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LAO PEOPLE'S DEMOCRATIC REPUBLIC

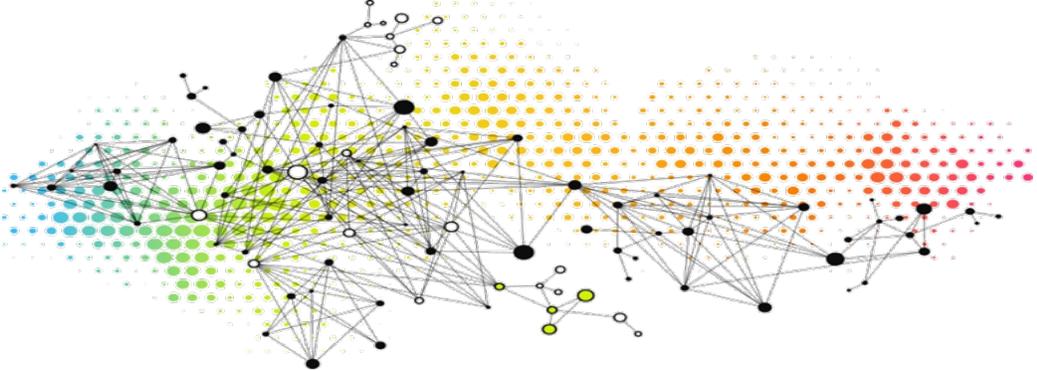## TECHNICAL ASSISTANCE REPORT—REPORT ON NATIONAL ACCOUNTS STATISTICS MISSION

January 2019

This technical assistance report on Lao People's Democratic Republic was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed on July 2018.

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LAO PEOPLE'S DEMOCRATIC REPUBLIC

REPORT ON NATIONAL ACCOUNTS STATISTICS MISSION (JULY 2–13, 2018)

Prepared by Chris Hinchcliffe and Ashish Rao

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# Glossary

COFOG	Classification of the Functions of Government
LECS	Lao Expenditure and Consumption Survey
LSB	Lao Statistics Bureau
ISIC	International Standard Industry Classification of All Economic Activities

SUMMARY OF MISSION OUTCOMES AND PRIORITY RECOMMENDATIONS

1.   A technical assistance mission was conducted during July 2–13, 2018 to support measurement of Lao PDR's national accounts statistics. The mission assisted with the development of a quarterly GDP time series, reviewed the published annual GDP time series, and developed recommendations to continue improving national accounts statistics compiled by the Lao Statistics Bureau (LSB). The mission built upon previous national accounts statistics missions conducted in April 2017 and January 2018.

2.   Lao PDR's GDP time series is compiled using a contemporary base period and the LSB has progressed towards production of a quarterly GDP time series. The base period underpinning Lao PDR's GDP time series (2012) is the second most contemporary of all eight countries in Emerging and Developing Asia[1] and broadly adequate as there are less than 10 elapsed years since the base period.[2] In addition to compiling a more contemporary base period (2018), the LSB is also currently assembling source data, reviewing its adequacy, and implementing international best practice to produce a quarterly GDP time series.

Figure 1. Elapsed Years Since GDP Base Period
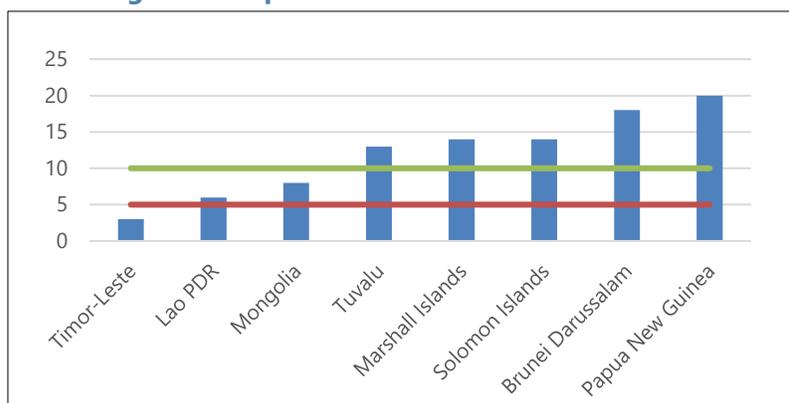
Source: Fund Staff Estimates.

3.   Reliable and detailed national accounts statistics are essential for informed economic policy-making. They also provide the private sector, foreign investors, rating agencies, and the public in general with important inputs in their decision-making, while informing both IMF surveillance and domestic policy-making.

