



ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC
Statistics Division

**Assessment of the capacity of Bhutan Statistical System
to produce the core set of economic statistics**

August 2011

DRAFT REPORT

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Foreword

The assessment of the capacity of Bhutan to produce the core set of economic statistics was a joint effort by the ESCAP Statistics Division and the Bhutan National Statistics Bureau (NSB). The assessment was conducted under the leadership of Ms Fu, Chief of the ESCAP Statistics Division and Mr Kuenga Tshering, Director, National Statistical Bureau.

ESCAP Statistic Division and NSB are grateful to all the staff interviewed during the assessment mission from 28 to 30 March 2011 for their openness and support; this included staff from:

National Accounts & Price Division, NSB
Census & Survey Division, NSB
Research and Statistics Division, Royal Monetary Authority (RMA)
Department of Revenue & Customs, Ministry of Finance (MOF)
Department of Employment, Ministry of Labour and Human Resources (MOLHR)
Planning and Policy Division, Ministry of Agriculture and Forest (MOAF)
Planning and Policy Division of Public Accounts, MOF

We also thank all the participants to the National consultative meeting on the status of core economic statistics in Bhutan, 31 March 2011 for their contribution to the assessment.

Mr Artur Andrysiak, and Ms Jillian Campbell, Statisticians from ESCAP and Mr Sonam Tenzin, Chief, and Mr Sonam Laendup, Asst. Statistical Officer, Statistician, National Accounts and Price Division, NSB, were responsible for organising the assessment and generating this report.

Haishan Fu
Chief
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Kuenga Tshering
Director
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List of abbreviations and acronyms

A - Annual
ADB - Asian Development Bank
BOP - Balance of payments
BPM - Balance of Payments Manual
BSS - Bhutan Statistical System
CIF - Cost, Insurance and Freight
COICOP - Classification of Individual Consumption According to Purpose
CPI - Consumer price index
ESCAP - United Nations Economic and Social Commission for Asia and the Pacific
FOB - Free On Board
GDDS - General Data Dissemination System
GDI - Gross Domestic Income
GDP - Gross Domestic Product
GDP(E) – GDP expenditure
GDP(I) – GDP income
GDP(P) - GDP production
GFS - Government Finance Statistics
GNI- Gross national income
GNP - Gross National Product
HIES - Household Income and Expenditure Survey
ICLS - International Conference of Labour Statisticians
ICP - International Comparison Program
IIP - International Investment Position
ILO - International Labour Organization
IMF - International Monetary Fund
M - Monthly
MOAF – Bhutan Ministry of Agriculture and Forest
MOE – Bhutan Ministry of Economic Affairs
MOF – Bhutan Ministry of Finance
MOLHR – Bhutan Ministry of Labour and Human Resources
NSB - Bhutan National Statistics Bureau
OECD - Organisation for Economic Co-operation and Development
PPI - Producer price index
PPPs - Purchasing power parities
Q - Quarterly
RMA – Bhutan Royal Monetary Authority
ROSC - Report on the Observance of Standards and Codes
SDDS - Special Data Dissemination Standard
SIAP – ESCAP Statistical Institute for Asia and the Pacific
SNA - System of National Accounts
STI - Short term indicators/statistics
UN - United Nations
W - Weekly

Executive summary

1. The assessment of the capacity of Bhutan to produce the core set of economic statistics¹ was conducted to ensure relevance and guide identification of priorities for the ESCAP regional programme on economic statistics and as a tool for Bhutan for furthering the national strategy on economic statistics. The assessment aimed to cover all aspects of Bhutan Statistical System (BSS) involved in the production of the core set of economic statistics; including collection and processing of data; compilation, analysis and dissemination of core set of economic statistics; statistical infrastructure (classifications, standards, frameworks, registers, IT infrastructure); human resources; and relationships between data providers and producers. The assessment identified constraints limiting the capacity of BSS to produce the core set of economic statistics and needs for capacity development.
2. The development of this assessment consisted of 4 components: pre-mission analysis; in-country interviews; national consultative meeting; and research and reporting. The assessment focused on the main parts of the BSS including: Bhutan National Statistics Bureau (NSB), Royal Monetary Authority (RMA), Ministry of Finance (MOF), Ministry of Labour and Human Resources (MOLHR) and Ministry of Agriculture and Forest (MOAF). The interviews were conducted on March 28-30, 2011 and the national consultative meeting was held on 31 March 2011.
3. The assessment found that the BSS has the capacity to produce 24 of the 32 statistics within the core set of economic statistics, with 13 of these statistics meeting the recommended frequency. The assessment further found that although the BSS has the basic capacity to produce most of the statistics within the core set, it has limited capacity to produce many of these statistics at the recommended frequency and in accordance with relevant international standards and good practices.
4. Based on the interviews with statistics providers and users and the discussions during the consultative meeting the assessment found that improving/developing the capacity of the BSS to produce (at recommended frequency, in a timely manner and in accordance with recent international standards and methods): national accounts, structural statistics, PPI, BOP, IIP and short-term indicators on output, demand was a priority.
5. The assessment also found that the capacity of BSS to produce the core set of economic statistics was limited by constraints related to: financial and human resources, training, IT resources, data sources, business register, quality assurance, release calendars and metadata repositories. Additionally the assessment found that issues related to the use of financial and calendar year basis and lack of a single national data page affected the capacity of BSS to produce and disseminate statistics which are demanded by users. The assessment found that:

¹ E/ESCAP/CST(2)/4 “Proposed core set of economic statistics”, available at <http://www.unescap.org/stat/cst/2/CST2-4E.pdf>.

- The current financial and human resources place a constraint on the BSS. The limited financial resources and staff numbers significantly affect the capacity of the BSS to collect data for, compile and disseminate the core set of economic statistics of sufficient quality and in accordance with international practices and methods. These constraints limit the capacity of BSS to improve the existing economic statistics and implement current/modern methods and practices.
- The limited training opportunities at the national level, limit the ability of BSS to develop the statistical skills (particularly outside the NSB and RMA) of its new staff as well as improve the skills of existing staff. The lack of necessary statistical training and knowledge of recent international standards and methods affects the capacity of BSS to produce economic statistics and make the necessary improvements.
- The limited availability of source data is one of the main constraints affecting the capacity of the BSS to produce the core set of economic statistics of sufficient frequency and quality. The overall quality and timeliness of statistics is significantly affected by lack of, or poor frequency of necessary survey and administrative data.
- The BSS business register is in the early stages of development and at present is not of sufficient quality. This limits the capacity of the BSS to conduct coherent and comprehensive business surveys.
- The BSS computer systems are in need of modernization as they inhibit efficient production of economic statistics. The overall computer systems do not appear to be well connected with the collection of data for, compilation and dissemination of economic statistics, involving many manual steps and separate computer systems.
- The BSS does not at present use quality assessment frameworks to ensure the overall quality of statistics that are being produced. There are currently no systemized processes used for ensuring the overall quality of statistics.
- None of the organizations/departments responsible for dissemination of economic statistics within the core set publish the release calendars.
- Metadata and documentation has been identified by some of the other government organizations/departments as an area in need of improvement and assistance.
- At present no national summary data page exists which would allow users to access all statistics from a single website.
- While some statistics are compiled on a financial year basis (July - June) others are compiled on a calendar year basis (Jan - Dec). This difference in the definition of the year provides a significant challenge for users of statistics who wish to obtain a more comprehensive picture of the economy.

6. Bhutan is currently in the process of strengthening its national statistical system to ensure that it has the capacity to produce the necessary statistics including economic statistics. A number of ongoing and planned initiatives are aimed at improving the national statistical system and will address some of the constraints identified in the assessment.

7. Although the BSS has a clear plan for addressing some of the constraints identified above, it could substantially benefit from the activities planned under the

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Regional programme for the improvement of economic statistics in Asia and the Pacific, including among others capacity building activities, technical assistance and facilitating sharing of knowledge aimed at improving human resources, business registers, quality assessment frameworks, metadata repositories and others.

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I. Background

8. Many developing countries in the region lack the capacity to produce and disseminate relevant economic statistics for short and long-term economic analysis and decision-making by government and non-governmental agencies and organizations. The recent global financial and economic crises further highlighted the importance of timely, reliable, and comparable economic statistics for monitoring financial and economic changes. Recognizing that economic statistics are fundamental for managing economic development and that there is an urgent need to improve economic statistics in the Asia-Pacific region, the Committee on Statistics² at its second session in December 2010 made a number of strategic decisions³.

9. The Committee endorsed a core set of economic statistics⁴ as a guideline for developing the capacity of national statistical systems. The Committee recommended that the core set be used as a framework to focus regional efforts, coordinate training and mobilize donor support for capacity-building.

10. The Committee also endorsed a proposed regional programme for the improvement of economic statistics in Asia and the Pacific⁵. The programme will serve as a roadmap until 2020 for the region to address the constraints related to producing the core set of economic statistics. The programme will facilitate the provision of technical assistance and advice in critical technical areas and will serve as an advocacy platform for national statistical systems to make a strong case for improving the fundamentals of economic statistics. The Committee encouraged ESCAP member States and development partners to actively support its implementation.

11. ESCAP is developing a detailed implementation plan for the regional programme in close consultation with member States and development partners. The implementation plan will be based, among others, on the results of a 2009 region-wide assessment⁶ of the capacity of member States to produce basic economic statistics and detailed country assessments. Detailed country assessments of national statistical systems in the region (including the Bhutan assessment) will serve as additional input for better understanding the statistical process and the specific obstacles that countries are facing with respect to the core set.

² More information about the Committee on Statistics is available at <http://www.unescap.org/stat/cst/index.asp>

³ Decisions of the Committee are contained in the report of the ESCAP Committee on Statistics on its second session, which is available at <http://www.unescap.org/stat/cst/2/index.asp>.

⁴ E/ESCAP/CST(2)/4 “Proposed core set of economic statistics”, available at <http://www.unescap.org/stat/cst/2/CST2-4E.pdf>.

⁵ E/ESCAP/CST(2)/5 “Proposed regional programme for the improvement of economic statistics in Asia and the Pacific”, available at <http://www.unescap.org/stat/cst/2/CST2-5E.pdf>.

⁶ E/ESCAP/CST(2)/INF/9 “Report on the ESCAP region-wide assessment of the capacity of national statistical systems in Asia and the Pacific to produce basic economic statistics”, available at <http://www.unescap.org/stat/cst/2/CST2-INF9.pdf>.

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II. Objective of the assessment

12. The objective of the assessment is to assess the capacity of Bhutan to produce the core set of economic statistics.

13. The assessment of Bhutan Statistical System (BSS) will provide the ESCAP Secretariat, the ESCAP Committee on Statistics (and its Bureau), the ESCAP Steering Group for the Regional Programme on Economic Statistics⁷, and other international and regional partners with input for the further development of the implementation plan for the regional programme on economic statistics.

14. The assessment will further the Bhutan national strategy for economic statistics, by helping to focus capacity building assistance which is coordinated across international organizations to meet specific gaps in the compilation of the core set.

⁷ More information about the ESCAP Steering Group for the Regional Programme on Economic Statistics is available at: <http://www.unescap.org/stat/econ/steering-group-econ-stat.asp>

III. Methodology

A. Scope

15. The assessment aimed to cover all aspects of BSS involved in the collection and processing of data for, and compilation, analysis and dissemination of the core set of economic statistics.

16. In practice and due to time constraints, the assessment focused on the following main parts of the BSS:

- Bhutan National Statistics Bureau (NSB)
- Royal Monetary Authority (RMA)
- Ministry of Finance (MOF)
- Ministry of Labour and Human Resources (MOLHR)
- Ministry of Agriculture and Forest (MOAF)

17. The assessment looked at all stages of production of the core set from main data providers to those responsible for compilation and dissemination of the economic statistics within the core set; users of economic statistics; and statistics development partners. The assessment also looked at human resources and the relevant statistical infrastructure including: classifications, standards, frameworks and registers.

B. Structure

18. The Bhutan assessment consisted of four components:

1) Pre-mission assessment

19. Prior to the in-country interviews NSB validated and send back to ESCAP an assessment questionnaire which was pre-completed using the results of the 2009 *ESCAP region-wide assessment of the capacity of national statistical systems in Asia and the Pacific to produce basic economic statistics*⁸. The assessment questionnaire provided an overview of BSS and basic information about key economic statistics, sources and infrastructures.

2) In-country interviews

⁸ More information available from document E/ESCAP/CST(2)/INF/9 at <http://www.unescap.org/stat/cst/2/CST2-INF9.pdf>

20. The in-country interviews were conducted during the period 28 to 30 March 2011. Using the results of the pre-mission assessment and working closely with the national statisticians, ESCAP conducted a detailed study of the capacity of the BSS to produce the core set of economic statistics, including assessment of:

- Current availability of the core set of economic statistics;
- Availability of data sources and relationships with data providers;
- Current collection, compilation and dissemination practices;
- Capacity of the staff to produce the core set of economic statistics and training needs;
- State of infrastructure and the needs required to produce the core set of economic statistics.

21. The in-country interviews focused on the following key components of the BSS:

- Overview of the BSS
- National Accounts & Price Division, NSB
- Census & Survey Division, NSB,
- Research and Statistics Division, RMA
- Department of Revenue & Customs, MOF
- Department of Employment, MOLHR
- Planning and Policy Division, MOAF
- Planning and Policy Division of Public Accounts, MOF

3) National consultative meeting on the capacity of BSS to collect data, compile and disseminate the core economic statistics:

22. The meeting was organised by the NSB on 31 March 2011, following the in-country interviews. The meeting was attended by representatives of units/organizations involved in the various stages of the production of the core set from main data providers to those responsible for compilation and dissemination of the economic statistics within the core set. The meeting was also attended by the main users of economic statistics.

23. The meeting provided key inputs for a strategy (set of recommendations) for the improvement of the BSS capacity to produce the core set that considers perspectives of both producers and users of basic economic statistics. During the meeting the participants:

- Discussed the preliminary results of the in-country interviews;
- Identified the main issues and constraints faced by the BSS in producing the core set from the data providers' and users' perspective;
- Agreed on key priorities, commitments and recommendations on a strategy to be supported by BSS stakeholders in improving core economic statistics.

4) Review of statistical publications, websites and other relevant information

24. The review of BSS statistical publications, websites, and other relevant information was conducted after the completion of the in-country assessment. The main objective of this review was to obtain more complete/detailed information about the current availability of economic statistics, and BSS methods and practices. The review covered the following:

- Selected BSS statistical publications (see References for the complete list);
- Websites of NSB, RMA, MOF, MOLHR, MOAF and other relevant organizations;
- IMF GDDS and ROSC.

C. Information used

25. The principal sources of information for the report were the four key components of the assessment listed in the previous section. Additional information was obtained through websites and publications of NSB, RMA, MOF, MOLHR, MOAF. Furthermore past assessments conducted by other organizations and information available from other international organizations were also used. Finally the National Statistics Development Strategy was reviewed.

D. Limitations of the assessment

26. A fully, comprehensive understanding of the BSS would require more than three days of interviews, a national consultative meeting and a review of available published documents.

28. The BSS is highly decentralized and thus the period was not enough to visit all the ministries involved in the production of economic statistics (for example, the Ministry of Economics was not visited). Additionally, none of the provincial or district offices were interviewed. This limits the understanding of the interaction between the headquarters and provincial offices.

IV. Assessment findings – Capacity of the BSS to produce the core set of economic statistics

27. This section describes the BSS with respect to the core set of economic statistics. An overview of the statistical system is provided in Annex I while the national priority economic statistics are presented in Annex II. The core set of economic statistics as approved by the Committee on Statistics is presented in Annex III.

28. The assessment found that the BSS has the capacity to produce 24 of the 32 statistics within the core set of economic statistics, with 13 of these statistics meeting the recommended frequency. The assessment further found that although the BSS has the basic capacity to produce most of the statistics within the core set, it has limited capacity to produce many of these statistics at the recommended frequency and in accordance with relevant international standards and good practices.

A. Prices and costs

29. The BSS has the capacity to compile 5 of the 8 prices and costs statistics recommended by the core set, with PPI, labour costs index/wage index and export/import price indices not currently compiled. Furthermore BSS has limited capacity to produce wages/earnings statistics at the recommended frequency as well as many of the prices and costs statistics in accordance with current international standards and good practices.

30. A detailed assessment of prices statistics is provided below.

1. Consumer price index

Responsible agency: National Accounts and Price Division of the NSB		
Frequency: Q	Recommended frequency: Q	Meets recommended frequency: Y
Timeliness: 14 days after the reference period (usually by the 15 th day of the relevant month)		
Statistics available:		
<ul style="list-style-type: none"> • The CPI covers the whole country • Publish for 12 main COICIO categories (major commodity groups included in the average consumption pattern) 		
Methodological notes⁹:		
<i>Scope</i>		
<ul style="list-style-type: none"> • Prices of agricultural products are collected monthly, while the prices of other commodities and services are collected on a quarterly basis. 		
<i>Compliance</i>		
<ul style="list-style-type: none"> • Laspeyres index compiled in accordance with the <i>Consumer Price Index Manual: Theory and Practice</i> 		

⁹ Source: IMF's GDDS

(ILO, 2004)

Sources

- Covers the price movements of 363 commodities and services observed in 23 major urban areas, 350 sample outlets/shops for price collection.
- The base period is 3rd Qtr. 2003 and the basket and weights were determined on the basis of Bhutan Living Standard Survey (BLSS), conducted by NSB in 2003.

Quality issues:

- No urban/rural split
- No regional CPI

Regional programme of economic statistics four pillars of capacity development assessment:

Human resource skills:

- Lack of dedicated training unit within the NSB
- Lack of regular statistical training; but staff benefit from training provided by a number of international organizations (SIAP, WB, IMF, ADB)
- Only on-job training provided by the NSB
- No regular staff exchanges

Statistical infrastructure:

- Data transmitted through email or hard copy
- Computer systems not sufficient (excel used for compilation, data sometimes transmitted on paper)
- No quality assurance framework is being used and only basic validation is being done

Methodological transparency:

- A release calendar is not available but usually released within the specified number of days
- No revision policy
- No metadata repository (Project with the World Bank underway)

Statistical advocacy:

- Lack of statistical law giving the NSB necessary authority to collect/access the required data
- Data sharing between government departments based on informal arrangements

Planned improvements (as per NSDS or interviews):

- The base period will be updated following the Bhutan Living Standards Survey (BLSS) of 2012.
- Frequency will increase from quarterly to monthly following the planned revision of the CPI weights.
- The number of items in the market basket will increase
- The size of sample outlets (shops) will increase

Overall assessment:

- The NSB has the basic capacity to produce the CPI statistics on regular basis and in a timely manner. However NSB appears to have limited capacity to make the necessary improvements to the CPI to ensure that these statistics provide the necessary information for the decision-makers, including urban/rural and regional CPI and expanding the number of items covered.

