



Central Statistics Organization
Islamic Republic of Afghanistan

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

Tools of DQAM and the Quality Review System for SSA

The use of Quality
Gates



In a Statistical
Review System



Copyrights and References

This presentations owes its thoughts largely to papers produced by the Statistical Bureaus of Australia and New Zealand (ABS and NZZBS)

It also owes its thoughts to own experiences of the consultant as external QA consultant for major European industrial companies (BMW and others), which used similar QA methods with success

Based on the best practices of the fellow statistical systems, a similar approach , albeit adapted to the SSA is proposed. Comprehensive list of sources is indicated at the end of the presentation.

GIZ-IS and its consultants on behalf of the representatives of the Statistical System of Afghanistan (SSA) are grateful for the inspiring work of the two Statistical Office and want here to express their gratitude and respect – all copyrights referring to tools and methods pending are respected and belong to the authors.



Overview of proposed quality tools for the SSA

1. Motivation
2. What are Quality Gates
3. Attributes of Quality Gates
4. Six Components of Quality Gates
5. Outcomes of Quality Gates



The need for Credibility, Integrity and quality tools for the SSA

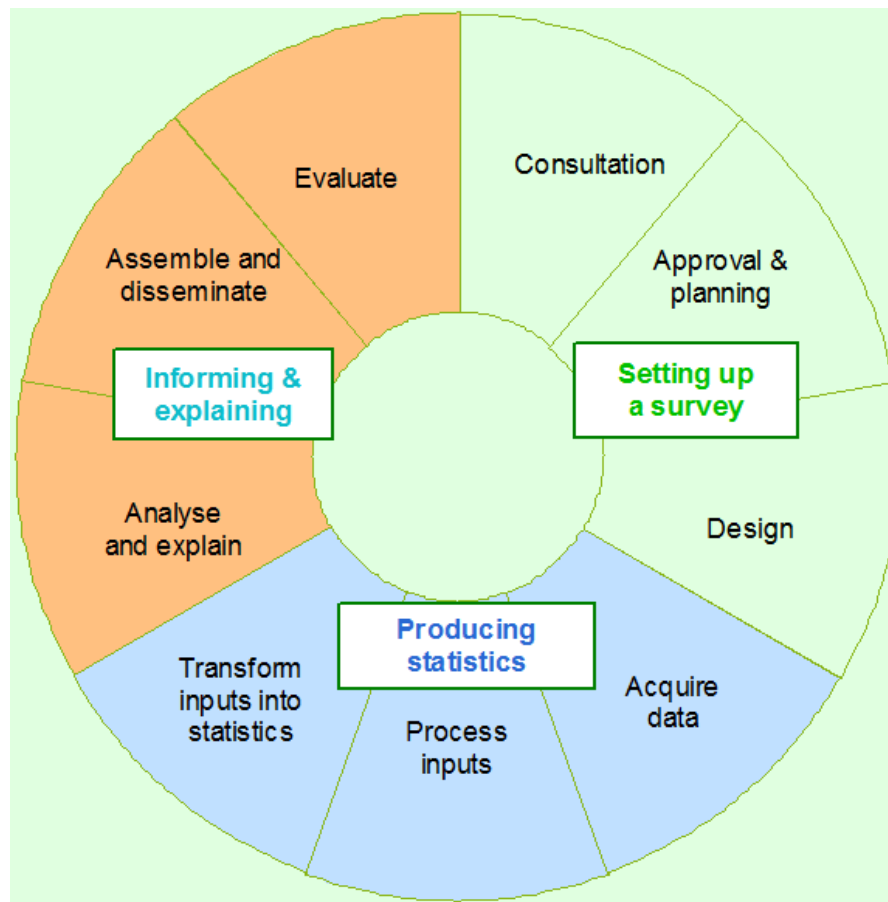
The quality of products of the SSA

Possible negative reactions of the public :

- Statistics are not relevant at all
- Statistics are not in time
- Census is still pending
- Not relevant nation-wide Household survey
- Published results contain many errors
- Statistics are unreliable
- Statistics are not understandable
- Statistics are not answering my questions



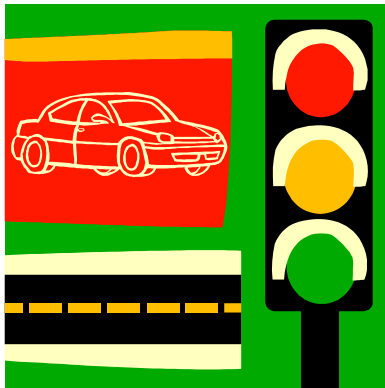
Let us look at the cycle of statistical production



There is quite some risk: chance or likelihood that something could go wrong in the statistical process that impacts on the quality or integrity of the statistical outputs produced.