4.   The mission identified three key objectives that allow the Lao PDR authorities to improve their national accounts statistics. They are the following:

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[1] http://www.imf.org/en/Publications/WEO/Issues/2018/03/20/~/media/Files/Publications/WEO/2018/April/statapp.ashx?la=en.

[2] International best practice is to ensure constant price series are not allowed to run for more than 5 (red line in Figure 1), or at most, 10 (the green line in Figure 1) years without rebasing. (*1993 System of National Accounts*, paragraph 16.76).

- Publish estimates of quarterly GDP to enable timely policy-making. The LSB has now assembled timely source data describing quarterly changes in many components of GDP since the base period. Further work is required to enhance source data, obtain data for remaining components, incorporate them into the national accounting framework, and ultimately compile estimates of quarterly GDP. The mission estimated existing (unpublished) estimates of mining industry value added are overstated by as much as 2.1 percent of GDP in Quarter 4, 2014. The LSB expects to implement further improvements and publish a preliminary quarterly time series for mining industry value added by December 2018.
- Foster coordination within the statistical system to enhance data quality. The national accounts are dependent upon data from other stakeholders including the Bank of the Lao PDR, Ministry of Finance, Ministry of Energy and Mines, and Ministry of Public Work and Transport. The reliability of national accounts statistics will improve by enhancing coordination (to minimize duplication) and implementing consistent classifications to foster consistency between statistical outputs.
- Enhance GDP compilation and source data to better reflect economic developments. As compiling a new base period is a large undertaking which requires several years to develop and implement, it is necessary to undertake the necessary planning and data collection. While the LSB has commenced development of a form for the 2018 Economic Census, further improvements will result when additional detail required for the national accounts statistics replaces the existing, historical data items. The resulting national accounts statistics are more useful for policy-making as the LSB seeks to show the functions for which government final consumption expenditure was undertaken.

5.   The mission developed three priority recommendations to improve Lao PDR's national accounts statistics. Further details on these and the related actions/milestones can be found in the action plan under *Detailed Technical Assessment and Recommendations.*[3]

Table 1. Priority Recommendations

| Target Date	Priority Recommendation	Responsible Institutions
December 2018	*Develop quarterly indicator series for intermediate consumption of the mining industry in current prices. Publish preliminary results on the LSB website.*	**LSB**
December 2018	*Replace unused data items on the economic census form with essential national accounts detail such as own account capital formation.*	**LSB**
June 2019	*Establish memorandums of understanding with the Ministry of Finance, Ministry of Energy and Mines, and Ministry of Public Work and Transport which specify expectations regarding classifications, consistency, format, quality, and timeliness of source data.*	**LSB**

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[3] The mission considered the outstanding action items listed in previous reports have either been completed (e.g., revising estimates for constant price taxes and subsidies as recommended in the April 2017 national accounts statistics mission) or incorporated within recommendations of this report.

IMPROVING NATIONAL ACCOUNTS STATISTICS

A. Publish Estimates of Quarterly GDP to Enable Timely Policy-making

6.   Quarterly estimates of value added for several industries (e.g., mining, transportation and storage) have been compiled and continue to be enhanced. Most quarterly estimates in constant prices are constructed using single extrapolation[4] from the base year, and converted to current prices using a measure of quarterly price change. The mission commends work undertaken by the LSB to date and identified a series of enhancements[5] to source data and methods to ensure consistency with the national accounting framework.

Figure 2. Mining Industry Value Added, Current Prices (million Kip)
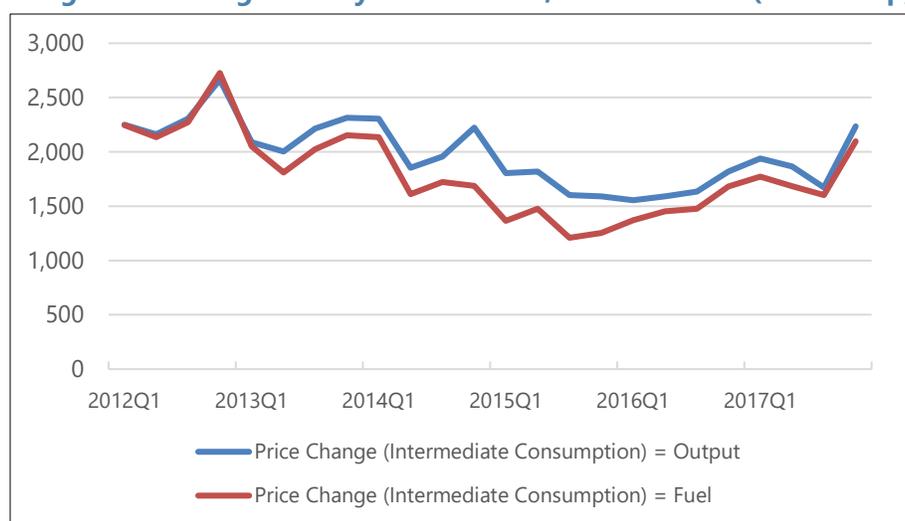
Source: LSB.

