

TECHNICAL NOTES

Supply Utilization Accounts of Selected Agricultural Commodities

I. The Introduction

Supply Utilization Accounts is a comprehensive statistical framework for the physical accounting of agricultural commodities. The SUA framework facilitates the derivation of important food security indicators such as Self-Sufficiency Ratio (SSR) and Import Dependency Ratio (IDR). The report covers 82 agricultural commodities that are classified as cereals, root crops, vegetables and legumes, nuts, fruits, commercial crops, livestock and poultry, non-food crops and selected fish and fishery products.

II. Data Sources

Data	Source Agency
Volume of Production	
Crops	
Livestock and Poultry	PSA
Fisheries	
Area Harvested for Selected Crops	PSA
Trade Data by commodity	PSA
Population	PSA

III. Methodology

The updating of SUA is based on given formula and conversion ratios and parameters as follows:

Food Commodity

Estimation of Gross Supply (GS)

$$GS = BS + Prod + I$$

where:

- GS - Gross Supply
- BS - Beginning Stock
- Prod - Production
- I - Import

Estimation of Net Supply Disposable (NSD)

$$NSD = GS - (E + EI)$$

where:

- NSD - Net Supply Disposable
- GS - Gross Supply
- E - Exports
- EI - Ending Inventory

Estimation of Net Food Disposable (NFD)

$$NFD = NSD - (F + S + W + FU +$$

where:

- NFD - Net Food Disposable
- NSD - Net Supply Disposable
- F - quantity used for feeds
- S - quantity used for seeds
- W - quantity lost/spoiled (waste)
- FU - quantity processed for food use
- NFU - quantity processed for non-food use

Estimation of Per Capita Net Food Disposable (NFD)

$$NFD \text{ kg/year} = \text{total NFD} / \text{Population}$$

$$NFD \text{ grams/day} = (NFD \text{ kg/year}) / 365 \text{ days} \times 1000$$

Non-Food Commodity

Estimation of Total Supply (TS)

where:

- $TS = Prod + I$
- TS - Total Supply
- Prod - Production
- I - Imports

Estimation of Domestic Use (DU)

$$DU = TS - (E + S + F)$$

where:

- DU - Domestic Use
- TS - Total Supply
- E - Exports
- S - Seeds
- F - Feeds/Waste

Conversion Ratios for Rice, Livestock and Poultry

Item	Equivalent/Conversion
RICE	Quantity of Palay X 0.654
CATTLE	
Dressweight	Production (in mt) X 0.50
Offals	Production (in mt) X 0.0861
CARABAO	
Dressweight	Production (in mt) X 0.50
Offals	Production (in mt) X 0.0861
HOG	
Dressweight	Production (in mt) X 0.70
Offals	Production (in mt) X 0.1433
GOAT	
Dressweight	Production (in mt) X 0.44
Offals	Production (in mt) X 0.1433
CHICKEN	
Dressweight	Production (in mt) X 0.77
DUCK	
Dressweight	Production (in mt) X 0.75
EGGS	
Chicken	Fresh Eggs / 21 pieces/kilogram
Duck	Fresh Eggs / 15 pieces/kilogram

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Parameters for Supply Utilization Accounts

Commodity Group	Seeds	Feed and Waste	Processing	
			Food Use	Non- Food Use
1. Cereals				
Palay	75.00 (kg/ha)	6.5% of prod'n		
Rice				4% of prod'n
Corn	20.00 (kg/ha)	65% of prod'n	5% of prod'n	8.34% of prod'n
2. Rootcrops				
Cassava		6% of prod'n	17% of net supply	67% of net supply
Gabi	25.00 (kg/ha)	5% of prod'n		
Pao/Galiang	9% of prod'n	9% of prod'n		
White Potato	25.00 (kg/ha)	5% of prod'n	25% of prod'n	
Sweet Potato	20.00 (kg/ha)	5% of prod'n		
Tugui	9% of prod'n	5% of prod'n		
Ubi	25.00 (kg/ha)	4% of prod'n		

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Commodity Group	Seeds	Feed and Waste	Processing	
			Food Use	Non-Food Use
3. Vegetables and Legumes				
Ampalaya	2.20 (kg/ha)	8% of net supply		
Asparagus		8% of net supply		
Bell Pepper		5% of net supply		
Black Pepper		5% of net supply		
Broccoli		8% of net supply		
Cabbage	3.70 (kg/ha)	8% of net supply		
Carrots		8% of net supply		
Cauliflower		8% of net supply		
Celery	3.50 (kg/ha)	8% of net supply		
Chayote	3.50 (kg/ha)	8% of net supply		
Cucumber	3.50 (kg/ha)	8% of net supply		
Eggplant	2.10 (kg/ha)	8% of net supply		
Garlic	12.00% of prod'n	8% of net supply		
Ginger	0.50% of prod'n	8% of net supply		
Gourd (Upo)	3.30 (kg/ha)	8% of net supply		
Habitchuelas	6.00 (kg/ha)	8% of net supply		
Mongo	4.50 (kg/ha)	0.5% of net supply		
Okra		8% of net supply		
Onion	7% of prod'n	8% of net supply		
Patola	1.10 (kg/ha)	8% of net supply		
Peanut	4.00 (kg/ha)	0.5% of net supply	7% of net supply	
Pechay	4.50 (kg/ha)	8% of net supply		
Radish	3.90 (kg/ha)	8% of net supply		
Soybean	4.50 (kg/ha)	0.5% of ns	73% of net supply	
Squash	1.00 (kg/ha)	8% of net supply		
Tomato	3.90 (kg/ha)	7% of net supply	15% of net supply	

