



United Republic of Tanzania

THE REVISED NATIONAL ACCOUNTS STATISTICS FOR TANZANIA MAINLAND, BASE YEAR 2015

SOURCES AND METHODS



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Abbreviations

BM	Benchmark
CFC	Consumption of Fixed Capital
COE	Compensation of Employees
CPI	Consumer Price Index
GDP	Gross Domestic Product
GVA	Gross Value Added
HBS	Household Budget Survey
IC	Intermediate Consumption
IO	Input Output
ISIC	International Standard Industrial Classifications of all economic activities
SNA	System of National Accounts
SUTs	Supply and Use Tables
TRA	Tanzania Revenue Authority
VAT	Value Added Tax
FISIM	Financial Intermediation Services Indirect Measured

1.0 Introduction

This report provides sources and methods for compilation of revised national accounts statistics for Tanzania Mainland based on the United Nations' System of National Accounts (UN-SNA) 2008. The base year of the revised series is 2015. Economic activities were classified in accordance with the International Standard Industrial Classifications of all economic activities Revision 4 (ISIC Rev.4).

The objective of revising national accounts statistics includes, but not limited to update the list of new products that have emerged in the economy as continuous developments and innovations lead to new products to appear in the market while obsolescence causes old products to disappear from the market and to comply with the UN-SNA 2008.

The main data sources used in the compilation of national accounts statistics were censuses, surveys, administrative records and special studies. Specific censuses and surveys were: Annual Agriculture Survey 2014/15; Agricultural and Livestock Sample Census 2007/08; National Panel Survey 2014/15; Census of Industrial Production 2013; Household Budget Survey 2011/12; Integrated Labour Force Survey 2014; Trade and Transport Margin Survey; special study on Non-Profit Institution Serving Households 2015; Import and export of goods and services; Government Finance Statistics (GFS) and Value Added Tax (VAT) data.

The compilation of the revised national accounts statistics base year 2015 adopted the production and expenditure approaches. The details on the compilation methodologies are presented under specific sections following the outline of ISIC Rev.4 starting with production approach. The production and expenditure approaches are mainly used in Tanzania Mainland as the information required for compilation of GDP using these approaches are reliable and readily available.

2.0 Construction of Supply and Use Tables

Supply and Use Tables (SUT) is the internationally recommended framework consistent with the UN-SNA 2008 on the benchmarking of Gross Domestic Product (GDP) by production, expenditure and income approaches. The SUTs base year 2015 for Tanzania Mainland comprises of 138 products by 84 industries. The supply side consists of entries on domestic production, imports, trade and transport margins; and net taxes. Use side consists of entries on intermediate consumption; Government Final Consumption; Household Final Consumption; Non- Profit

Institutions Serving Households Final Consumption; Gross Fixed Capital Formation; changes in inventories; changes in valuables and exports.

SUTs provides Benchmark (BM) values in the base year 2015 used for compilation of backward and forward gross value added and components of GDP by production and expenditure.

GDP by production approach from the SUTs is derived as sum of gross output at basic prices less intermediate consumption at purchasers' prices adjusted for trade and transport margins; and net taxes to obtain GDP at market prices.

GDP by expenditure approach is derived as the sum of final consumption expenditure by Government, final consumption expenditure by households and Non-Profit Institutions Serving Household final consumption expenditure; gross fixed capital formation, changes in inventories; changes in valuables and net exports.

GDP by Income approach is derived as sum of compensation of employees, gross operating surplus and gross mixed income; taxes on products and other taxes on production and imports.

Theoretically, all approaches provide the same result. However, due to data mismatch collected from different sources the results are not the same. In order to reconcile existing different results, adjustments are done during balancing of the SUTs to correct the existing mismatch using the most reliable data.

