

# South African Statistical Quality Assessment (SASQAF)



## - Independent Assessment Process - 25 July 2023

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# Why the need for a Quality Framework ?

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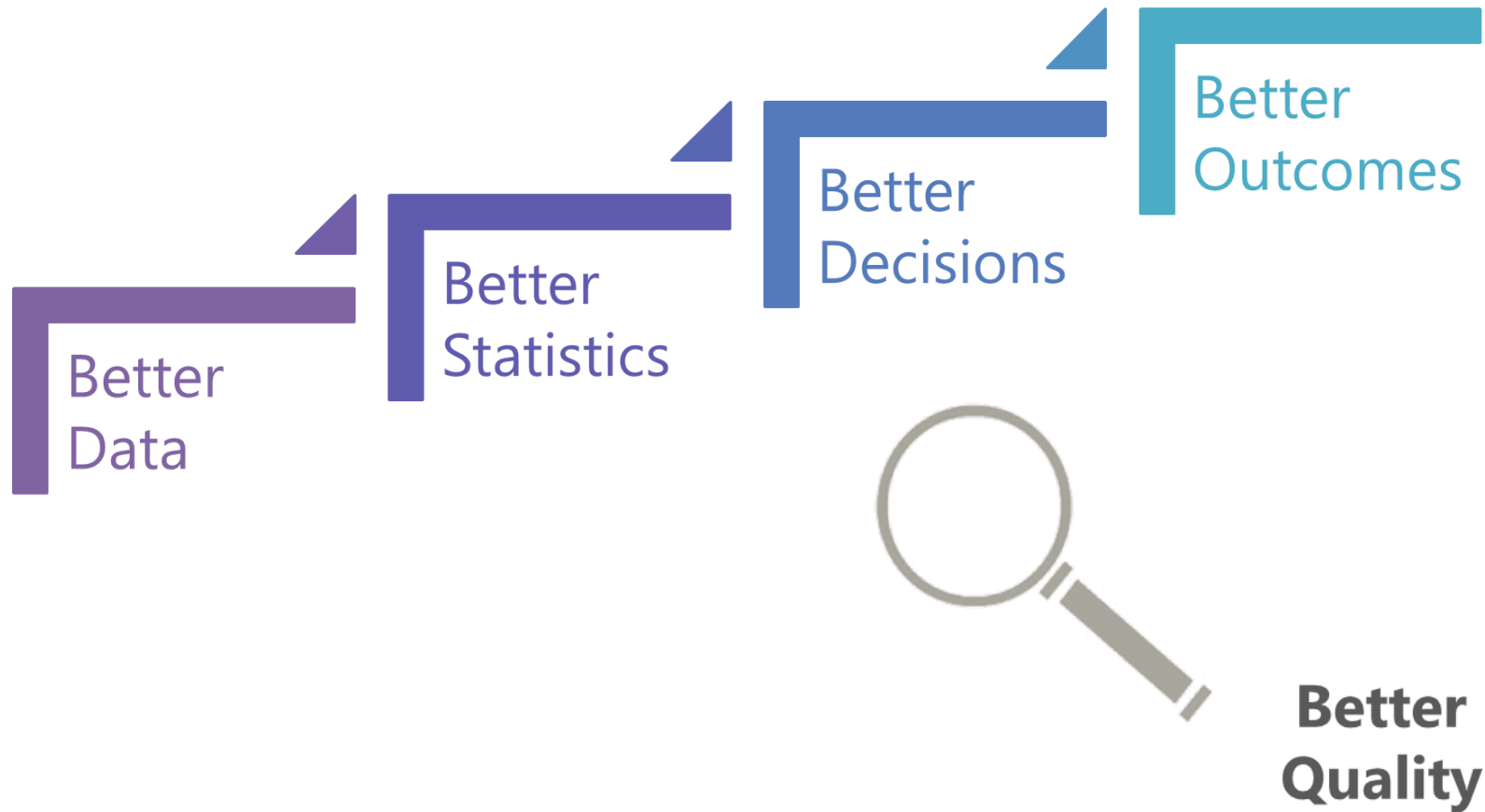


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# Quality framework – Why ?



