

# Status of global and regional implementation of the 2008 SNA and the major challenges

Regional Course on 2008 SNA (Special Topics): Improving Exhaustiveness of GDP Coverage

31 August-4 September 2015
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United Nations Statistics Division



#### **Outline of presentation**

- Global implementation programme for the 2008 SNA and supporting statistics
- Regional implementation programmes for the 2008 SNA
- How to determine compliance with 2008 SNA
- Status of 1968, 1993 and 2008 SNA implementation in Member States
- Major challenges
- Holistic solution
- Annexes



- Global statistical initiative, mandated by the 40<sup>th</sup> UNSC following the adoption of the 2008 SNA, with dual objective to assist countries to:
  - Change over to the 2008 SNA
  - Improve scope, detail and quality of the national accounts and supporting economic statistics
- Efficiency and sustainability of the programme rest on the agreed principles
  - Strategic planning
  - Coordination, monitoring and reporting
  - Improving statistical systems

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### Global implementation programme for the 2008 SNA and supporting statistics

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#### UNSD

- UNSD, in collaboration with regional commissions, have conducted series of seminars to align regional and global implementation programmes
- Objectives of seminars:
  - To identify the macro economic policy needs to determine the scope and detail of the national accounts that need to be compiled
  - To prepare for an assessment of the adequacy of the statistical production process to provide the required data for the compilation of the national accounts
  - To identify the required actions for implementation
  - To develop a statement of strategy



#### Regional commissions

- Have prepared respective regional programmes and strategies which are broadly aligned with the objectives and principles of the global programme
- Examples
  - ECA's African Strategy on the implementation of the 2008 SNA
  - ECE's Implementation of the 2008 SNA in Eastern Europe, Caucasus and Central Asia, South East Europe and Mongolia
  - ECLAC's 2008 SNA and SEEA 2012 implementation plan for Latin America and the Caribbean
  - ESCAP's Regional Programme for the Improvement of Economic Statistics in Asia and the Pacific will help to produce a core set of economic statistics for compiling national accounts under the 2008 SNA
  - ESCWA's Implementation Strategy for 2008 SNA and Economic Statistics in the Arab Region

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### How to determine compliance with 2008 SNA

- Countries' compliance with 2008 SNA can be monitored in terms of
  - Scope of national accounts they compile
  - Extent of 2008 SNA important concepts they have adopted
- The scope of national accounts countries compile can be assessed using
  - A set of six milestones supplemented by
  - Three data sets describing (a) the minimum set of accounts that need to be compiled (MRDS); (b) a recommended set of accounts; and (c) a desired set of accounts
- The milestones and data sets are available in annexes
   1 and 2
- Information to determine the scope comes from annual national accounts questionnaire submitted to UNSD



- The extent to which important concepts in the 2008 SNA affecting the level of GDP, gross capital formation and gross national income have been implemented is assessed using a compliance questionnaire, supplemented by country reports
- Compliance questionnaire is available in annex 3

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### Status of 1968, 1993 and 2008 SNA implementation in Member States

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#### Scope of national accounts

|                      | Total<br>number of<br>countries | MR                    | PDS             | Milestone Level |                                   |  |
|----------------------|---------------------------------|-----------------------|-----------------|-----------------|-----------------------------------|--|
|                      |                                 | Six or more<br>tables | Seven<br>tables | 1 or higher     | 2<br>Seven<br>tables<br>submitted |  |
| UN Member<br>States  | 193                             | 120 (62%)             | 93 (48%)        | 169 (88%)       | 93 (48%)                          |  |
| Developed countries  | 44                              | 40 (91%)              | 34 (77%)        | 43 (98%)        | 34 (77%)                          |  |
| Developing countries | 137                             | 71 (51%)              | 51 (36%)        | 116 (85%)       | 51 (36%)                          |  |
| cis                  | 12                              | 9 (75%)               | 8 (67%)         | 10 (83%)        | 8 (67%)                           |  |
| Asia /<br>Oceania    | 53                              | 30 (57%)              | 20 (38%)        | 45 (85%)        | 20 (38%)                          |  |