3.0 Production Approach

The production approach is anchored on the use of data on gross output and intermediate consumption. Gross output is the value of goods and services produced by residents during an accounting period while intermediate consumption is the value of goods and services used in the process of production of gross output. Gross Value Added (GVA) is the balancing item between gross output and intermediate consumption. Each economic activity has descriptions on coverage, data sources and methodology. The details are presented below:

3.1 A: Agriculture, Forestry and Fishing

This activity comprises of following sub-activities:

1. Agriculture (Crops and Livestock)
2. Forestry and logging
3. Fishing and Aquaculture

3.1.1 Crop

Coverage

This sub-activity includes growing of maize, paddy, sorghum/millet, other cereals, cassava, round potatoes, sweet potatoes, other roots and tubers, beans and other pulses, dried oil seeds, other vegetables, bananas, other fruits, cashew nuts, coffee, cotton, tea, tobacco, pyrethrum, and sisal.

Methodology

Gross output

Gross output at constant prices was compiled based on the work-in-progress model in which gross output of each crop was compiled and aligned to benchmark value from the 2015 SUTs. Gross output at current prices was derived by reflation using corresponding Consumer Price Index (CPI).

Intermediate Consumption

Intermediate consumption (IC) at constant prices was compiled based on the work-in-progress model and aligned to benchmark value. Annual acreage cost for long and short rain seasons were used to compile constant prices IC and allocated to quarterly by using cost structure for long and short rain seasons. The IC at current prices was derived by reflation using CPI for pharmaceutical products, insecticides, fuel and lubricants, actual rents on housing, maintenance and repairs, water supply, cotton cloth and miscellaneous good/service.

3.1.2 Animal Production (Livestock)

Coverage

This activity covers raising (farming) and breeding of all animals, except aquatic animals. The volume of main livestock used in compilation of backward and forward series included improved and indigenous cattle, goats and sheep, donkey & horses, pigs, other animals, guinea pigs, rabbits, layers, broilers and indigenous chicken and other birds. It also covers livestock products such as milk, eggs, hides & skins.

Methodology

Gross output

Gross output at current prices was compiled based on the work-in-progress model, in which output of different types of livestock were derived by summing up the value of inventory, animal sold for slaughter and other farm output such as meat, milk, manure, eggs, offal, hides and skin and aligned to benchmark value. Gross output at constant prices was derived by deflating current prices gross output using the quarterly prices of inventory and corresponding prices of farm products such as meat, milk, eggs, offal, hides and skin for each animal species.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was derived using fixed ratios generated from the Agricultural and Livestock Sample Census 2007/2008. Items of intermediate consumption used were medicines, insecticides, vaccine, animal feed/fodder, water, fuel and lubricants, electricity, repairs and maintenance. IC at current prices was derived by reflating the constant prices IC for both quarterly and annual estimates.

3.1.3 Forestry and Logging

Coverage

The activity covers production of logs, charcoal & fuel wood; and gathering of non-wood forest products.

Methodology

Gross output

Gross output for forestry and logging at constant prices was derived by extrapolating benchmark value base year 2015 with combined volume index derived from number of households using charcoal, firewood and logs. Gross output at current prices was derived by reflating constant prices gross output with CPI for timber.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was derived by using fixed input-output ratio. IC at current prices was derived by reflation using weighted CPI for packing materials, fuel (diesel), maintenance and repair of personal transport equipment; and CPI for services.

3.1.4 Fishing and Aquaculture

Coverage

This activity covers fishery and aquaculture fish, crustaceans, mollusks and other marine organisms and products such as aquatic plants, pearls and sponges.

Methodology

Gross output

Gross output at current prices was derived by extrapolating benchmark value with combined value of fish harvested, consumed and exported. Gross output at constant prices was derived by deflation using CPI for fish.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was derived based on the fixed input-output ratio from benchmark value. The IC at current prices was derived by reflation with weighted index for animal feeds and diesel.

3.2 B: Mining and Quarrying

This activity comprises of following sub activities:

5. Mining of coal and lignite
6. Extraction crude petroleum and natural gas
7. Mining of metal ores
8. Other mining and quarrying
9. Mining support service activities

Coverage

The activity includes mining of coal and lignite; extraction of natural gas; mining of metal ores (gold, copper and silver); and other mining and quarrying including salt, sand, stones and clay, diamond, tanzanite and other minerals.