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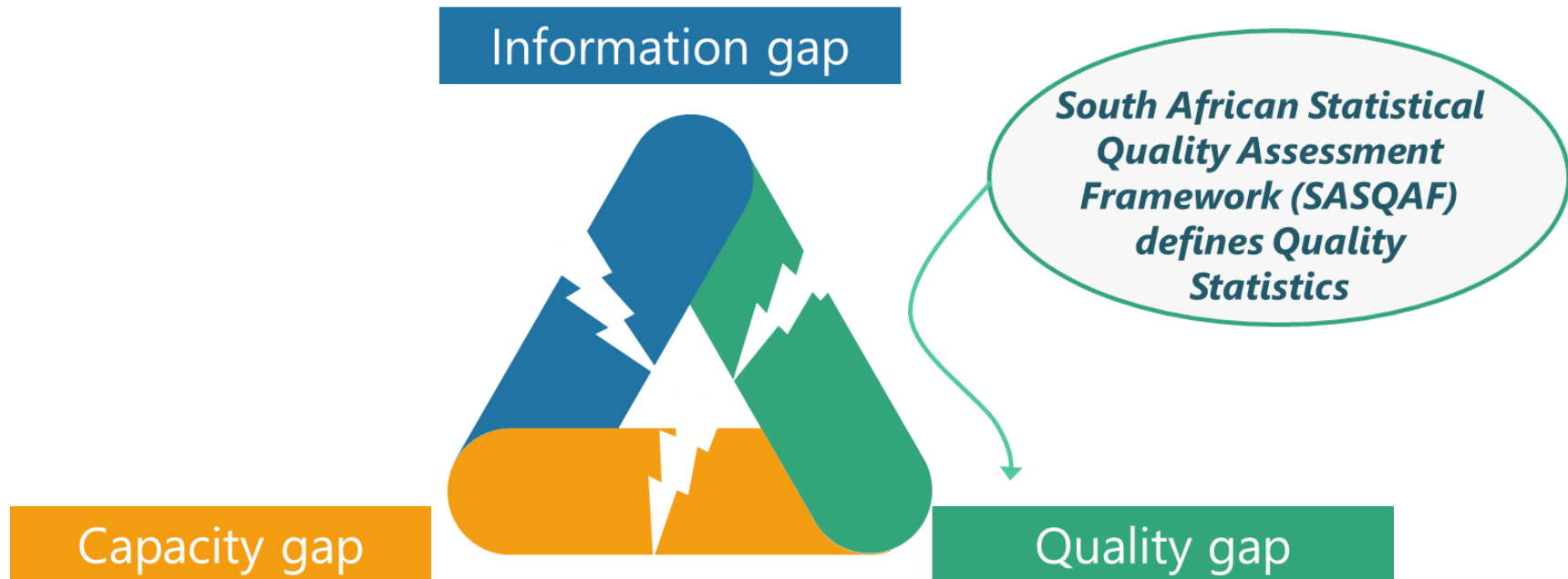
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# Deficiencies in the Statistical System

The triple threat...



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# Address the Quality gap

Information gap

To address the quality gap you need to:  
**measure &  
improve the existing level  
of quality**

Capacity gap

Quality gap

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# Quality gap

**SASQAF** is the **tool used** at **Stats SA** & in the broader **NSS** to **address this gap**. It was **gazetted in 2009**





## What is the SASQAF ?

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# What is the SASQAF ?

1

SASQAF is a framework that the Statistician-General uses to evaluate the quality of statistics produced within the NSS in order to determine the quality status of the statistical product (i.e official statistics)

2

SASQAF is available for use by NSS entities as a tool to improve the quality of their statistical production system