#### Status of 1968, 1993 and 2008 SNA implementation in Member States United Nations Statistics Division

#### Number of countries submitting the tables of the MRDS

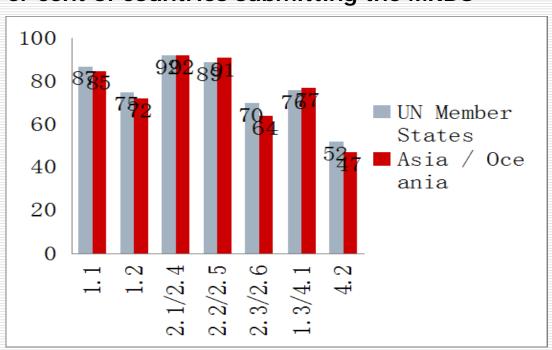
|                         | Total<br>number<br>of<br>countries | GDPe<br>C<br>1.1 | GDPe<br>K<br>1.2 | GDPp<br>C<br>2.1 /<br>2.4 | GDPp<br>K<br>2.2 /<br>2.5 | GDPp<br>detail<br>2.3 /<br>2.6 | IEA<br>Total<br>1.3 /<br>4.1 | IEA<br>RoW<br>4.2 |
|-------------------------|------------------------------------|------------------|------------------|---------------------------|---------------------------|--------------------------------|------------------------------|-------------------|
| UN Member<br>States     | 193                                | 168              | 144              | 177                       | 172                       | 136                            | 147                          | 101               |
| Developed<br>countries  | 44                                 | 43               | 42               | 44                        | 43                        | 43                             | 41                           | 35                |
| Developing<br>countries | 137                                | 115              | 93               | 123                       | 119                       | 83                             | 96                           | 58                |
| cis                     | 12                                 | 10               | 9                | 10                        | 10                        | 10                             | 10                           | 8                 |
| Asia / Oceania          | 53                                 | 45               | 38               | 49                        | 48                        | 34                             | 41                           | 25                |

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#### Status of 1968, 1993 and 2008 SNA implementation in Member States United Nations Statistics Division

#### Per cent of countries submitting the MRDS





### Status of 1968, 1993 and 2008 SNA implementation in Member States

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|                         | Total number of countries | 1968 SNA<br>compliant | 1993 SNA<br>compliant | 2008 SNA<br>compliant |
|-------------------------|---------------------------|-----------------------|-----------------------|-----------------------|
| UN Member<br>States     | 193                       | 26                    | 107                   | 58                    |
| Developed<br>countries  | 44                        | 1                     | 6                     | 37                    |
| Developing<br>countries | 137                       | 25                    | 91                    | 21                    |
| CIS                     | 12                        | 0                     | 11                    | 1                     |
| Asia /<br>Oceania       | 53                        | 8*                    | 32                    | 13                    |

- 58 Members States have implemented the 2008 SNA
- Some are doing it by introducing various aspects of the 2008 SNA gradually
- 13% of Member States are still using the 1968 SNA (13% of Asian and Oceania countries) – DPRK is treated as 1968 SNA country since there are no data

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#### **Major challenges**

- Political support and commitment
- Data limitations
- How to do backcasting
- How to communicate changes





#### Political support and commitment

- Senior government officials may lack conviction in the value of national accounts data for economic policy due to misplaced perceptions of their
  - Accuracy
  - Timeliness
  - Frequency
- Even governments which understand the importance of national accounts for policy formulation and monitoring may not prioritize funding to national statistical offices
- The result is a lack of political support and commitment to invest in sufficient resources to implement 2008 SNA

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#### **Major challenges**

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#### **Data resource limitations**

- Routine surveys are costly
- Survey costs may go higher due to
  - Implementation of 2008 SNA to
    - Incorporate implementation of standards such as ISIC, CPC, etc.
    - Incorporate activities of non-observed economy and informal economy to increase exhaustiveness of GDP
    - Collect input data to calculate merchanting and goods for processing
    - Collect input data for research and development...
- A less costly alternative to surveys is administrative data