Methodology Gross Output

Gross output at constant prices was derived by extrapolating benchmark value using volume index of each mineral. Gross output at current prices for gold, coal and natural gas was derived by extrapolating benchmark value using corresponding value index for gold and natural gas. Other minerals output at current prices such as sand, stones and clay were derived by reflating constant prices output using corresponding construction material prices.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was derived based on fixed input-output ratio from benchmark value for each sub-activity. IC at current prices was compiled by reflating constant prices IC with weighted CPI for repair and installation of machinery, electricity and coke and refined petroleum products.

3.3 C: Manufacturing

This activity covers the following sub-activities:

10. Manufacture of food products;
11. Manufacture of beverages;
12. Manufacture of tobacco products;
13. Manufacture of textiles,
14. Manufacture of wearing apparel
15. Manufacture of leather and leather products;
16. Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
17. Manufacture of paper and paper products
18. Printing and reproduction of recorded media;
19. Manufacture of coke and refined petroleum products
20. Manufacture of chemicals and chemical products;
21. Manufacture of pharmaceutical, medical products
22. Manufacture of rubber and plastics products;
23. Manufacture of other non-metallic mineral products;
24. Manufacture of basic metals
25. Manufacture of fabricated metal products, except machinery and equipment;
26. Manufacture of computer, electronics and optical products
27. Manufacture of electrical equipment
28. Manufacture of machinery equipment;
29. Manufacture of motor vehicles, trailers and semi-trailers
30. Manufacture of other transport equipment
31. Manufacture of furniture
32. Other manufacturing
33. Repair and installation of machinery and equipment

Coverage

This activity covers manufacture of food products; manufacture of beverages;

manufacture of tobacco products; manufacture of textiles, wearing apparel; leather and leather products; manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials; printing and reproduction of recorded media; manufacture of chemicals and chemical products; manufacture of rubber and plastics products; manufacture of other non-metallic mineral products; manufacture of fabricated metal products, except machinery and equipment; manufacture of electrical, transport and machinery equipment; and manufacture of furniture and other manufacturing.

Methodology Gross output:

Gross output at constant prices of food, beverage, tobacco, wearing apparel, wood and paper; chemicals and pharmaceutical; rubber and plastic; basic and fabricated metals; electrical transport and machinery; furniture and other manufacturing; and printing and recording media; were derived using volume index while textile gross output was derived using value index. Gross output at current prices was derived by reflatting constant prices gross output using corresponding CPI for all sub activities.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was derived using product of fixed input-output ratio and gross output at constant prices. IC at current prices was derived by reflatting constant prices IC with weighted CPI for corresponding IC of each sub-activity.

3.4 D: Electricity, Gas, Steam and Air Conditioning Supply

This activity covers the following sub-activity:

35. Electricity, gas, steam and air conditioning supply

Coverage:

The activity covers electric power generation, transmission and distribution, through a permanent infrastructure (network) of lines, mains, and pipes.

Methodology: Gross output

Gross output at constant prices was derived by extrapolating benchmark value using quantity of electricity distributed. Gross output at current prices was derived by reflatting constant prices gross output using CPI for electricity.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was compiled by extrapolating the respective benchmark values using quantity of fuel and volume of gas used to generate electricity. The IC at constant prices for intermediate consumption other than fuel and gas was estimated by extrapolating benchmark values of other IC, volume index being output at constant prices. IC at Current prices was compiled by reflating respective constant prices IC using CPI for fuel and lubricant, gas unit value index and weighted index derived from CPI of electricity, fuel and lubricant, repairs and maintenance and service CPI.

3.5 E: Water Supply; Sewerage, Waste Management and Remediation Activity

This activity covers the following sub-activities:

36. Water collection, treatment and supply
37. Sewerage
38. Waste collection, treatment disposable activities; materials recovery
39. Remediation activities and other waste management services

Coverage

This activity covers water collection from various sources, treatment and distribution to household, business and industries using various means.