2. Producer price index

Responsible agency: Not compiled (but technical assistance from IMF is being provided to develop PPI)		
Frequency:	Recommended frequency: Q	Meets recommended frequency: N
Timeliness:		
Statistics available:		
• Bhutan does not compile PPI however for some purposes (monitoring, etc) it uses Indian PPI.		
Methodological notes:		

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Quality issues:	
<ul style="list-style-type: none"> • Not compiled 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills: <ul style="list-style-type: none"> • Lack of training and technical assistance on compilation of PPI (will be provided by the IMF) • Lack of dedicated training unit within the NSB • Lack of regular statistical training; but staff benefit from training provided by a number of international organizations (SIAP, WB, IMF, ADB) • Only on-job training provided by the NSB • No regular staff exchanges 	Statistical infrastructure: <ul style="list-style-type: none"> • Lack of weights • Lack of manufacturing survey • Financial constraints (IMF agreed to support the development of PPI)
Methodological transparency: <ul style="list-style-type: none"> • A release calendar is not available but usually released within the specified number of days • No revision policy • No metadata repository (Project with the World Bank underway) 	Statistical advocacy: <ul style="list-style-type: none"> • No comprehensive PPI sufficient to monitor inflation at all stages of product supply chain; and deflation of national accounts variables, both industry outputs/inputs and final demand categories. • Advocacy efforts so far have not secured financial and staff resources needed to develop a comprehensive and timely PPI and other commodity price indices
Planned improvements (as per NSDS or interviews):	
<ul style="list-style-type: none"> • Plan to compile Producer Price Index Manufacturing Sector (PPI) • Plan to compile Construction Cost Index (CCI), initially on bi-annually basis (IMF will support development, fact finding mission in 2011) 	
Overall assessment:	
<ul style="list-style-type: none"> • The NSB does not have the capacity to produce the PPI, however it is expected that with the technical assistance and support from the IMF these capacity will be developed during 2011. 	

3. Commodity price index

Responsible agency: MOAF		
Frequency: W	Recommended frequency: Q	Meets recommended frequency: Y
Timeliness: 1 week after the reference period		
Statistics available:		
<ul style="list-style-type: none"> • Farm gate prices 		
Methodological notes:		
<ul style="list-style-type: none"> • Farm gate prices are collected at the central market and are published on weekly basis 		
Quality issues:		

<ul style="list-style-type: none"> • Only commodity prices covering agricultural products are available 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills: <ul style="list-style-type: none"> • Limited staff resources (3 persons responsible for forestry, livestock and other agricultural statistics) • Lack of statistical knowledge, staff do have access to statistical training • Demand for training in particular in the area of analysis of statistics 	Statistical infrastructure: <ul style="list-style-type: none"> • Computer systems not sufficient (excel used for compilation, data sometimes transmitted on paper)
Methodological transparency: <ul style="list-style-type: none"> • Limited metadata available 	Statistical advocacy: <ul style="list-style-type: none"> • Advocacy efforts so far have not secured financial resources and staff needed to be able to compile commodity price indices • Resources and staff not sufficient to conduct the necessary surveys and access the necessary administrative data
Planned improvements (as per NSDS or interviews): <ul style="list-style-type: none"> • ICT policy for improvement of IT systems 	
Overall assessment: <ul style="list-style-type: none"> • BSS has a very limited capacity to produce commodity price indices. 	

4. *External merchandise trade price indexes*

Responsible agency: Not compiled		
Frequency:	Recommended frequency: M	Meets recommended frequency: N
Timeliness:		
Statistics available: <ul style="list-style-type: none"> • Not compiled 		
Methodological notes: <ul style="list-style-type: none"> • 		
Quality issues: <ul style="list-style-type: none"> • 		
Regional programme of economic statistics four pillars of capacity development assessment:		
Human resource skills: <ul style="list-style-type: none"> • Lack of staff resources necessary for compilation of external merchandise trade price indexes • Lack of training and technical assistance on compilation of external merchandise trade price indexes • Lack of dedicated training institute providing statistical training 	Statistical infrastructure: <ul style="list-style-type: none"> • Computer systems not sufficient (excel used for compilation, data sometimes transmitted on paper) 	

<ul style="list-style-type: none"> • Lack of regular statistical training • Only on-job training provided by the NSB • No regular staff exchanges 	
Methodological transparency: <ul style="list-style-type: none"> • none 	Statistical advocacy: <ul style="list-style-type: none"> • Advocacy efforts so far have not secured financial and staff resources needed to develop a comprehensive and timely external merchandise trade price indexes
Planned improvements (as per NSDS or interviews): <ul style="list-style-type: none"> • 	
Overall assessment: <ul style="list-style-type: none"> • The BSS does not have the capacity to produce the external merchandise trade price indexes. 	

5. Wages / Earnings data/Labour costs index / Wage index

Responsible agency: Department of Employment, MOLHR		
Frequency: A	Recommended frequency: Q	Meets recommended frequency: N
Timeliness: 3 months after the end of the survey		
Statistics available: <ul style="list-style-type: none"> • Range of monthly earnings by main occupation of regular paid employees 		
Methodological notes: <ul style="list-style-type: none"> • The primary source data is the national Labour Force Survey (LFS) covering households selected on the basis of a stratified two-stage sampling. • The 2009 LFS, covered a sample of 8000 households (6000 urban plus 2000 rural). • Out of 8000 households, only 231 households (2.9 per cent) did not respond. • The survey was administered by enumerators who filled out questionnaires by interviewing households, with each enumerator covering approximately 100 households 		
Quality issues: <ul style="list-style-type: none"> • The informal sector is not included • The monthly statistics only cover selected industries • No information about hourly or weekly wages/earning 		
Regional programme of economic statistics four pillars of capacity development assessment:		
Human resource skills: <ul style="list-style-type: none"> • Lack of dedicated training institute providing statistical training • Staff lack statistical training • No regular training provided and only ad-hoc training available • Staff of MOLHR do not attend international training courses • No staff exchanges • Demand for training on sampling techniques 	Statistical infrastructure: <ul style="list-style-type: none"> • Computer systems not sufficient (excel used for compilation, data sometimes transmitted on paper) • No quality assurance by MOLHR and instead depends on NSB expertise • Questionnaires are entered manually, limited data checks applied 	

and data processing	
Methodological transparency: <ul style="list-style-type: none"> • There is no clear schedule for publication of structural statistics • Limited metadata provided in the publication 	Statistical advocacy: <ul style="list-style-type: none"> • MOLHR does not have the necessary mandate to collect the statistics • LFS budget has been reduced and currently is not sufficient
Planned improvements (as per NSDS or interviews): <ul style="list-style-type: none"> • Conduct an establishment census which is national in scope, based on a sample drawn from the establishment census. • Improve the periodicity of the Labor Force Survey from the annual to the semi-annual cycle. • Bhutan to join ILO. 	
Overall assessment <ul style="list-style-type: none"> • MOLHR has a limited capacity to conduct the LFS and compile the results. The MOLHR capacity has been reduced even further through the reduction in budget for the LFS. 	

6. Exchange rates

Responsible agency: Research and Statistics Division, RMA		
Frequency: Daily	Recommended frequency: D	Meets recommended frequency: Y
Timeliness: Same day		
Statistics available: <ul style="list-style-type: none"> • Ngultrum's rate against the Indian Rupee and major world currencies. 		
Methodological notes¹⁰: <ul style="list-style-type: none"> • The Ngultrum is pegged to the Indian rupee at par. • The rates for currencies other than the Indian rupee are determined on the basis of the prevailing quotations by the State Bank of India (SBI) for these currencies. • These quotations are the basis for the reference spot exchange rates announced daily by the RMA, in particular for the Ngultrum (Nu) against the US dollar. • Cross rates are used for calculating exchange rates between the Nu and the currencies other than the US dollar. • Source data come in the form of quotations, by the State Bank of India (SBI), of the exchange rates of the Indian rupee against the major world currencies. 		
Quality issues: <ul style="list-style-type: none"> • None 		
Regional programme of economic statistics four pillars of capacity development assessment:		
Human resource skills: <ul style="list-style-type: none"> • Limited staff resources • Demand for training on use of statistical tools 	Statistical infrastructure: <ul style="list-style-type: none"> • Quality assurance framework not currently used • Computer systems not sufficient (excel used for compilation, data sometimes transmitted on 	

¹⁰ Source: IMF's GDDS

	paper)
Methodological transparency: • No specific assistance needed	Statistical advocacy: • No specific assistance needed
Planned improvements (as per NSDS or interviews): • Have plans for long-term and short-term strategic plans	
Overall assessment: • RMA has the basic capacity to compile exchange rates	

7. Purchasing power parities

Responsible agency: National Accounts and Price Division of the NSB		
Frequency: Ad-hoc	Recommended frequency: Ad-hoc	Meets recommended frequency: Y
Timeliness:		
Statistics available: • For 2011 round of ICP, Bhutan priced 613 items from a total of 1020 products in the regional basket • First quarter data collection almost complete • Final result in 2013 • International Comparison Programme 2005 and 2011		
Methodological notes: • Bhutan participated in the 2005 round of the ICP as well as 2009 review and is currently collecting data for the 2011 round (first quarter completed)		
Quality issues: • Supply-Use are compiled on experimental basis only • GDP expenditure is based on limited data sources		
Regional programme of economic statistics four pillars of capacity development assessment:		
Human resource skills: • Lack of dedicated training unit within the NSB • Lack of regular statistical training; but staff benefit from training provided by a number of international organizations (SIAP, WB, IMF, ADB) • Only on-job training provided by the NSB • No regular staff exchanges	Statistical infrastructure: • Data transmitted through email or hard copy • Computer systems not sufficient (excel used for compilation, data sometimes transmitted on paper) • No quality assurance framework is being used and only basic validation is being done	
Methodological transparency: • No metadata repository (Project with the World Bank underway)	Statistical advocacy: • Supply-Use tables only compiled on experimental basis, • GDP E needs to be strengthened through improvement in the availability of data sources and improvement in compilation practices	
Planned improvements (as per NSDS or interviews):		

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Overall assessment:

The NSB has the basic capacity to collect data for and compile PPPs, however NSB appears to have very limited capacity to compile the SU Tables and GDP E of sufficient quality and detail.

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B. Demand and output

31. The BSS has the capacity to compile only selected demand and output statistic with no statistics on consumer demand, fixed investment, inventories and productivity currently compiled. BSS do not have the necessary capacity to compile GDP P, GDP E and external trade (merchandise and services) at the recommended frequency as well as lacks the capacity to compile many of these statistics, including industry output and economy structure statistics with the sufficient coverage.

32. A detailed assessment of demand and output statistics is provided below.

1. *Gross Domestic Product production nominal and real/GDP expenditure nominal and real (including implicit price indexes for GDP (E) and components)*

Responsible agency: National Accounts and Price Division of the NSB		
Frequency: A, compiled on calendar year basis (Jan – Dec)	Recommended frequency: Q	Meets recommended frequency: N
Timeliness: 9 months after the end of the reference period		
Statistics available:		
<ul style="list-style-type: none"> • GDP by Production and Expenditure at current and constant (2000) prices • Gross Domestic Product (GDP) by Activity at Current and Constant (2000) prices (eleven major economic activities, ISIC Rev 3.1) • Gross National Income • Capital Formation, Consumption and National Savings • Supply-Use tables are compiled on an experimental basis only with the assistance of the ADB 		
Methodological notes¹¹:		
Scope		
<ul style="list-style-type: none"> • Covers the whole territory of Bhutan and in principle, includes all resident units. • Cover transaction categories related to the production and uses of goods and services, plus external account transactions. • Indirect compilation techniques are used to cover informal and household production. Indirect compilation methods ensure the coverage of small and household production activity. Implicitly covers some illegal activity, but no explicit calculations are made for such activities. 		
Compliance		
<ul style="list-style-type: none"> • The compilation broadly follows the 1968 SNA with some aspects of 1993 SNA implemented (FISM distributed across the sectors, software included as capital formation) • All transactions in goods and services are recorded at market prices. 		

¹¹ Source: IMF's GDDS

- Output is recorded at producers' prices, domestic expenditures at purchasers' prices, exports at f.o.b., and imports at c.i.f. Gross value added is derived at basic price.
- All transactions are recorded on an accrual basis; however, the basic data for general government, which are on a cash basis, are not adjusted to the accrual basis.

Sources

Production Approach

- **Agriculture, Fisheries, and Forestry:** Data on quantity of production, by dzongkhag (district) of crops, fruits, and vegetables are compiled from data collected through the Agricultural Census (MOA). Prices are available from the same source and intermediate costs are derived from studies done in the 1980s. Data on numbers and prices of livestock are obtained from the agricultural census. Production ratios for beef, milk, eggs, butter, wool, hides and skins are estimated from data obtained from the 1984 agronomic survey. The Forestry Development Corporation provides data on logging. Animal feed estimates are based on livestock numbers and firewood, other products; and intermediate costs are based on historical data.
- **Mining and Quarrying:** Data on the production and prices of major mineral products are obtained from the Ministry of Trade and Industry. Intermediate costs are derived from studies done in the 1980s.
- **Manufacturing:** Production data are from the annual accounts of the major manufacturing companies. Cement prices and the non-food CPI are used as deflators, and intermediate costs are based on historical data.
- **Electricity and Water:** Data on monthly power generation and prices are obtained from the Department of Power.
- **Construction:** The main sources of data are the supply of construction materials—cement and logs—and government capital expenditure on construction, mainly the Departments of Work and Housing, and Roads. Estimates for thatch houses are based on historical studies.
- **Trade, Restaurant, and Hotel:** The main source for wholesale and retail trade is data from the Department of Revenue and Customs on sales tax and turnover. The national accounts section collects annual accounts for major hotels; while the smaller hotels and restaurants are estimated from base year figures extrapolated by population growth rates, and the consumer price index (CPI).
- **Transport, Communication, and Storage:** The numbers of trucks, taxis and buses are available from the Road Service Transport Authority, Ministry of Communications. Earnings are based on a survey carried out by the NSB in 1996. The CPI for fuel is used as a deflator.
- **Communication:** Data are taken from the Ministry of Communication and Information.
- **Storage:** This covers the activities of the Food Corporation of Bhutan, based on its annual accounts.
- **Finance, Insurance, Business Services, and Real Estate:** Data are obtained from the annual accounts of: Royal Insurance Company of Bhutan, Bank of Bhutan, Bhutan National Bank, Bhutan Development Finance Corporation and the Royal Monetary Authority. Real estate estimates are based on rural and urban house tax data.
- **Community and Personal Services:** General government services are estimated from central government accounts.

Expenditure approach at current prices

- **Household Final Consumption Expenditure:** Bhutan Living Standards Survey (BLSS).
- **Government Final Consumption Expenditure:** Central government accounts.
- **Gross Fixed Capital Formation:** Output estimates for construction and changes in livestock numbers (see above). Private manufacturing and government capital expenditures.
- **Changes in Inventories:** The residual changes in livestock numbers and manufacturing data.

<ul style="list-style-type: none"> • International Merchandise Trade and Trade in Services: Balance of payments statistics compiled by the Royal Monetary Authority of Bhutan. 	
Quality issues: <ul style="list-style-type: none"> • The timeliness and frequency of national account does not meet the requirement of the policy makers. The quarterly national accounts are not compiled. The 9 months time lag for publication of annual national accounts means that policy makers lack the basis for making timely decisions. • The compilation broadly follows the 1968 SNA with some aspects of 1993 SNA implemented • Constant price estimates are derived using CPI deflators and methods (single deflation) that are not always most appropriate. • The current data sources are not sufficient. Many components of the national accounts are estimated due to lack of data. 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills: <ul style="list-style-type: none"> • Lack of knowledge of 2008 SNA • Lack of staff to update the old time series • Economic statistics training provided in an ad hoc/irregular manner, with most training delivered on job • No dedicated training unit within the NSB • Only on-job training provided by the NSB • Need for structured training • No regular staff exchanges 	Statistical infrastructure: <ul style="list-style-type: none"> • Business Register is not up to date. The Business Register records new units (births) but does not remove units which no longer operate (deaths). • Business register uses administrative data collected by Ministry of Economic Affairs however does not use other data collected by other government department (in particular MOF) • Data transmitted through email or hard copy • Computer systems not sufficient (excel used for compilation, data sometimes transmitted on paper) • No quality assurance framework is being used and only basic validation is being done • Limited survey data • Administrative data between government departments shared based on personal rather than formal arrangements
Methodological transparency: <ul style="list-style-type: none"> • A release calendar is not available but usually released within the specified number of days • No revision policy • No metadata repository (Project with the World Bank underway) 	Statistical advocacy: <ul style="list-style-type: none"> • Advocacy efforts so far have not secured resources and staff needed to be able to compile quarterly GDP and make the necessary improvements • Statistical law needs to be enacted to ensure that the NSB has the necessary authority to collect/access the necessary data (in-progress) • Data sharing between government departments based on informal arrangements
Planned improvements (as per NSDS or interviews): <ul style="list-style-type: none"> • Quarterly GDP • Migration of SNA 1968/1993 to 2008 • Rebasing from 2000 to 2010 • Construction of sequence of accounts 	

<ul style="list-style-type: none"> • Institutional accounts • Industrial classification (migration to ISIC Rev 4) • Supply and use table
<p>Overall assessment</p> <ul style="list-style-type: none"> • The NSB does not have the capacity to produce the Gross Domestic Product production nominal and real/GDP expenditure nominal and real (including implicit price indexes for GDP (E) and components) on sub-annual basis, in a timely manner and of sufficient quality. The NSB currently produces no quarterly statistics, the annual statistics are published with 9 months time lag and are compiled based on limited (often out-dated) information, with significant data gaps. The NSB also lacks the capacity to make the necessary improvements including implementation of 1993 SNA and eventually 2008 SNA, improving scope of the national accounts, improving constant price estimates and expanding the data sources to improve the frequency, coverage and timeliness.