#### **Data resource limitations**

- Countries have difficulty in
  - Accessing administrative data (for example, legal constraints in the case of tax data)
  - Maintaining business registers which will allow proper identification of enterprises involved in
    - Merchanting
    - Goods for processing
  - Obtaining value of defense weapons systems (due to confidentiality reasons) and research and development and developing price deflators for these fixed assets
  - Collecting input data to calculate value of merchanting and goods for processing and developing price deflators for these activities

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#### **Major challenges**

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#### **Data limitations**

- All activities within the SNA production boundary should be included
- Lack of coverage and data limitations causes problems for users in terms of
  - Levels
    - GDP and other data biased downward
  - Trends
    - Biases in trend estimates can be expected if the economic activities missing from GDP grow at different rates from those included
- For statisticians, lack of coverage causes imbalances in the internal consistency of the accounts
- Affects all countries, but developing ones to a greater extent



#### How to do backcasting

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- Implementing 2008 SNA may introduce breaks in the time series data, which implies the need to do backcasting to ensure long consistent time series data
- Issues to consider in backcasting include
  - What techniques to use
    - Recompilation from source data
    - Splicing
    - Proxy indicators
    - A combination of the above techniques
  - How far back to backcast
  - At what detail to backcast
  - Availability of resources and time
  - Knowledge of structural changes, business cycles, major economic events, changes in government policy...
- UNSD is currently preparing a backcasting handbook

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#### How to communicate changes

- There is a challenge in identifying which users to communicate the 2008 SNA changes to
- Most NSOs have processes in place to communicate national accounting changes to
  - Monetary authorities
  - Various levels of government
  - Large private financial institutions or
  - Economic forecasters
- However, processes may be lacking in communicating these changes to
  - Academia
  - Journalists
  - Private enterprises and
  - General public
- New lines of communication may be needed



#### How to communicate changes

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- Users will need substantial lead time to incorporate the new national accounts information to
  - Adapt their forecasting and analytical models
  - Map the new data into their models
  - Devote time to understanding the new data to ensure that they maximize their analytical usefulness
- Another challenge is to overcome the perception that the 2008 SNA changeover is intended to correct errors within the national accounts

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#### **Holistic solution**

- Adopt a national strategic planning framework
- Within the framework, develop national strategic statistical plans which
  - Incorporate priorities for the development of national accounts
  - Incorporate improvements to national institutional arrangements for compiling national accounts
  - Improve source data collection, including overcoming legal and other obstacles to statistical use of administrative data
  - Fit with government budget process to improve the chance of securing funding
  - Incorporate backcasting techniques
  - Incorporate effective communication strategy



#### **Annexes**

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#### **Annex 1 - Milestones**

| Implementation milestones   | Complementary data systems  | SNA-related data and development  |
|---|---|---|
| Pre-SNA phases  | Basic data on production,<br>turnover, consumption,<br>investment, exports and imports<br>Consumer and producer price<br>indices<br>Balance of payments goods and<br>services account<br>Monetary survey statistics |   |
| Milestone 1. Basic indicators of gross domestic product (GDP) - Final expenditures on GDP current and constant prices - GDP by industry at current and constant prices              | Supply and use table worksheets Balance of payments: current, capital and financial accounts Government finance statistics (GFS) transaction accounts   |   |
| Milestone 2. Gross national income and other primary indicators - For rest of the world, external account of primary incomes and current transfers - Capital and financial accounts | Capital stock statistics International investment position GFS transactions and stocks in assets and liabilities Monetary and financial statistics  | Quarterly national accounts Regional accounts Satellite accounts for environment and other satellite accounts Input-output analysis |