7.   Quarterly price changes for output should not be applied directly to value added when compiling estimates in current prices. Value added is the difference between output and intermediate consumption - it is therefore necessary to consider the price change for each of these two components separately. Where quarterly price changes for output are used to compile quarterly value added in current prices, it is assumed price changes for output and intermediate consumption are identical. The chart shows the use of the price change for output and intermediate consumption makes a significant difference (as much as 537 million Kip[6] in Quarter 4, 2014) for the mining industry.[7] The mission assisted the LSB to develop a separate series for the quarterly price change of intermediate consumption (based on prices of imported fuel) and

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[4] https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2017/02/02/Measure-up-A-Better-Way-to-Calculate-GDP-44598.

[5] See Detailed Technical Assessment and Recommendations, Section A.

[6] Assuming GDP in 2014Q4 is 25,000 million Kip, this amounts to 2.1 percent of GDP.

[7] See Detailed Technical Assessment and Recommendations, Section B.

recompile industry value added. The LSB is encouraged to enhance this measure of price change (e.g., a weighted sum of other significant products within intermediate consumption) and publish preliminary results on the LSB website.

Recommended Actions:

- Implement enhancements to source data and methods used to compile industry value added identified by the mission to ensure consistency with the national accounting framework.
- Develop quarterly indicator series for intermediate consumption of the mining industry in current prices. Publish preliminary results on the LSB website. [Priority Recommendation]

B.   Foster Coordination Within the Statistical System to Enhance Data Quality

8.   Enhanced coordination with the Ministry of Finance, Ministry of Energy and Mines, and Ministry of Public Work and Transport would benefit the quality of Lao PDR's GDP. These three government agencies compile and maintain source data essential to the compilation of both annual and quarterly GDP. The Ministry of Finance's significance is amplified as it includes customs records and value added tax data, in addition to responsibility for compiling Lao PDR's Government Finance Statistics. The Ministry of Energy and Mines is an important source of data for turnover, product detail, issuance of licenses, and other current and capital expenditures in the mining industry. In addition, the Ministry of Energy and Mines may be able to assist LSB with details regarding the supply and use of energy. The Ministry of Public Work and Transport is a significant data source for passenger numbers by air, land, and water. Information on new vehicle registrations by type can be used as an indicator for the transport and storage industries and provide additional data to confront household consumption of transport equipment and services. The Ministry is also likely to be a significant data source to compile government expenditure and investment upon transportation projects. The LSB is encouraged to convene meetings with these three government agencies to clarify availability of source data and establish expectations regarding classifications, consistency, format, quality, and timeliness. These should be documented in a memorandum of understanding[8] signed by senior staff to ensure continuity.

9.   Responsibility for compilation of Lao PDR's Balance of Payments Statistics should be clarified with the Bank of the Lao PDR. Key series required for compilation of GDP (imports and exports of goods and services) and Gross National Income (Primary Income Credits and Debits) are priority requirements of the LSB. The mission expects the LSB can assist the Bank of the Lao PDR's compilation activity via provision of results from its economic census and annual enterprise survey. In addition, results from the international investment position survey discussed

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[8] https://www.cso.ie/en/aboutus/lgdp/legislation/memorandumsofunderstanding/.

in the November 2017 Balance of Payments Statistics mission will complement compilation of national accounts statistics.

10.   The LSB should liaise with the Ministry of Finance to include additional detail within Lao PDR's implementation of the Harmonized System. All imports and exports of goods are currently classified to an eight-digit classification – the first six digits comprise the Harmonized System, while the last two are defined by the Ministry of Finance to meet processing requirements of customs. These values must be assigned to national accounts classifications in order to compile GDP, in particular derivation of real GDP. Where a single eight-digit item is both significant and must be divided between multiple items in the national accounts classification, the quality of real GDP is compromised. The mission recommends the LSB meet with the Ministry of Finance to include additional detail to meet statistical requirements.