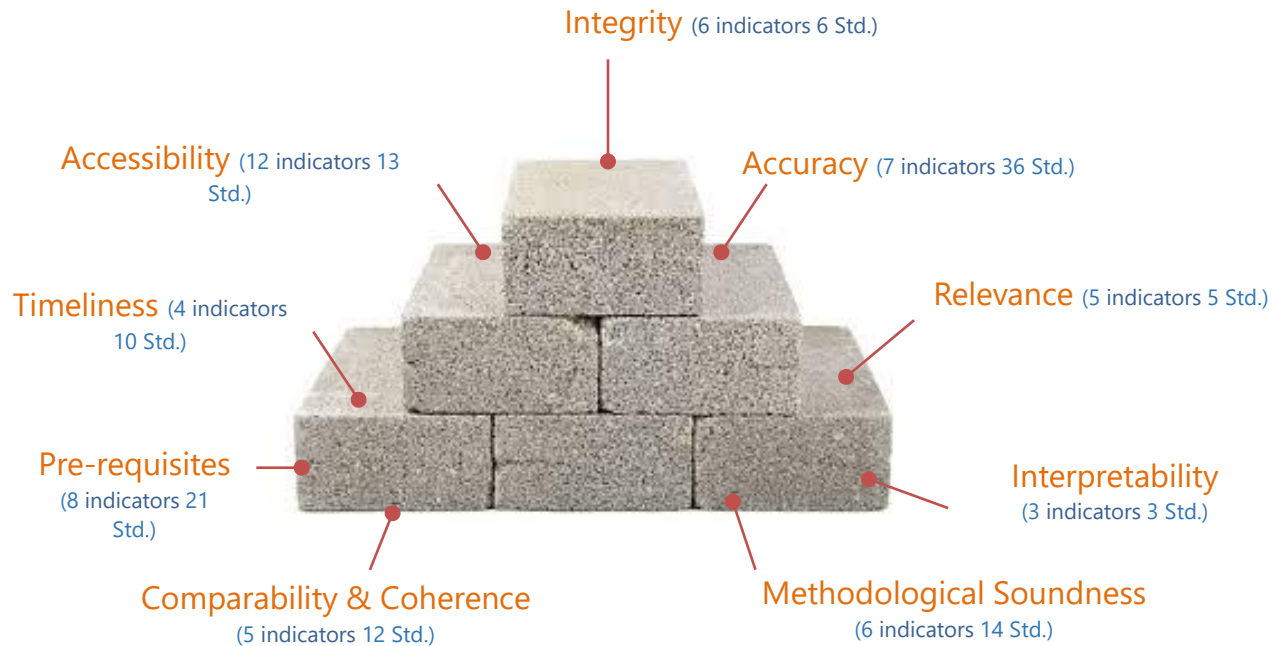
3

SASQAF subscribes to the UN Fundamental Principles of Official Statistics





# SASQAF Dimensions (Indicators & Standards)



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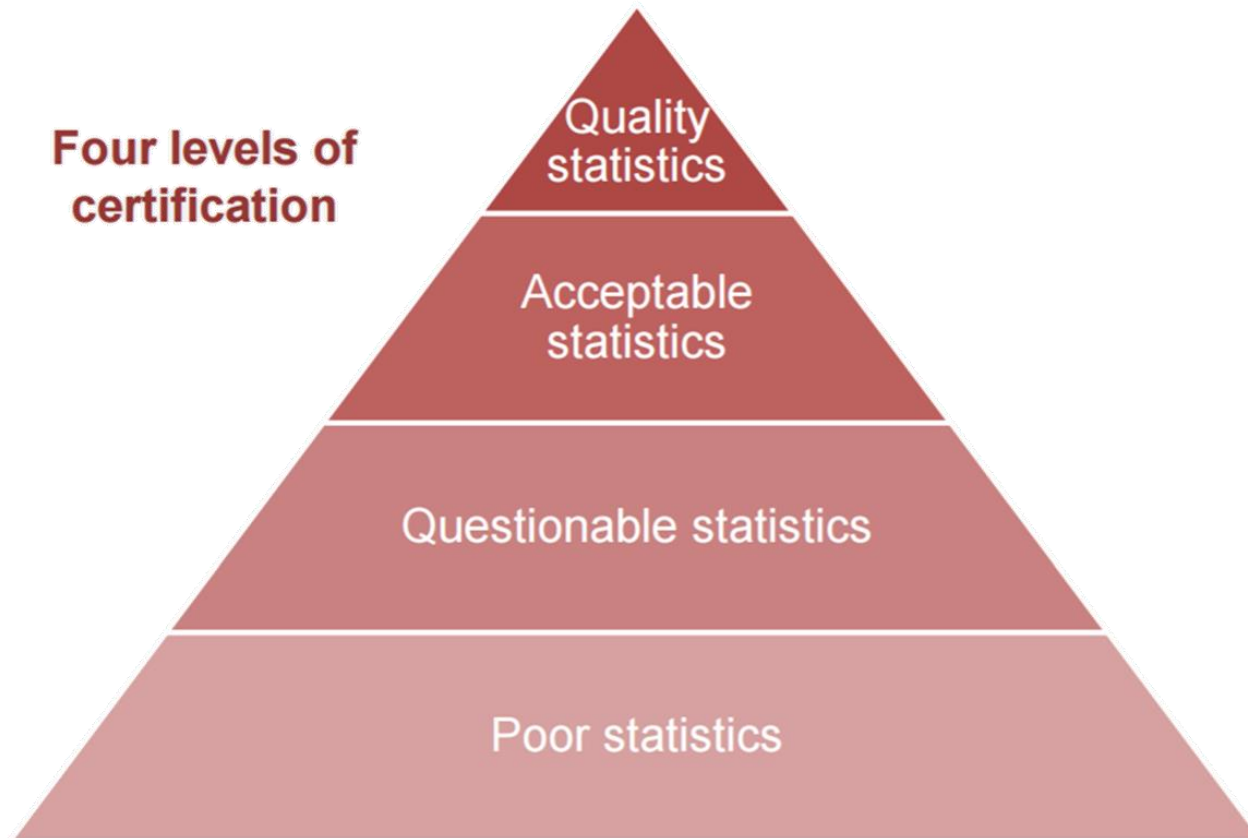


