

Snaefellsnes

GREEN GLOBE COMMUNITY BENCHMARKING

BENCHMARKING ASSESSMENT REPORT

SNAEFELLSNES
Iceland

16 September 2004

Assessment Conducted by Earth Check Pty Ltd

Snaefellsnes

OVERVIEW

This annual assessment of the **Snaefellsnes** was undertaken against **earthcheck™** benchmarking indicators developed for GREEN GLOBE. These indicators, listed below, have been carefully selected to track performance in key areas of environmental and social performance impact. The lead agency responsible for collection, collation and authorization of the information required by the indicators was the **Snaefellsnes Council**.

| | earthcheck™ Indicator | Annual Benchmark |
|----|------------------------------------|--|
| 1 | Sustainability policy ^A | Policy is produced and in place |
| 2 | Energy consumption | Energy consumed (MJ) / Person year ^B |
| 3 | Greenhouse gas production | Carbon dioxide (tonne) / Person year ^B |
| 4 | Air quality | Nitrogen oxides generated / Person year per Area ^C |
| 5 | Air quality | Sulphur dioxides generated / Person year per Area ^C |
| 6 | Air quality | Particulates generated / Person year per Area ^C |
| 7 | Potable water consumption | Water consumed (kL) / Person year ^B |
| 8 | Solid waste production | Volume of waste (m ³) / Person year ^B |
| 9 | Resource conservation ^D | Total paper products purchased (kg) / Employee per year ^E |
| 10 | Resource conservation ^D | Biodegradable pesticides used (kg) / Total pesticides used (kg) |
| 11 | Resource conservation ^D | Biodegradable cleaning chemicals used (kg) / Total pesticides used (kg) |
| 12 | Biodiversity | Habitat conservation area / Total community area |
| 13 | Waterways quality | Water quality tests passed / Water samples taken |
| 14 | Travel & tourism | Environmental performance accredited travel & tourism operations / Total travel & tourism operations |

^A produced by the lead agency after community consultation and consensus.

^B A person year is equivalent of 365 person days. GREEN GLOBE communities are often also significant destinations for visitors as a consequence of travel and tourism. Consequently indicators assessed on a per person year basis need to take into account both the resident and the transient (tourist) populations. Tourist activity is classified into an "overnight stay" or "day tripper". An overnight stay is counted the same as a permanent resident, that is, 1 person day. A day tripper is counted as 0.333 person day.

^C calculated on a per person year per unit area basis using the total emissions, total person years and total bounded area of the community, including waterways.

^D carried out by the lead agency only.

^E per employee of the lead agency.

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In addition to the list on the previous page, a range of optional indicators are also provided. These present the opportunity for the community to benchmark areas that reflect specific commitments to the local environment by the community.

Optional benchmarks are encouraged and recognized by GREEN GLOBE, but are not used in the Benchmarking evaluation that assesses whether the community has reached the standards necessary to use the GREEN GLOBE 21 logo.¹



The data for the listed **earthcheck**[™] indicators and their benchmarks have been compiled for **Snaefellsnes** in the prescribed manor, authorized by a senior officer of the community's lead agency, the **Snaefellsnes Community Council**, and submitted to GREEN GLOBE for an annual independent assessment conducted by Earth Check Pty Ltd.

¹ To meet the annual benchmarking requirements of GREEN GLOBE and have the right to use the GREEN GLOBE 21 logo, the benchmarks for all the **earthcheck**[™] indicators should be at or above the Baseline level. Baseline performance and Best Practice are set by GREEN GLOBE and Earth Check Pty Ltd with reference to the appropriate national and international conditions which take into account social, economic, geographical and climatic impacts.

If a community fails to meet the minimum requirements for one **earthcheck**[™] indicator (Baseline or above performance), but achieves Baseline or better performance in all the other **earthcheck**[™] Indicators, then the community is allowed to use the GREEN GLOBE 21 logo. It is, however, given a maximum of 12 months to improve performance in that indicator. After 12 months, if the community still does not achieve Baseline or better performance without substantiated evidence that the situation was beyond the control of the community (e.g. occurrence of a natural disaster), then the right to use the GREEN GLOBE 21 logo will be withdrawn.