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4. Nuts				
Cashew	4.00 (kg/ha)	0.5% of net supply	0.25% of net supply	
Pili	4.00 (kg/ha)	0.5% of net supply	0.25% of net supply	

Commodity Group	Seeds	Feed and Waste	Processing	
			Food Use	Non-Food Use
5. Fruits				
Atis		6% of net supply	25% of net supply	
Avocado		6% of net supply		
Balimbing		6% of net supply		
Banana		6% of net supply		
Caimito		6% of net supply		
Calamansi		6% of net supply		
Chico		6% of net supply		
Durian		6% of net supply		
Guyabano		6% of net supply		
Jackfruit		6% of net supply		
Lanzones		6% of net supply		
Mandarin		6% of net supply		
Mango		6% of net supply		
Mangosteen		6% of net supply		
Marang		6% of net supply		
Orange		6% of net supply		
Papaya		6% of net supply	44% of net supply	
Pineapple		6% of net supply		
Pomelo		6% of net supply		
Strawberry		6% of net supply		
Tiesa		6% of net supply		
Watermelon		6% of net supply		

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6. Commercial Crops				
Cacao			1% of net supply	
Coconut	1% of prod'n.		40% of net supply	54% of net supply
Coffee		6% of net supply	23% of net supply	
Sugarcane			99% of prod'n.	
7. Livestock and Poultry				
Beef			10% of prod'n.	
Carabeef			0.1% of prod'n.	
Chevon				
Pork			1.2% of prod'n.	
Chicken (Dressed)				
Duck (Dressed)				
Chicken Egg	6% of prod'n.		2% of prod'n.	
Duck Egg	4% of prod'n.		2% of prod'n.	

Commodity Group	Seeds	Feed and Waste	Processing	
			Food Use	Non-Food Use
8. Non-Food Crops				
Abaca				
Cotton	4% of prod'n.			
Rubber				
Tobacco		10% of prod'n		

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9. Fish and Fishery Products				
Milkfish		3% of prod'n.	32% of prod'n.	
Roundscad		3% of prod'n.	32% of prod'n.	
Tilapia		3% of prod'n.		
Tuna		3% of prod'n.	32% of prod'n.	
Crab		1.5% of prod'n.		
Shrimps and Prawns		1.5% of prod'n.		
Mussel		1.5% of prod'n.		
Oyster		1.5% of prod'n.		

IV. Concepts and Definition of Terms

Supply Utilization Accounts is a comprehensive statistical framework for the physical accounting of agricultural commodities produced in the country.

Supply Elements

Supply - is the quantity of food supplies available before disposal to food and non-food uses. It comprises of Beginning Stocks, Production, and Imports.

Beginning Stock - refers to the quantity of the commodity available at the beginning of the reference period. This includes stocks held at various levels from the farm to final consumption or consumers of the commodity usually at the household level. It also includes that part of imports in stocks.

Production - relates to the total domestic production that takes place during the reference period. It includes commercial and backyard production.

Imports - refer to all goods entering any of the seaports or airports of entry of the Philippines properly cleared through the Customs or remaining under the Customs control, whether the goods are for direct consumption, for merchandising (global manufacturing, global trade in commodities), for warehousing or for further processing.

Utilization Elements

Utilization - comprises of seeds, feeds and waste, processing, exports and the balance which represents the Net Food Disposable.

Seeds - is the amount of commodity allotted for seeds or in general for production purposes.

Feeds - refer to the amount of food commodity allotted for animals or livestock/poultry during the reference period.

Waste - is the amount of food commodity wasted during the reference period at various stages from farm to retail level as in processing, storage, and transport.

Processing- is the volume of the commodity used as inputs or raw material for manufacturing into food and non-food items.

Export - all goods leaving the country which are properly cleared through the Customs.

Net Food Disposable (NFD) - refers to the volume of food commodity available in its original (unprocessed) form for human consumption. NFD is the remaining balance after all the "use" parameters are taken into account. The net food disposable in per capita per year and in per capita per day are expressed in kilograms and grams, respectively.

Ending Stock - is the stock of commodity available at the end of the reference period. This includes stock held at the various levels, i.e., households, traders, government, and commercial warehouses

Carcass – the body of any slaughtered animal after the removal of the offals.

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Offals – the by-product and other edible parts such as head, tail, organ glands and other tissue meat of the animals

V. Dissemination of Results

Report and Schedule of Release

Title	Schedule of Release
Report on the Supply Utilization Accounts of Selected Agricultural Commodities	November of the Current Year

VI. Citation

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VII. Contact Information

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