11.   Lao PDR's annual GDP time series commences in 2012, with a longer time series required for policy-making. The LSB has developed a methodology to backcast estimates from 2012 (the current base period) to 2002 (the previous base year). The methodology used for current prices is considered appropriate as it allocates a proportion of rebasing (8.0 percent) across the ten-year period to ensure the 2002 benchmark remains unchanged. Constant price series were obtained by applying historical movements to 2012 levels for each individual industry and obtaining GDP by summation. The revisions to real GDP are implausible and should not be published. The mission recommends the LSB compiles real GDP using the existing historical movements to ensure consistency with published estimates – this methodology ensures GDP using the production approach is non-additive in constant prices prior 2012. This methodology is consistent with other countries.

Recommended Actions:

- Establish memorandums of understanding with the Ministry of Finance, Ministry of Energy and Mines, and Ministry of Public Work and Transport which specify expectations regarding classifications, consistency, format, quality, and timeliness of source data.
- Determine responsibility for compilation of Balance of Payments with the Bank of the Lao PDR and agree upon a prioritized list of improvements.
- Ensure the classification of imports and exports used to administer customs procedures includes sufficient detail to support concordances with other international statistical standards.
- Backcast and publish the current (2012) benchmark to the previous benchmark (2002) where constant price estimates are non-additive.

C. Enhance GDP Compilation and Source Data to Better Reflect Economic Developments

12. Lao PDR's GDP time series is compiled using a contemporary base period (2012) in accordance with international best practice.[9] The contemporary base period ensures changes in real GDP are compiled by aggregating its components using prices from 2012. Unless a more contemporary GDP base period is implemented by 2022, changes in Lao PDR's real GDP are unlikely to be adequate for policy-making.

13. Compiling a GDP base period is a large undertaking which requires significant source data for a selected year. Lao PDR's *Strategy for the Development of National Statistical System (2010–2020)*[10] commits the authorities to conducting an economic census for 2017 during 2018, and the Lao Expenditure and Consumption Survey (LECS) during 2017/18. Both these activities were postponed due to changes in the Lao PDR government's budget. The 2018 Economic Census will now collect data for 2018 during 2019, while the LECS will collect household data over the period June 2018 to May 2019. The mission recommends the LSB select 2018 as the next base year to enable inclusion of key source data with minimal transformation[11] with the resulting plan should be published on the LSB website.[12] Existing plans to select 2017 as the next base year should be abandoned due to delayed collection of key source data.

14. The economic census form requires more data items to adequately estimate GDP. The current economic census form comprises eight pages and appears to serve a variety of purposes beyond GDP, such as business demographics. The mission estimated 44 percent of the form (3.5 of 8 pages) does not support compilation of GDP and recommends these are replaced with essential national accounts detail, such as own account capital formation.[13] A large proportion of the national accounts detail is likely to come from the existing annual enterprise survey form[14] which is designed to collect data supporting the Asian Development Bank's program to compile an annual time series of supply and use tables. These supply and use tables

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[9] Lao PDR has implemented many recommendations of the *2008 System of National Accounts* such as financial services indirectly measured. The implementation of other recommendations, such as unfunded pension schemes and goods for processing, are likely to be immaterial and currently being discussed with key stakeholders prior to any implementation.

[10] https://www.lsb.gov.la/wp-content/uploads/2017/05/update-strategy_english.pdf.

[11] It will be necessary to convert LECS data collected in January to May 2019 inclusive to the prices of January to May 2018 using the relevant components of the CPI to ensure the household survey data relates to the selected base period. This approach assumes the volumes in January to May 2018 and January to May 2019 are identical.

[12] The mission notes recommendations of the January 2018 national accounts mission to ensure all national accounts statistics currently available in paper format are made available on the LSB website.

[13] See Detailed Technical Assessment and Recommendations, Section C. The mission also notes recommendations of the January 2018 national accounts statistics mission to collect own account capital formation to address understatement of mining industry value added, investment, and ultimately GDP.

[14] See Detailed Technical Assessment and Recommendations, Section D.

will support publication of consistent estimates for GDP calculated using the production and expenditure approach.