As a standard policy, all **earthcheck**[™] indicators are continuously reviewed for GREEN GLOBE, along with the performance levels which communities have to achieve in order to use of the GREEN GLOBE 21 logo. This review by a team of international experts takes into account "business-as-usual" changes in practices and equipment, as well as general improvement trends in performance. This information is used to update the Baseline and Best Practice levels, and as useful feedback to the industry will be made available in published reports. However, a minimum of 12 months advanced warning will be supplied, along with a clear justification, of changes in any required benchmarking performance related data.

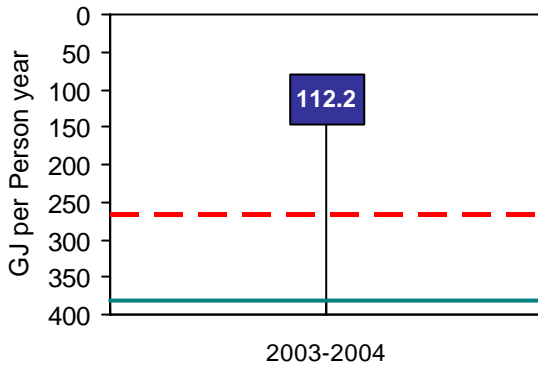
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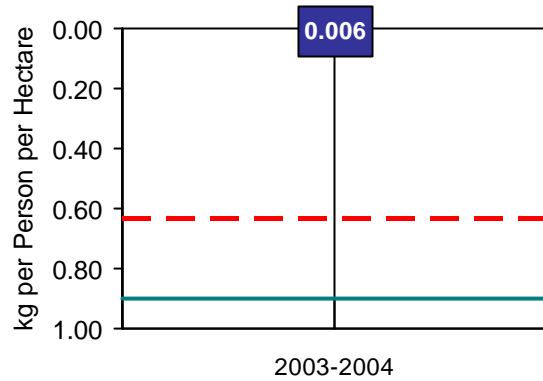
COMMUNITY PERFORMANCE BENCHMARKS

1 The Surf Coast Shire has a Sustainability Policy in place ✓

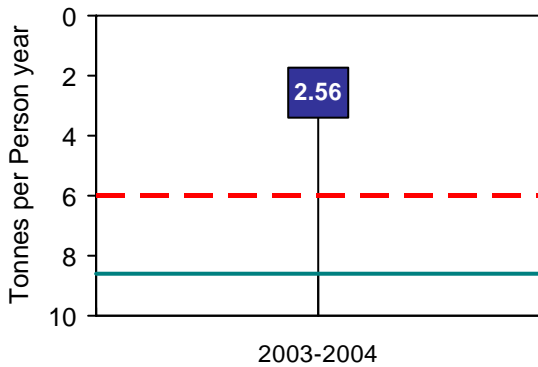
2 **Energy consumption** ★
Energy consumed / Person year



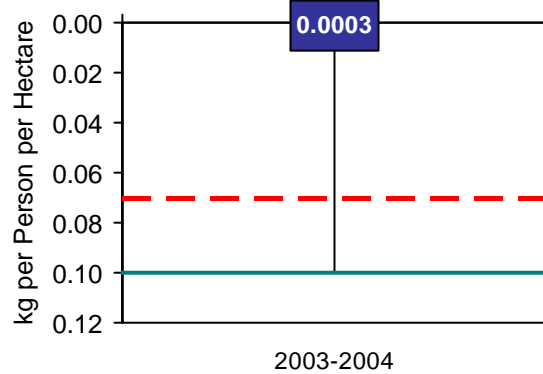
5 **Air quality** ★
Sulphur dioxide (SO₂) generated / Person / Area



