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# Towards a Simplified Food Balance Sheet

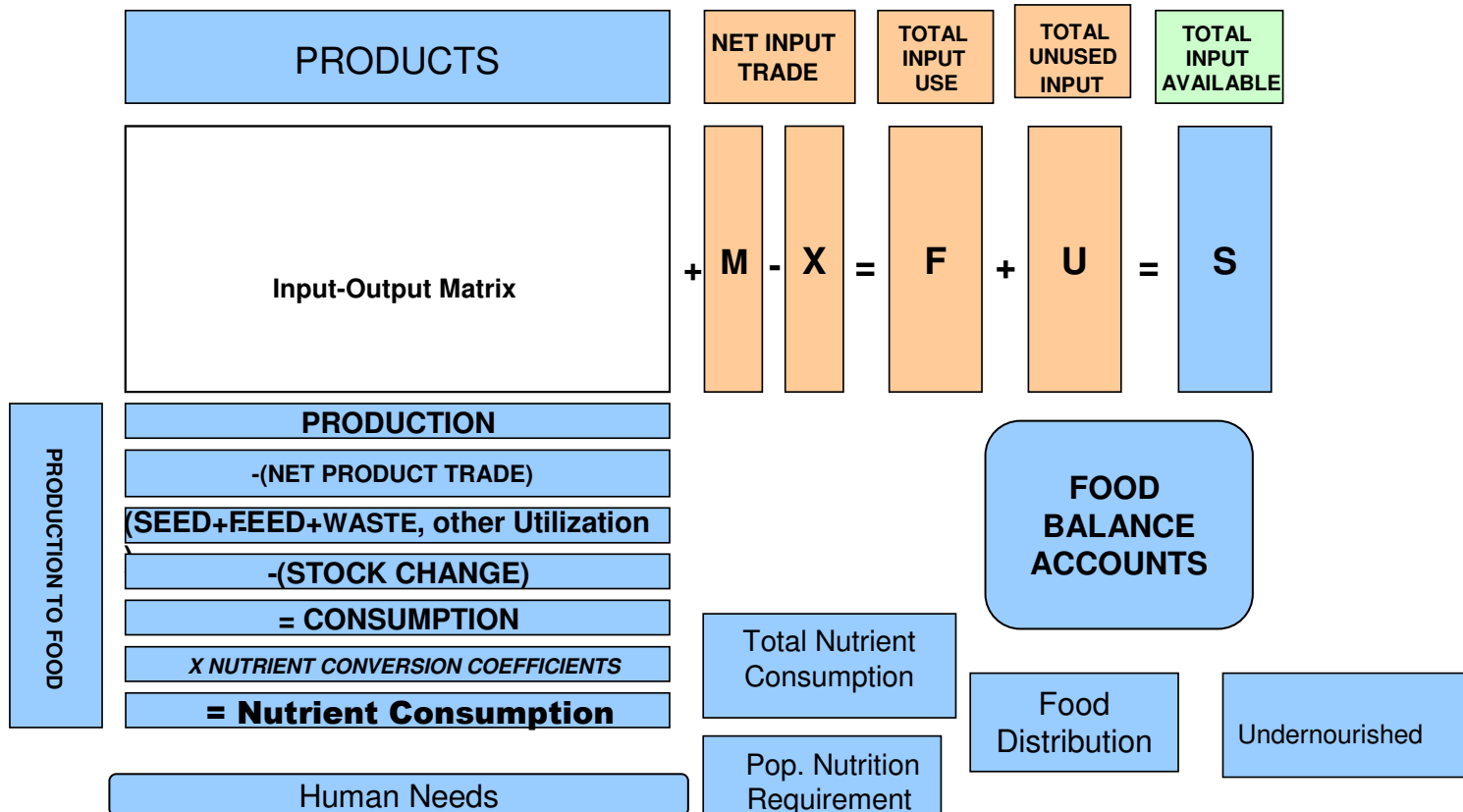
**Robert Mayo**

**Statistics Division**

# Preparation of Food Balance Sheets and Supply and Utilization Accounts



## Food Framework in FAOSTAT





## Why prepare a Food Balance Sheet?

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- Intra and inter country comparisons of food consumption;
- Trends in the national food supply;
- Monitor changes in the types of food consumed,
- Patterns of the diet;
- Extent to which a country depends upon imports (import dependency ratio).
- Self-Sufficiency Ratio (SSR) -the magnitude of production in relation to domestic utilisation.