Proposal to improve and assure quality in the statistical production process



Quality gates: checkpoints or decision points at various strategic places in a statistical process at which the quality of the process (and data) at or up to that point is explicitly assessed



Attributes of Quality Gates

- Collaborative – provide a model of accountability and responsibility for collection processes
- Communicate openly the progress/issues associated with collections, throughout the cycle
- Proactively managing risk – can save time and \$ in the long run



The six components of quality gates

- Placement
- Quality measures
- Roles
- Tolerance
- Actions
- Evaluation





1. Placement

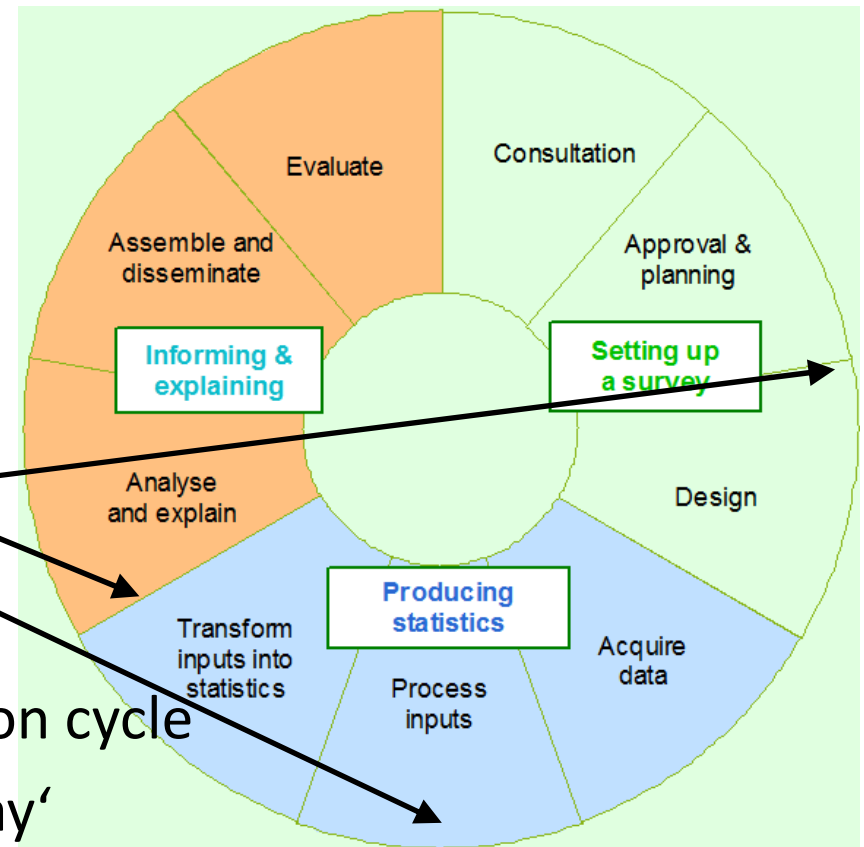
What can go wrong?

When can this problem occur?

What impact can it have?

Handover
Within

- Assigning priorities
- Related to risk profile of collection cycle
- Want to detect errors 'on the way'





Areas of risk

- changes to processes, systems, methodologies
- data transformations
- overlap / coordination / integration with other areas
- knowledge transfer



How would we know if this problem occurred?

2. Quality measures

- Choose good indicators of potential problems
- Prioritise
- Definitions
- Drill down
- Time series





3. Roles

Who is responsible?

Who will this affect?

- Owner area
- Operational person / Gate Keeper
- Stakeholders
- Gate definition
- Gate assessment / sign-off



4. Tolerance

What is an acceptable level of quality? (80%, 90%) ?

- Driven by user requirements
 - Size of natural variation, sampling errors, level of detail, importance of outputs
 - Form expectations
 - Refer to historical data
 - Predetermined!





5. Actions

What will we do, if there is a problem?

Who needs to be informed?

- reflect extent of the problem
- reflect consequences
- "traffic lights" concept: green (go), yellow(wait), red (stop)



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6. Evaluation

What has this information told us about our quality?

How can we improve in the future?

- evaluation of processes
- evaluation of quality gates





Outcomes from Quality Gates

- Quality Measures clearly defined
- Quality, Business processes and responsibilities well-defined and known by staff
- Statistical risk explicitly identified & assessed
- Errors identified earlier (and fixed)
- Process in relation to fitness for purpose of outputs
- Explicit sign-off occurs at Quality Gates



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A first and general approach the following link is recommended:

Quality Management of Statistical Processes Using Quality Gates, Dec 2010, (cat.no. 1540.0) on the ABS website.

<http://www.abs.gov.au/ausstats/abs@.nsf/mf/1540.0>

Quality Page on ABS website – December 22nd, 2011

For a generic example of forms to be used for Quality gates the following link is recommended:

<http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/1540.0Main%20Features12Dec%202010?opendocument&tabname=Summary&prodno=1540.0&issue=Dec%202010&num=&view=>



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The End