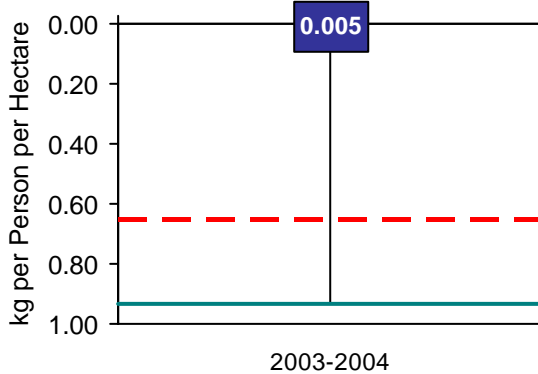
3 **Greenhouse gas production** ★
Carbon dioxide (CO₂) produced / Person year



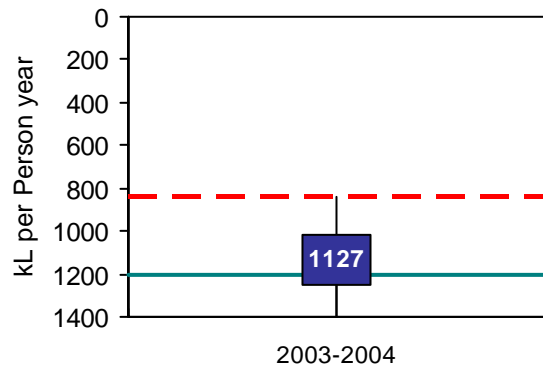
6 **Air quality** ★
Particulates (PM 10) generated / Person / Area



4 **Air quality** ★
Nitrogen oxides (NO_x) generated / Person / Area



7 **Water consumption** ✓²
Potable water consumed / Person year



Performance Level: Baseline — Best Practice - - -

Benchmarking Result: ✘ Below Baseline ✓ At or above Baseline ★ At or above Best Practice

² Best Practice, Baseline and consumption figures are the entire community. Typically, non-domestic consumption (including agriculture and fisheries) accounts for around 50-80% of the overall consumption of fresh water.

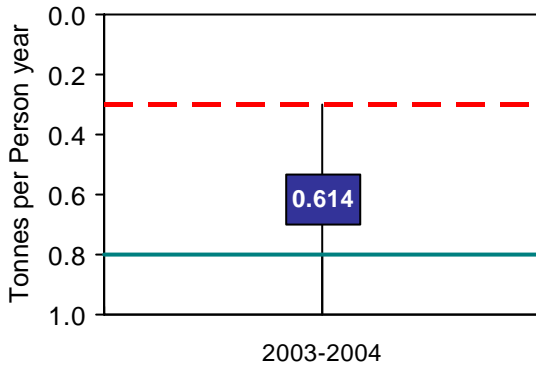
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COMMUNITY PERFORMANCE BENCHMARKS *continued*