15.   Significant amounts of Lao PDR's economy are expected to come from informal activity. The significance will be known once source data from the LECS have been incorporated into the new GDP base year. The mission recommends the new GDP base year includes a distinction between formal and informal activity to support estimation and policy making.

16.   Published estimates for final consumption expenditure of general government can be disaggregated by function. The mission classified individual agencies of general government to the function for which they were established. The resulting estimates[15] for 2016 use the international standard Classification of the Functions of Government (COFOG) and require further refinement in consultation with the Ministry of Finance to ensure all general government units are identified and correctly classified.

Figure 3. Final Consumption Expenditure by Function, General Government, 2016 (million Kip)
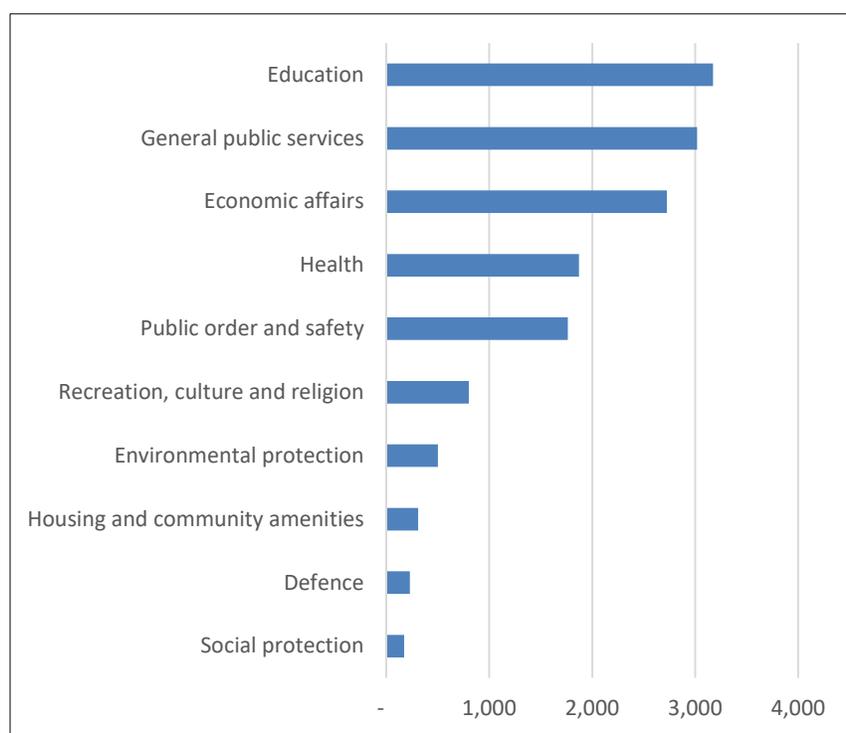
Source: LSB.

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[15] See Detailed Technical Assessment and Recommendations, Section E.

Recommended Actions:

- Revise project plan to reflect 2018, rather than 2017, as the new base year. Finalize and publish project plan to the LSB website on this basis.
- Replace unused data items on the economic census form with essential national accounts detail such as own account capital formation.
- Ensure the GDP benchmark for 2018 can be disaggregated between formal and informal activity with appropriate indicators identified to enable annual extrapolation.
- Review distribution by function of 2016 government output and final consumption expenditure estimates, and compile a time series commencing in 2012.

DETAILED TECHNICAL ASSESSMENT AND RECOMMENDATIONS

Priority	Action/Milestone	Target Completion Date
Outcome: Publish estimates of quarterly GDP to enable timely policy-making.		
H	Develop quarterly indicator series for intermediate consumption of the mining industry in current prices. Publish preliminary results on the LSB website. *[Priority Recommendation]*	December 2018
H	Implement enhancements to source data and methods used to compile industry value added identified by the mission to ensure consistency with the national accounting framework.	March 2019
Outcome: Foster coordination within the statistical system to enhance data quality.		
H	Establish memorandums of understanding with the Ministry of Finance, Ministry of Energy and Mines, and Ministry of Public Work and Transport which specify expectations regarding classifications, consistency, format, quality, and timeliness of source data. *[Priority Recommendation]*	June 2019
H	Determine responsibility for compilation of Balance of Payments with the Bank of the Lao PDR and agree upon a prioritized list of improvements.	December 2018
M	Ensure the classification of imports and exports used to administer customs procedures includes sufficient detail to support concordances with other international statistical standards.	June 2019
M	Backcast and publish the current (2012) benchmark to the previous benchmark (2002) where constant price estimates are non-additive.	December 2018
Outcome: Enhance GDP compilation and source data to better reflect economic developments.		
H	Revise project plan to reflect 2018, rather than 2017, as the new base year. Finalize and publish project plan to the LSB website on this basis.	December 2018
H	Replace unused data items on the economic census form with essential national accounts detail such as own account capital formation. *[Priority Recommendation]*	December 2018
M	Ensure the GDP benchmark for 2018 can be disaggregated between formal and informal activity with appropriate indicators identified to enable annual extrapolation.	December 2021

