

Grain stocks direct measurement: contribution from AMIS/BMGF project

François Fonteneau, FAO / ESS

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Outline

1. Rationale
2. Relevance: what stock data needed (first)?
3. A measurement framework
4. Innovations for consideration
5. A proposed way ahead

1. Rationale: current practices

- AMIS/IGC expert meeting in London, 21 Nov
- National level:
 - Residual approach used in most countries
 - Regular specific stocks surveys / survey modules :
 - off-farm: very rare
 - on-farm: more common
 - a wide range of stopped surveys
 - Storage / stocks level in agriculture censuses since 1995

Total censuses inventoried	196	
With storage infrastructure	30	15%
With storage capacity	22	11%
With stocks level	7	4%

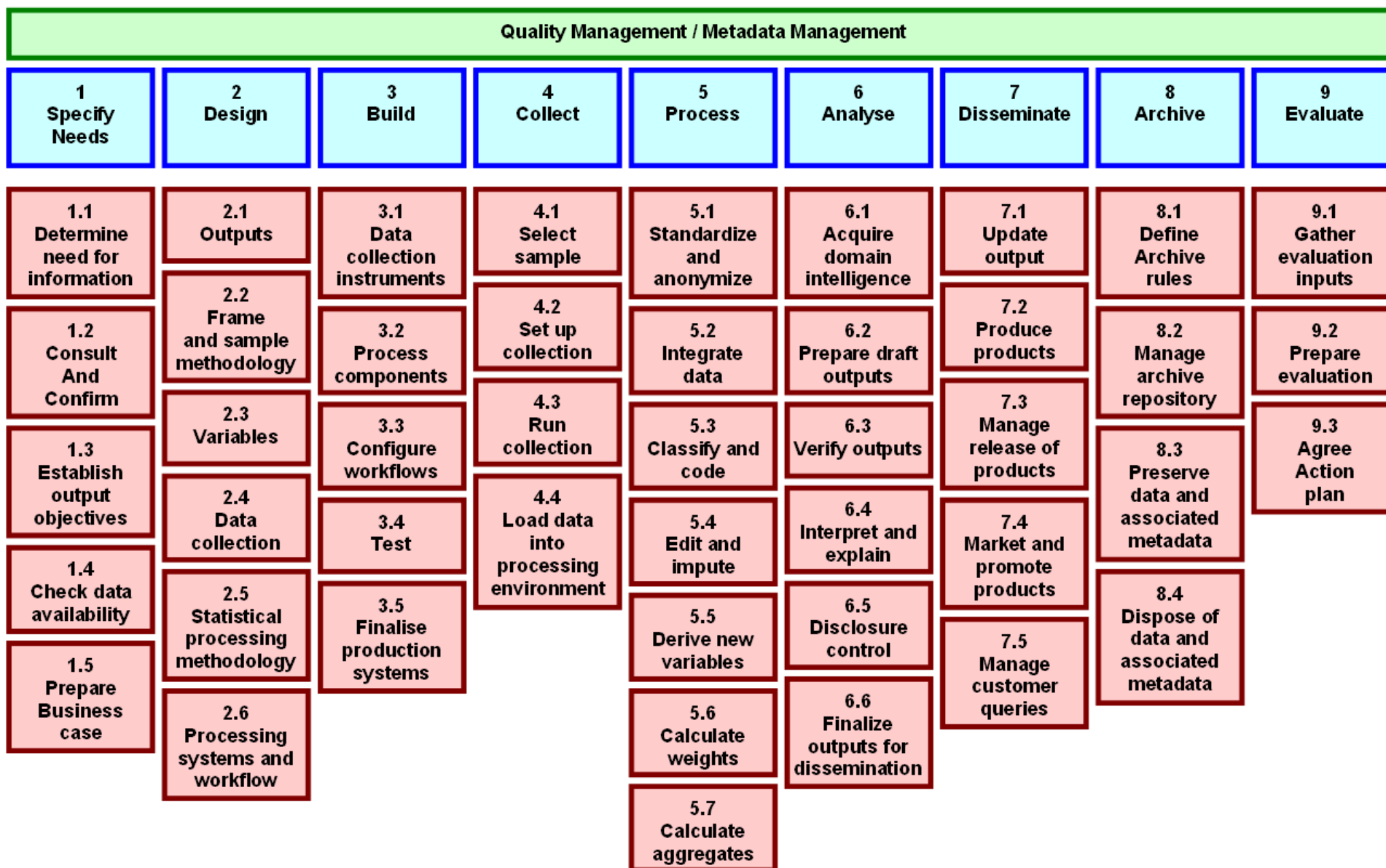
- Global level:
 - Residual approaches at FAO
 - No global survey / poll and no survey guidelines
 - => not prioritized in the Global Strategy research agenda