Methodology: Gross output

Gross output at constant prices for water supply was derived by extrapolating benchmark values using quantity of water supplied. Gross output for own account supply was derived based on inter HBS growth rate for the household using other sources of water different from tape water. Gross output of sewerage and disposal was compiled by extrapolation of benchmark value using number of households with tape water. Gross output at current prices was derived by reflating constant prices gross output using CPI for water.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was compiled by multiplying fixed input-output ratio by constant prices gross output. IC at current prices was derived by extrapolating benchmark value using the value index obtained by reflating constant prices IC using weighted CPI for pharmaceuticals, diesel and services.

3.6 F: Construction

The activity covers the following sub-activities:

41. Construction of buildings;
42. Civil engineering
43. Specialized construction activities

Coverage

Construction activity includes construction of buildings; civil engineering and other specialized construction activities such as construction of road, railways and utility projects; construction of other civil engineering projects; industrial facilities other than buildings, waterways, harbour, dredging of water ways and dams; demolition and site preparation, electrical, plumbing and other construction, installation activities, building completion and finishing.

Methodology

Gross output

Gross output was based on the work-in-progress model. Gross output at current prices was derived from cost of construction materials aligned to benchmark value. Gross output at constant prices was derived by deflating current prices gross output using the National Construction Council (NCC) construction materials index.

Intermediate Consumption

Intermediate consumption (IC) at current prices was derived by summing up cost of construction materials such as fuel; electricity; rental of machinery and equipment; building repairs and maintenance; machinery repairs and maintenance; and other services. Intermediate consumption at constant prices was derived by deflating current prices IC using construction materials index.

3.7 G: Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles

The activity includes the following sub-activities:

45. Wholesale and retail trade and repair of motor vehicles and motorcycles;
46. Wholesale trade, except of motor vehicles and motorcycles
47. Retail trade, except of motor vehicles and motorcycles

Coverage

The activity covers wholesale and retail trade and repair of motor vehicles and motorcycles; and wholesale trade and retail trade, except of motor vehicles and motorcycles.

Methodology Gross output

Gross output at constant prices for wholesale trade and retail trade except repair of motor vehicles and motorcycles was compiled based on weighted output index at constant prices of agriculture, forestry, fishing, manufacturing, mining and quarrying and imports. Gross output at current prices was obtained by reflatting constant prices output using CPI for goods.

Gross output at constant prices for repair of motor vehicles and motorcycles was obtained by extrapolating the benchmark value of motor vehicles; motorcycles and repairs by using number of licensed and new registered vehicles. Gross output at current prices was compiled by reflatting constant prices output using composite CPI for motor vehicles, motorcycles and repairs.

Intermediate Consumption

Intermediate consumption (IC) at constant prices for wholesale trade and retail trade except motor vehicles and motorcycles was derived by multiplying constant prices output with the fixed input-output ratio. IC at current prices for wholesale trade and retail trade except motor vehicles and motorcycles was derived by reflatting constant prices IC using weighted index of CPI for petroleum, electricity, packing materials, rent, warehousing, freight transport, communication and other services.

Intermediate consumption (IC) at current prices for repair of motor vehicles and motorcycles were compiled by reflatting constant prices IC with weighted index of CPI for purchases of vehicles and CPI for services.

3.8 H: Transportation and Storage

Transport and storage cover the following sub-activities:

49. Land transport and transport via pipelines
50. Water transport
51. Air transport
52. Warehousing and supporting activities for transportation
53. Postal and courier activities

Coverage

The activity includes passenger and freight rail transport; passenger and freight road transport; transport via pipeline; passenger and freight water transport; passenger

And freight air transport; warehousing and support activities for transportation includes ports activities; and postal and courier activities.