2. External trade – merchandise

Responsible agency: Department of Revenue and Custom of the MOF		
Frequency: A (data compiled quarterly but published A)	Recommended frequency: M	Meets recommended frequency: N
Timeliness: 3 months after the reference period		
<p>Statistics available:</p> <ul style="list-style-type: none"> • Imports from India by BTC Section, Chapter and Code • Exports to India by BTC Section, Chapter and Code • Imports from countries other than India by BTC Section and Chapter • Imports from countries other than India by country and commodity/commodity and country • Exports to countries other than India by BTC Section and Chapter • Exports to countries other than India by Country and Commodity 		

Methodological notes¹²: Scope <ul style="list-style-type: none"> • In principle covers all merchandise trade data, however informal unrecorded imports from India are not covered. • Includes trade in electricity. Compliance <ul style="list-style-type: none"> • Statistics are compiled in accordance with World Customs Manual • Merchandise exports are on free on board (f.o.b.) basis. • Merchandise imports are on CIF (cost, insurance, and freight) basis for all countries except India. Imports from India under the Free Trade Agreement are FOB. • No revisions are made to published data. Classifications <ul style="list-style-type: none"> • Compiled based on eight digit tariff line of Bhutan Trade Classification, Custom Tariff and Sales Tax Schedule 2007 • The classification used is harmonized at the 6 digit with the Harmonization Code System (HS-Code) 	
Quality issues: <ul style="list-style-type: none"> • No imports and exports available in volume terms/no volume indices • No price indices/no unit value indices • The information about prices and volumes appears to be of questionable quality affecting the overall quality of merchandise trade statistics • Informal unrecorded imports from India are not covered 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills: <ul style="list-style-type: none"> • Lack of dedicated training institute providing statistical training • Staff (especially at the regional offices) lack statistical training, demand for regular statistical training • No regular training provided and only ad-hoc training available • No access to training provided by international organizations • No staff exchanges 	Statistical infrastructure: <ul style="list-style-type: none"> • Customs data received in hard copy • Problems getting data from the regional offices • Data (records) lost during transfer • For annual data officer personally collects all data • Data on exports particularly week as does not attract duties • Volume data is problematic
Methodological transparency: <ul style="list-style-type: none"> • A release calendar is not available but usually released within the specified number of days • No revision policy • No metadata repository (Project with the World Bank underway) 	Statistical advocacy: <ul style="list-style-type: none"> • Advocacy efforts so far have not secured resources and staff needed for improvement in the frequency of statistics (as data collected on quarterly basis but published on annual basis) and quality (exports data particular week) • Data sharing between government departments based on informal arrangements
Planned improvements (as per NSDS or interviews): <ul style="list-style-type: none"> • To upgrade computer infrastructure at border check points. 	

¹² Source: IMF's GDDS

<ul style="list-style-type: none"> • To improve the periodicity of merchandise trade data from the annual to the quarterly cycle. • To conduct a survey of informal trade with India as a basis for making estimates.
Overall assessment: <ul style="list-style-type: none"> • MOF does not have the capacity to collect data for and compile merchandise trade statistics at the recommended frequency. Furthermore MOF lack the capacity to make the necessary improvements and in particular strengthen the exports data, improve the data entry processes and streamline data transfer between the regional and central office.

3. External trade – services

Responsible agency: Research and Statistics Division of the RMA	
Frequency: Q	Recommended frequency: M Meets recommended frequency: N
Timeliness: 6 weeks after the reference period	
Statistics available: <ul style="list-style-type: none"> • Limited services statistics are published 	
Methodological notes: <ul style="list-style-type: none"> • Compiled in accordance with BPM5 	
Quality issues: <ul style="list-style-type: none"> • Only partial coverage of communication services, construction services, and computer and information services; 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills: <ul style="list-style-type: none"> • Limited staff resources • Demand for training on use of statistical tools 	Statistical infrastructure: <ul style="list-style-type: none"> • Quality assurance framework not currently used • Computer systems not sufficient (excel used for compilation, data sometimes transmitted on paper)
Methodological transparency: <ul style="list-style-type: none"> • No release calendar 	Statistical advocacy: <ul style="list-style-type: none"> • No specific assistance needed
Planned improvements (as per NSDS or interviews): <ul style="list-style-type: none"> • Have plans for long-term and short-term strategic plans 	
Overall assessment: <ul style="list-style-type: none"> • RMA has the basic capacity to compile external trade in services statistics but appears to have limited capacity to publish the necessary detail at the recommended frequency. 	

4. Short term indicator (STI) - industry output

Responsible agency: Bhutan Power Corporation Ltd. and other key providers	
Frequency: M/Q	Recommended frequency: M Meets recommended frequency: Y
Timeliness:	
Statistics available: <ul style="list-style-type: none"> • Sales of major power projects (M) • Sales of major industries (Q) 	

<ul style="list-style-type: none"> • Mineral production from mines in Bhutan (A) 	
Methodological notes: <i>Sales of major power projects</i> <ul style="list-style-type: none"> • total sales of electricity of the 4 main produces • value in current prices, millions of Ngultrum • split by Domestic sales and exports <i>Sales of major industries</i> <ul style="list-style-type: none"> • value of total sales of selected establishments for selected industries • value in current prices in millions of Ngultrum 	
Quality issues: <ul style="list-style-type: none"> • The overall coverage is very limited and only covers selected enterprises in selected industries • Most data available in current prices only • It is not clear who is responsible for compilation of these statistics 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills: <ul style="list-style-type: none"> • Staff lack statistical training, demand for regular statistical training • Lack of training on recent international standards including IRIS 2008, IRIIP 2010 as well as new classifications such as ISIC Rev 4. • No access to training provided by international organizations 	Statistical infrastructure: <ul style="list-style-type: none"> • No index showing changes in volumes in the key industries • Business Register is not up to date. The Business Register records new units (births) but does not remove units which no longer operate (deaths). • Business register uses administrative data collected by Ministry of Economic Affairs however does not use other data collected by other government department (in particular MOF) • Computer systems not sufficient (excel used for compilation, data sometimes transmitted on paper)
Methodological transparency: <ul style="list-style-type: none"> • A release calendar is not available but usually released within the specified number of days 	Statistical advocacy: <ul style="list-style-type: none"> • There is no national data page storing all the statistics. Some statistics are difficult to locate and access. • No agency clearly responsible for compilation of these statistics.
Planned improvements (as per interviews): <ul style="list-style-type: none"> • 	
Overall assessment <ul style="list-style-type: none"> • BSS has limited capacity to produce STI industry output statistics, with the current statistics only covering large industries such as electricity generation. The BSS does not have the necessary capacity to compile comprehensive IPI (however it has plans to develop this capacity in the near future). 	

5. Short term indicator - consumer demand

Responsible agency: not available		
Frequency: Y	Recommended frequency: M	Meets recommended frequency: N

Timeliness:	
Statistics available:	
<ul style="list-style-type: none"> • Not compiled 	
Methodological notes:	
<ul style="list-style-type: none"> • 	
Quality issues:	
<ul style="list-style-type: none"> • 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills: <ul style="list-style-type: none"> • Lack of staff resources necessary for compilation of retail trade statistics. • Lack of training and technical assistance on compilation of retail trade statistics. • Lack of dedicated training institute providing statistical training • Lack of regular statistical training • Only on-job training provided by the NSB • No regular staff exchanges 	Statistical infrastructure: <ul style="list-style-type: none"> • No regular data collections necessary for compilation of retail sales volumes indicators • IT infrastructure not sufficient for timely compilation of retail trade statistics
Methodological transparency: <ul style="list-style-type: none"> • none 	Statistical advocacy: <ul style="list-style-type: none"> • Advocacy efforts so far have not secured financial and staff resources needed to develop a comprehensive and timely retail sales volume indicator
Planned improvements (as per interviews):	
<ul style="list-style-type: none"> • 	
Overall assessment	
<ul style="list-style-type: none"> • The BSS does not have the capacity to produce the retail trade statistics. 	

6. Short term indicator - fixed investment

Responsible agency: Not available		
Frequency:	Recommended frequency: M	Meets recommended frequency: N
Timeliness:		
Statistics available:		
<ul style="list-style-type: none"> • Not compiled 		
Methodological notes:		
<ul style="list-style-type: none"> • 		
Quality issues:		
<ul style="list-style-type: none"> • 		
Regional programme of economic statistics four pillars of capacity development assessment:		
Human resource skills: <ul style="list-style-type: none"> • Lack of staff resources necessary for compilation of fixed investment statistics 	Statistical infrastructure: <ul style="list-style-type: none"> • No regular data collections necessary for compilation of fixed investment statistics 	

<ul style="list-style-type: none"> • Lack of training and technical assistance on compilation of fixed investment statistics • Lack of dedicated training institute providing statistical training • Lack of regular statistical training • Only on-job training provided by the NSB • No regular staff exchanges 	<ul style="list-style-type: none"> • IT infrastructure not sufficient for timely compilation of fixed investment statistics
Methodological transparency: <ul style="list-style-type: none"> • none 	Statistical advocacy: <ul style="list-style-type: none"> • Advocacy efforts so far have not secured financial and staff resources needed to develop a comprehensive and timely fixed investment statistics
Planned improvements (as per interviews): <ul style="list-style-type: none"> • 	
Overall assessment <ul style="list-style-type: none"> • The BSS does not have the capacity to produce the fixed investment statistics 	

7. Short term indicator - inventories

Responsible agency: Not available		
Frequency:	Recommended frequency: M	Meets recommended frequency: N
Timeliness:		
Statistics available: <ul style="list-style-type: none"> • Not compiled 		
Methodological notes: <ul style="list-style-type: none"> • 		
Quality issues: <ul style="list-style-type: none"> • 		
Regional programme of economic statistics four pillars of capacity development assessment:		
Human resource skills: <ul style="list-style-type: none"> • Need for training and technical assistance on compilation of changes in inventories statistics • Lack of training and technical assistance on compilation of changes in inventories statistics • Lack of dedicated training institute providing statistical training • Lack of regular statistical training • Only on-job training provided by the NSB • No regular staff exchanges 	Statistical infrastructure: <ul style="list-style-type: none"> • No regular data collections necessary for compilation of changes in inventories statistics • IT infrastructure not sufficient for timely compilation of changes in inventories statistics 	
Methodological transparency: <ul style="list-style-type: none"> • none 	Statistical advocacy: <ul style="list-style-type: none"> • Advocacy efforts so far have not secured the financial and staff resources needed to develop a comprehensive and timely statistics about 	

	inventories.
Planned improvements (as per interviews):	
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Overall assessment	
• The BSS does not have the capacity to produce statistics measuring changes in inventory levels.	

8. *Economy structure statistics*

Responsible agency: Department of Employment of the MOLHR, Planning and Policy Division of the MOAF, NSB		
Frequency: A/10 years	Recommended frequency: 5 yearly or regular intervals	Meets recommended frequency: Y
Timeliness: 3 months after the end of the survey		
Statistics available:		
<ul style="list-style-type: none"> • Supply-Use tables are compiled on an experimental basis only • Statistics based on the establishment census (annual): <ul style="list-style-type: none"> ○ Number of industrial establishments by sector ○ Number of licensed firms in manufacturing and mining industries by sector ○ Number of industries by sector, size and type ○ Number of contract firms by type, by Dzongkhag ○ Number of industrial firms by type, by Dzongkhag ○ Number of industries by type, by Dzongkhag, Bhutan ○ Number of establishments by type of industry and sector ○ Number of establishments by Dzongkhag, ○ Number of establishments by sector and size of employment, • Statistics based on agricultural census (10 yearly) 		
Methodological notes:		
<ul style="list-style-type: none"> • Supply-Use tables are compiled on an experimental basis only with the assistance of the ADB • These statistics are compiled based on the Establishment Census which the last census conducted in 2008 • The establishment census covered 7162 establishments both in urban (75.5%) and rural (24.5%), • The establishment census covered establishments: Bhutanese and foreign own; private, public and joint ventures, • The establishment census covered all the 6 trade regions (Thimphu, Trongsa, Phuntsholing, Gelephu, Mongar & Samdrup Jongkhar) • The establishment census was conducted with 40 enumerators, 5 supervisors and 2 field coordinators and took 35 days to complete • The establishment census covered the following trade and industry establishments: Micro, Retail & Wholesale Trades ; Hotels and Restaurants Trade; Transport Storage and Communication Services; Financial Institutions, Real Estate, Renting and Business activities; Production and manufacturing activities; and Constructions etc. 		
Quality issues:		
• The 2008 establishment census was very much focused on the labour aspect of the establishments and		

- did not collect necessary structural data necessary for compilation of:
- Industry value-added by component series needed to benchmark GDP
 - Supply-Use Tables and Industry / product weights for producer price indexes (assuming product breakdowns of gross output and intermediate consumption are also collected).
 - Detailed financial data needed to analyse and monitor the economic performance of key or complex industries.
- The establishment census used a Business Register (maintained by Ministry of Economic Affairs) which is not up to date. The Business Register records new units (births) but does not remove units which no longer operate (deaths).
 - The establishment census was not able to cover most of the petty contractors and the C-class construction establishments
 - The agricultural census was last conducted in 2000.
 - SU tables are currently only compiled on an experimental basis. Given their importance, including for benchmarking of national accounts there is an urgent need to compile the SU tables on regular basis and at the very least every 5 years (but ideally on annual basis).
 - There is a need for comprehensive data collection (survey or administrative) to ensure that industry value added by component series necessary for benchmarking the GDP are available for all sectors of the economy. Efforts should also be made to ensure that detailed financial (sales, cost, profits, investment, assets and liabilities) and non-financial data needed for analysis and monitoring of the performance of different sectors of economic is also available.

Regional programme of economic statistics four pillars of capacity development assessment:

Human resource skills:

- ADB currently provides support with technical assistance and training related to SU tables, but there are issues related to sustainability once the ADB's support ends
- Staff lack statistical training and in particular at the regional level
- Demand for a national statistical training institute or coordinated training approach
- Demand for technical assistance and training to improve business register
- No regular training provided and only ad-hoc training available
- Staff of MOLHR and MOAF do not attend international training courses
- No staff exchanges
- Training needed in sampling techniques and data processing

Statistical infrastructure:

- Business Register is not up to date. The Business Register records new units (births) but does not remove units which no longer operate (deaths).
- Business register lacks information about size and value, the establishments is not always clearly defined
- Business register uses administrative data collected by Ministry of Economic Affairs however does not use other data collected by other government department (in particular MOF)
- Insufficient source data, there is a need for comprehensive data collection (survey or administrative) to ensure that industry value added by component series necessary for benchmarking the GDP are available for all sectors of the economy. Efforts should also be made to ensure that detailed financial (sales, cost, profits, investment, assets and liabilities) and non-financial data needed for analysis and monitoring of the performance of different sectors of economic is also available.
- Computer systems not sufficient (excel used for compilation, data sometimes transmitted on paper)

	<ul style="list-style-type: none"> • No quality assurance by MOLHR and instead depend on NSB expertise
Methodological transparency: <ul style="list-style-type: none"> • There is no clear schedule for publication of structural statistics • Limited metadata provided in the publication 	Statistical advocacy: <ul style="list-style-type: none"> • Advocacy efforts so far have not secured the necessary resources to produce comprehensive economy structure statistics • Data sharing between government departments depends on informal rather than formal arrangements • MOLHR does not have the necessary mandate to collect the statistics • The current financial resources are not sufficient and limit the coverage of establishment census (the next census will only cover 5500 units)
Planned improvements (as per interviews): <ul style="list-style-type: none"> • MOLHR has a long-term strategy for improvement • Plans to increase the frequency of establishment survey to semi-annual 	
Overall assessment <ul style="list-style-type: none"> • The BSS does not have the capacity to produce the economy structure statistics of sufficient coverage and quality, with the current statistics lacking the necessary detail and being very much focused on labour related issues. 	

9. Productivity

Responsible agency: Not available		
Frequency:	Recommended frequency: M	Meets recommended frequency: N
Timeliness:		
Statistics available: <ul style="list-style-type: none"> • Not compiled 		
Methodological notes: <ul style="list-style-type: none"> • 		
Quality issues: <ul style="list-style-type: none"> • 		
Regional programme of economic statistics four pillars of capacity development assessment:		
Human resource skills: <ul style="list-style-type: none"> • Lack of dedicated training institute providing statistical training • Lack of regular statistical training • No regular staff exchanges 	Statistical infrastructure: <ul style="list-style-type: none"> • IT infrastructure not sufficient for timely compilation of changes in inventories statistics 	
Methodological transparency: <ul style="list-style-type: none"> • none 	Statistical advocacy: <ul style="list-style-type: none"> • Advocacy efforts so far have not secured the financial and staff resources needed to compile 	

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	productivity statistics
Planned improvements (as per interviews): <ul style="list-style-type: none">•	
Overall assessment <ul style="list-style-type: none">• The BSS does not have the capacity to produce productivity statistics	

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C. Income and wealth

33. The BSS has the capacity to produce all of the statistics under income and wealth with the exception of the International Investment Position which is currently not compiled. Furthermore both NSB and RMA are assessed to have limited capacity to produce these statistics at the recommended frequency, in a timely manner and with sufficient coverage.

34. A detailed assessment of income and wealth statistics is provided below.

1. *Integrated national accounts for the total economy/ Institutional sector accounts*

Responsible agency: National Accounts and Price Division of the NSB		
Frequency: A	Recommended frequency: A	Meets recommended frequency: Y
Timeliness: 9 months after the end of the reference period		
Statistics available:		
<ul style="list-style-type: none"> • GDP by Production and Expenditure at current and constant (2000) prices • Gross Domestic Product (GDP) by Activity at Current and Constant (2000) prices (eleven major economic activities, ISIC Rev 3.1) • Gross National Income • Capital Formation, Consumption and National Savings • Institutional sector accounts only available for general government • Supply-Use tables are compiled on an experimental basis only with the assistance of the ADB 		
Methodological notes¹³:		
Scope		
<ul style="list-style-type: none"> • Covers the whole territory of Bhutan and in principle, includes all resident units. • Cover transaction categories related to the production and uses of goods and services, plus external account transactions. • Indirect compilation techniques are used to cover informal and household production. Indirect compilation methods ensure the coverage of small and household production activity. Implicitly covers some illegal activity, but no explicit calculations are made for such activities. 		
Compliance		
<ul style="list-style-type: none"> • The compilation broadly follows the 1968 SNA with some aspects of 1993 SNA implemented (FISM distributed across the sectors, software included as capital formation) • All transactions in goods and services are recorded at market prices. • Output is recorded at producers' prices, domestic expenditures at purchasers' prices, exports at f.o.b., and imports at c.i.f. Gross value added is derived at basic price. • All transactions are recorded on an accrual basis; however, the basic data for general government, which are on a cash basis, are not adjusted to the accrual basis. 		