Priority	Action/Milestone	Target Completion Date
L	Review distribution by function of 2016 government output and final consumption expenditure estimates, and compile a time series commencing in 2012.	December 2018

A. Recommended Improvements to Quarterly Indicators for Selected Industries

International Standard Industry Classification of All Economic Activities (ISIC) Industry[1]	Recommended Improvements
Agriculture, Forestry and Fishing (ISIC Section A)	*Update volume indicator to reflect informal activity.* The current indicator (sales volumes collected from large, formal enterprises) is not representative of the division. A possible updated indicator is a weighted average of changes in sales volumes and population growth, where weights refer to the relative significance of formal and informal activity in the base year. *Update volume indicator to reflect production rather than sales.* The existing indicator (sales volumes) records production at the time of sale, rather than when the production occurs. An attempt to should be made to allocate sales volumes to quarter based on historical growth patterns.
Mining and Quarrying (ISIC Section B)	*Obtain volume indicator for mineral exploration from the Ministry of Energy and Mines.* The current benchmark incorrectly classifies mineral exploration (i.e., outside mining and quarrying) and/or understates activity (e.g., own account production is not measured). Once this is corrected (in the 2017 benchmark), quarterly GDP will require an appropriate volume indicator.
Manufacturing (ISIC Section C)	*Exclude capital formation from expenses reported in value added tax data.* This necessary to ensure intermediate consumption (value added) does not increase (decrease) when large, irregular capital formation occurs.
Electricity, Gas, Steam and Air Conditioning Supply (ISIC Section D) + Water Supply; Sewerage, Waste Management and Remediation Activities (ISIC Section E)	*Compile volume indicators from regulatory data interpolated using results from the LSB's quarterly surveys.* Volume data reported in regulatory data appear comprehensive, however quarterly data are frequently set equal to one quarter of annual totals. The LSB quarterly survey should be used to determine the quarterly allocation.

[1] Revision 4, https://unstats.un.org/unsd/publication/seriesm/seriesm_4rev4e.pdf.

Construction (ISIC Section F)	*Confront changes in quarterly value added against regulatory data for employment.* The current volume indicator is a weighted sum of imported and domestically produced construction materials due to incomplete source data. To ensure plausibility, the resulting movements should be confronted with regulatory data for employment.
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (ISIC Section G)	*Update volume indicator to reflect non-margin activity.* The current volume indicator is the volume of imports (reflecting the volume of goods and services moving through the industry). This indicator to should be improved to reflect changes in non-margin activity. A possible example is deflated sales of services from the LSB's quarterly survey.
Transport via Railways (ISIC Group 491)	*Compile separate estimate for rail transportation in 2014.* Prior to 2014, no rail transportation was produced in Lao PDR. Subsequent to 2014, a rail line (predominately owner by Thailand) has been constructed and recent commenced operation. A separate (non-zero) estimate for rail transportation must be compiled from which all future movements can be extrapolated.
Other Land Transport (ISIC Group 492)	*Update volume indicators to reflect production, not passenger movements reported in regulatory data.* The existing volume indicators (passenger movement cards for international land movements by non-citizens) is unsatisfactory as it excludes: (a) land transportation provided to citizens; and (b) all domestic land transportation. A suggested improvement is the number of truck, bus, and van registrations reported by the Ministry of Public Work and Transport.
Water Transport (ISIC Division 50)	*Update volume indicators to reflect production, not passenger movements reported in regulatory data.* The existing volume indicators (passenger movement cards for international water movements by non-citizens) is unsatisfactory as it excludes: (a) water transportation provided to citizens; and (b) all domestic water transportation. A suggested improvement is deflated turnover reported by the Lao Boat Owner Association.
Air Transport (ISIC Division 51)	*Update volume indicators to reflect production, not passenger movements reported in regulatory data.* The existing volume indicators (passenger movement cards for international airport movements by non-citizens) is unsatisfactory as it excludes: (a) air transportation provided to citizens; and (b) all domestic air transportation. Noting domestic air transportation is relatively small, a suggested improvement is deflated turnover of Lao Airways reported in the LSB's quarterly survey.
Information and Communication (ISIC Section J)	*Validate fixed weights used to compile volume indicator.* The existing volume indicator is a weighted sum of changes in call minutes (60 percent) and megabytes downloaded (40 percent). These shares should describe the relative values in the base year (2012).
Financial and Insurance Activities (ISIC Section K)	*Negotiate with the Bank of Lao PDR to cease production of monthly year to date data.* Year to date data is inadequate for national accounts compilation as the net impact of all revisions is typically

