



Office of the Council for the Ongoing Government of Tokelau  
Tokelau National Statistics Office

## Fundamental Principles of Official Statistics



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## Introduction

It is critical that a statistical system has the confidence of national and international users of statistics. To this end the United Nations developed a set of fundamental principles for official statistics.<sup>1</sup>

The Principles are a set of governing values developed by the United Nations to ensure robust and independent statistics from the world's national statistics offices.

These principles should be seen as a key step in creating a solid policy platform for the governing of the Tokelau National Statistics Office (TNSO).

The Principles are not designed to replace legislation, but to operate alongside comprehensive statistics legislation.<sup>2</sup> The Principles are a powerful tool in ensuring the robust operation of the TNSO, and in ensuring users of the transparency of official information.

The Principles will be employed as high-level policy for the TNSO's statistical activities, and harmonised to Tokelau's unique situation. They will provide guidance to, and inform discussions between the TNSO, government, data users, and respondents.

Official statistics are all statistics regularly produced by government departments. They are the cornerstones of good government, and support public confidence in good government. They provide a window to the work and performance of government by showing the scale of activity in areas of public policy, and by allowing citizens to assess the impact of public policies and actions.

## Background to the Principles

The notion that international endorsement of a set of principles for official statistics was necessary was born in the Conference of European Statisticians. At the end of the 1980s the countries of Central Europe began to change from centrally planned economies to market-oriented democracies. A few years later the Soviet Union was dissolved.

As with many other functions of government, official statistics in those countries had to be re-invented. Public trust in official statistics had to be rebuilt and Governments had to learn to understand the place of official statistics in a changed context. To support these processes, it was deemed useful to develop an international document that would set out the role of official statistics, as well as provide some general guidelines for the functioning of statistical systems.

## Global adoption

While being adopted by the Conference of European Statisticians and its parent body the Economic Commission for Europe, statisticians in other parts of the world began to realise that these principles had a wider significance. In that context, an international discussion process was started, ending with the adoption of the Fundamental Principles by the United Nations Statistical Commission, the highest statistical authority in the world. The United Nations Statistical Commission, in its Special Session of 11-15 April 1994, adopted the Fundamental Principles of Official Statistics.

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<sup>1</sup> This paper has been adapted from the United Nations Fundamental Principles of Official Statistics online publication, which can be found at <http://unstats.un.org/unsd/dnss/gp/fundprinciples.aspx>

<sup>2</sup> The TNSO is developing a Statistics Rule for Tokelau which it hopes to pass in the 2013 calendar year.

Since the adoption of the Principles by the United Nations Statistical Commission nations all over the world have either adopted the Principles as stand alone policy, worked them into their legislation, or absorbed them into existing frameworks.

The Principles were designed to be global in application. As such they have proven their relevance and strength despite the vast differences in the countries that have adopted them, from the United Kingdom, through Australia, Japan, New Zealand, Anguilla, Samoa, and Niue.

## The 10 Principles

- Principle 1 – Relevance, impartiality and equal access
  - Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information.
- Principle 2 – Professionalism
  - To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.
- Principle 3 – Accountability
  - To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.
- Principle 4 – Prevention of misuse
  - The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.
- Principle 5 – Cost-effectiveness
  - Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.
- Principle 6 - Confidentiality
  - Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.
- Principle 7 - Legislation
  - The laws, regulations and measures under which the statistical systems operate are to be made public.
- Principle 8 – National co-ordination
  - Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.
- Principle 9 – International co-ordination
  - The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels.
- Principle 10 – International Statistical co-operation
  - Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

## The Principles in Tokelau

The Principles are operating in Europe, the Americas, Africa, Asia, Oceania, and the Pacific.

They provide best practice guidance to national statistical systems the world over. This section discusses their application in Tokelau.

### Principle 1 - Relevance, impartiality and equal access

The first principle relates to the impartiality of official statistics. All statistics compiled, and published by a government on a frequent basis are considered official statistics.

This principle ensures that statistics are released without bias, or manipulation from government. It gives users confidence in the authenticity of official information.

This means that decisions on the methodology used to collect information, what information is released, and when information is released, should be free from political interference. In many countries this is enshrined in legislation.

It has been the practice in Tokelau to release information first to the Minister, then to the public. This is not necessarily a breach of Principle 1 provided the release methodology is made public, and the following are adhered to:

The Minister cannot change:

- the information in the release
- who the information is released to
- when the information is released.

### Principle 2 – Professionalism

Principle 2 relates to the methods employed by the TNSO in the development, collection, and dissemination of statistical information.

This principle requires the TNSO to be rigorous in the application of current methodology to statistical collection.

The further adoption of the *Generic Statistical Business Process Model*<sup>3</sup> will help the TNSO to adhere to the second principle.

### Principle 3 - Accountability

When producing official statistics, the TNSO will need to publish, along with the data, the methods and procedures used in the collection, compilation, and output of the information. This helps users of the information to understand the data. This information should already be considered as part of normal statistical development, and should be produced as a part of business as usual processes.