Methodology Gross output

Gross output at constant prices was derived by extrapolating benchmark value using volume indicators such as number of vehicles licensed; air passengers and cargo; rail passengers and cargo; water passengers and cargo and volume of natural gas transported through pipeline. However, all passengers and cargo data are in number and tonne-kilometres respectively.

Gross output at constant prices for warehousing and support activities for transportation was derived by extrapolating benchmark values using number of employees.

Gross output at constant prices for postal and courier service was derived by deflating the current prices gross output using CPI for postal services.

Gross output at current prices for road; rail; air and water transport were derived by reflating constant prices gross output using corresponding CPI for road, railway, air and water transport.

Gross output at current prices for pipeline transportation was derived based on value of transported gas.

Gross output at current prices for warehousing and support services for transportation was compiled by reflating constant prices gross output using CPI for rent.

Gross output at current prices for postal and courier activities was derived from establishments' quarterly income data.

Intermediate Consumption

Intermediate consumption (IC) at constant prices for all activities were derived by multiplying fixed input output ratio by constant prices gross output. Intermediate consumption at current prices for all activities was derived by reflating constant prices IC with corresponding CPI.

3.9 I: Accommodation and Food Services

The activity includes the following sub-activities:

55. Accommodation
56. Food and beverage service activities

Coverage

This activity includes the provision of short-stay accommodation for visitors and other travelers and provision of complete meals and drinks fit for immediate consumption.

Methodology Gross output

Gross output at constant prices for accommodation services was compiled using data on number of beds occupied as volume indicator to extrapolate the benchmark value. Gross output at current prices for accommodation was derived by reflating constant prices gross output using CPI for accommodation.

Gross output at constant prices for food and beverage serving services were derived using weighted volume index. The weighted volume index was derived from number of tourist arrivals and total population for Tanzania Mainland. Gross output at current prices for food and beverage serving services was compiled by reflating constant prices gross output using CPI catering services.

Intermediate Consumption

Intermediate consumption (IC) at constant prices for food and accommodation services were derived as product of constant prices gross output and fixed input-output ratio. IC at current prices for food and accommodation services were derived by reflating using weighted price index of food, raw milk, meat and vegetable, electricity, gas and other fuel, CPI services, furniture and furnishing.

3.10 J: Information and Communication

The activity covers the following sub-activities:

58. Publishing activities;
59. Motion picture, video and television programme production, post-production, distribution, motion picture projection activities and sound recording and music publishing activities;
60. Programming and broadcasting activities;
61. Telecommunications activities,

62. Computer programming, consultancy and related activities;
63. Information service activities

Coverage

The activity includes publishing; motion picture; broadcasting; telecommunication; computer programming; information technology; data processing and other information services activities.

Methodology Gross Output

Gross output at current prices was derived by extrapolating the benchmark value with quarterly income data for fixed and mobile telephones. Gross output at constant prices was derived by deflating gross output at current prices; the deflator used was CPI for communication.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was compiled as a product of fixed input-output ratio and constant prices gross output. IC at current prices was derived by reflatting constant prices IC with weighted CPI for services, communication and maintenance and repairs.

3.11 K: Financial and Insurance Services

The activity covers the following sub-activities:

64. Financial service activities except insurance, reinsurance and pension funding
65. Insurance, reinsurance and pension funding, except compulsory social security
66. Auxiliary to financial service and insurance activities

Coverage

The activity includes services by the Central Bank; commercial banks, life insurance; non-life insurance, reinsurance; pension funds; administration of financial markets; security and commodity contracts brokerage; risk and damage evaluation; activities of insurance agents and brokers and fund management activities.

Methodology

Gross output for Central Bank

Gross output at current prices for central bank was compiled using cost approach by summing up compensation of employees (COE), intermediate consumption (IC)

and consumption of fixed capital (CFC). Gross output at constant prices was derived by extrapolating benchmark value using deflated current prices gross output, deflator used was CPI for all items.

Intermediate Consumption

Intermediate consumption (IC) at current prices was derived from the banks' audited reports. IC at constant prices was derived by deflating IC at current prices; deflator used was CPI for services.