	reflected in the current quarter, rather than the quarters to which the revision relates. *Cease price deflation with exchange rates.* Exchange rates measure the relative price of currencies – they do not describe price change. A possible alternative to implement volume extrapolation using data for employment provided by the Bank of Lao PDR.
Real Estate Activities (ISIC Section L)	*Implement volume extrapolation rather than price deflation.* The existing indicator (VAT sales deflated by CPI for housing) is inadequate as it does not capture the (significant) proportion of owner occupied housing. Suggested volume indicators are either: Changes in Dwelling Stock: For example, Volume (quarter t) / Volume (quarter 0) = [Number of Dwellings (quarter 0) + Additions since 2012 – demolitions since 2012] / Number of Dwellings (quarter 0); or Changes in population.

B. Estimated Impact of a Quarterly Indicator Series for Intermediate Consumption of the Mining Industry in Current Prices

17. An appropriate price index for intermediate consumption must reflect the products used by the mining industry. The current method used to estimate quarterly intermediate consumption of the mining industry in current prices implies relationships which are likely to be unreasonable. Current price estimates for intermediate consumption are derived using a constant intermediate consumption to output ratio from the 2012 benchmark year estimates. This method implicitly assumes that changes in the price of output are identical to the changes in price of intermediate consumption. This is not a good assumption as the volatility of prices for mining outputs such as copper and gold are unlikely to apply to the industry's intermediate consumption.

18. A deflator for intermediate consumption can be compiled as the weighted sum of price deflators for the significant products within intermediate consumption for the mining industry. The mission developed a series for the quarterly price change of intermediate consumption based on prices of imported fuel and recompiled industry value added. The differences are most significant during 2014 and 2015, most likely due to relatively stable prices of imported fuel compared to significant falls in the prices of copper and gold over this period.

19. Preliminary estimates suggest revisions to the deflator will reduce the level of nominal GDP by as much as 2.1 percent in Quarter 4, 2014. While there is no change to output in current prices, intermediate consumption increases by as much as 537 million Kip (Table 3) as the price of intermediate consumption has declined by less than price of output.

Table 2. Estimated Impact of a Quarterly Indicator for Intermediate Consumption of the Mining Industry in Current Prices (2013–2016) (million Kip unless otherwise stated)

	2013				2014				2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Value Added, current prices [1]	2,089	2,004	2,214	2,312	2,305	1,854	1,957	2,223	1,805	1,817	1,603	1,590	1,555	1,591	1,634	1,820
Value Added, constant prices (Reference period 2012) [2]	2,187	2,437	2,542	2,653	2,671	2,393	2,470	2,973	2,662	2,608	2,627	2,742	2,730	2,720	2,732	2,898
Intermediate consumption, constant prices (Reference period 2012) [3][a]	1,183	1,318	1,375	1,434	1,445	1,294	1,336	1,608	1,439	1,410	1,420	1,483	1,476	1,471	1,477	1,567
Deflator, output (Reference period 2012) [4] 2012=100	95.46	82.20	87.06	87.13	86.26	77.41	79.20	74.73	67.77	69.65	61.02	57.96	56.92	58.48	59.79	62.75
Estimated Deflator, intermediate consumption (Reference period 2012) [5] 2012=100	98.58	96.85	100.81	98.09	97.91	95.98	96.73	107.89	98.06	93.63	88.60	80.53	69.32	67.84	70.42	71.44
Output, current prices [6][b]	3,219	3,088	3,411	3,563	3,552	2,856	3,016	3,425	2,781	2,800	2,470	2,450	2,395	2,451	2,518	2,803
Intermediate consumption#, current prices [7] = [3]*[5]/100	1,169	1,279	1,389	1,410	1,418	1,245	1,295	1,739	1,415	1,323	1,261	1,197	1,026	1,000	1,043	1,122
Value Added#, current prices [8] = [6]- [7]	2,050	1,809	2,022	2,153	2,135	1,611	1,721	1,687	1,366	1,477	1,209	1,253	1,370	1,452	1,475	1,681
Estimated Impact [9] = [8]- [1]	(39)	(195)	(192)	(160)	(171)	(243)	(237)	(537)	(439)	(341)	(394)	(337)	(185)	(140)	(159)	(138)