¹³ Source: IMF's GDDS

Sources

Production Approach

- **Agriculture, Fisheries, and Forestry:** Data on quantity of production, by dzongkhag (district) of crops, fruits, and vegetables are compiled from data collected through the Agricultural Census (MOA). Prices are available from the same source and intermediate costs are derived from studies done in the 1980s. Data on numbers and prices of livestock are obtained from the agricultural census. Production ratios for beef, milk, eggs, butter, wool, hides and skins are estimated from data obtained from the 1984 agronomic survey. The Forestry Development Corporation provides data on logging. Animal feed estimates are based on livestock numbers and firewood, other products; and intermediate costs are based on historical data.
- **Mining and Quarrying:** Data on the production and prices of major mineral products are obtained from the Ministry of Trade and Industry. Intermediate costs are derived from studies done in the 1980s.
- **Manufacturing:** Production data are from the annual accounts of the major manufacturing companies. Cement prices and the non-food CPI are used as deflators, and intermediate costs are based on historical data.
- **Electricity and Water:** Data on monthly power generation and prices are obtained from the Department of Power.
- **Construction:** The main sources of data are the supply of construction materials—cement and logs—and government capital expenditure on construction, mainly the Departments of Work and Housing, and Roads. Estimates for thatch houses are based on historical studies.
- **Trade, Restaurant, and Hotel:** The main source for wholesale and retail trade is data from the Department of Revenue and Customs on sales tax and turnover. The national accounts section collects annual accounts for major hotels; while the smaller hotels and restaurants are estimated from base year figures extrapolated by population growth rates, and the consumer price index (CPI).
- **Transport, Communication, and Storage:** The numbers of trucks, taxis and buses are available from the Road Service Transport Authority, Ministry of Communications. Earnings are based on a survey carried out by the NSB in 1996. The CPI for fuel is used as a deflator.
- **Communication:** Data are taken from the Ministry of Communication and Information.
- **Storage:** This covers the activities of the Food Corporation of Bhutan, based on its annual accounts.
- **Finance, Insurance, Business Services, and Real Estate:** Data are obtained from the annual accounts of: Royal Insurance Company of Bhutan, Bank of Bhutan, Bhutan National Bank, Bhutan Development Finance Corporation and the Royal Monetary Authority. Real estate estimates are based on rural and urban house tax data.
- **Community and Personal Services:** General government services are estimated from central government accounts.

Expenditure approach at current prices

- **Household Final Consumption Expenditure:** Bhutan Living Standards Survey (BLSS).
- **Government Final Consumption Expenditure:** Central government accounts.
- **Gross Fixed Capital Formation:** Output estimates for construction and changes in livestock numbers (see above). Private manufacturing and government capital expenditures.
- **Changes in Inventories:** The residual changes in livestock numbers and manufacturing data.
- **International Merchandise Trade and Trade in Services:** Balance of payments statistics compiled by the Royal Monetary Authority of Bhutan.

Quality issues:

- The compilation broadly follows the 1968 SNA with some aspects of 1993 SNA implemented

<ul style="list-style-type: none"> • Constant price estimates are derived using deflators and methods (single deflation) that are not always most appropriate. • The current data sources are not sufficient. Many components of the national accounts are estimated due to lack of data. • Important national accounts components are currently not available, including GDP by income approach and institutional sector accounts for sectors other than the general government. 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills: <ul style="list-style-type: none"> • Lack of knowledge of 2008 SNA • Lack of staff to update the old time series • Economic statistics training provided in an ad hoc/irregular manner, with most training delivered on job • No dedicated training unit within the NSB • Only on-job training provided by the NSB • No regular staff exchanges 	Statistical infrastructure: <ul style="list-style-type: none"> • Business Register is not up to date. The Business Register records new units (births) but does not remove units which no longer operate (deaths). • Business register uses administrative data collected by Ministry of Economic Affairs however does not use other data collected by other government department (in particular MOF) • Data transmitted through email or hard copy • Computer system not sufficient (excel used for compilation, data sometimes transmitted on paper) • No quality assurance framework is being used and only basic validation is being done • Limited survey data • Administrative data between government departments shared based on personal rather than formal arrangements • BOP statistics are compiled on financial year basis (July - June) while the National Accounts are compiled on calendar year basis (Jan - Dec), which creates problems for users
Methodological transparency: <ul style="list-style-type: none"> • A release calendar is not available but usually released within the specified number of days • No revision policy • No metadata repository (Project with the World Bank underway) 	Statistical advocacy: <ul style="list-style-type: none"> • Advocacy efforts so far have not secured resources and staff needed to be able to compile comprehensive national accounts including all the required accounts/tables • Resources and staff not sufficient to conduct the necessary surveys and access the necessary administrative data • Statistical law needs to be enacted to ensure that the NSB has the necessary authority to collect/access the necessary data • Data sharing between government departments based on informal arrangements
Planned improvements (as per NSDS or interviews): <ul style="list-style-type: none"> • Quarterly GDP • Migration of SNA 1968/1993 to 2008 	

<ul style="list-style-type: none"> • Rebasing from 2000 to 2010 • Construction of sequence of accounts • Institutional accounts • Industrial classification (migration to ISIC Rev 4) • Supply and use table
<p>Overall assessment</p> <ul style="list-style-type: none"> • The NSB has limited capacity to produce comprehensive national accounts in a timely manner and in accordance with recent international standards and frameworks. Furthermore, NSB has limited capacity to make the necessary improvements including: implementation of 1993 SNA and eventually migrating to 2008 SNA, improving the constant price statistics, compiling GDP by income approach, as well as compiling full set of accounts including among others institutional sector accounts. NSB also appears to have a limited capacity to collect/access the data necessary for comprehensive high quality national accounts

2. Balance of payments

Responsible agency: Research and Statistics Division, RMA		
Frequency: A, on a fiscal year basis (July - June)	Recommended frequency: Q	Meets recommended frequency: N
Timeliness: 6 months after the end of the reference period		
<p>Statistics available:</p> <ul style="list-style-type: none"> • Most components of BOP are compiled including: <ul style="list-style-type: none"> • Current account: goods, services, income, and current transfers • Capital account and Financial account including capital transfers, direct investment, portfolio investment and other investments • Net errors and omissions • Although not separately identified, the overall balance reflects changes in reserve assets. • BOP statistics are compiled in respect of India and countries other than India • BOP statistics are currently compiled and published as original only and are not seasonally adjusted. 		
<p>Methodological notes¹⁴:</p> <p><i>Scope</i></p> <ul style="list-style-type: none"> • The balance of payments data, in principle, cover all transactions of Bhutan with the rest of the world. However due to source data limitations, there is only partial coverage for: (a) goods not captured by the Customs, especially informal unrecorded imports from India; (b) certain services categories, such as communication services, construction services, and computer and information services; and (c) reinvested earnings of Foreign Direct Investment enterprises. Within the financial account, direct investment flows related to foreign construction companies are not captured. <p><i>Compliance</i></p> <ul style="list-style-type: none"> • Compiled and organized in accordance with the fifth edition of the IMF "Balance of Payments Manual". 		

¹⁴ Source: IMF's GDDS

<ul style="list-style-type: none"> • The classification follows the recommendations of the BPM5. Institutional units are attributed to the relevant sector. • The transactions are valued at market prices where they are available. The valuation of imports from countries other than India is cost, insurance and freight (c.i.f.), whereas imports from India under the Free Trade Agreement are free on board (f.o.b.). • The balance of payments data are, in principle, compiled on an accrual basis. However, merchandise trade statistics are recorded after the goods are cleared by the Customs. Investment income of financial institutions, as well as interest on government loans, are recorded on a cash basis. <p>Sources</p> <ul style="list-style-type: none"> • Administrative data from various government (including Customs, MOF) and other agencies • Quarterly enterprise surveys to (1) General Enterprises (private sector entities); (2) Hydropower Project Authorities; (3) Financial Institutions; (4) International Organizations; and (5) Nongovernment Organizations in Bhutan. 	
<p>Quality issues:</p> <ul style="list-style-type: none"> • Coverage and quality issues with the data provided by Customs with imports data different by around 8% from realization • The cost of freight and insurance can not be separately identified and at present a fixed proportion is being used to derive the cost of freight and insurance • No surveys are conducted to collect information on services. • Remittances statistics need improvement • Information on foreign entities not sufficient 	
<p>Regional programme of economic statistics four pillars of capacity development assessment:</p>	
<p>Human resource skills:</p> <ul style="list-style-type: none"> • Lack of manpower (currently only 2 persons dedicated to compiling BOP statistics) • Demand for training on statistical tools and forecasting • Limited staff exchanges (in the past with Bank of India, but have not happened for a while) 	<p>Statistical infrastructure:</p> <ul style="list-style-type: none"> • Insufficient survey data, the current surveys do not meet the requirements of BOP • Quality assurance framework not currently used • Computer system not sufficient (excel used for compilation, data sometimes transmitted on paper) • BOP statistics are compiled on financial year basis (July - June) while the National Accounts are compiled on calendar year basis (Jan - Dec), which creates problems for users
<p>Methodological transparency:</p> <ul style="list-style-type: none"> • A release calendar is not available to public • No revision policy exists 	<p>Statistical advocacy:</p> <ul style="list-style-type: none"> • Advocacy efforts so far have not secured resources and staff needed to compile quarterly BOP of sufficient detail • Resources and staff not sufficient to conduct the necessary surveys (in particular on services) and access the necessary administrative data
<p>Planned improvements (as per NSDS or interviews):</p> <ul style="list-style-type: none"> • Create a Balance of Payments register for surveys. • Convert imports to f.o.b. value by revising valuation of imports from India. • Extend coverage of FDI enterprises in the quarterly survey. • Formulate a revision policy for balance of payments statistics. 	

<ul style="list-style-type: none"> • Improve the coverage of data on international trade and services with India. • Improve the coverage of data on international trade and services with COTI. • Compile the international investment position. • RMA is planning to improve the estimates of cost of freight and insurance through the establishment of necessary survey • No concrete date has been set for migration to the BPM6, however lack of manpower and problems with data sources have been identified as the main constraints preventing migration to BPM6. • Plans for long-term and short-term strategic plan
<p>Overall assessment</p> <ul style="list-style-type: none"> • The RMA does not have the capacity to compile the BOP at the recommended frequency and in a timely manner. The RMA further lacks the capacity to conduct the necessary surveys to ensure that the BOP statistics provide the required detail and are based on sufficient data sources.

3. *International Investment Position*

Responsible agency: Not available	
Frequency:	Recommended frequency: A Meets recommended frequency: N
Timeliness:	
Statistics available:	
<ul style="list-style-type: none"> • Not compiled 	
Methodological notes:	
<ul style="list-style-type: none"> • 	
Quality issues:	
<ul style="list-style-type: none"> • 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills:	Statistical infrastructure:
<ul style="list-style-type: none"> • Lack of manpower • 	<ul style="list-style-type: none"> • Insufficient survey data
Methodological transparency:	Statistical advocacy:
<ul style="list-style-type: none"> • none 	<ul style="list-style-type: none"> • Advocacy efforts so far have not secured resources and staff needed to compile IIP statistics
Planned improvements (as per NSDS or interviews):	
<ul style="list-style-type: none"> • The Research and Statistics Division of the RMA plans to start publishing the IIP statistics on annual basis within the next couple of years. 	
Overall assessment	
<ul style="list-style-type: none"> • The RMA does not have the capacity to compile the IIP statistics (however it has plans to develop this capacity in the near future) 	

4. *External debt*

Responsible agency: Department of Public Accounts of the MOF, RMA, NSB		
Frequency: Q	Recommended frequency: Q	Meets recommended frequency: Y
Timeliness: 1 to 3 months after the end of the reference period.		
Statistics available:		
<ul style="list-style-type: none"> • External debt by the lender (multilateral or bilateral); by the sector (hydropower sector and other sectors); and by currency (Indian Rupee and other currencies) • Debt servicing 		
Methodological notes¹⁵:		
<i>Scope</i>		
<ul style="list-style-type: none"> • Covers all external government borrowings, consisting of concessional and nonconcessional loans requiring payments of interest and/or principal in the future. • Government external debt includes debt incurred for subsequent on-lending to other institutional units, as well as the small amount of government-guaranteed debt incurred by private corporations. • External debt incurred by the private sector is not included unless it is government-guaranteed. • Outstanding loans include only the amounts that have actually been disbursed. 		
<i>Compliance</i>		
<ul style="list-style-type: none"> • Compiled and organized in accordance with the fifth edition of the IMF "Balance of Payments Manual". • Presented for each loan in either Indian Rupees or USD (depending on the currency in which the loan is denominated). • Annual average exchange rates are used for the conversion of non- Rupee denominated loans into USD. • Loans are recorded according to their book value (corresponding to total disbursements less principal repayments), and interest is recorded on a cash basis. • External debt stocks are presented in gross terms. 		
<i>Sources</i>		
<ul style="list-style-type: none"> • The DPA collects source data on disbursements of loans from the external creditors. • The DPA provides a quarterly report on the external debt to the RMA and the NSB. 		
Quality issues:		
<ul style="list-style-type: none"> • External debt incurred by the private sector is not included unless it is government-guaranteed. 		
Regional programme of economic statistics four pillars of capacity development assessment:		
Human resource skills:	Statistical infrastructure:	
<ul style="list-style-type: none"> • Lack of manpower • Training on statistical tools and forecasting needed 	<ul style="list-style-type: none"> • Quality assurance framework not currently used • Computer system not sufficient (excel used for compilation, data sometimes transmitted on paper) • Annual debt statistics are compiled on financial year basis (July - June) while the National Accounts are compiled on calendar year basis (Jan - Dec), which creates problems for users 	
Methodological transparency:	Statistical advocacy:	
<ul style="list-style-type: none"> • A release calendar is not available to public • No revision policy exists 	<ul style="list-style-type: none"> • No specific assistance needed 	

¹⁵ Source: IMF's GDDS

Planned improvements (as per NSDS or interviews):
•
Overall assessment
• The RMA and other involved agencies have the basic capacity to compile the foreign debt statistics

5. Income distribution

Responsible agency: Census and Survey Division of the NSB	
Frequency: 10 yearly	Recommended frequency: 5 yearly
Meets recommended frequency: N	
Timeliness:	
Statistics available:	
<ul style="list-style-type: none"> • Household income and expenditure • Income and expenditure by quintail or decimal of population ratio • Gini Coefficients 	
Methodological notes:	
<ul style="list-style-type: none"> • Based on 2000 Household Income and Expenditure Survey which covered a sample of 4000 households (rural and urban) across the entire territory of Bhutan. 	
Quality issues:	
<ul style="list-style-type: none"> • Only very basic information available, other useful information such as statistics by participation in the formal/informal economy not available 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills:	Statistical infrastructure:
<ul style="list-style-type: none"> • No dedicated training unit within the NSB • Only on-job training provided by the NSB • Need for structured training • No regular staff exchanges 	<ul style="list-style-type: none"> • Computer system not sufficient (excel used for compilation, data sometimes transmitted on paper) • No quality assurance framework is being used and only basic validation is being done
Methodological transparency:	Statistical advocacy:
<ul style="list-style-type: none"> • No metadata repository (Project with the World Bank underway) 	<ul style="list-style-type: none"> • Statistical law needs to be enacted to ensure that the NSB has the necessary authority to collect/access the necessary data
Planned improvements (as per NSDS or interviews):	
•	
Overall assessment:	
<ul style="list-style-type: none"> • The NSB has limited capacity to produce the income distribution statistics of sufficient detail; however NSB lacks the capacity to produce them at the recommend frequency. 	

D. Money and banking

35. The money and banking statistics produced by the BSS mostly meet the recommendations of the core set. The BB largely has the capacity to produce these statistics in a timely manner and in accordance with international standards, methods and good practices.

36. A detailed assessment of money and banking statistics is provided below.

1. Assets/liabilities of depository corporations/

Responsible agency: Research and Statistics Division, RMA		
Frequency: M	Recommended frequency: M	Meets recommended frequency: Y
Timeliness: 2 months after the end of the reference month.		
Statistics available:		
<ul style="list-style-type: none"> • Accounts for: Deposit Money Banks (DMBs), Bank of Bhutan, Bhutan National Bank, Bhutan Development Finance Corporation, Druk Punjab National Bank and Tashi Bank and Royal Insurance corporation: <ul style="list-style-type: none"> ○ Assets: Reserves, foreign assets, claims on government, claims on government corporations, joint corporations, private sector, and non-monetary financial corporations. ○ Liabilities: demand deposits, time deposits, foreign currency deposits, foreign liabilities, government deposits, credit from RMA, capital accounts and other items 		
Methodological notes ¹⁶ :		
<i>Scope</i>		
<ul style="list-style-type: none"> • The institutional and geographic coverage of the depository corporations sector, and therefore of the broad money and credit aggregates, is complete. • The central bank subsector of the depository corporations sector comprises the Royal Monetary Authority of Bhutan (RMA). The other depository corporations subsector comprises commercial banks. 		
<i>Compliance</i>		
<ul style="list-style-type: none"> • Classification and methodology used are broadly consistent with the IMF's 1998 "Monetary and Financial Statistics Manual" • Transactions are recorded at the time of change in the ownership of the financial asset/liability. • Data are presented as end-period stocks, expressed in millions of Ngultrum. • An integrated balance sheet approach is followed that consolidates the accounts of the Royal Monetary Authority of Bhutan (the central bank) and the commercial banks (the other depository corporations). • Measures of money - broad (M2) and narrow (M1) - and their counterparts are presented. • The criteria used for classifying transactors are consistent with the sectorization principles in MFSM, with two exceptions: distinction between domestic and external positions relies on the geographic location of the counterparty (rather than on the residency principle); and distinction between 		

¹⁶ Source: IMF's GDDS

<p>government corporations and joint corporations is not based on the principle of effective control, but rather largely relies on the size of equity stake.</p> <p>Sources</p> <ul style="list-style-type: none"> • Balance sheet of the RMA and the monthly report forms collected from the commercial banks 	
<p>Quality issues:</p> <ul style="list-style-type: none"> • Compliance with the latest international standards and methods 	
<p>Regional programme of economic statistics four pillars of capacity development assessment:</p>	
<p>Human resource skills:</p> <ul style="list-style-type: none"> • Lack of manpower • Training on statistical tools and forecasting needed 	<p>Statistical infrastructure:</p> <ul style="list-style-type: none"> • Quality assurance framework not currently used • Computer system not sufficient (excel used for compilation, data sometimes transmitted on paper)
<p>Methodological transparency:</p> <ul style="list-style-type: none"> • A release calendar is not available to public • No revision policy exists 	<p>Statistical advocacy:</p> <ul style="list-style-type: none"> • No specific assistance needed
<p>Planned improvements (as per NSDS or interviews):</p> <ul style="list-style-type: none"> • Reconcile monetary and government finance data. • No concrete date has been set for migration to the MFSM2008. 	
<p>Overall assessment</p> <ul style="list-style-type: none"> • The NSB has the basic capacity to produce the external assets/liabilities of depository corporations statistics. 	