1. Rationale for direct measurement

- Recognize limitations of residual approaches
- Improve cost/benefit of surveying

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<ul style="list-style-type: none"> • Relevance • Accuracy • Timeliness and punctuality • Accessibility and clarity • Comparability • Coherence • Privacy 	<ul style="list-style-type: none"> • Financial costs • Burden on respondents • Burden on statistical systems

1. Rationale: survey processes



2. Relevance : what stock data needed (first)?

At global level

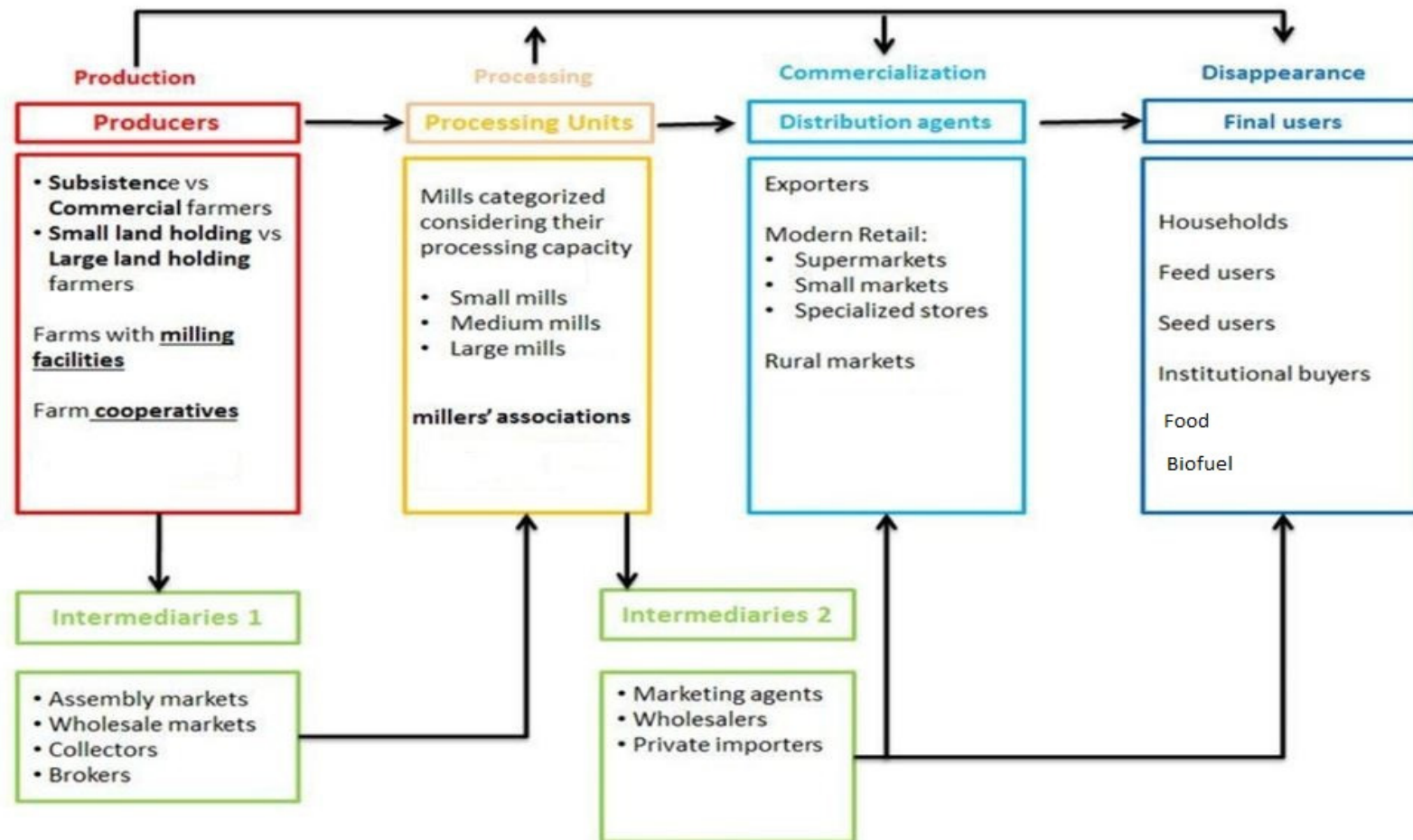
- Market stability (AMIS): carry-forward stocks
- Food security (FAO, WFP, others): carry-forward stocks + food security stocks all year long in specific zones

