, customers, suppliers, local community, government etc.).