2. Broad money and credit aggregates

<p>Responsible agency: Research and Statistics Division, RMA</p>		
<p>Frequency: M</p>	<p>Recommended frequency: M</p>	<p>Meets recommended frequency: Y</p>
<p>Timeliness: 2 months after the end of the reference month.</p>		
<p>Statistics available:</p> <ul style="list-style-type: none"> • Monetary Survey: <ul style="list-style-type: none"> ○ Assets: Net foreign assets: rupee and the convertible foreign currency denominated net positions (the underlying gross positions are not presented); and domestic credit: claims on government net of government deposits, and claims on government corporations, joint corporations, private sector, and non-monetary financial corporations. ○ Liabilities: Broad (M2): narrow (M1) and quasi-money (currency outside banks, demand deposits and demand deposits); Money market instruments; and other. 		
<p>Methodological notes¹⁷:</p> <p>Scope</p> <ul style="list-style-type: none"> • The institutional and geographic coverage of the depository corporations sector, and therefore of the broad money and credit aggregates, is complete. • The central bank subsector of the depository corporations sector comprises the Royal Monetary Authority of Bhutan (RMA). The other depository corporations subsector comprises commercial banks. 		

¹⁷ Source: IMF's GDDS

<p>Compliance</p> <ul style="list-style-type: none"> • Classification and methodology used are broadly consistent with the IMF's 1998 "Monetary and Financial Statistics Manual" • Transactions are recorded at the time of change in the ownership of the financial asset/liability. • Data are presented as end-period stocks, expressed in millions of Ngultrum. • An integrated balance sheet approach is followed that consolidates the accounts of the Royal Monetary Authority of Bhutan (the central bank) and the commercial banks (the other depository corporations). • Measures of money - broad (M2) and narrow (M1) - and their counterparts are presented. • The criteria used for classifying transactors are consistent with the sectorization principles in MFSM, with two exceptions: distinction between domestic and external positions relies on the geographic location of the counterparty (rather than on the residency principle); and distinction between government corporations and joint corporations is not based on the principle of effective control, but rather largely relies on the size of equity stake. <p>Sources</p> <ul style="list-style-type: none"> • Balance sheet of the RMA and the monthly report forms collected from the commercial banks 	
<p>Quality issues:</p> <ul style="list-style-type: none"> • Does not follow the standard presentation • Compliance with the latest international standards and methods 	
<p>Regional programme of economic statistics four pillars of capacity development assessment:</p>	
<p>Human resource skills:</p> <ul style="list-style-type: none"> • Lack of manpower • Training on statistical tools and forecasting needed 	<p>Statistical infrastructure:</p> <ul style="list-style-type: none"> • Quality assurance framework not currently used • Computer system not sufficient (excel used for compilation, data sometimes transmitted on paper)
<p>Methodological transparency:</p> <ul style="list-style-type: none"> • A release calendar is not available to public • No revision policy exists 	<p>Statistical advocacy:</p> <ul style="list-style-type: none"> • No specific assistance needed
<p>Planned improvements (as per NSDS or interviews):</p> <ul style="list-style-type: none"> • Reconcile monetary and government finance data. • No concrete date has been set for migration to the MFSM2008. 	
<p>Overall assessment</p> <ul style="list-style-type: none"> • The NSB has the basic capacity to produce the external broad money and credit aggregates statistics. 	

3. Interest rate statistics

<p>Responsible agency: Research and Statistics Division, RMA</p>		
<p>Frequency: M</p>	<p>Recommended frequency: M</p>	<p>Meets recommended frequency: Y</p>
<p>Timeliness: 3 months after the end of the reference month.</p>		
<p>Statistics available:</p> <ul style="list-style-type: none"> • Coupon rates on short-term (one-year) government securities • RMA bills discount rate • Deposit (different term ranging from 3months to more then 3 years) and lending interest rates (by 		

<p>purpose of the loan).</p> <ul style="list-style-type: none"> • Rates on savings deposits, term deposits (differentiated by maturity), corporate deposits, and lending rates (differentiated by industry/purpose). • Selected interest rates in India, including prime lending rate at five major Indian banks, and the deposit rate for a term deposit of more than one year at five major Indian banks. 	
<p>Methodological notes¹⁸:</p> <ul style="list-style-type: none"> • Classification and methodology used are consistent with the IMF's 1998 "Monetary and Financial Statistics Manual" • Collected through monthly reports submitted by banks 	
<p>Quality issues:</p> <ul style="list-style-type: none"> • 	
<p>Regional programme of economic statistics four pillars of capacity development assessment:</p>	
<p>Human resource skills:</p> <ul style="list-style-type: none"> • Lack of manpower • Training on statistical tools and forecasting needed 	<p>Statistical infrastructure:</p> <ul style="list-style-type: none"> • Quality assurance framework not currently used • Computer system not sufficient (excel used for compilation, data sometimes transmitted on paper)
<p>Methodological transparency:</p> <ul style="list-style-type: none"> • A release calendar is not available to public 	<p>Statistical advocacy:</p> <ul style="list-style-type: none"> • No specific assistance needed
<p>Planned improvements (as per NSDS or interviews):</p> <ul style="list-style-type: none"> • No concrete date has been set for migration to the MFSM2008. 	
<p>Overall assessment</p> <ul style="list-style-type: none"> • The NSB has the basic capacity to produce the interest rate statistics. 	

¹⁸ Source: IMF's GDDS

E. Government

37. The majority of statistics under government are currently compiled. However the MOF is assessed to have limited capacity to produce these statistics at the recommended frequency and in accordance with latest international standards.

38. A detailed assessment of government statistics is provided below.

1. General government operations

Responsible agency: Department of Public Accounts, MOF		
Frequency: A, on a fiscal year basis (July - June)	Recommended frequency: Q	Meets recommended frequency: N
Timeliness: 9 months after the end of the reference period.		
Statistics available: <ul style="list-style-type: none"> • Data on central government operations including: summary of expenditure outlays and their source of finance, revenues by economic classification, expenditures by economic and functional classification, grants, domestic and external borrowings, and loans outstanding. • Economic classification of revenues, revenue by sectors, main revenue agencies, and revenue by region and by district. 		
Methodological notes¹⁹: <p>Scope</p> <ul style="list-style-type: none"> • The government data cover all budgetary (spending) agencies—central government and local governments (Dzongkhags, Gewogs and Thromdeys). <p>Compliance</p> <ul style="list-style-type: none"> • The Bhutan GFS are generally compiled in accordance with Government Finance Statistics Manual (GFSM) GFSM 2001, however cash basis are used for recording. • The funds are recorded when they flow into or out of the Government Consolidated Account (GCA). Loans and grants are disbursed into the RMA's foreign exchange accounts, and are recorded only when their proceeds are transferred to the Budget Fund Account (BFA). <p>Source</p> <ul style="list-style-type: none"> • Revenue reports from the Department of Revenue and Customs (DRC); • Monthly accounts of the spending (budgetary) agencies; Cash book of the Department of Public Accounts (DPA); • Statement of outstanding loans from the DPA; • Foreign grants data from the Gross Happiness Commission (the former Planning Commission); • Statements of Royal Government Revenue (RGR) Account, Nonrevenue Account, and the Budget Fund Account (BFA) from the Bank of Bhutan (BoB). 		
Quality issues:		

¹⁹ Source: IMF's GDDS

<ul style="list-style-type: none"> • Government budgetary transactions are recorded on a cash basis. 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills: <ul style="list-style-type: none"> • Lack of staff with expertise in the government finance statistics • Demand for training on GFS including accrual basis accounting • Demand for training on STATA • Problems with transfer of knowledge 	Statistical infrastructure: <ul style="list-style-type: none"> • Compiled on cash rather than accrual basis • Computer system not sufficient (excel used for compilation, data sometimes transmitted on paper)
Methodological transparency: <ul style="list-style-type: none"> • A release calendar is not available to public 	Statistical advocacy: <ul style="list-style-type: none"> • Computer system not sufficient (excel used for compilation, data sometimes transmitted on paper) • GFS are compiled on financial year basis (July - June) while the National Accounts are compiled on calendar year basis (Jan - Dec), which makes the policy decisions difficult
Planned improvements (as per NSDS or interviews): <ul style="list-style-type: none"> • Plan to move to the modified cash basis. • At present no concrete date has been set for migration to the MFSM2008. 	
Overall assessment <ul style="list-style-type: none"> • The MOF has the basic capacity to produce the general government operations statistics however lacks the capacity to produce them at the recommended frequency. MOF also appears to have limited capacity to make the necessary improvements to these statistics (such as migrating to accrual basis) to ensure that they are produced in accordance with more recent international standards. 	

2. General government debt

Responsible agency: Department of Public Accounts, MOF		
Frequency: A, on a fiscal year basis (July - June)	Recommended frequency: Q	Meets recommended frequency: N
Timeliness: 9 months after the end of the reference period.		
Statistics available:		
<ul style="list-style-type: none"> • Government domestic debt by instrument and by the holder; • Government external debt by the holder. • Breakdowns of external debt, such as by concessional and commercial borrowings, by different creditors, and by different denomination currencies 		
Methodological notes²⁰:		
<i>Scope</i>		
<ul style="list-style-type: none"> • The government debt data cover all domestic and external government borrowings. • The domestic government debt consists of the balance on the government's overdraft facility with the Bank of Bhutan (BoB) and bonds. • The government external debt data cover all external government borrowings. 		
<i>Compliance</i>		
<ul style="list-style-type: none"> • The Bhutan GFS are generally compiled in accordance with Government Finance Statistics Manual (GFSM) 2001. • The government debt data are presented for each loan either in Indian Rupees (if the loan is denominated in Rupee) or in USD (if loans are denominated in currencies other than Rupee). • Average exchange rates are used for conversion into USD. • For debt stocks, end-of-period exchange rates are used. 		
<i>Source</i>		
<ul style="list-style-type: none"> • The Department of Public Accounts (DPA) records on domestic debt. • Information on external debt disbursements obtained from creditors. 		
Quality issues:		
<ul style="list-style-type: none"> • 		
Regional programme of economic statistics four pillars of capacity development assessment:		
Human resource skills:	Statistical infrastructure:	
<ul style="list-style-type: none"> • Lack of staff with expertise in the government finance statistics • Demand for training on GFS including accrual basis accounting • Demand for training on STATA • Problems with transfer of knowledge 	<ul style="list-style-type: none"> • Computer system not sufficient (excel used for compilation, data sometimes transmitted on paper) 	
Methodological transparency:	Statistical advocacy:	
<ul style="list-style-type: none"> • A release calendar is not available to public 	<ul style="list-style-type: none"> • Need to fully move to GFSM 2001 • Debt statistics are compiled on financial year basis (July - June) while the National Accounts 	

²⁰ Source: IMF's GDDS

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	are compiled on calendar year basis (Jan - Dec), which makes the policy decisions difficult
Planned improvements (as per NSDS or interviews): <ul style="list-style-type: none">• Planning to publish the statistics on quarterly basis	
Overall assessment <ul style="list-style-type: none">• The MOF has the basic capacity to produce the general government debt statistics however lacks the capacity to produce them at the recommended frequency.	

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F. Labour market

39. Although the labour supply and demand statistics are currently compiled, the MOLHR is assessed to have limited capacity to produce these statistics at the recommended frequency and with sufficient scope.

40. A detailed assessment of labour market statistics is provided below.

1. Labour supply and demand/Hours worked

Responsible agency: Department of Employment, MOLHR	
Frequency: A	Recommended frequency: Q
Meets recommended frequency: N	
Timeliness: 3 months after the end of the survey	
Statistics available: <ul style="list-style-type: none"> • The data provide information on the characteristics of the employed and unemployed populations. • Data available by age, gender, level of education, urban-rural residence, Dzongkhag (district) of origin, and occupation. • The number of hours worked by the employed (classified by: worked less than 30 hours per week, 30-39 hours, 40-49 hours, 50-59 hours, 60-69 hours, 70-79 hours, and more than 80 hours per week). 	
Methodological notes: <ul style="list-style-type: none"> • The primary source data is the national Labour Force Survey (LFS) covering households selected on the basis of a stratified two-stage sampling. • The 2009 LFS, covered a sample of 8000 households (6000 urban plus 2000 rural). • Out of 8000 households, only 231 households (2.9 per cent) did not respond. • The survey was administered by enumerators who filled out questionnaires by interviewing households, with each enumerator covering approximately 100 households 	
Quality issues: <ul style="list-style-type: none"> • The informal sector is not included • The monthly statistics only cover selected industries • No information about hourly or weekly wages/earning 	
Regional programme of economic statistics four pillars of capacity development assessment:	
Human resource skills: <ul style="list-style-type: none"> • Lack of dedicated training institute providing statistical training • Staff lack statistical training • No regular training provided and only ad-hoc training available • Staff of MOLHR do not attend international training courses • No staff exchanges • Demand for training on sampling techniques 	Statistical infrastructure: <ul style="list-style-type: none"> • Computer systems not sufficient (excel used for compilation, data sometimes transmitted on paper) • No quality assurance by MOLHR and instead depends on NSB expertise • Questionnaires are entered manually, limited data checks applied

and data processing	
Methodological transparency: <ul style="list-style-type: none"> • There is no clear schedule for publication of structural statistics • Limited metadata provided in the publication 	Statistical advocacy: <ul style="list-style-type: none"> • MOLHR does not have the necessary mandate to collect the statistics • LFS budget has been reduced and currently is not sufficient
Planned improvements (as per NSDS or interviews): <ul style="list-style-type: none"> • Conduct an establishment census which is national in scope, based on a sample drawn from the establishment census. • Improve the periodicity of the Labor Force Survey from the annual to the semi-annual cycle. 	
Overall assessment <ul style="list-style-type: none"> • MOLHR has a limited capacity to conduct the LFS and compile the results. The MOLHR capacity has been reduced even further through the reduction in budget for the LFS. 	

G. Natural resources and the environment

41. The BSS has the basic capacity to produce natural resources and the environment statistics.

42. Provided below is a brief overview of currently produced statistics with respect to the core set of economic statistics.

1. Natural resources

Responsible agency: MOA		
Frequency: A	Recommended frequency: A	Meets recommended frequency: Y
Timeliness: 1 to 2 months after the end of the year		
Statistics available: <ul style="list-style-type: none"> • Land use and vegetation types as percentage of total area • Percentage of area by Dzongkhag, by type of land cover • Altitude Zones of Dzongkhag as percentage of total area • Percentage of total area of Bhutan by Dzongkhag, by” altitude Zones, • Wet land converted to dry land • Details of protected areas in Bhutan by year of establishment and area 		
Methodological notes: <p><i>Scope</i></p> <ul style="list-style-type: none"> • The 2009 agricultural survey covered 10,434 rural agriculture farming households out of 10,689 sampled households. The non responses were 2.5 percent in 2009 excluding Shaba geog in Paro Dzongkhag. 		

<ul style="list-style-type: none"> • Appropriate weights as per the sample selection scheme were applied. • The estimated total rural agriculture households for 2009 were 67,177. • All the 205 Geogs in the country served as the domain for the sample survey. All the Geogs were included in the sample survey in order to cover different ecological resources endowment, and development stages. • A household is the lowest sampling unit. The household lists for each Geog served as the sample frame from which a 10 - 30 percent sample was chosen for interview. <p>Sources</p> <ul style="list-style-type: none"> • Annual agriculture sample survey • Administrative data on forestry 	
Quality issues:	
<ul style="list-style-type: none"> • 	
Regional programme of economic statistics four pillars of capacity development assessment:	
<p>Human resource skills:</p> <ul style="list-style-type: none"> • Limited staff resources (3 persons responsible for forestry, livestock and other agricultural statistics) • Lack of statistical knowledge • Demand for training in particular in the area of analysis of statistics 	<p>Statistical infrastructure:</p> <ul style="list-style-type: none"> • Computer system in need of modernization (excel used for compilation, data sometimes transmitted on paper)
<p>Methodological transparency:</p> <ul style="list-style-type: none"> • Limited metadata available • 	<p>Statistical advocacy:</p> <ul style="list-style-type: none"> • Need for additional financial resources
Planned improvements (as per NSDS or interviews):	
<ul style="list-style-type: none"> • ICT policy for improvement of IT systems 	
Overall assessment	
<ul style="list-style-type: none"> • MOA has the basic capacity to produce selected natural resources statistics. 	

V. Constraints, needs for capacity development and recommendations

43. The BSS is currently able to produce 24 out of 32 of the statistics within the core set with 13 of those meeting the core set recommendations on frequency. The assessment further found that BSS has limited capacity to produce many of these statistics, including national accounts in accordance with relevant (current) international standards and good practices. The assessment also found that BSS also have limited capacity to make the necessary improvements.

44. Presented below are constraints that have been identified as limiting the capacity of the BSS to produce economic statistics and make the necessary improvements. Detailed overview of the current situation with respect to each of the areas discussed is presented in Annex I.

45. Presented below are also needs for capacity development and some recommendations in this regard that would assist the BSS in overcoming the constraints identified in the assessment.

A. Financial resources

46. Most of the agencies which have participated in the assessment stated that the current financial resources available to them were not adequate. In particular the organizations responsible for conducting of surveys stated that the limited financial resources were a constraint limiting their capacity to collect the necessary data. There is a need for advocacy to ensure that necessary resources are available to collect the required data and make the necessary improvements including implementation of current international standards and methods.