Gross output for Commercial Banks

Gross output at current prices for commercial banks was derived by extrapolating benchmark value with net interest income obtained from banks' audited reports. Gross output at constant prices was derived by extrapolating benchmark value with deflated net interest income; the deflator used was CPI for all items.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was compiled based on product of fixed input-output ratio and constant prices gross output. IC at current prices was derived by reflating constant prices IC with CPI for services.

Gross output for Non-Life Insurance

Gross output at current prices for non-life insurance and reinsurance were derived by extrapolating benchmark value with net premiums for non-life insurance from Tanzania Insurance Regulatory Authority (TIRA) audited report. Gross output at constant prices was derived by extrapolating benchmark value using deflated current prices output; the deflator used was CPI for services.

Intermediate Consumption

Intermediate consumption (IC) at constant prices for non-life insurance and reinsurance were derived based on product of fixed input-output ratio and constant prices gross output. IC at current prices was compiled by reflating constant prices IC with weighted CPI for services and communication.

Gross Output for Life Insurance

Gross output at current prices for life insurance was compiled by extrapolating benchmark value using output of life insurance from Tanzania Insurance Regulatory Authority (TIRA) audited report. Gross output at constant prices was

derived by extrapolating benchmark value using deflated current prices output; the deflator used was CPI for services.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was derived as the product of fixed input-output ratio and constant prices gross output. IC at current prices was compiled by reflating constant IC with weighted CPI for services and communication.

3.12 L: Real Estate Services

The activity covers the following sub-activity:

68. Real estate activities

Coverage

This activity consists of lessors, agents and/or brokers in one or more of the following: selling or buying real estate, renting real estate, providing other real estate services such as appraising real estate or acting as real estate escrow agents.

Methodology

Gross output at constant prices for rented dwellings was derived by extrapolating benchmark value with volume index of traditional and modern rented dwellings. Gross output at constant prices for owner occupied dwellings was derived by extrapolating benchmark value with volume index of traditional and modern owner-occupied dwellings. These are extrapolated using inter HBS growth rate to derive the number of dwellings. CPI for rent was used to reflate the constant prices gross output to derive current prices gross output.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was derived as the product of constant prices gross output and fixed input-output ratio. IC at current prices was derived by reflating the constant prices IC using construction implicit deflator from repairs of housing.

3.13 M: Professional, Scientific and Technical Services

The activity covers the following sub-activities:

69. Legal and accounting activities

70. Activities of head offices, management consultancy activities

71. Architectural and engineering activities; technical testing and analysis

72. Scientific research and development
73. Advertising and market research
74. Other professional, scientific and technical activities
75. Veterinary activities

Coverage

This activity includes legal and accounting activities; activities of head offices; management consultancy activities; architectural and engineering activities; technical testing and analysis scientific research and development; advertising and market research; other professional, scientific and technical activities; and veterinary activities.

Methodology Gross Output

Gross output at constant prices for professional, scientific and technical activities was derived by extrapolating benchmark value using volume index computed by using number of employees. Gross output at current prices was compiled by reflating constant prices gross output using CPI for services.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was derived as product of constant prices gross output and fixed input-output ratio. Intermediate consumption at current prices was derived by reflating constant prices IC using CPI for services.

3.14 N: Administrative and Support Services

The activity covers the following sub-activities:

77. Rental and leasing activities
78. Employment activities
79. Travel agency, tour operator, reservation service and related activities
80. Security and investigation activities
81. Services to buildings and landscape activities
82. Office administrative, office support and other business support activities

Coverage

This activity includes rental and leasing activities; employment activities; travel agency, tour operator, reservation service and related activities; security and investigation activities; services to buildings and landscape activities; and office

administrative, office support and other business support activities.

Methodology Gross output

Gross output at constant prices for administrative and support services were derived by extrapolating benchmark value using volume index computed using number of employees. Gross output at current prices was compiled by redeflating constant prices gross output using CPI for services.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was derived as the product of constant gross output and fixed input-output ratio. IC at current prices was derived by redeflating constant prices IC using CPI for services.