### Principle 4 – Prevention of misuse

Principle 4 gives the TNSO the mandate to ensure correct use of statistical information. The TNSO reserves the right to comment on erroneous interpretation, or misuse of statistical information. This may involve approaching the agency or person involved, or commenting publically should the error be in the public domain. The decision to comment on erroneous interpretation or misuse of statistics will lay solely with the head of the TNSO.

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<sup>3</sup> The Generic Statistical Business Process Model can be found at <http://www1.unece.org/stat/platform/display/metis/The+Generic+Statistical+Business+Process+Model>

### **Principle 5 – Cost-effectiveness**

This principle relates to the TNSO's ability to choose how to collect information. The TNSO should not be instructed on how to collect or source information. The TNSO will make recommendations to government while taking into account quality, timeliness, costs, and any burden on respondents. The TNSO will work with government to meet information needs.

Good quality administrative records are the most cost effective form of statistical collection. Working with other departments to use their administrative records will be a key focus of the TNSO.

### **Principle 6 - Confidentiality**

Principle 6 requires the TNSO to protect the confidentiality of those it collects information from. This means that the TNSO must ensure information is stored and published in a way that individual people or institutions cannot be recognised. A pragmatic approach will need to be taken when considering the confidentiality of institutions, for example there is only one telecommunications provider in Tokelau.

### **Principle 7 - Legislation**

Currently Tokelau has no comprehensive laws or regulations governing a statistics system, the *Census Rules 1961* are the sole exception. As the system develops, and the TNSO develops policies surrounding collections, the TNSO will need to make these policies available to users, and the public. This is to ensure statistical providers, users, and respondents can be fully aware of their rights, and their responsibilities.

The TNSO is currently developing a Statistics Rule for Tokelau. This will need to be consulted upon, and made public once finalised. The TNSO hopes to have the Statistics Rule in place by the end of the 2013 calendar year.

### **Principle 8 – National co-ordination**

While there is only one statistical agency active in Tokelau, principle 8 can be interpreted in a wider context. Coordination amongst government departments, the Planning and Monitoring Unit, and the TNSO is essential to achieve consistency and efficiency in the information provided for, and by the government.

### **Principle 9 – International co-ordination**

Aligning with international concepts, classifications, and methods helps to improve the comparability of information between countries. Aligning internationally will help Tokelau measure its place, and progress in both the Pacific and world context. However the TNSO will have to be careful to ensure that international concepts, classifications, and methods are useful and practicable for Tokelau before they are adopted. Statistics need to be useful to Tokelau, and to fit with Tokelau's real-world context. However, wherever possible the TNSO and other agencies producing statistics should look to use international best practice.

### **Principle 10 – International statistical co-operation**

The TNSO already has an active involvement in Pacific statistical forums and work programmes. Continuing this involvement and over time growing the TNSO's bilateral and multilateral relations will benefit both Tokelau, and the wider Pacific statistical community. Tokelau is a small country and will likely always struggle to fulfil all of the statistical requirements it might have. Growing as an active member in the Pacific statistical community will place the TNSO in a better position to fill capability and resource gaps in its operation.

## Detailed discussion of the Principles

### Principle 1 - Relevance, impartiality and equal access

There are many elements to this principle. First, official statistics are one of the cornerstones of good government and public confidence in good government. Official statistics, by definition, are produced by government agencies and can inform debate and decision-making both by governments and by the wider community. Objective, reliable and accessible official statistics give people and organisations, nationally and internationally, confidence in the integrity of government and public decision-making on the economic, social and environmental situation within a country. They should therefore meet the needs of a range of users and be made widely available.

Second, to meet the test of practical utility, statistics must be relevant, of a quality suitable for the use made, and in a form that facilitates easy and correct use.

Third, impartiality in compilation and release is achieved through the process being free from political interference in both the methodology adopted and what is released and when. In many countries this independence is enshrined in statistics legislation. Statisticians need to act professionally by the sound application of statistical methods (See Principle 2), by openness about concepts, sources and methods used (see Principle 3).

Fourth, to make information widely known and available on an impartial basis requires dissemination and marketing activities (including dealing with the media) to provide information in the form required by users, and release policies which provide equal opportunity of access. Sound statistical principles need to be followed with the presentation of statistics so that they are easy to understand and impartially reported.

### Principle 2 – Professionalism

This principle extends the impartiality element of Principle 1. Sound statistical methodology based around the use of frameworks and statistical standards, the correct application of statistical methods and objective presentation of statistics must be used for the production and presentation of statistics. Such methodology should be chosen by the statistical agency, free from political interference and in accordance with professional ethics and current best practice in the application of methodology that comes through staff receiving statistical training and the support of research and innovation. Quality management of processes for collection, production and analysis should be followed to ensure that there is sound application of methodology and statistics of the desired quality are produced.