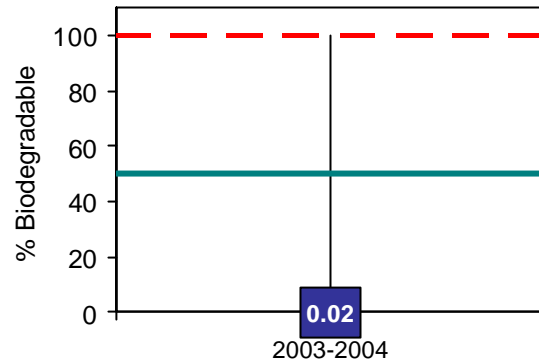
8 Solid waste production ✓

Waste landfilled / Person year



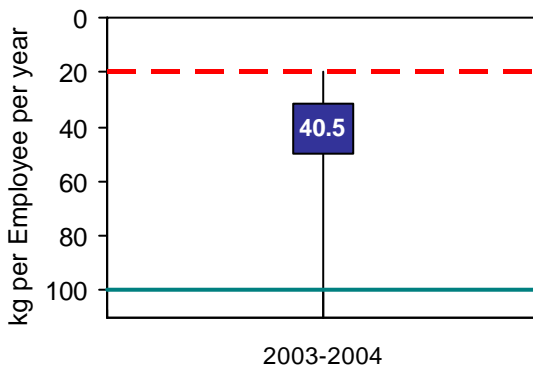
11 Resource conservation ^A ✗

Biodegradable cleaning chemicals / Total cleaning chemicals



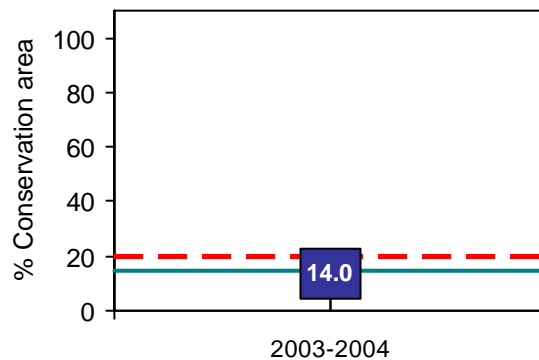
9 Resource conservation ^A ✓

Paper purchased / Employee



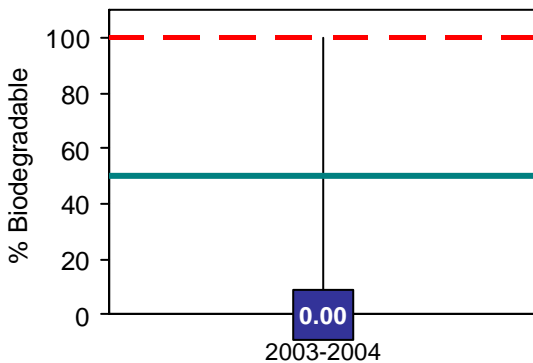
12 Biodiversity ✓

Habitat conservation area / Total community area



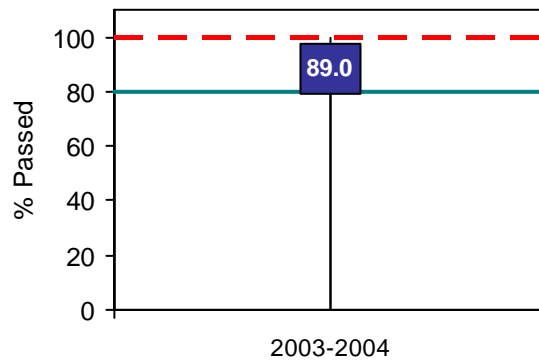
10 Resource conservation ^A ✗

Biodegradable pesticides used / Total pesticides used



13 Waterways quality ✓

Water test passes / Water samples taken



Performance Level:

Baseline ———

Best Practice - - - - -

Benchmarking Result: ✗ Below Baseline ✓ At or above Baseline ★ At or above Best Practice

^A assessed for the community's lead agency – the **Snaefellsnes Community Council**

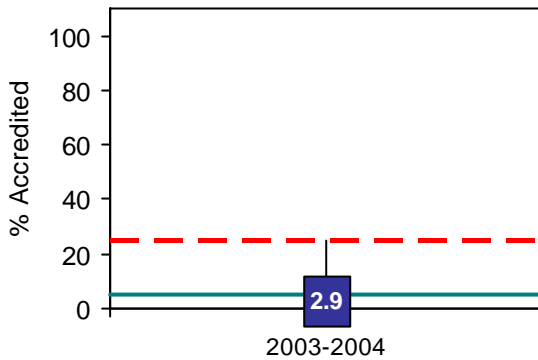
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COMMUNITY PERFORMANCE BENCHMARKS *continued*

14 Travel & Tourism

Environmental performance accredited operations
/ Total travel & tourism operations



It is recognized that in most regions around the world, travel and tourism has not, until very recently, had access to environmental accreditation programs, such as GREEN GLOBE, that are suitable for their business.

As a consequence this indicator's role is not to pass/fail a community, but rather to encourage local operators, who are generally the main point of contact for visitors to the community, to start taking part in environmentally aware programs. This will not only help support the community's goals for a better environment, but also promote their own businesses.

