Email from MfE to DoC, cced to Stats NZ, dated 5 October 2017 - with 3 page attachment

Withheld under section 9(2)(a)

From: [redacted]
To: xxxxxxx@xxx.xxxx.xx
Cc: [redacted]; [redacted]
Subject: Environmental Reporting - International Visitor Survey data
Date: Thursday, 5 October 2017 9:25:02 a.m.
Attachments: image001.jpg
IVS - QA summary.docx

Kia ora Elaine

We're following up the International Visitor Survey data not being included as an indicator/measure in our upcoming land domain report.

We've put together a high-level document briefly explaining:

- The QA process done by Stats NZ when they consider a new measure for inclusion in our Environmental Reports, specifically the data quality criteria
- The national environmental reporting requirements
- The outcome of the QA for IVS, specifically how the IVS did not meet our quality thresholds for relevance to our legislative topics (which is one of the data quality criteria)

We've attached the document for you to read and we're happy to follow up and discuss this with you and/or your colleagues over the phone. While it has not met our purposes for an indicator/measure this time round, we are still exploring options on how the IVS information could be incorporated into the report.

Nga mihi

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[redacted] and the land domain team

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[redacted], Operations / Environmental Reporting

Ministry for the Environment – Manatu Mo Te Taiao
Website: www.mfe.govt.nz
3 The Terrace, PO Box 10362, Wellington 6143

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Background – Environmental Reporting Quality assurance (QA) process

When considering a new measure for inclusion in our Environmental Reports, we assess its applicability and quality at two stages:

- Stage 1 – a conceptual fitness for purpose review of the data and methods, prior to data delivery, to determine its relevancy and application to our regulatory reporting topics. For environmental reporting. If the data seem applicable, it is requested for potential inclusion as a new measure.
- Stage 2 – Quality assurance (QA) checking of the data to ensure it was compiled and prepared to the standard expected,(as per the data request) and includes checking for missing values, outliers, or unusual movements or levels once final data is in.

In both stage 1 and 2, we assess the data against six data quality criteria (Principles and Protocols for Producers of Tier 1 Statistics). Table 1 lists the six data quality criteria and shows some of the additional considerations in relation to environmental data.

Table 1: Data quality criteria and their applicability to environmental statistics

Criterion	Standard descriptor	Applicability to environment
Relevance	How much the statistical product meets customer needs in coverage, content, and detail.	Issues include: the extent of geographic coverage, fit to topic, and coherence with the pressure-state-impact framework.
Accuracy	How much the information correctly describes the phenomena it was designed to measure.	Lack of consistent use of definitions. Many sources of uncertainty, including that of model selection.
Timeliness	Whether data produced are up-to-date, published frequently, and delivered to schedule.	Many collections are ad hoc or on a one-off basis; data may be collected at different frequencies.
Accessibility	How easily customers are able to access and understand the statistical data and its supporting information.	Extensive use of modelling, for which the input data are often not readily available or understood. The underlying lowest-frequency or untransformed data is often not available.
Coherence/ consistency	Whether statistical information can be successfully brought together with other statistical information – within a broad analytical framework and over time.	Measurement approaches may change over time. International statistical standards still being finalized.
Interpretability	The availability of supplementary information and metadata that is necessary to interpret and use the statistics effectively.	Ability to make national inferences from non-random samples. As administrative data, there may not be complete metadata.

The relevance and accuracy of the data are the main data quality criteria for determining robustness and fitness for purpose. We also consider the remaining data quality criteria (timeliness, accessibility, coherence/consistency, interpretability) in determining the measures overall data quality, which is broken up into three categories (a national indicator, a case study, or as supporting information).

National Environmental Reporting (ER) requirements

Our aim for the Land 2018 report was to develop a *pressure* indicator for use of the conservation estate under the *Resource use and management and other human activities* regulatory topic. We do not currently report on visitor pressures on the land environnment and this is a information gap under the regulated topic.

We assessed the *International Visitor Survey (IVS),* along with other potential data sources, including the Domestic Travel Survey and the International Travel and Migration dataset, to see if we could produce a measure that met our purposes for ER.

Our target concept was the pressure of visitors on the conservation estate in terms of volume of visitors, the areas most visited and least visited (e.g. National parks, glaciers, caves), the sorts of activities participated in, and the extent to which these activities are participated in. The premise being increasing visitor numbers can put pressure on our land environment, affecting the state of the land and its flora and fauna.

Outcome

We accessed the IVS at the first stage of QA (the conceptual fitness for purpose check).

For the purposes of environmental reporting the IVS did not meet our quality thresholds for relevance:

- The IVS asks about participation in activities, not how much they participate, so the quantity of demand for different activities and where it occurs does not meet our requirements
- The statistics and surveys collected make it difficult to accurately attribute recreational use to the attraction of particular natural land areas or ecosystems
- The IVS is focused on marketing characteristics of international visitors – e.g. the propensity of different nationalities to go walking and hiking – not the amount or the natural areas they visit.

Given these issues, the IVS was not considered suitable for showing the physical effect of visitors on the state of the land domain. We would have to repurpose the content of the IVS for a distinct purpose that it was not designed for and have to infer a lot about the pressures from tourist patterns on the land environment.

The link between Tier 1 statistics and ER

Our Environmental reports contain a vast range of measures, some of which are Tier 1 statistics or might become Tier 1 statistics over time. Some existing Tier 1 indicators won't fit our regulatory framework, and would therefore fail our relevance to the topic criteria. Tier 1 stats, and indicators for ER, are two distinct things with different purposes.

Many Tier 1 statistics features are common to those used in environmental reporting. However, Tier 1 statistics do not automatically 'qualify' for inclusion in environmental reporting – due either to relevance (eg the ability to relate the measure to our regulatory topics and within our pressure-state-impact framework) or to accuracy (eg using a Tier 1 statistic at a lower level than it can be reliably reported on).

References

Good practice guide for environmental reporting

http://www.stats.govt.nz/browse_for_stats/environment/environmental-reporting-series/good-practice-guide/dissemination.aspx#