47. Policy-makers need to understand the importance of timely, high quality economic statistics and ensure that sufficient resources are made available to the BSS. To achieve this, the BSS will need to take a more pro-active role in raising the awareness of policy-makers and other statistics users of the importance of economic statistics. The BSS could benefit from training and other assistance in developing advocacy tools to raise the awareness among the policy-makers of importance of investing in the improvement of economic statistics.

B. Human resources

48. Most of the agencies which have participated in the assessment described their current staff numbers as insufficient, limiting their capacity to collect data for, compile and disseminate the core set of economic statistics of sufficient quality and in accordance with international practices and methods. The staff constraint makes it very difficult to

improve the existing economic statistics and apply modern methods and practices. Likewise, the staff constraint makes compilation of additional statistics (such as quarterly GDP or BOP) very challenging as given the time intensive nature of sub-annual statistics, there is no capacity (available staff) to dedicate for these activities. There is a need for advocacy to raise the awareness of the policy-makers of the importance of the improvement of existing and compilation of new economic statistics to secure the necessary resources.

49. As with the financial resources, BSS needs to take a more pro-active role in raising the awareness of policy-makers and other statistics users of the importance of economic statistics. The BSS could benefit from training and other assistance in developing advocacy tools to raise the awareness among the policy-makers of importance of investing in the improvement of economic statistics.

C. Training

50. BSS does not at present have a dedicated statistical training institute or a central statistical training unit responsible for a provision of training to all its staff members. The statistical training received, including access to international training as well as level of statistical skills and knowledge vary greatly across the different organizations/divisions.

51. There is a strong demand from most organizations/departments of the BSS for a coordinated approach to provision of statistical training. There is a need for the NSB (in coordination with other relevant organizations) to establish a long-term strategy for development of human resources including regular statistical training to raise the knowledge and improve skills of statistical staff across the BSS including staff working at the regional offices. BSS (and NSB in particular) need to carefully consider a need for establishment of a dedicated training section/unit (possibly under NSB) which would be responsible for provision of basic statistical training across the statistical system, including different ministries and other organizations. To guide a staff skills development a skills framework could be adopted such as SIAP's Core Skills Framework²¹.

52. BSS could benefit from assistance in developing a long-term plan for capacity building including a plan for establishment of a dedicated training section/unit. Learning from other statistical systems in the region, could assist BSS in developing a strategy for a sustainable national training programme. BSS could also benefit from access to training materials of other national and international training organizations.

53. In addition to addressing the basic statistical training needs of new staff, a policy is needed to address the training needs of mid and high level staff including specific training on new international standards and methods (SNA 2008, IRIS2008 and IRIIP2010, quarterly GDP, regional accounts, etc). NSB could benefit from a

²¹ More information on SIAP Core Skills Framework is available at http://www.unsiap.or.jp/about_siap/coreskill.php

combination of national and international training programmes as well as staff exchanges with other countries to address these needs.

54. The BSS could also significantly benefit from staff exchanges with other statistical offices from the SAARC sub-region as well as the rest of the Asian and Pacific region. Much could be learned from other developed as well as developing statistical systems and in particular those that have recently undergone similar improvements. At the same time other statistical systems could learn from the BSS about their positive experiences with economic statistics.

D. Sources

55. The issues related to the source data are discussed in detail in Annex I. The limited availability of source data is one of the main constraints affecting the capacity of the BSS to produce the core set of economic statistics of sufficient frequency and quality.

56. The lack of high frequency timely survey data presents a significant challenge to the BSS. The overall quality and timeliness of statistics is significantly affected by lack of, or poor frequency of necessary survey data.

57. The BSS could benefit from training and other assistance in developing advocacy tools to raise the awareness among the policy-makers of importance of investing in the improvement of economic statistics to secure the necessary human and financial resources for the necessary surveys.

58. As with survey data, access to administrative data sources from both non-government and government sources appears to be a constraint limiting the capacity of BSS to produce economic statistics. The access to government data needs to be fully mandated and should not depend on personal relationships. Furthermore, efforts should be made to ensure in the future BSS (and NSB in particular) is able to influence (where possible, through training, advocacy, advice, etc) administrative data collections, so that the data collected by various government departments is of sufficient quality and suits the statistical needs of the BSS. There is a need to raise the awareness of these providers of the importance of their data. If possible, legal means/provisions should also be provided to the NSB to collect such key administrative data.

59. There is a need for a long-term strategy for establishing the necessary data collections, ensuring that their frequency (at least in the longer-term) permits also compilation of sub-annual statistics.

E. Business Registers

60. The BSS business register is in the early stages of development and at present is not of sufficient quality. This limits the capacity of the BSS to conduct coherent and comprehensive business surveys.

61. Given the central role that business register plays in ensuring that all relevant surveys are conducted in a coherent and consistent manner there is a clear and urgent need for an improvement of the Bhutan business register. The business register needs to be improved to ensure that it contains up-to-date information on all the establishments (and ideally enterprises) involved in economic activity in Bhutan. Available administrative data sources need to be utilized to ensure that the information in the business register is up-to-date. Once the business register is of sufficient quality, the organizations need to ensure that all relevant surveys are conducted using samples selected from the business register, ensuring consistency across different surveys.

62. The BSS could benefit from technical assistance and international training in the area of business registers. Additionally BSS could benefit from study tours or staff exchanges with other national statistical offices to allow its staff to learn good practices and methods followed by other organizations. BSS staff could also benefit from learning from other national statistical offices on the use and maintenance of business registers.

F. IT resources

63. The BSS computer systems are in need of modernization as they inhibit efficient production of economic statistics. Although most staff have access to computers, the overall computer systems do not appear to be well connected with the collection of data for, compilation and dissemination of economic statistics, involving many manual steps and separate computer systems. In many cases the survey results are often transmitted on paper. Likewise, administrative data is often received on paper, CD or through other means. Excel spreadsheets are often the most common way of compiling statistics, presenting the risks of file corruption and incorrect links.

64. There is a need for a coordinated approach to modernization of statistical systems to ensure that staff have the necessary software to compile the statistics, data warehouses to store the statistics and networks to effectively and efficiently communicate them across different organizations. Given the significant costs involved in these sorts of improvements, BSS could benefit from sharing of experiences with other national statistical systems in the region and beyond. NSB could also evaluate systems used in other developing statistical systems in Asia and the Pacific, as it could be possible to adopt components of those systems to the Bhutan environment.

G. Quality assurance

65. The BSS does not at present use quality assessment frameworks to ensure the overall quality of statistics that are being produced. Although every effort is being made

to ensure a very high quality of statistics, there are currently no systemized processes used for ensuring the overall quality of statistics. Only basic checks and validations are applied such as cross checking of values, etc to ensure the accuracy of data.

66. There is a need for the BSS to adopt and use quality assessment frameworks (such as IMF's DQAF) to ensure the overall quality of statistics that are being produced. Furthermore discussion needs to take place to clarify the role of the NSB as a quality assurance provider, as many organizations currently depend on NSB for quality assurance.

67. BSS could benefit from training in this area as well as exchange of experiences with other national statistical offices permitting its staff to learn how such frameworks are currently used by other countries to ensure the quality of statistics.

H. Release calendars

68. None of the organizations/departments responsible for dissemination of economic statistics within the core set publish release calendars. All of the statistics currently published by the organizations within the BSS are done so in accordance with internal guidelines stating the number of days/weeks/months after the reference period within which the statistics are to be made public.

69. Release calendars should be made available to the public in advance to ensure transparency and raise the profile of official statistics.

I. Metadata repositories

70. The issue of metadata and documentation has been identified by a number of government organizations/departments as an area in need of improvement and assistance. Some of these organizations do not have a regular process for documenting current methods and practices.

71. There is a need to assist these organizations with development of necessary metadata and documentation. To ensure transparency of methods and practices and inform users of the current limitations of statistics, the BSS needs to ensure that the metadata available both from national and international websites and other sources is up-to-date and easily accessible.

72. The BSS is currently in the process of developing a metadata repository under a project with the World Bank. It is hoped that the results of this project will address some of the concerns outlined above.

J. Financial year vs calendar year

73. The BOP statistics, government statistics and most of the other statistics are compiled on financial year basis (July - June) while the National Accounts are compiled on calendar year basis (Jan - Dec). This difference in the definition of the year provides a significant challenge for users of statistics who wish to obtain a more comprehensive picture of the economy.

74. The lack of quarterly BOP, government and national accounts statistics is at the core of this issue as users are unable to compile their own annual data and are forced to use such techniques as average of the last 2 years to be able to analyze the BOP data along the national accounts and government statistics. There is an urgent need for correcting this situation through providing all of these statistics on a common year basis (or ideally compiling quarterly statistics) or if no consensus can be reached providing these statistics on both calendar and financial year basis.

75. The BSS could benefit from technical assistance and training to assist it with developing in the future quarterly national accounts and BOP statistics. However as this will require additional resources and data sources it might take some time before these statistics can be produced on sub-annual basis. In the shorter term the BSS could benefit from technical assistance as well as exchange of knowledge with other countries in a similar situation. A method (more sophisticated than the current method of averaging 2 years) needs to be developed as soon as possible.

K. National data page

76. The BSS is a highly decentralized statistical system with a number of organizations responsible for dissemination of economic statistics within the core set. At present no national summary data page exists (even though the BSS subscribes to the GDDS) which would allow user to access all statistics from a single website. This means that users have to spend considerable amounts of time browsing through the websites of different organizations to access the core set of economic statistics.

77. There is a need to establish a single data portal/website to disseminate (or at least provide links to) all the economic statistics (or ideally all official statistics). Users should be able to easily locate and access the necessary information. Such website would also benefit statistics providers as it would raise the public awareness of statistics and possibly the profiles of the organizations. Furthermore efforts should be made to ensure that statistics are published in a more user friendly (easily downloadable) format permitting easy data coping and manipulation (such as CSV, etc).

78. BSS could benefit from technical assistance and training on establishing such a data portal/data page. BSS could further benefit from exchange of experiences with other

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SDDS subscribing countries many of which maintain very good data pages, which are very user friendly.

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VI. Conclusion

79. The Bhutanese Statistical System is a small but highly decentralized system. The collection of data for, compilation and dissemination of the core set of economic statistics are the responsibility of NSB, RMA, MOF, MOLHR and MOAF. In addition to those principal organizations, other government agencies and ministries (such as Bhutan Ministry of Economic Affairs who maintains business register) are also involved in the production of the core set of economic statistics.

80. The assessment found that the BSS is able to produce 24 of the 32 statistics within the core set of economic statistics, with 13 of these statistics meeting the recommended frequency. The assessment further found that although the BSS has the basic capacity to produce most of the statistics within the core set, it has limited capacity to produce many of these statistics at the recommended frequency and in accordance with relevant international standards and good practices.

81. Based on the interviews with statistics providers and users and the discussions during the consultative meeting the assessment found that improving/developing the capacity of the BSS to produce (at recommended frequency, in a timely manner and in accordance with recent international standards and methods): national accounts, structural statistics, PPI, BOP, IIP and short-term indicators on output, demand was a priority.

82. Addressing these priorities will depend on BSS ability to address some of the constraints identified in the assessment related to: financial resources, human resources, training, data sources, business register, IT resources, quality assurance, release calendars and metadata repositories. Additionally the assessment found that issues related to the use of financial and calendar year and lack of a single national data page affect the capacity of BSS to produce and disseminate statistics which are required by users.

83. The current financial and human resources place a significant constraint on the BSS. The limited financial resources and staff numbers significantly affect the capacity of the BSS to collect data for, compile and dissemination core set of economic statistics of sufficient quality and in accordance with international practices and methods. The financial resources available to agencies which have participated in the assessment are not adequate. In particular the lack of financial resources for organizations which are responsible for conducting of surveys limits their capacity to collect the necessary data. The staff constraint limits the capacity of BSS to improve the existing economic statistics and implement current/modern methods and practices. The staff constraint also makes compilation of additional statistics (such as quarterly GDP or BOP) very challenging.

84. The limited training opportunities at the national level limit the ability of BSS to effectively and efficiently develop the statistical skills (particularly outside the NSB and RMA) of its new staff as well as improve the skills of existing staff. The lack of necessary statistical training and knowledge of recent international standards and

methods affects the capacity of BSS to produce economic statistics and make the necessary improvements. There is a strong demand from most organizations within the BSS for a coordinated approach to provision of statistical training including establishment a long-term strategy for development of human resources including regular statistical training to raise the knowledge and improve skills of statistical staff across the BSS.

85. The limited availability of source data is one of the main constraints affecting the capacity of the BSS to produce the core set of economic statistics of sufficient frequency and quality. The lack of high frequency timely survey data presents a significant challenge to the BSS. The overall quality and timeliness of statistics is significantly affected by lack of, or poor frequency of necessary survey data. As with survey data, access to administrative data sources from both non-government and government sources appears to be a constraint limiting the capacity of BSS to produce economic statistics. There is a need for a long-term strategy for establishing the necessary data collections, ensuring that their frequency (at least in the longer-term) permits also compilation of sub-annual statistics.

86. The BSS business register is in the early stages of development and at present is not of sufficient quality. This limits the capacity of the BSS to conduct coherent and comprehensive business surveys. Given the central role that business register plays in ensuring that all relevant surveys are conducted in a coherent and consistent manner there is a clear and urgent need for an improvement of the Bhutan business register. The business register needs to be improved to ensure that it contains up-to-date information on all the establishments (and ideally enterprises) involved in the economic activity in Bhutan. Available administrative data sources need to be utilized to ensure that the information in the business register is up-to-date.

87. The BSS computer systems are in need of modernization as they inhibit efficient production of the economic statistics. Although most staff have access to computers, the overall computer systems do not appear to be well connected with the collection of data for, compilation and dissemination of economic statistics, involving many manual steps and separate computer systems. In many cases the survey results are often transmitted on paper or through other non-automated means. Likewise, administrative data is often received on paper, CD or through other non-automated means. Excel spreadsheets are often the most common way of compiling statistics, presenting the risks of file corruption and incorrect links.

88. The BSS does not at present use quality assessment frameworks to ensure the overall quality of statistics that are being produced. Although every effort is being made to ensure a very high quality of statistics, there are currently no systemized processes used for ensuring the overall quality of statistics. Only basic checks and validations are applied such as cross checking of values, etc to ensure the accuracy of data.

89. None of the organizations/department responsible for dissemination of economic statistics within the core set publish release calendars. All of the statistics currently

published by the organizations within the BSS are done so in accordance with internal guidelines stating the number of days/weeks/months after the reference period within which the statistics are to be made public.

90. The issue of metadata and documentation has been identified by a number of government organizations/departments as an area in need of improvement and assistance. Some of these organizations do not have a regular process for documenting current methods and practices.

91. The BSS is a highly decentralized statistical system with a number of organizations responsible for dissemination of economic statistics within the core set. At present no national summary data page exists (even though that BSS subscribes to the GDDS) which would allow user to access all statistics from a single website. This means that users have to spend considerable amount of time browsing through the websites of different organizations to access the core set of economic statistics. There is a need to establish a single data portal/website to disseminate (or at least provide links to) all the economic statistics (or ideally all official statistics).

92. The BOP statistics, government statistics and most of the other statistics are compiled on financial year basis (July - June) while the National Accounts are compiled on calendar year basis (Jan - Dec). This difference in the definition of the year provides a significant challenge for users of statistics who wish to obtain a more comprehensive picture of the economy. The lack of quarterly BOP, government and national accounts statistics is at the core of this issue as users are unable to compile their own annual data and are forced to use such techniques as average of the last 2 years to be able to analyze the BOP data along the national accounts and government statistics. There is an urgent need for correcting this situation through providing all of these statistics on a common year basis (or ideally compiling quarterly statistics) or if no consensus can be reached providing these statistics on both calendar and financial year basis.

93. Bhutan is currently in the process of strengthening its national statistical system to ensure that it has the capacity to produce the necessary statistics including economic statistics. A number of ongoing and planned initiatives are aimed at improving the national statistical system will address some of the constraints identified in the assessment and include: new statistical law; modernizing statistical systems and developing new statistics such as PPI and IIP.

94. Although the BSS has a clear plan for addressing some of the constraints identified above, it could substantially benefit from the activities planned under the *Regional programme for the improvement of economic statistics in Asia and the Pacific*. The Regional Programme has a number of components, including components aimed at improving human resources, business registers, quality assessment frameworks, metadata repositories and other through capacity building activities, technical assistance and facilitating sharing of knowledge. The regional programme could assist the BSS in overcoming the existing constraints and would complement ongoing and planned national activities. At the same time, BSS staff have much to offer the rest of the region and could

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share with other countries through the activities under the Regional Programme some of their valuable experience and knowledge in the area of economic statistics.

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Annex I. Overview of the statistical system

L. Introduction

95. Bhutan is a nation with a total population of 726 thousand people occupying a total territory of 46,500 square kilometres. In this context the Bhutanese Statistical System is an excellent example of a relatively small (although highly decentralized) system which effectively fulfills its national role.

96. Bhutan has a unique national development philosophy focusing on a much more holistic approach to development centered around the national philosophy of pursuing happiness of which economic development is just one of the pillars.

97. Given the importance of measuring happiness to assess progress of the society, the economic statistics are just one (although very important) of many areas that are used for the decision making process.

98. In this context the recommendations of the core set of economic statistics need to be applied in somewhat different way to the BSS, and need to take account of:

- The relatively small population and size of the country;
- The unique geographical location of the country, including its landlocked high altitude nature;
- The limited number of industries;
- The unique national development strategy.

99. The relatively small population and size of the country, its unique geographical location and small number of industries mean that not all of the recommendations of the core set of economic statistics are relevant to Bhutan, and in particular the recommendations on the necessary scope and detail. Furthermore the unique development philosophy that policy-makers focus on a very broader set of information of which economic statistics are just a subset for their decisions concerning development of the country.

M. Institutional environment

100. Bhutan has a highly decentralized statistical system with a number of ministries and other government agencies involved in collection of data for, compilation and dissemination of economic statistics within the core set. Some of these key organizations/departments include:

- NSB
- Research and Statistics Division, RMA

- MOF
 - § Department of Revenue & Customs, Ministry of Finance
 - § Planning and Policy Division of Public Accounts
- Department of Employment, MOLHR
- Planning and Policy Division, MOAF

101. There is high level of coordination between different government organizations which results in effective cooperation between them. Although at present this coordination is based on personal relationships rather than legal mandate it appears to work relatively well.