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# Four levels of certification



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# Procedure for assessing statistics

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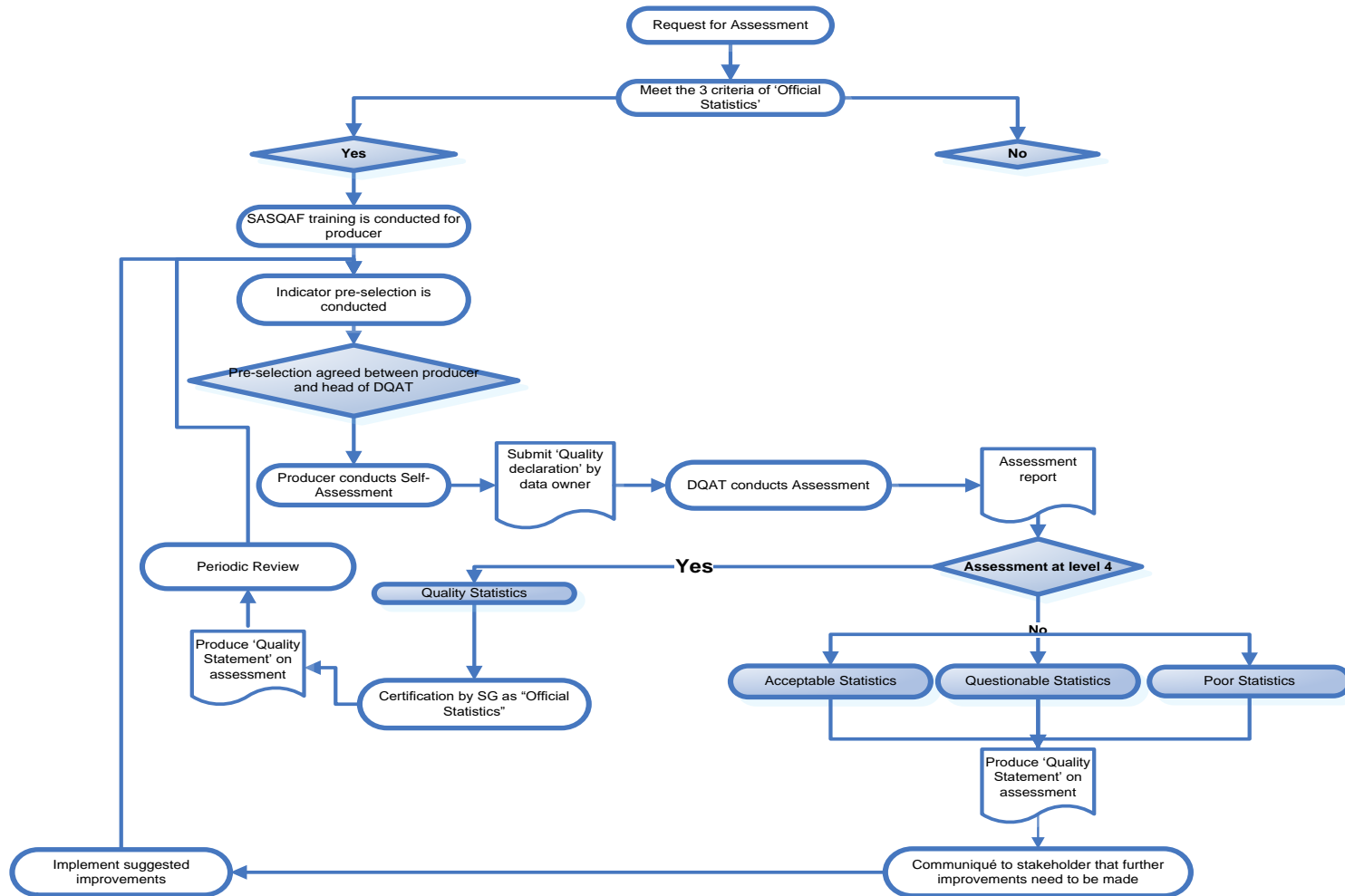