3.15 O: Public Administration and Defence, Compulsory Social Security

The activity includes the following sub-activity:

84. Public administration and defence; compulsory social security

Coverage

This activity includes activities of a governmental nature, normally carried out by the public administration such as enactment and judicial interpretation of laws and their pursuant regulation, legislative activities, taxation, national defence, public order and safety, immigration services, foreign affairs and the administration of government programmes. Also includes compulsory social security activities.

Methodology Gross output

Gross output at current prices was compiled by cost approach derived from Government Finance Statistics. Gross output at constant prices was obtained by deflating current prices gross output using wages index.

Intermediate consumption

Intermediate consumption (IC) at current prices was derived from analysis of GFS data. IC at constant prices was derived by deflating current prices IC using CPI for all items.

3.16 P: Education

The activity covers the following sub-activity:

85. Education

Coverage

This activity includes pre-primary and primary education; secondary education; post-secondary education; and tertiary education.

Methodology Gross output

Gross output at current prices for public education was derived by cost approach derived from Government Finance Statistics. Gross output at constant prices was obtained by deflating current prices gross output using wages index.

Gross output at constant prices for private education was derived by extrapolating benchmark value using average enrolment index. Gross output at current prices was compiled by reflatting constant prices gross output of each level of education using CPI for education.

Intermediate Consumption

Intermediate consumption (IC) at current prices for public education was derived from analysis of GFS data. IC at constant prices was derived by deflating current prices IC using CPI for all items, repair and maintenance; fuel and lubricants; and services.

Intermediate consumption (IC) at constant prices for private education was estimated as the product of constant prices gross output and fixed input-output ratio. IC at current prices was compiled by reflatting constant prices IC using CPI for stationery and drawing materials, electricity, repair and maintenance; and services.

3.17 Q: Human Health and Social Work Services

The activity covers the following sub-activities:

86. Human health activities
87. Residential care activities
88. Social work activities without accommodation

Coverage

This activity covers provision of health and social work activities, starting from health care provided by trained medical professionals in hospitals and other facilities, over residential care activities that still involve a degree of health care activities to social work activities without any involvement of health care professionals.

Methodology Gross output

Gross output at current prices for public health was derived using cost approach. Gross output at constant prices was obtained by deflating current prices gross output using wages index.

Gross output at constant prices for private health was derived by extrapolating benchmark value using volume index computed from number of patients attending private hospitals including Non-Government Organizations' (NGOs) health facilities. Gross output at current prices was compiled by reflating constant prices gross output using CPI for cough syrup.

Intermediate Consumption

Intermediate consumption (IC) at current prices for public health was derived by analysis of GFS data. IC at constant prices was derived by deflating current prices IC using CPI for all items, fuel and lubricants, furniture and furnishing, repair and maintenance, air transport and services.

Intermediate consumption (IC) at constant prices for private health was estimated as the product of constant prices gross output and fixed input-output ratio. IC at current prices was compiled by reflating constant prices IC using CPI for pharmaceutical products, repair and maintenance; and services.

3.18 R: Arts, Entertainment and Recreation

The activity includes the following sub-activities:

90. Creative, arts and entertainment activities
91. Libraries, archives, museums and other cultural activities
92. Gambling and betting activities
93. Sports activities and amusement and recreation activities

Coverage:

This activity includes a wide range of activities to meet varied cultural, entertainment and recreational interests of the general public, including live performances, operation of museum sites, gambling, sports and recreation activities.

Methodology Gross output

Gross output at constant prices was derived by extrapolating benchmark value

using weighted volume index computed using population of Tanzania Mainland and number of tourists' arrivals. Gross output at current prices was estimated by reflating constant prices gross output using CPI for recreational and sporting services.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was derived as the product of constant prices gross output and fixed input-output ratio. IC at current prices was derived by reflating constant prices IC using CPI for services.