102. The different agencies have a good working relationship and the exchange of information (although not always through the most efficient ways) is effective. NSB plays an important role in this process including the roles of the survey clearing house and quality assurance provider. Many of the other organizations depend on NSB for survey design and quality assurance/validation of survey results.

103. The NSB is able to large extend provide the survey design services, working with the relevant organizations to provide them with the relevant specifications. However the ability of the NSB to provide services in the area of quality assurance appears to be limited, with only very basic services being provided.

104. Although there is a strong demand for a coordinated training approach. At present the BSS does not have a dedicated statistical training programme or training section dedicated to the provision of training to all the members of the BSS. This issue is discussed in more detailed under the *Training* section.

N. Legal environment

105. Bhutan does not at present have a statistical law. The statistics law has already been designed and is currently in the process of being enacted by the government. It is expected that the statistical Law will strengthen the existing mandate of the NSB and giving it the necessary authority to collect, process and disseminate all the necessary statistics as well as coordinate the BSS.

106. The NSB currently operates under a “Government Order” which makes it an autonomous body with a mandate to collect, process, and disseminate statistics. The main objective of the NSB is “to establish a sound national statistical system capable of providing reliable, accurate and timely data that are required for planning, monitoring and decision-making.” The NSB is headed by a Director who reports to the Prime Minister.

107. The RMA statistical activities are covered under the Royal Monetary Authority of Bhutan Act 2010 which establishes the RMA’s responsibility for compilation and dissemination of the BOP and monetary and financial statistics as well as more specific

provisions regarding the collection of information and compilation of a broader range of statistics, including the Balance of Payments data.

108. The MOF statistical activities related to government statistics are covered under the Public Finance Act of 2007 which requires the MOF to prepare Annual Financial Statement within 6 months from the end of the fiscal year (1 July –30 June), its certification by the Auditor General within 3 months from its preparation, and its presentation to the National Assembly.

The MOF statistical activities related to production of merchandise trade statistics are also covered by the Public Finance Act of 2007 and further clarified by the Customs Act and Rules.

109. The MOLHR does not at present have a special mandate covering its statistical activities.

110. The MOAF does not at present have a special mandate covering its statistical activities.

O. Strategic Planning

111. The BSS is currently in the process of design the National Strategy for the Development of Statistics.

112. Most of the organizations involved in the production of the core set of economic statistics possess a good understanding of their short, medium and long-term needs for improvement however they have not been able to develop their own long-term strategic plans for addressing these needs.

P. Financial resources

113. Most of the agencies which have participated in the assessment stated that the current financial resources available to them were not adequate. In particular the organizations which were responsible for conducting of surveys stated that the limited financial resources were a constraint limiting their ability to collect the necessary data. For example the MOLHR budget constraint affected the coverage of its surveys, as due to limited resources smaller than recommended numbers of units were surveyed, with the 2011 establishment census scaled down to 5500 units because of the limited resources available.

Q. Human resources

114. The assessment looked at two dimensions related to human resources: adequacy of staff numbers to perform the necessary tasks and the skills and knowledge of staff. This section deals with the adequacy of staff numbers to perform the necessary tasks.

115. The NSB currently employs around 60 staff with the National Accounts & Price Division consisting of 5 staff. The total number of staff as well as number of staff working on the compilation of national accounts and prices and other related activities are not adequate and limit the capacity of the NSB to produce core set of economic statistics

116. While the Planning and Policy Division of Public Accounts, MOF and the Department of Employment, MOLHR have defined their current staff numbers as adequate. Department of Revenue & Customs, MOF, Planning and Policy Division, MOAF and Research and Statistics Division, RMA have defined their current numbers of staff as not adequate for production of the core set of economic statistics.

R. Training

117. BSS does not at present have a dedicated statistical training institute or a central statistical training unit responsible for provision of training to all its members. The statistical training received, including access to international training as well as level of statistical skills and knowledge vary greatly across the different organizations/divisions.

118. The NSB does not at present have a dedicated statistical training unit responsible for provision of regular training to staff. The only regular statistical training is provided to enumerators of different surveys and censuses including enumerators working for other government organizations/departments. Most of the training provided by the organization is on-job training. Although there is limited national training available, staff of the NSB participate in the international training courses including courses organized by SIAP, IMF and ADB. The staff of the NSB do not participate in staff exchanges with other countries. Training on 2008 SNA and Input-Output/Supply-Use tables has been identified as priority.

119. The Human Resources unit of the RMA provides on a regular basis a short-term training course on statistics. RMA staff also benefits from extensive of job training as well as regular international training courses including training provided by the IMF. Although in the past staff of the RMA have participated in staff exchanges with the Reserve Banks of Malaysia and India, they have not in recent years had that opportunity. Training on forecasting and use of statistical tools has been identified as a priority.

120. The staff of the Planning and Policy Division of Public Accounts, MOF have access to regular regional courses on DSA and debt management. The PPDPA staff also benefit from of job training as well international training courses including training provided by the World Bank and IMF. The staff of the PPDPA do not participate in staff

exchanges with other countries. Training on GFS including accrual accounts has been identified as priority.

121. The staff of the Department of Employment, MOLHR have limited access to statistical training with most training provided on ad-hoc basis by NSB (training of enumerators). The staff of MOLHR are not at present invited to any international training courses and do not participate in staff exchanges. It is hoped that with joining the ILO, the staff of the MOLHR will in the future benefit from courses provided by this organization. Training on sampling techniques and data processing has been identified as priority.

122. The staff of the MOAF have limited access to statistical training with most training provided on ad-hoc basis by NSB (training of enumerators). The staff of MOLHR participate in international training courses organized by the FAO but do not participate in staff exchanges. Training on data analysis has been identified as priority.

123. The staff of the Department of Revenue & Customs, Ministry of Finance have limited access to statistical training. The statistical training is of particular importance to the DRC as much of its regional staff lacks knowledge of statistics. There is a strong demand for basic statistical training for staff involved in the coding of imports and exports data to raise their awareness of the importance of accurate classification and improve the quality of merchandise trade data.

S. IT resources

124. Maintaining IT resources at Bhutanese government organizations/departments is the responsibility of the Department of Information and Technology.

125. The BSS computer systems are in need of modernization. Although most staff have access to computers, the overall computer systems do not appear to be well connected with the collection of data for, compilation and dissemination of economic statistics, involving many manual steps and separate computer systems. In many the survey results are often transmitted on paper or through other means. Likewise, administrative data is often received on paper, CD or through other means. Compilation of statistics often involves many manual steps. Excel spreadsheets are often the most common way of compiling statistics, presenting the risks of file corruption and incorrect links.

126. The overall state of the systems and processes used by BSS means that different parts of BSS are not connected to each other and valuable time is used on manual data entry and transmitting information. The overall fragility of BSS is a major constraint reducing the capacity of BSS to produce high a quality, timely core set of economic statistics.

127. The computing resources of NSB are not adequate. Majority of the compilation is currently done in Excel although plans do exist for migration to E-views. Much of the data for national accounts is received in hard copy and needs to be retyped. Prices data is sent via excel files and a need has been identified for integrated net based system.

128. Likewise the RMA uses Excel for majority of its compilation. Significant proportion of data from other government departments is received in hard copy. The RMA has Integrated Central Bank System which is intended to serve as central data warehouse however the Research and Statistics Division has not been able to migrate to it.

129. The Planning and Policy Division of Public Accounts also uses Excel for most of its statistical needs and has plans for development of new system.

130. The Department of Employment, MOLHR is in the process of developing a new Labour Market Information System. Data is currently transmitted to other government departments using hard copy/PDF publications.

131. The IT resources of the Planning and Policy Division, MOAF are not adequate. As most of the other organizations Excel is the main software used. The MOAF has an ICT strategy aimed at improving the overall computer systems.

T. Quality assurance

132. The BSS does not at present use quality assessment frameworks to ensure the overall quality of statistics that are being produced. Although every effort is being made to ensure a very high quality of statistics, there are currently no systemized processes used for ensuring the overall quality of statistics. Only basic checks and validations are applied such as cross checking of values, etc to ensure the accuracy of data.

133. During the interviews a number of organizations/departments expressed a need for quality assurance services to be provided by the NSB. MOLHR and others send the results of the surveys which they have conducted to the NSB for validation and approval prior to publication. At present NSB has a limited capacity to provide such service and a system wide strategy is needed to address this issue.

U. National data page

134. The BSS is a highly decentralized statistical system with a number of organizations responsible for dissemination of economic statistics within the core set. All organizations strive hard to ensure that their statistics are available freely to the general public and place them on their websites.

Statistics can be accessed from the websites of NSB, RMA, MOF, MOAT and MOLHR. In the vast majority of cases statistics are released PDF format with very little of statistics released in Excel format.

135. At present no national summary data page exists (even though that BSS subscribes to the GDDS) which would allow user to access all statistics from a single website. Although the metadata can be accessed from the IMF's website for most of the economic statistics within the core set, no similar page exists for actual statistics. This means that users have to spend considerable amount of time browsing through the website of different organizations to access the core set of economic statistics.

136. The fact that most of these statistics are only presented in the PDF format further reduces their usability for the purpose of analysis, as users would have to spent considerable amount of time before they would have usable dataset.

V. Revisions

137. Most of the organizations producing the core set of economic statistics have a basic informal revision policy which provides them with guide as to how far back and how frequently the statistics are being revised. These "guidelines" are usually not available to the public and no advance warning is given when significant methodological revisions are being applied.

W. Release calendars

138. None of the organizations/department responsible for dissemination of economic statistics within the core set publish the release calendars. All of the statistics currently published by the organizations within the BSS are done so in accordance with internal guidelines stating the number of days/weeks/months after the reference period within which the statistics are to be made public. These internal guidelines are applied relatively strict which means that users have a rough idea as to when the statistics will become available.

X. Metadata repositories

139. As a subscriber to the GDDS, the BSS makes available a significant amount of metadata on the IMF's website, providing users with a wealth of information, including information about methods, practices and data sources. Additionally, small amount of metadata is usually included in the relevant publications.

140. Additionally the NSB is currently in the process of developing a metadata repository with the World Bank, while the RMA publishes a small user manual to provide users with better understanding of their methods and practices.

141. The issue of metadata and documentation has been however identified by some of the other government organizations/departments as an area in need of improvement and assistance. Some of these organizations do not have a regular process for documenting current methods and practices. This presents a potential risk of losing valuable knowledge when staff leave organization. Furthermore it affects the quality of their statistics as users are unable to determine what methods and practices have been used to produce them.

Y. Business Registers

142. The main Business register is maintained by the Ministry of Economic Affairs (MOE), which in turn makes this information available to all the relevant organizations/departments.

143. The MOE maintains the business register on establishment basis only. The business register is maintained using administrative data collected by MOE only with data collected by other government department (in particular MOF) not used. The current business register is not up-to-date as the new records are added (births) when businesses register with the MOE however businesses which no longer operate (deaths) are not removed. This significantly affects the quality of the current register and limits its usability for economic surveys.

Z. Data editing techniques

144. The BSS does extensive data validation/editing when processing survey/census results. Significant efforts are made to manually validate the questionnaires and ensure accuracy of responses.

AA. Sources

145. The BSS has a limited range of sources of data for compilation of the core set of economic statistics an in particular sources providing short-term (sub-annual) information.

146. The NSB conducts the population census every 10 years with the last census taking place in 2005 and the next one planned for 2015. Bhutan does not conduct economic or manufacturing censuses however agricultural census is conducted every 10 years by the MOAF with the last one taking place in 2009. The MOLHR conducts annual establishment census however it must be pointed out that this census does not cover all the establishments and instead only a sample of units is surveyed, with the next one covering 5000 establishments.

147. In addition to the selected censuses a number of regular surveys are conducted by different organizations within the BSS. The NSB conducts every 5 years the Bhutan Living Standard Survey (BLSS) with the last one taking place in 2007 and the next one planned for 2012. The NSB also on quarterly basis collects the price data for the CPI, which covers the price movements of 363 commodities and services observed in 23 major urban areas, 350 sample outlets/shops for price collection. The MOLHR conducts on annual basis the national Labour Force Survey (LFS) with the 2009 LFS, covering a sample of 8000 households (6000 urban plus 2000 rural). The RMA conducts on regular basis a small enterprise survey aimed at collecting the necessary information for the BOP. Finally MOAF conducts annual agricultural survey and annual livestock survey both of which cover 10-15% of all households as well as collect farm gate prices which are published on weekly basis.

148. The census and survey data is further complemented by administrative data collected by various government organizations. The tax data is provided to relevant organizations on quarterly basis. The Customs data is collected on annual basis, while the MOF data on the government operations is available on quarterly basis. The MOLHR also collects data on job advertisements. The Central Bank data is available on quarterly basis whereas the data from commercial banks is collected on annual basis. The Ministry of Economic Affairs collects data on new business registrations, which is used for updating of business register.

149. The current data collected by the BSS does not permit compilation of all of the economic statistics within the core set and in particular sub-annual statistics (national accounts, BOP, STIs) and structural business statistics. Significant data gaps exist in number of areas and include:

- Lack of necessary sub-annual data for national accounts
- Lack of information about producer prices
- Lack of structural business statistics
- Lack of data about retail trade
- Lack of data about service industries including international trade in services

BB. Financial year vs calendar year

150. The BOP statistics, government statistics and most of the other statistics are compiled on financial year basis (July - June) while the national accounts are compiled on calendar year basis (Jan - Dec). This difference in the definition of the year provides a significant challenge for users of statistics who wish to obtain a more comprehensive picture of the economy.

151. The lack of quarterly BOP, government and national accounts statistics further complicates this issue as users are unable to compile their own annual data and are forced

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to use such techniques as average of the last 2 years to be able to analyze the BOP data along the national accounts and government statistics.

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Annex II. Economic statistics in need of improvement/development

152. Based on the interviews with statistics providers and users and the discussion during the consultative meeting, the following areas of economic statistics have been identified as the highest priority for development/improvement: national accounts, structural statistics, PPI, BOP, IIP and short-term indicators

A. National accounts

153. The improvement of national accounts has been recognized as a top priority. The following aspects of national accounts have been identified as the top areas for improvement:

- Quarterly national accounts – currently no quarterly national accounts are published. Timely quarterly national accounts are very important for monitoring and policymaking.
- Improving the Implicit Price Deflators (IPDs) - both single (not recommended by 1993 SNA) deflation methods and quantity extrapolations are used for estimation of GDP at constant prices. The main reason for the current deflation methods is a lack of appropriate IPDs. There is a need to produce PPI and start collecting other necessary price information for deflation of national accounts. Export and import price indices have all been recognized as needed.
- Implementing the 2008 SNA (or at the very least full implementation of 1993 SNA) and ISIC rev 4 – the national accounts are currently compiled mostly in accordance with 1968/1993 SNA using ISIC rev 3.1. high priority should be given to implementing 2008 SNA (or at the very least full implementation of 1993 SNA) and consideration should be given to at the same time migrate to ISIC rev 4.
- Compilation of GDP Income approach – at present GDP I is not compiled.
- Compilation of institutional sector accounts – currently institutional sector accounts are compiled for government only.

154. The above improvements of national accounts will depend on BSS ability to address some of the constraints outlined in detail in Annex I. In particular the source data and limited human resources capacity are the main constraints that need to be addressed before the above improvements can be implemented.

B. Structural statistics

155. The improvement of structural statistics has also been recognized as a high priority. Very limited structural statistics are currently published. The following aspects of structural statistics have been identified as the top areas for improvement:

- Coverage of structural statistics – at present only basic structural statistics are available. There is a demand for comprehensive data collection (survey or administrative) to ensure that industry value added by component series necessary for benchmarking the GDP are available for all sectors of the economy. Detailed financial (sales, cost, profits, investment, assets and liabilities) and non-financial data are also needed for analysis and monitoring of the performance of different sectors of economic is also available.
- Compilation of Supply-Use tables – the SU tables are currently only compiled on an experimental basis. Given their importance, including for benchmarking of national accounts there is a need for SU tables to be compiled on regular basis and at the very least every 5 years (but ideally on annual basis).

C. Produce price index

156. The improvement of PPI and related commodity prices has been recognized as a high priority. The following areas have been agreed as a priority for improvement:

- Establishment of the PPI – at present no PPI statistics are published (However IMF project exist to establish these important statistics). There is a need for comprehensive PPI statistics covering all relevant intermediate and final goods and services including fixed assets.
- Export and import price indices –price changes of key export and import commodities should also be covered.
- Deflation of national accounts – currently there is a lack of price information necessary for deflation of national accounts, significantly affecting the quality of constant price estimates. To address this, price information on industry outputs/inputs and final demand categories should be compiled.

D. Short-term indicators on demand and output

157. Improvement in the availability, timeliness and frequency of key short-term indicators (STI) on demand, output, fixed investment and inventories has been also recognized as an important priority. At present only some short-term output statistics are produced. The following areas have been agreed as priority for improvement:

- STI Industry output – at present only selected information about electricity generation is available. There is a need to develop a more comprehensive index showing changes in volumes.
- STI consumer demand – at present no retail trade statistics are compiled. Given the importance of the retail sector to the overall economy, there is a

need to produce statistics about the retail sales. When developing this important indicator, consideration may also be given to developing an indicator capturing household expenditure on services.

- STI fixed investment – at present no fixed assets statistics are produced. Consideration should be given to developing a sub-annual indicator (ideally quarterly) which will provide information about fixed assets which are key components of the gross fixed capital formation including building construction.
- STI inventories – at present there are no statistics measuring changes in inventory levels. Consideration should be given to developing an indicator providing information about changes in inventory levels. The indicator should ideally cover all major raw materials and finished goods inventories.

E. Balance of Payments and International Investment Position

158. The improvement of BOP and IIP has been recognized as a priority. The following aspects of BOP and IIP have been identified as areas for improvement:

- Quarterly BOP– currently no quarterly BOP statistics are published. Timely quarterly BOP is important for monitoring and policymaking.
- Annual IIP – at present not IIP statistics are compiled, given their importance priority should be given to publishing annual IIP statistics. (Currently being developed by the RMA).