Performance Level: Baseline — Best Practice - - -
Benchmarking Result: ✘ Below Baseline ✓ At or above Baseline ★ At or above Best Practice

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CONCLUSION AND RECOMMENDATIONS

Congratulations, **Snaefellsnes** has successfully passed the requirements to become recognized as a GREEN GLOBE Benchmarked Community for the next 12 months, and retains the right to display the GREEN GLOBE 21 logo during this period.



All but two of the indicators are at, or above, the GREEN GLOBE Baseline level. Indeed five are at, or above, Best Practice level, *Energy Consumption*, *Greenhouse Gas Production*, *Air Quality (NO_x)*, *Air Quality (SO₂)*, and *Air Quality (PM₁₀)*, which is an excellent outcome to be very highly commended.

However, it is necessary to note that those indicators on air emissions reflect important issues relating to key Icelandic industries. Firstly the energy consumed by the local fishing fleet was not included in these reported figures for **Snaefellsnes**, but is in the Baseline data, which is a reflection of the national situation (fishing accounts for around 70% of Iceland's export earnings).³ Secondly, Iceland has pockets of very energy intensive land-based industries (e.g., aluminium smelting), which consume up to 60% of the country's total produced electricity, and again in relation to their emissions will be included in the Baseline level (there were no reported industries of this type in **Snaefellsnes**).

As a consequence, as the country is relatively small and with an equally small population (and, therefore, population density), the absence, or location, of one or more of these industries in a community, will have a very significant impact on the level of assessed emissions to air.

It should be also noted that *Biodiversity* is just under, but well within 10% of the Baseline level. In accordance with GREEN GLOBE Policy this benchmark falls within a permissible range. The **Snaefellsnes** Community is nevertheless encouraged to seek to increase the percentage of its land set aside to preserve natural habitats and hence biodiversity.

The two indicators that are well below Baseline level are *Resource Conservation (Biodegradable Pesticides)* and *Resource Conservation (Biodegradable Cleaning Chemicals)*. The value for *Biodegradable Cleaning Chemicals* is extremely low, but it is acknowledged that the primary reason for this is the extensive use of chlorine in communal swimming pools, which is likely the result of a mandated regulation. The **Snaefellsnes Community Council** is, however, encouraged to review existing practices and procedures to consider alternative means of disinfection. This review should also aim to look to reduce the overall consumption of chemicals, as well as where possible increase the use of biodegradable cleaning chemicals in order to replace and phase out those that are non-biodegradable, and more likely to cause environmental harm.

The provided value for the use of *Biodegradable Pesticides* was 0%. As with Cleaning Chemicals, the **Snaefellsnes Community Council** is encouraged to review existing practices and procedures in order to consider alternative methods, including if appropriate integrated pest management. This review should look also, where possible, to increase the use of biodegradable pesticides in order to replace those that are non-biodegradable,

³ The water and energy consumed by the on-shore fish processing industry has been assessed and included in the data.

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CONCLUSION AND RECOMMENDATIONS *continued*

Improvements in all the **earthcheck**TM indicators will not only help the environment, but can also help reduce costs. Considering the very positive and clear commitment that **Snaefellsnes** has demonstrated to the environment, through entering this program, GREEN GLOBE is confident that they can over the next 12 months make strides to improve both the percentage levels of *Biodegradable Chemicals* used and land set aside for maintaining *Biodiversity*.

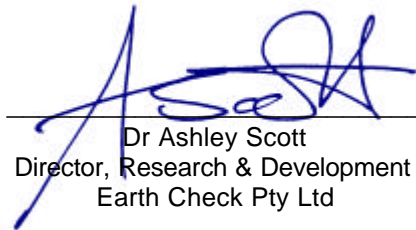
GREEN GLOBE is also confident that **Snaefellsnes** will maintain, and even improve performance in those indicators that have been successfully benchmarked. In line with GREEN GLOBE Policy this would enable Benchmarked status to be retained.

In addition, Earth Check recommends that for the next report in 12 months, an assessment be made of the quantity and type of energy consumed by the local fishing fleet in order to accurately represent the Community's total contribution to air emissions.

Annual benchmarks assessed by Earth Check:



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Report endorsed by GREEN GLOBE:



/ / 2004

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GREEN GLOBE 21