# Origins of Food Balance Sheets

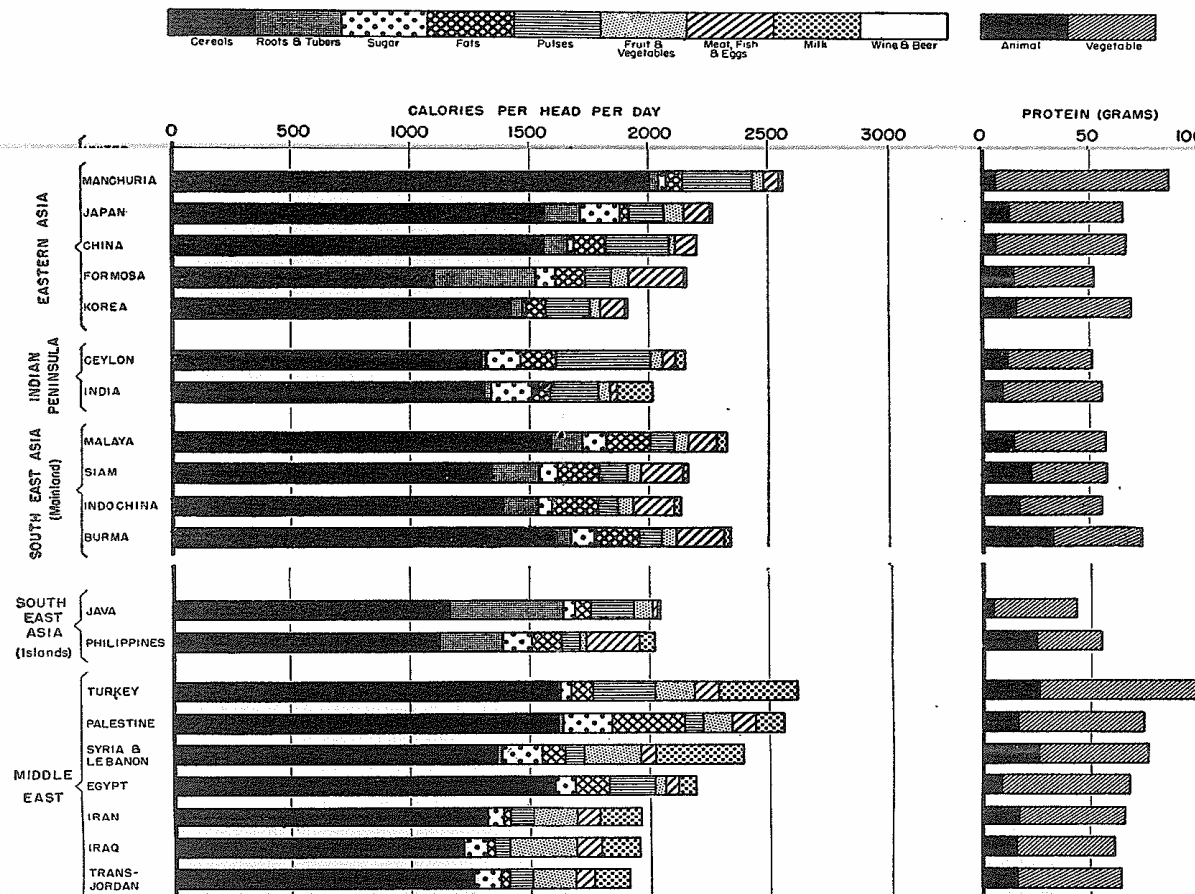
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- Started in the 1940's
- First World Food Survey
- Food Balance sheets for 70 countries
  - Pre-war food picture
  - Extent of malnutrition
  - Areas of greatest deficiency
  - Composition of food supply by food groups