Annex III. Proposed core set of economic statistics

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
Prices and costs				
Consumer price index (CPI)	Q	Y	The scope of the regimen should cover the goods and services that private households acquire. The index should, as far as possible, measure price movements that are representative for the whole country, ie the geographic coverage and reference population should be as wide as possible. However, practical (and utility) considerations may limit coverage to specified regions and population groups, eg private urban households. Component indexes covering major expenditure groups are recommended, and the wider uses of the CPI subindexes for deflation of national accounts flows should be considered in the CPI design. International Comparison Program (ICP) requirements should also be considered in CPI design.	ILO Resolution concerning CPI (17th International Conference of Labour Statisticians, 2003); Consumer Price Index Manual: Theory and Practice (ILO, 2004); Practical Guide to Producing Consumer Price Indices. A Supplementary handbook to the Consumer Price Index Manual (UNECE 2009) [Knowledge Base]
Producer price index (PPI)	Q	Y	The PPIs – and related commodity price indexes – can differ across countries in terms of industry and/or commodity coverage, and valuation point. What are required are indexes that track the prices of a wide range of market goods over	Producer Price Index Manual – 2004 [Knowledge Base]

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
			<p>time. Such indexes will cover intermediate and final goods and services, including fixed assets, and will facilitate;</p> <ul style="list-style-type: none"> i) the monitoring of inflation at different stages of the product supply chain; ii) price changes of key export and import commodities; and iii) the deflation of national accounts variables, both industry outputs/inputs and final demand categories. <p>The range of industry / commodity indexes chosen will be country specific, but their scope should cover the above uses. Efforts should be made to ensure that at the very least key services are covered.</p> <p>Consideration should also be given to producing residential and commercial property indexes given the key role such assets have in influencing investment and saving behaviour.</p>	
Commodity price index	M	N	Covered above. Only required for key commodities in the production process (inputs and outputs) and only if similar indexes are not already included in the PPI.	

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
External merchandise trade price indexes	M	Y	<p>The price indexes of goods and materials imported and exported complement the PPIs and their uses noted above. The total scope should match that of merchandise trade itself, although the range of commodity subindexes produced is country specific.</p> <p>The external merchandise trade price indexes are used to calculate the terms of trade index, which is derived as the export price index / import price index. A terms of trade index shows the relationship between the prices at which a country sells its exports and the prices it pays for its imports. If the prices of a country's exports rise relative to the prices of its imports, its terms of trade are said to have moved in a favourable direction, because, in effect, it now receives more imports for each unit it exports. The terms of trade index is a useful summary statistic for those country's vulnerable to changes that are occurring in its trading environment.</p>	Export and Import Price Index Manual: Theory and Practice, 2009 (IMF)
Wages / Earnings data	Q	Y	Nominal wages and/or earnings data for a specified time period, allowing average hourly or weekly series to be derived. Industry, occupation or gender breakdowns to be determined by country.	ILO Resolution concerning an integrated system of wages statistics (12 th ICLS, 1973)
Labour costs index / Wage index	Q	Y	The cost pressure arising from paid employment is measured by a labour cost or wage index. While the labour cost index will have a wider scope, covering all items in compensation of employees, an index confined to wages may suffice. As with the wages data itself, industry breakdowns can be	Resolution concerning the measurement of employment-related income (17 th ICLS, 1998) ILO Resolution concerning

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
			determined by country need.	statistics of labour cost (11 th ICLS, 1966)
Exchange rates	D	Y	<p>The daily exchange rates data should cover both spot and forward exchange rates for major currencies with respect to the national currency. For monitoring purposes, exchange rates based on monthly averages and end-month rates should be calculated.</p> <p>In addition, nominal and real effective exchange rates should be calculated monthly. A nominal effective exchange rate is the exchange rate of the domestic currency vis-à-vis other currencies weighted by their share in the country's international trade. Real effective exchange rates take account of price level differences between trading partners. Movements in real effective exchange rates provide an indication of the evolution of a country's aggregate external price competitiveness.</p>	
Purchasing power parities (PPPs)	Ad hoc	N	<p>While PPPs are not produced directly by NSOs, it is strongly recommended that countries join the ICP programme. The tasks of providing price and expenditure data for the ICP programme may be reduced if these requirements are considered at the same time that related domestic statistical outputs are designed.</p> <p>PPPs statistics are also needed for deriving Millennium Development Goal indicators.</p>	International Comparison Program - Methodological Handbook 2005 [Knowledge Base]

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
Demand and output				
Gross Domestic Product (GDP) (production) (P) nominal and real	Q	Y	The national accounts provide the comprehensive statistical framework to study the relationships between key macroeconomic variables.	System of National Accounts 1993 [Knowledge Base]
GDP (expenditure) (E) nominal and real (including implicit price indexes for GDP(E) and components)	Q	Y	<p>Included here is quarterly GDP in nominal and volume terms, disaggregated by :</p> <p>i) Major expenditure components; and</p> <p>ii) By industry. The level of industry detail is not prescribed and is country specific.</p> <p>In place of a nominal GDP(P) by industry series, or in addition to it, countries are encouraged to produce quarterly value-added by income component, along with quarterly GNI and Saving series.</p> <p>The production of GDP(E) and its components in nominal and volume terms allows the calculation of the associated implicit price deflators.</p> <p>ICP requirements should be taken into account when determining the expenditure components of GDP to be produced.</p>	<p>System of National Accounts 2008</p> <p>Quarterly National Accounts Manual: Concepts, data Sources and Compilation, 2001 (IMF)</p>
External trade – merchandise	M	Y	Exports and imports of goods, in nominal values (national currency) and in volume terms (ie volume indexes). Commodity detail is country specific. The values, volume	International Merchandise Trade Statistics: Concepts and Definitions, Revision 2

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
			<p>indexes and price indexes (refer above)/unit value indices for merchandise trade are to have consistent coverage and presentation, facilitating a comprehensive analysis of external trade.</p> <p>The merchandise trade data also provide a more timely indicator of developments in the current account of the balance of payments.</p>	(1998) [Knowledge Base]
External trade - services	Q	N	<p>Exports and imports of services analysed by product, in nominal values (national currency). While these aggregate series are required to compile the quarterly Balance of Payments, if trade-in-services are important for the quarterly monitoring of an economy, it is recommended that detailed series be compiled. Product detail is country specific.</p> <p>[Also refer to the Short term indicator section below.]</p>	Manual on Statistics of international trade in services (2002) [Knowledge Base]
Short term indicator (STI) - industry output	Q	Y	<p>STI can cover a wide range of statistics, in terms of both their coverage (industry, product) and their statistical form (current or constant dollars, volume indexes). The purpose of the STI is to provide an important insight into a specific aspect of the real or financial economy. They complement GDP by being more timely and, although less comprehensive in coverage, STI serve as leading indicators of GDP. Accordingly, STI need to be produced ahead of quarterly GDP itself, preferably monthly. However, for the core set, a quarterly frequency is specified.</p>	<p>International Recommendations for the Index of Industrial Production, 2010 (UNSD)</p> <p>Manual for an Index of Services Production, 2007 (OECD)</p>
STI - consumer demand	Q	N		
STI - fixed investment	Q	N		
STI - inventories	Q	N		

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
			<p>The STI included here are mainly backward-looking, ie they record events that have already happened. This does not rule out the production of forward-looking STI such as new orders or investment intentions, although these would be additional to the core set recommendations.</p> <p>The choice of indicator depends on a country's economic structure. Recommended in the core set are STI that cover:</p> <ul style="list-style-type: none"> • Industry production, which may take an industry or product dimension. The key industries / products to be covered are country specific and may need to distinguish between industries / products that respond differently to changes in internal or external demand. Monitoring key export industries and/or products may be critical. The term "industry" is used broadly and embraces primary and secondary goods producing industries and services industries. Efforts should be made to ensure that at the very least key services are covered. • Consumer demand. Retail sales volumes indicators are traditionally produced, but with services making up a significant and growing proportion of household spending, additional STI for expenditure on services may be required. For countries with important tourism industries, STI covering inbound tourist numbers, accommodation occupancy rates etc. may be needed. • Investment, both in fixed assets and inventories. The 	<p>International Recommendations for Distributive Trade Statistics 2008 (Statistical papers, Series M, No. 89) [Knowledge Base]</p> <p>Short Term Economic Statistics Timeliness framework (OECD)</p>

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
			fixed asset STI should cover the key components of gross fixed capital formation, especially building construction. Changes in inventory levels can be a useful leading indicator of economic fluctuations at both national and industry level. The STI for inventories should cover all major raw material and finished goods inventories.	
Economy structure statistics	5-yearly or at regular intervals	N	<p>Periodic industry censuses / surveys provide the detailed structural data needed for a wide range of economic statistical outputs, including:</p> <ul style="list-style-type: none"> • Industry value-added by component series needed to benchmark GDP. • Supply-Use Tables and Industry / product weights for producer price indexes (assuming product breakdowns of gross output and intermediate consumption are also collected). • Detailed financial data needed to analyse and monitor the economic performance of key or complex industries. <p>Included in this category are censuses / surveys that collect either financial data (sales, costs, profits, investment, assets and liabilities) or non-financial data (such as surveys of agriculture production, forestry and fishing activity, mining etc.).</p> <p>The conduct of the census/survey requires an up-to-date Business Frame of business enterprises, appropriately</p>	International Recommendations for Industrial Statistics (IRIS) 2008

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
			<p>classified.</p> <p>The coverage, frequency and type of census/survey is not specified in the core set and will be country specific. Obtaining the economic data required for the above indicative uses can be obtained in a number of different ways using a range of collection vehicles, eg full census or sample survey; economy wide coverage or key industries only; annual, periodic or irregular frequency; collection of data via a questionnaire, use of administrative data or a combination of both; etc.</p>	
Productivity	A	N	<p>Included are labour productivity measures only. While Multifactor Productivity (MFP) measures are desired, they are not included in the core set recommendations.</p> <p>For an economy-wide labour productivity measure, GDP per hour worked is recommended, although, if hours worked data is not available, then GDP per full-time equivalent employed person or job is an alternative.</p> <p>While economy-wide measures are recommended, it is accepted that non-market measurement issues may need to restrict the scope to market industries and/or the business sector.</p> <p>Needed for deriving Millennium Development Goal indicators.</p>	<p>ICLS Resolution concerning the measurement of working time, 2008</p> <p>Measuring Capital – OECD Manual</p> <p>Measuring Productivity – OECD Manual</p>

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
Income and Wealth				
Integrated national accounts for the total economy	A	N	<p>Included here is the sequence of accounts for the total economy excluding the Financial Account and Balance Sheet, but including a Rest of the World Account.</p> <p>This is the minimum set of accounts needed to measure GNI, saving and net lending with the rest of the world. These accounts also provide an annual GDP(I) measure to cross-check with the GDP(P) and GDP(E) series, for those countries not yet producing quarterly series of nominal value-added by income component.</p> <p>Needed for deriving Millennium Development Goal indicators.</p>	<p>System of National Accounts 1993 [Knowledge Base]</p> <p>System of National Accounts 2008</p>
Institutional sector accounts	A	N	<p>The same range of accounts listed above for the total economy but for the key institutional sectors.</p> <p>The sectors should, at a minimum, separately identify business enterprises, general government and households.</p> <p>For the sector accounts, it is highly recommended that financial accounts and balance sheets, along with the supporting revaluation and other volume change accounts, are also produced.</p>	
Balance of payments (BOP)	Q	Y	The BOP and the IIP represent the comprehensive statistical frameworks for the external sector. They enable the monitoring of a country's international economic	Balance of Payments and International Investment Position Manual - Sixth

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
International Investment Position (IIP)	A	Y	performance, exchange rate policy, reserves and external debt management.	Edition (BPM6) [Knowledge Base]
External debt	Q	Y	<p>Included in the BOP are the external transaction covering: goods and services; incomes; transfers; capital and financial account items; and reserves. The detail provided on these items is country specific although it is highly recommended that the breakdowns set out in the SDDS be adopted as a minimum.</p> <p>The IIP shows a country's financial claims on, and liabilities to, the rest of the world. In line with the SDDS, an annual IIP is recommended although quarterly series are encouraged. As with the BOP statement, the SDDS IIP breakdowns by major component (foreign direct investment, portfolio investment, reserve assets) further disaggregated by instrument and sector, are recommended.</p> <p>In addition to the IIP statement, separate statistics on the external debt are included in the core set. For analytical purposes, gross external debt is shown by sector (government, monetary authorities, banks and other) and by maturity. Supplementary statistics on the debt-servicing payments schedule are recommended.</p> <p>BOP and external debts statistics are needed for deriving Millennium Development Goal indicators.</p>	External Debt Statistics: Guide for Compilers and Users (IMF)

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
Income distribution	5 yearly	N	<p>Measuring the distribution of material well-being is important, and distribution statistics are included in the core set recommendations. Specifically, periodic statistics on the income distribution of individuals / households, distinguishing between key groups of households as required for country-specific studies (eg between urban / rural households, by households grouped by source of income or by participation in the formal / informal economy).</p> <p>Alternative distribution studies that may include wealth along with income, and/or focus on consumption levels, may also be considered.</p> <p>More frequent income distribution studies are recommended, but it is recognised that, in most cases, they need to be tied in to the frequency of source data, such as a periodic Household Income and Expenditure Survey.</p> <p>Needed for deriving Millennium Development Goal indicators.</p>	<p>ICLS Resolution concerning household income and expenditure statistics, 2003</p> <p>ICLS Resolution concerning the measurement of employment-related income, 1998</p> <p>Expert Group on Household Income Statistics, Final Report and Recommendations of the Canberra Group, 2001</p>
Money and Banking				
Assets/liabilities of depository corporations	M	Y	<p>Statistics on the financial assets and liabilities of depository corporations, including the central bank, provide the money and credit aggregates needed for both monetary and other macroeconomic policies. The balance sheet format shows the broad-money liabilities of the depository corporations and</p>	<p>Monetary and Financial Statistics Manual 2008 (IMF) [Knowledge Base]</p>
Broad money and credit	M	Y		

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
aggregates			<p>the domestic and foreign asset counterparts of those liabilities. It is recommended that the sector breakdown of claims “encouraged” in the SDDS be adopted.</p> <p>The monetary aggregates produced should be the broadest measure used by countries, allowing narrower measures to be compiled if relevant.</p>	
Interest rate statistics	M	Y	It is recommended that a range of representative interest rates be produced. For example, monthly averages of day-to-day money market interest rates, short and long-term deposit and lending rates, short and long term government security rates, the central bank lending rate etc.	
Government				
General government operations	Q	Y	<p>Financial statistics on government operations enable analysts to study and monitor the financial performance, financial position and liquidity situation of general government. The statistics should be presented within the GFS framework, and should cover revenue, expenses, investment, borrowing and lending. The transaction detail is country specific, although that set out in the SDDS is recommended.</p> <p>Central government statistics should be produced quarterly. Statistics on the financial operations of other levels of government (state, regional or local) are produced annually, along with consolidated General Government statistics.</p>	Government Finance Statistics Manual 2001 [Knowledge Base]

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
			However, if lower levels of government are significant, a quarterly frequency for all series is strongly recommended.	
General government debt	Q	Y	<p>It is recommended that quarterly statistics on central government debt are produced. These should detail all debt liabilities, in the form of securities, loans and deposits, and be further classified by domestic / foreign currency, instrument and maturity. Statistics on non-central government debt guaranteed by central government should also be produced.</p> <p>Debt statistics for other levels of government should be produced annually. Any debt breakdown by sector of lender, maturity etc. is country specific.</p>	
Labour Market				
Labour supply and demand	A / Q	Y (part)	<p>Labour market statistics meet a wide range of economic and social policy needs. The core set focuses on labour utilisation statistics, and includes short term indicators and annual structural statistics, covering both labour supply and labour demand perspectives.</p> <p>Labour force statistics provide information on the supply of labour. Statistics that measure changes in the working age population and its characteristics, and its partition into those employed, unemployed or not in the labour force are recommended. Relevant characteristics include age, gender,</p>	<p>ICLS Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, 1982</p> <p>Survey of economically active population, employment and underemployment: An ILO manual on concepts and</p>

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
			<p>occupation or skill level, education, geographical area, residency status etc. For many countries, the measurement of under-employment may be important, as might labour migration, ie the number of international migrant workers.</p> <p>Labour demand statistics provide further information on employment and vacancies, and may refer to persons or jobs depending on the source data. Summary statistics should be broken down by relevant characteristics such as status in employment, branch of economic activity, geographical area, full-time or part –time status, gender etc. For some countries, employment analysed by the formal/informal and/or rural/non-rural sectors may be important.</p> <p>Aggregate statistics on the working age population and labour force (employment, unemployment) are required quarterly, while the detailed structural statistics may need to be compiled less frequently.</p> <p>Labour market statistics are also needed for deriving Millennium Development Goal indicators.</p>	<p>methods, ILO 1990</p> <p>Resolution concerning the measurement of underemployment and inadequate employment situations (16th ICLS, 1998)</p> <p>Resolution concerning statistics of employment in the informal sector (15th ICLS, 1993)</p> <p>ILO Guidelines concerning a statistical definition of informal employment (17th ICLS, 2003)</p>
Hours worked	Q	N	Hours worked statistics complement employment counts and provide a more precise measure of labour input. The data should preferably be collected with earnings data, allowing consistent statistics on labour input costs/earnings and volumes to be produced. The hours worked breakdowns that are needed are similar to those given above for employment.	ICLS Resolution concerning the measurement of working time, 2008

Category of statistic	Frequency	In GDDS / SDDS?	Comments	Relevant international standard / guideline (including classification(s))
			Hours worked statistics are a key input for labour productivity measures.	
Natural Resources and the Environment				
Natural resources	A	N	<p>Statistics that measure the economy – environment interrelationships are beyond the scope of the core set. However, the growing concerns about the sustainability of economic growth indicate that the core set needs to include a limited range of statistics that begin to address this issue. Accordingly, it is recommended that the core set include statistics that measure the discovery, depletion and degradation of those natural resources that fall within the SNA asset boundary. The SNA records these changes in the “Other changes in assets” account and while they affect net wealth positions they do not affect GDP. Producing these statistics is consistent with the SNA coverage, yet also allows users to derive alternative GDP measures that may be considered to better account for depletion and discovery.</p> <p>The choice of natural assets to be covered will be determined by individual countries, but it is expected that key resources at risk will be included. Annual statistics on the volume and value of stock levels and the additions /deductions from stock levels are recommended.</p>	<p>Handbook of National Accounting: Integrated Environmental and Economic Accounts (SEEA)</p> <p>System of National Accounts 1993 [Knowledge Base]</p> <p>System of National Accounts 2008</p>

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