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# Procedure for assessing statistics (1)



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# Procedure for assessing statistics (2)

1

The producer of the statistics applies to the Statistician-General (SG) to have their statistics to be subjected to the Independent Assessment with the ultimate goal to have the statistics declared official

2

The application is referred to the Head of the Data Quality Assessment Team (DQAT)

3

The producer of the statistics and the statistics under review must meet the three initial criteria in order to be assessed:

a

NSS entity

b

Sustainable

c

Use beyond producing agency

# Procedure for assessing statistics (3)

4

SASQAF training is conducted for the producer of the statistics

5

The producer will conduct a self-assessment of the statistics based on SASQAF

6

Readiness assessment report is generated on the basis of the availability of metadata. This report indicates whether the publication is ready to be subjected to an independent assessment

7

The Independent Quality Assessment team will perform an independent assessment of the product according to SASQAF

# Procedure for assessing statistics (4)

8

If the product meets the criteria for ‘quality statistics’, it will be certified as “Official Statistics” by the SG

9

If the product does not meet the criteria for ‘quality statistics’, the DQAT will advise the producer on areas of improvement

10

Once the product is designated as official statistics, it will be published with the SG’s official seal of quality approval

11

The product will be subjected to reviews on a regular/ periodic intervals



# Principles that guide the assessment process

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# Principles that guide the assessment process

- 1 Assessment of statistical quality is guided by SASQAF
- 2 Statistics declared as official will be reviewed at regular intervals
- 3 All processes within the SVC to be governed exclusively by scientific principles in accordance with international or peer-agreed best practice
- 4 Statistical processes, procedures and methodology to be fully documented
- 5 Custody of data designated as official statistics to be with Stats SA. Ownership of data to remain with the originating agency

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# The Assessment

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# The Assessment

1

Assessment based on metadata provided by data owner

2

Two teams are involved in the Independent Assessment process:

a

The Technical Assessment Team (TAT)

b

The Data Quality Assessment Team (DQAT)

# The Technical Assessment Team (TAT)

1

Technical discussion between assessors and data owners to prepare and produce data quality assessment output documents

2

The Technical Assessment team comprise of:

a

Members (technical team) from the data owner

b

Team of data quality assessors

# Data Quality Assessment Team (DQAT) (1)

1

Moderation of the Technical Assessment Team output

2

Required by the protocol specifying the procedure for SG to designate official statistics

3

Constituted by the SG, drawn from:

a

Statistics South Africa

b

Applicant (NSS entity)

c

Subject-matter expert(s) (recommended by the organ of state and/or the SG)

d

Statistics Council member (observer status)

# Data Quality Assessment Team (DQAT) (2)

4

Newly appointed for each product

5

Chair of DQAT: Head (DDG) of the South African National Statistics System (SANSS) Branch within Statistics South Africa (Stats SA)





## Example of an assessment

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# Example of an assessment (1)

**2.1 Both the internal and external users of the data should be identified.**

**2.1.1 An up-to-date user database must exist.**

1 No database exists and no users are recorded.

2 A user database is up-to-date but with so of the required details.

3 A user database with all required details exists but is not up-to-date.

4 An up-to-date user database with all of the required details exists.

Findings:

Recommendations:





# Example of an assessment (2)

Indicator	Standard	Quality Statistics	Acceptable Statistics	Questionable Statistics	Poor Statistics	Findings and recommendations
		Level 4	Level 3	Level 2	Level 1	
1.1	1.1.1	<b>X</b>				Findings explain the given score  Recommendations provide areas of improvement needed
1.2	1.2.1		<b>X</b>			
	1.2.2					
1.3		<b>X</b>				
1.4						
1.5					<b>X</b>	
<b>Dimension Score</b>						=(sum of scores)/(number of standards scored)

# Example of an assessment (3)

Quality dimension	Assessment Score
1: Pre-requisites of quality	3.8
2: Relevance	4
3: Accuracy	3.5
4: Timeliness	4
5: Accessibility	4
6: Interpretability	4
7: Coherence and Comparability	4
8: Methodological soundness	3.5
9: Integrity	4
<b>Total Score (out of 36) :</b>	<b>34.8</b>
<b>Average Score (out of 4):</b>	<b>3.9</b>





# Outputs of the Assessment

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# 1. Assessment report

1

Confidential document, not circulated or published

2

Contains details outlining findings and recommendations by the DQAT team

3

Contains scores by standards, dimensions and overall



## 2. Quality improvement plan

1

Confidential document

2

Contains all the recommendations for Improvement, priority of the recommendations, responsible department/directorate and timeframe

3

Shared between the producing agency and assessment team



# 3. Data quality statement

- 1 Public document, available both online and hard copy
- 2 Contains quality statement about the product
- 3 Contains major agreed areas of improvement
- 4 Signed by both the SG and data owner





# Beyond the Independent Assessment

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# Beyond the Independent Assessment

1

Improvement Plan

2

Technical Support

3

Clearance Process

4

Foreword by the SG / The seal of quality





# South African Statistical Quality Assessment Framework (SASQAF) Operational standards and guidelines

First edition



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<b>Quality Indicator</b>	1.3 Data sharing and coordination among data-producing agencies are clearly specified.
<b>Standard</b>	1.3.2 Regular contact must occur between the data-producing agencies and secondary users/agencies to resolve statistical issues.

It is advisable for the agencies that share data/depend on each other for data to have regular contact through meetings, workshops and other forums to ensure proper understanding of data requirements. These meetings can serve a variety of purposes and some of these are enumerated below. Firstly, this allows for interaction between the user and producer of the data to promote the idea that statistical needs have to be built into administrative collections since they may not have been designed with statistical production in mind. Secondly, these forums can serve to address statistical issues that prevent the duplication of effort and reduce respondent burden. Thirdly, user needs can be addressed in a structured and formalised process that may enhance the relevance of the statistical product. Lastly, these forums can also assist in aligning operational and statistical definitions and facilitate comparability and coherence with other information within the same domain.

<b>Quality Indicator</b>	1.4 Measures are in place to ensure that individual data are kept confidential, and used for statistical purposes only.
<b>Standard</b>	1.4.1 There must be a law or policy that ensures information collected are kept confidential and used for statistical or administrative purposes only.

In the production of statistics, whether through administrative collections or surveys, data collection agencies should put in place a process that ensures the respondent information remains confidential. The process should be backed up through a law, policy or any other formal provision that clearly states individual responses are to be treated as confidential. The provision should clearly state that responses shall not be disclosed or used for any purpose other than statistical purposes unless disclosure is agreed to in writing by the respondent. It is important that confidentiality be maintained throughout the statistical value chain, while preserving the usefulness of the data outputs to the greatest extent possible.

Data collection agencies should have rules and regulations (e.g. code of conduct, Acts) governing staff to prevent disclosure of information. These rules could include restricting access to unit record data to those who require the information in performing their duties. Steps should be taken to secure the premises of the data producing agency and its computer systems to prevent unauthorized access to individual data. Whether in electronic or paper format, confidentiality of data should be appropriately guarded during storage and during the process of the destruction of records. When the duration for the archiving of forms or questionnaires has lapsed, they should be disposed of in a manner that complies with the applicable policy.

In some cases, due to the uniqueness of certain individual respondents, individual records may be identified even though the data is presented at an aggregate level. For example, it is possible to identify companies with high turnover by sector. A way of avoiding this is to develop special aggregation / anonymisation rules to deal with such

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[https://www.statssa.gov.za/standardisation/SAS  
QAF OpsGuidelines Edition 1.pdf](https://www.statssa.gov.za/standardisation/SAS_QAF_OpsGuidelines_Edition_1.pdf)

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