# Calories and Protein Food Supplies — 1930's



FIG. 1  
GALORIES AND PROTEIN FROM PRE-WAR FOOD SUPPLIES IN 70 COUNTRIES  
(PER HEAD PER DAY AT THE RETAIL LEVEL)

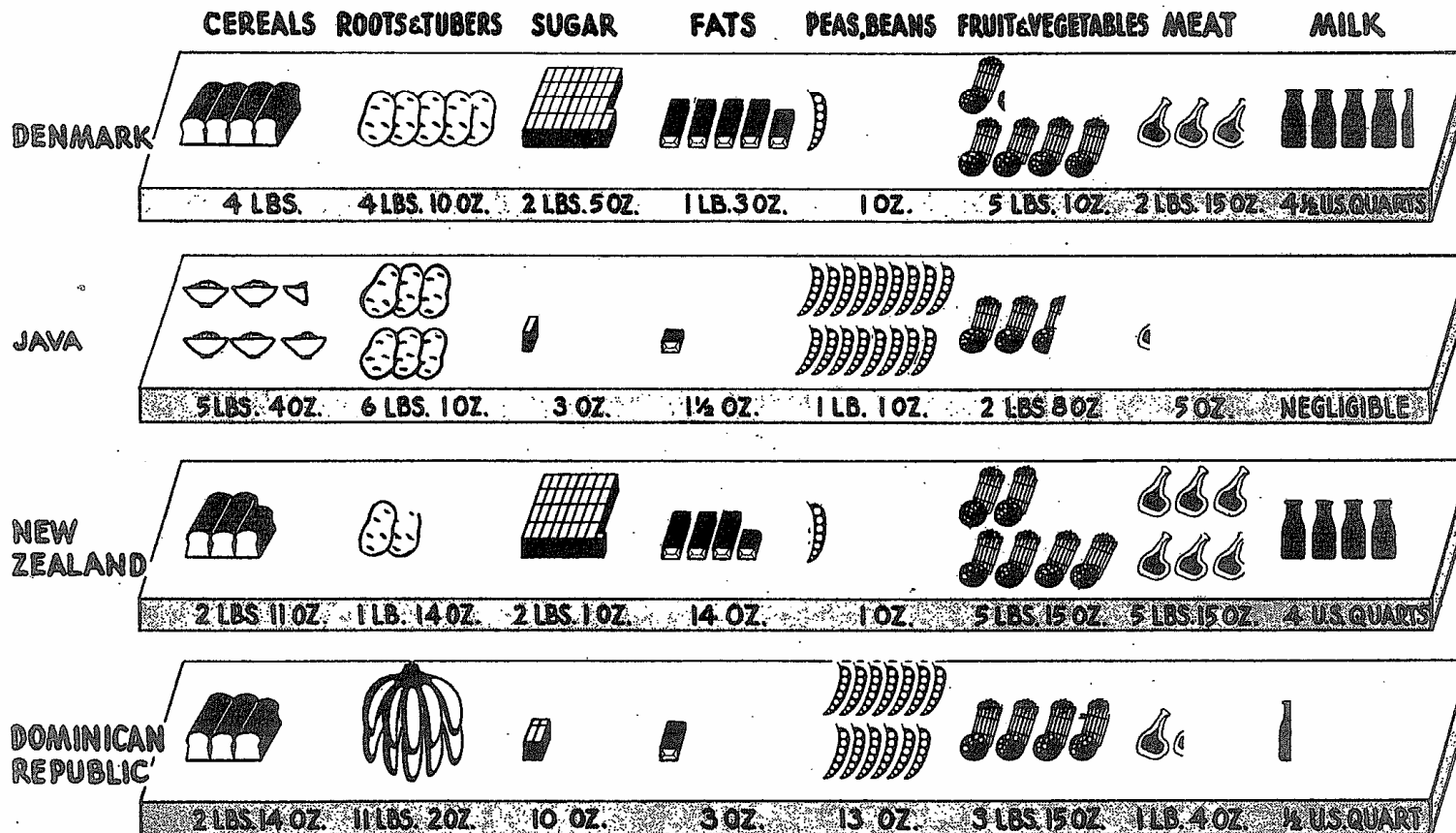




# Food Consumption in 1930's – food groups

FIG. 3

## COMPARISON OF PRE-WAR FOOD CONSUMPTION IN FOUR COUNTRIES (QUANTITIES PER HEAD PER WEEK)





# Commodity Balance Sheets

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- Commodity Balance database (XCBS)
- Balance sheet structured data for the major commodities in the following groups:
- Cereals, Dairy, Meat, Oil bearing crops, Sugar, Tropical beverages, Bananas and Citrus.
- Limitations: cannot summarize across commodities, lack of nutritional information – calories, proteins, fats, etc.



## World wheat Balance Sheet

	2006/07	2007/08	2008/09	Change: 2008/07 over
		<i>estim.</i>	<i>f'cast</i>	2007/08
	<i>million tonnes</i>			%
<b>WORLD BALANCE</b>				
<b>Production</b>	<b>596.7</b>	<b>605.1</b>	<b>658.0</b>	<b>8.7</b>
<b>Trade</b>	<b>113.1</b>	<b>110.0</b>	<b>110.5</b>	<b>0.4</b>
<b>Total utilization</b>	<b>620.6</b>	<b>618.1</b>	<b>634.8</b>	<b>2.7</b>
Food	442.3	445.5	452.8	1.7
Feed	113.0	109.2	117.8	7.8
Other uses	65.3	63.4	64.1	1.1
<b>Ending stocks</b>	<b>159.5</b>	<b>144.5</b>	<b>167.6</b>	<b>16.0</b>