#### Annex 1 - Milestones

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| Implementation milestones   | Complementary data<br>systems | SNA-related data and development |
|---|-------------------------------|----------------------------------|
| Milestone 3. Institutional sector accounts: first step:  for all institutional sectors Production account  for general government Generation of income, Allocation of primary income, Secondary distribution income, Use of disposable income, Capital and financial accounts | Same as for milestone 2       | Same as for milestone 2          |
| Milestone 4. Institutional sector accounts: intermediate step 1:  •for all institutional sectors Generation of income Allocation of primary income Secondary distribution of income Use of disposable income Capital accounts   | Same as for milestone 2       | Same as for milestone<br>2       |
| Milestone 5. Institutional sector accounts: intermediate step 2:  for all institutional sectors Financial account   | Same as for milestone 2       | Same as for milestone 2          |
| Milestone 6. Institutional sector<br>accounts: final step:<br>for all institutional sectors Other<br>changes in assets account Balance<br>sheet   | Same as for milestone 2       | Same as for milestone 2          |



#### Annex 2 – Data sets

| NAQ | Table Number   | Annual Accounts        | Quarterly<br>Accounts              |  |  |  |  |
|-----|--|------------------------|------------------------------------|--|--|--|--|
| GDP | GDP, value added and employment  |                        |                                    |  |  |  |  |
|     | Nominal and volume measure of GDP by industry or by expenditure components | Minimum<br>requirement | Minimum<br>requirement             |  |  |  |  |
| 1.1 | Expenditures of the GDP in current prices                                  | Minimum<br>requirement | Optional<br>Minimum<br>Requirement |  |  |  |  |
| 1.2 | Expenditures of the GDP in constant prices                                 | Minimum<br>requirement | Optional<br>Minimum<br>Requirement |  |  |  |  |
| 2.1 | Value added and GDP in current prices by industry                          | Minimum<br>requirement | Optional<br>Minimum<br>Requirement |  |  |  |  |
| 2.2 | Value added and GDP in constant prices by industry                         | Minimum<br>requirement | Optional<br>Minimum<br>Requirement |  |  |  |  |
| 2.2 | Value-added components by industry, current prices                         | Minimum<br>requirement | Recommended                        |  |  |  |  |
| 2.3 | Employment by industry   | Minimum requirement    | Recommended                        |  |  |  |  |



### Annex 2 – Data sets

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| NAQ   | Table Number   | Annual<br>Accounts     | Quarterly<br>Accounts  |  |  |  |  |  |
|---|--|------------------------|------------------------|--|--|--|--|--|
| Integrated accounts and tables, including integrated satellite accounts |  |                        |                        |  |  |  |  |  |
| 1.<br>3<br>/<br>4.<br>1   | Accounts for the total economy (until net lending)                               | Minimum<br>requirement | Minimum<br>requirement |  |  |  |  |  |
|   | Supply and use table   | Recommende<br>d        | Desirable              |  |  |  |  |  |
| 5.1   | Cross-classification of output/value added by industries and sectors             | Recommende<br>d        |                        |  |  |  |  |  |
|   | Tourism accounts,<br>environmental accounts and<br>other socio-economic accounts | *                      |                        |  |  |  |  |  |

|      | Annex 2 – Data sets   | Unite              | ed Nations Statistics Div | vision |
|------|---|--------------------|---------------------------|--------|
| NAQ  | Table Number  | Annual<br>Accounts | Quarterly<br>Accounts     |        |
| Purp | ose classification of expenditures  |                    |                           |        |
| 3.1  | General government final consumption (and other) expenditure by purpose in current prices | Recommende<br>d    |                           |        |
|      | General government final consumption expenditure by purpose at constant prices            | *                  |                           |        |
| 3.2  | Individual consumption (and other) expenditures by purpose in current prices              | Recommende<br>d    |                           |        |
|      | Individual consumption expenditures by purpose at constant prices                         | *                  |                           |        |
|      | Purpose classification of intermediate and final consumption across all sectors           | *                  |                           |        |
|      |   |                    | 2.6                       |        |