At national level

- Market stability: carry-forward stocks and discretionary stocks
- Food security:
 - above + food security stocks, anytime
 - + access conditions to stocks
 - + granularity : geo referencing, ownership, etc.

=> Many stats offices are requested to measure 'private' stocks

2. Relevance : what data needed (first)?



=> Identity stakeholders, and information flows

2. Relevance : what data needed (first)?

	Food Security Stocks	Discretionary Stocks	Working Stocks
Farmers			
Subsistence Farmers	+ (++)	-	+
Commercial Farmers	+	++	++
Millers			
Small Millers	+	- (+)	+ (++)
Medium Millers	-	+	++
Large Millers	-	++	++
Domestic Distributors			
Wholesalers	-	++	++
Retailers	-	+	++
International Distributors			
Importers	-	++	++
Exporters	-	++	++
Final users			
Non-producing households	+	+	-
Feed / seed users	-	++	++
Others (food, biofuel, etc.)	-	++	++
Governments	++	-	-

3. A measurement framework

Concepts, definitions and classifications

- Definitions for stocks, total and components:
 - ‘Quantity of a commodity held in storage by any of the various agents along the supply chain from farmers to consumers at an instant in time’
- Classification for agents holding stocks:
 - Producing stakeholders
 - Commercial stakeholders
 - Public stakeholders
 - Non producing households
- Classification for purpose of stocks
 - Food security
 - to help insure continuous consumption during the year
 - Discretionary (= speculative)
 - to perform temporal arbitrages
 - Working (= pipeline)
 - to insure continuous working activities

3. A measurement framework

National level: a multi-tool approach

- Supply-chain analysis (periodicity: 5-10 years)
- Up-to-date structural data and frames
 - Agriculture census (10 years)
 - Population census (10 years)
 - Registers: population, farms and businesses (continuous)
- Specific surveys / survey modules
 - On-farm post harvest stock survey (yearly or more)
 - Off-farm stock surveys
 - Business (yearly or more)
 - Household (HIES, 5 years)
- Use of administrative data and other business surveys
- Convergence of evidence with residual approaches

4. Innovations for consideration

Global context: suppressing surveys, not adding new surveys.

A possible strategy:

1. Insert supplementary modules in an existing survey
2. Use common computerized generic systems
3. Explore new data sources

4. Innovations for consideration

Main challenges & relevant innovations

Household surveys

- | | |
|------------------------|--|
| 1. Cost | CAPI (+ phone/web) |
| 2. Timeliness | CAPI (+ phone/web) |
| 3. Accuracy (sampling) | GS: int sample frames, multiple frames |
| 4. Non response | cultural fact, mixed mode, crowdsourcing (?) |

Business surveys

- | | |
|-------------------------------|--|
| 1. Non response | web, admin sources, commercial surveys |
| 2. Timing – double counting | web |
| 3. Privacy | disclosure control |
| 4. Accuracy (informal sector) | multi-phase surveying (1-2-3 survey, etc.) |

5. Proposed future work

1. Assess existing stocks surveys (incl. microdata)
2. Propose concepts, definitions and classifications
3. Explore further the (potential) use of administrative sources and business surveys
4. Develop survey guidelines:
 1. Supply chain analysis
 2. Specific survey / survey modules
5. Reconcile balancing approaches with direct measures of stocks (or part of it)
6. Make the case for direct measurement: provide evidence

- **Feedback welcome on proposals**
- **Interested in contributing?**
 - Microdata analysis
 - Limitations of residual approaches
 - Supply chain analysis guidelines
 - Survey good practice => guidelines

THANK YOU

<http://www.amis-outlook.org>

Francois.fonteneau@fao.org