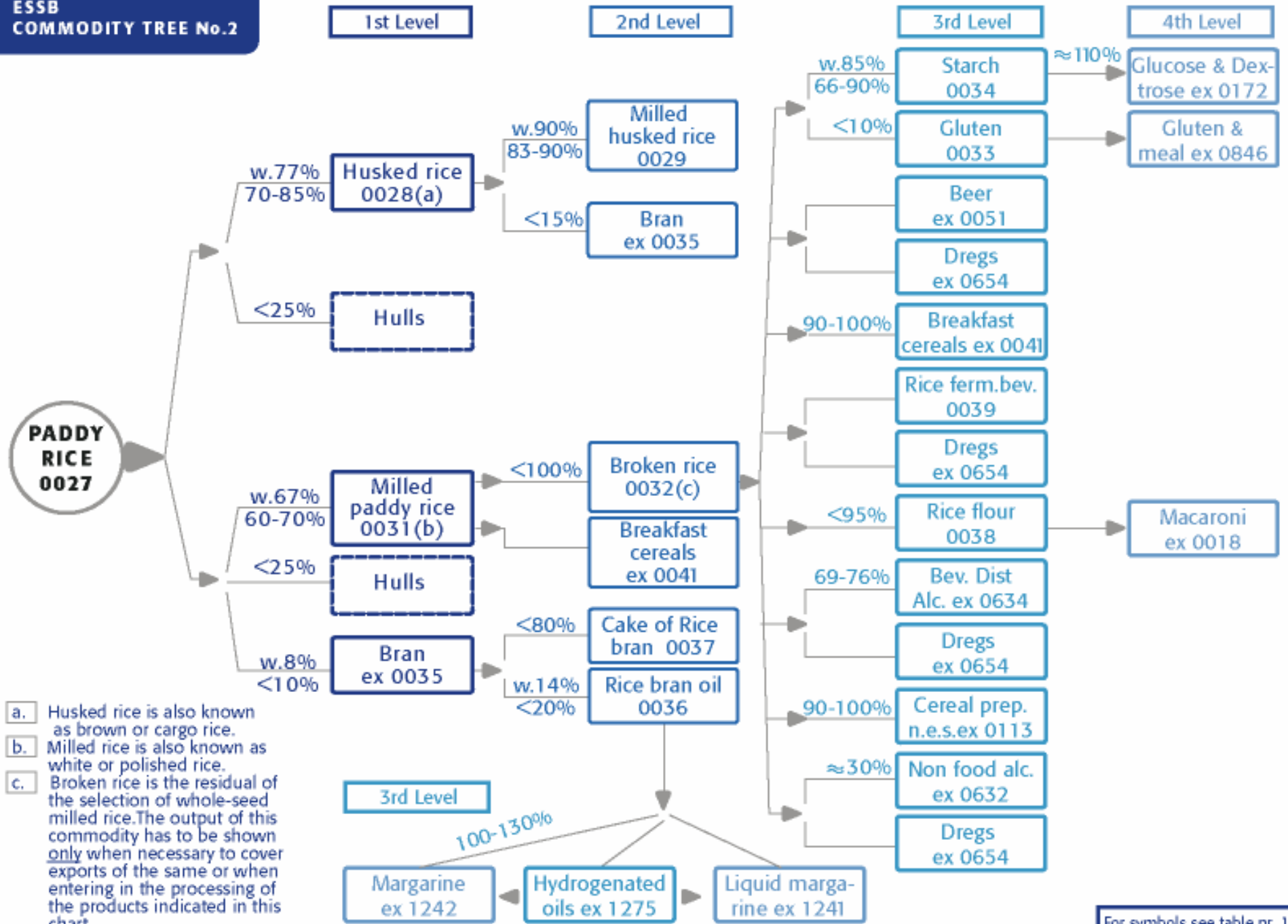
# FAO - FBS methodology

FOOD AND AGRICULTURE ORGANIZATION  
OF THE UNITED NATIONS



- over 200 primary crops and livestock products;
- over 700 derived commodities in various states of processing;
- as data and related coefficients for a large proportion of the above items is not available it is estimated;
- Very detailed utilisation methodology;
- Complex and burdensome food balance sheet methodology.

**ESSB  
COMMODITY TREE No.2**





## Some limitations of FBS

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- In essence are derived statistics;
- many gaps particularly in the statistics of utilization for non-food purposes, such as feed, seed and manufacture;
- differences that may exist in the diet consumed by different population groups;



# Data Quality Issues

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- Basic data (quantity and quality)
    - production, trade, utilization
  - Lack of data
  - Estimates
  - Methodology has complex requirements
  - Coefficients
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# APCAS Food Balance Sheets

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- Limited number of countries prepare Food Balance Sheets on a regular basis;
- Fiji, Indonesia, Japan, Rep. of Korea, Laos, Malaysia, Nepal, New Zealand, Philippines, Sri Lanka, Thailand, Vietnam;
- Some countries prepare commodity balance sheet – e.g. United States of America.



## A way forward – Simplified FBS

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- 90-95% of calories are in 30 or less commodities- **Limit the commodities;**
- Most of the complications are in complex derived (processed) commodities – **Limit the level of analysis of utilization;**
- Too many assumptions and estimates for missing data – **Limit the number of estimates.**



# The on-going need for Food Balance Sheets

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the Conference of FAO at its Fourth Session in Washington in 1948 recommended:

that member governments be asked to prepare food balance sheets to a uniform pattern and submit them to FAO...

that FAO provide direct assistance in this work to those governments which find it difficult to prepare food balance sheets;

that food balance sheets be published as soon as possible...

... It is recognized that food balance sheets will continue to remain an imperfect tool in the examination and improvement of national food programs until range and accuracy of national statistics on food and agriculture have been greatly increased..."



## Questions for APCAS to consider?

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- Would a simplified food balance sheet methodology for compilation at country level be a more feasible approach?
- Are there specific problems faced by countries?
  - Lack of data on feed, seed, waste, stocks?
  - Coefficients, technical conversion factors?
  - Lack of technically trained staff on Food Balance Sheets?
  - Other limiting factors?