### Principle 3 - Accountability

From the design stage through to the dissemination stage of a statistical collection or compilation there are many ways in which errors can be introduced into the results. Some errors, particularly those resulting from the use of sampling, are random and their magnitude measurable. Other errors, mainly from non-sampling sources or from the choice of model and assumptions behind the measurement process, can introduce bias into the results and are difficult to measure. Whether errors can be measured or not, information on their source and extent should be made openly available to users so that they can judge the fitness of use of the data. This information on known sources of error and the concepts, sources and methods behind the statistics should be readily found, by either including it along with the results or by being readily available as accompanying documentation.

## **Principle 4 – Prevention of misuse**

Most misuse is unintentional and can be minimized by statistical agencies themselves ensuring they follow sound statistical principles in the presentation of statistics (Principle 1) and provide easy access to information on concepts, sources and methods (Principle 3), including information on quality. Other measures to minimize misuse include the publication of documentation explaining key statistics and education programs for users to increase awareness and knowledge of official statistics.

While statistics can be used and interpreted in many different and acceptable ways, it is important for the maintenance of trust and credibility of official statistics that attention is drawn by statistical agencies to obvious public incorrect use or interpretation, along with the correct use.

## **Principle 5 – Cost-effectiveness**

Statistical offices must be cost-effective, making the best choice of concepts, sources and methods by balancing quality, timeliness, costs and the reporting load of respondents. To assist in this balancing agencies should minimise reporting burden, and manage quality, to achieve the quality and timeliness required by uses of their statistics. Quality administrative records are one of the most cost effective forms of statistical collection.

Coordination of statistical activities across agencies is applied in many countries to control the overall burden placed on respondents for information, to help maintain co-operation and ensure the quality of data. Special attention should be paid to form design so that forms in collections are easy for respondents to complete accurately and efficient to process.

## **Principle 6 - Confidentiality**

Reliable official statistics depend on public co-operation and goodwill to provide accurate and timely information requested in surveys. Such co-operation and goodwill is maintained by protecting the confidentiality of information provided by respondents. Key aspects of confidentiality protection are maintaining information securely, avoiding release of identifiable information in statistical outputs, managing access to microdata for statistical research, and ensuring that individual information is used solely for statistical purposes. Without such co-operation, response rates can be too low and threaten the accuracy of the statistics, or legal enforcement may be required. In many countries, the requirements for protecting confidentiality and restrictions on use of individual data are set out in statistics legislation (Principle 7).

## **Principle 7 - Legislation**

Openness in all aspects of the production of official statistics is important for maintaining trust and credibility in both statistical agencies and the data they produce. In many countries the production of statistics is governed by statistics legislation that sets out the authority and powers of a statistical agency including the position of the national administration as well as its obligations such as publishing the results of collections and protecting the confidentiality of information collected from respondents (see Principle 6). Such legislation may also set out the obligations of respondents to provide statistical information requested by a statistical agency.

Aspects that ensure the independence of an official statistical agency, such as the standing of the chief statistician or the selection of statistical methodology, can also be covered in statistics legislation. Regardless of whether there is specific statistics legislation or not, there should be openness about the processes followed for the operation of official statistical systems.

## **Principle 8 – National co-ordination**

Official statistics are broad in scope and can be produced by multiple government agencies in a country.

In many countries there is a central or national statistical office that produces the greater share of official statistics, whereas in other countries there is more than one statistical agency handling different areas of statistics. In all cases, many official statistics are produced by government departments as a by-product of their activities.

No matter what are the organisational arrangements for producing statistics in a country, coordination of statistical activities should be undertaken to avoid duplication of work, to minimise reporting burden of respondents, to facilitate the integration of data from different sources through the use of statistical standards and to participate in international initiatives. In many cases, the national statistics office or some other coordinating agency will need to take the lead in raising awareness of the Fundamental Principles by all agencies producing official statistics and the benefits of co-ordination of statistical activities.

## **Principle 9 – International co-ordination**

To facilitate international comparisons of statistics, as well as to achieve efficiency and quality in their production, international statistical standards (ie frameworks, concepts, classifications) should be used as far as possible in the production of official statistics.

The use of statistical standards across all sources of official statistics produced within a country also facilitates integration of the statistics and efficiency (see Principle 8). Judgements and compromises will be required in the application of international standards to suit the conditions and requirements of users within each country. Many countries, or groupings of countries, have developed their own statistical standards based on international standards modified to suit local needs.

## **Principle 10 – International statistical co-operation**

The sharing of information and practices, as well as co-operation in the joint development of statistical standards, international statistical activities etc is an essential ingredient for continuous improvement of the quality and range of official statistics in all countries and the efficiency of their production. A lot of this co-operation is facilitated by various international activities supported by international statistical and other agencies and professional associations.

Technical co-operation, either organized bilaterally amongst agencies or organized through international organizations and activities, is important for the development of the range and quality of official statistics in the developing countries. Programs and institutions are available for statisticians to receive statistical training to the production of official statistics.