#### Annex 2 – Data sets

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| NAQ T   | able Number  | Annual Accounts        | Quarterly Accounts     |  |  |  |
|---|--|------------------------|------------------------|--|--|--|
| Institutional sector accounts (until net lending) |  |                        |                        |  |  |  |
| 4.2   | Rest of the world accounts (until net lending)   | Minimum<br>requirement | Minimum<br>requirement |  |  |  |
| 4.3   | Non-financial corporations sector accounts (until net lending)                         | Minimum<br>requirement | Recommended            |  |  |  |
| 4.4   | Financial corporations accounts (until net lending)                                    | Minimum<br>requirement | Recommended            |  |  |  |
| 4.5   | General government sector accounts (until net lending)                                 | Minimum<br>requirement | Recommended            |  |  |  |
| 4.6   | Household sector accounts (until net lending)  | Minimum<br>requirement | Recommended            |  |  |  |
| 4.7   | Non-profit institutions serving households sector accounts (until net lending)         | Minimum<br>requirement | Recommended            |  |  |  |
| Financ  | cial accounts  |                        |                        |  |  |  |
| 4.1 –<br>4.7                                      | Financial accounts for all sectors   | Recommended            | Desirable              |  |  |  |
| Balan   | ce sheets and other changes in asset accounts  |                        |                        |  |  |  |
|   | Balance sheets, revaluation and other volume changes in asset accounts for all sectors | Recommended            | Desirable              |  |  |  |
|   |  |                        | 2.7                    |  |  |  |

#### Annex 3 - Conceptual Compliance Questionnaire for the 2008 SNA

| United Nations Statistics Di |   |     |    |        | ivision |  |
|------------------------------|---|-----|----|--------|---------|--|
|                              | Question: Does your country's reported national accounts data currently include estimates for:  | Yes | No | Partly | na      |  |
|                              | Elements affecting the level of GDP   |     |    |        |         |  |
|                              | Gross capital formation (GCF)/output  |     |    |        |         |  |
|                              | 1. the entire defence expenditure incurred by government included in the GCF?   |     |    |        |         |  |
|                              | 2. consumption of fixed capital measured on all government fixed assets (airfields, roads, hospitals, docks, dams and breakwaters and other forms of construction except structures) including military weapon systems? |     |    |        |         |  |
|                              | 3. the expenditure on Research and Development included in the output and GCF?  |     |    |        |         |  |
|                              | 4. all (successful and unsuccessful) mineral exploration expenditure capitalized?   |     |    |        |         |  |
|                              | 5. purchases of computer software expected to be used for more than a year included in GCF?   |     |    |        |         |  |
|                              | 6. expenditure on software development on own account expected to be used for more than a year and for sale included in GCF and output?   |     |    |        |         |  |
|                              | 7. the expenditure on all databases expected to be used for more than a year, whether purchased on the market or developed inhouse, included in the GCF and output?   |     |    |        |         |  |
|                              |   |     | 28 |        |         |  |

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| Question: Does your country's reported national accounts data currently include estimates for:   | Yes       | No      | Partly     | na      |  |
| 8. expenditure on entertainment, literary or artistic originals included in the GCF and on their development included in the output?   |           |         |            |         |  |
| 9. expenditure on valuables included in the GCF?   |           |         |            |         |  |
| 10. the natural growth of cultivated forests included in output in GCF?  |           |         |            |         |  |
| 11. the output of financial intermediation services indirectly measured (FISIM) calculated on loans and deposits only using interest rates on deposits and loans and a reference rate of interest? |           |         |            |         |  |
| 12. the output of FISIM allocated to users?  |           |         |            |         |  |
| 13. the production of all goods that are produced by households whether for sale or not —included in the output?   |           |         |            |         |  |
| 14. the activity of the own-account money lenders included in the output?  |           |         |            |         |  |
| 15. the value of output of goods and services produced by households and corporations for own final use, when estimated on cost basis, include a return to capital?                                |           |         |            |         |  |
| 16. the output of non-life insurance services in the event of catastrophic losses estimated using adjusted claims and adjusted premium supplements?  |           |         |            |         |  |
|  |           | 29      |            |         |  |

| W/K | Annex 3 – Conceptual Compliance                                |
|-----|--|
|     | Annex 3 – Conceptual Compliance Questionnaire for the 2008 SNA |