3.19 S: Other Services

The activity includes the following sub-activities:

94. Activities of membership of organizations
95. Repair of computers and personal and household goods
96. Other personal service activities

Coverage

This activity includes the activities of membership organizations, repair of computers and personal and household goods; and a variety of personal service activities not covered elsewhere in the classification.

Methodology Gross output

Gross output at constant prices for other services and repairs was derived by extrapolating benchmark value using inter HBS growth rate of household repairs. Gross output at current prices for other services and repairs were compiled by reflating constant prices gross output using CPI for hairdressing.

Gross output at constant prices for formal other services was compiled using volume index computed from employment numbers. Gross output at current prices for formal other services was derived by reflating constant prices gross output using CPI for services.

Intermediate Consumption

Intermediate consumption (IC) at constant prices was compiled as the product of constant prices gross output and fixed input-output ratio. IC at current prices was estimated by reflating constant prices IC using CPI for repair of household goods, repair of footwear, repair of clothing and services.

3.20 T: Activities of Households as Employers; Undifferentiated Goods and Services Producing Activities of Households for Own Use

The activity covers the following sub-activities:

97. Activities of household as employers of domestic personnel
98. undifferentiated goods- and services- producing activities of private household for own use

Coverage

This activity includes activities of households as employers of domestic personnel such as maids, cooks, waiters, valets, butlers, laundresses, gardeners, gatekeepers, stable-lads, chauffeurs, caretakers, governesses, babysitters, tutors, secretaries.

Methodology Gross output

Gross output at constant prices was derived by extrapolating benchmark value using total population Tanzania Mainland. Gross output at current prices was obtained by reflating constant prices gross output using CPI for domestic services.

4.0 Taxes

Net taxes at current prices were obtained direct from Government revenue data. Government revenue data provide information on total tax collected itemized as VAT, taxes and duties on imports and other taxes on products. Net taxes at constant prices were obtained by extrapolating the benchmark value using index of taxable goods.

5.0 Expenditure Approach Coverage

GDP by type of expenditure is compiled as sum of final consumption expenditure by Government, Household, Non-Profit Institutions Serving Households (NPISHs), Gross Fixed Capital Formation, Changes in inventories, Valuable, and net Export.

Methodology

Changes in Inventories

The changes in inventories were estimated as residual of total supply (domestic production plus import) less the total uses (final consumption and export). Changes in inventories were estimated using products such as sand and other minerals; food products, refined petroleum products, textile, pulp paper, product of wood, other chemical products; man-made fibers, basic chemicals, rubber, glass and basic metals and fabricated metals.

Changes of valuable at constant prices were estimated by extrapolating the benchmark value using constant prices gross output of metal ores. Changes of valuable at current prices were obtained by extrapolating benchmark value using current prices gross output of metal ores.

Final Consumption Expenditure of Government

Final consumption expenditure by Government was computed as gross value added less sales of goods and services. The non-market output for Government was obtained in public administration, education, health sector, research and development, recreational and culture and other services.

Most of Government output is non-market estimated at cost (summing up Compensation of Employees, Consumption of Fixed Capital and Intermediate consumption).

Final Consumption Expenditure by Household

The final consumption expenditure by household was estimated based on 59 products adjusted for direct purchases abroad by resident *less* purchases by non-resident in the territory. Final consumption expenditure by household at constant prices was derived by extrapolating benchmark values using total supply of each specific product in the economy. Final consumption expenditure by household at current prices was obtained by extrapolating benchmark value with domestic supply of each product.

Gross Fixed Capital Formation (GFCF)

GFCF estimates include value of investment in buildings and structures; transport equipment; machinery and equipment; other machinery and equipment; animal resources; yielding repeat products and intellectual property. GFCF computation at current and constant prices includes domestic produced and imported goods and services.

Non-Profit Institution Serving Household (NPISHs)

NPISHs estimates at current and constant prices were derived by extrapolating benchmark value with output of education, health, recreational and other services.