United Nations Statistics Division Question: Does your country's reported national accounts data Partly Yes currently include estimates for: 17. the output of the Central Bank estimated separately for financial intermediation services, monetary policy services and supervisory services overseeing financial corporations? 18. the unit undertaking purely ancillary activity, located in a geographically separate location from establishments it serves, treated as a separate establishment? 19. the output of the activity of non-autonomous pension funds and unfunded pension schemes separately recognised? 20. volumes estimated using a chaining procedure on an annual basis? Social contributions/insurance 21. unfunded social contributions (for sickness, unemployment, retirement etc.) by enterprises imputed as compensation of employees and included as contributions to social insurance? 22. non-life insurance estimates include premium supplements rather than being based just on premiums less claims? 23. life insurance estimates include premium supplements rather than being based just on premiums less claims?

| Question: Does your country's reported national accounts data currently include estimates for:  Elements affecting GNI  24. reinvested earnings estimates included in the rest of the world account?  25. foreign workers' remittances excluded from GNI?  Elements not affecting the level of GDP/GNI  Valuation of output  26.a output and value added measured at basic prices? a  26.b output and value added measured at producers' prices? a  26.c value added measured at factor cost? a (not part of the 2008 SNA)  27. the goods for processing recorded on a net basis? |  |     |    |        |    |  |
|---|--|-----|----|--------|----|--|
| 24. reinvested earnings estimates included in the rest of the world account?  25. foreign workers' remittances excluded from GNI?  Elements not affecting the level of GDP/GNI  Valuation of output  26.a output and value added measured at basic prices? a  26.b output and value added measured at producers' prices? a  26.c value added measured at factor cost? a (not part of the 2008 SNA)  |  | Yes | No | Partly | na |  |
| world account?  25. foreign workers' remittances excluded from GNI?  Elements not affecting the level of GDP/GNI  Valuation of output  26.a output and value added measured at basic prices? a  26.b output and value added measured at producers' prices? a  26.c value added measured at factor cost? a (not part of the 2008 SNA)  | Elements affecting GNI                                       |     |    |        |    |  |
| Elements not affecting the level of GDP/GNI  Valuation of output  26.a output and value added measured at basic prices? a  26.b output and value added measured at producers' prices? a  26.c value added measured at factor cost? a (not part of the 2008 SNA)   |  |     |    |        |    |  |
| Valuation of output  26.a output and value added measured at basic prices? a  26.b output and value added measured at producers' prices? a  26.c value added measured at factor cost? a (not part of the 2008 SNA)  | 25. foreign workers' remittances excluded from GNI?          |     |    |        |    |  |
| 26.a output and value added measured at basic prices? <sup>a</sup> 26.b output and value added measured at producers' prices? <sup>a</sup> 26.c value added measured at factor cost? <sup>a</sup> (not part of the 2008 SNA)  | Elements not affecting the level of GDP/GNI                  |     |    |        |    |  |
| 26.b output and value added measured at producers' prices? a  26.c value added measured at factor cost? a (not part of the  2008 SNA)   | Valuation of output  |     |    |        |    |  |
| 26.c value added measured at factor cost? (not part of the 2008 SNA)  | 26.a output and value added measured at basic prices? a      |     |    |        |    |  |
| 2008 SNA)   | 26.b output and value added measured at producers' prices? a |     |    |        |    |  |
| 27. the goods for processing recorded on a net basis?   | •  |     |    |        |    |  |
|   | 27. the goods for processing recorded on a net basis?        |     |    |        |    |  |

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## Annex 3 – Conceptual Compliance Questionnaire for the 2008 SNA

United Nations Statistics Division

| Question: Does your country's reported national accounts data currently include estimates for:  | Yes | No | Partly | na |  |
|---|-----|----|--------|----|--|
| Final consumption   |     |    |        |    |  |
| 28. government final consumption expenditure broken down into individual and collective consumption?  |     |    |        |    |  |
| Status of implementation of the 2008 SNA  |     |    |        |    |  |
| 29. the 2008 SNA has not been implemented in officially reported national accounts, when does the country plan to implement and release data based on the 2008 SNA? (Specify the year.) |     |    |        |    |  |





#### Thank you