[a] Values obtained by applying the movement in value added in constant prices to intermediate consumption recorded in 2012 supply and use table.
[b] Values obtained by applying a composite output price deflator for copper and gold to constant price output.

C. National Accounts Detail Essential for Economic Census

20.   The objective of the economic census form is to provide sufficient detail about activities and expenditure of enterprises to compile the annual national accounts for the benchmark year. It is designed to collect operational and business statistics about all enterprises excluding agricultural and general government. The form contains questions that cover: identification, employment and wages, main activities and commodities, total income, total expenditure, borrowing and use of IT equipment. No information is collected on breakdown of total income, expenditure and gross capital formation. The information collected will also be used to develop a Statistical Business Register.

21.   It is necessary to update the form to ensure reporting meets the minimum requirements of compiling economic statistics and developing a Statistical Business Register. The current form collects detailed information on employment and labor. Information collected includes name, age, gender and nationality of the owner/director/manager of the business. Detailed information is also collected for number of employees by type (management, technical, administrative and labor), education level, gender, foreign or domestic employee, paid and unpaid labor and monthly wage. These questions make up a significant portion of the census form, but are not critical to compiling economic statistics. The mission estimated 44 percent of the form (3.5 of 8 pages) does not support compilation of GDP and recommends these are replaced with essential national accounts detail.

22.   The form should be modified to explicitly collect data on the breakdown of total income and total expenditure. The form currently collects information on average monthly total income and total expenditure, but does not collect breakdown of total income or expenditure by types. Due to its significance, to compile an annual GDP benchmark, the mission recommends additional categories are included to identify turnover by activities, income from government subsidies and grants, and other operational income (interest, dividend, commission, rental etc.). Total expenditure must be disaggregated to enable distinction between expenditure on producing goods and services (raw materials, utilities, products for resale, freight and taxes), salaries and wages, and other operational expenditure (interest, dividend, income tax paid etc.).

23.   Additional detail is recommended to identify gross capital formation. No categories are available to identify gross fixed capital formation and inventories in the current economic census form. The mission recommends updating the form to explicitly collect details of acquisitions ("increases") and disposals of fixed assets. The form should also include a question to identify own account capital formation, which can be important in the case of mineral exploration and site preparation activities. Additional detail is also recommended to collect information on change in inventories of raw materials, goods for resale, and finished goods for the reference year.

D. Recommended Changes to the Survey Questionnaire on Business Units, Enterprises and Commercial Entities

24.   The objective of the survey questionnaire on business units, enterprises and commercial entities is to provide sufficient detail about activities and expenditure to compile the annual national accounts. It is designed to collect business statistics about non-agricultural, non-financial and financial business enterprises (organization, turnover and value added, gross fixed capital formation, labor and the generation of income). The form is currently sent to significant and large enterprises within an industry, usually considered as 100 or more employees. The survey contains 14 modules: identification (module I), type of business license (module II), business type (module III), business group structure (module IV), main activities and products (module V), employment (module VI), total revenue and breakdown by activities (module VII), total expenditure and breakdown by types of expenditure (module VIII), gross fixed capital formation (module IX), inventories and stocks (module X), business operations and use of ICT (module XI), problems and obstacles (module XII), workforce requirements (module XIII), preferred survey method (module XIV).

25.   The mission recommends updating the form with a corresponding reduction in compliance burden for survey respondents. The primary use of the business survey is to provide indicators to compile the annual national accounts between the benchmark years. The current survey form is 30 pages and collects a range of information that does not directly support compilation of annual national accounts. Modules XI, XII, XIII and XIV are not critical to compiling economic statistics and removing them from the survey will result in reducing the form size by 13 percent (4 of 30 pages).

26.   Further reductions in form size can be gained by reducing the information collected on production, employment and expenditure. As the survey is intended to provide indicators, and not a complete data to compile a GDP base year, the mission recommends that the survey only collect detailed information for the main three products, commodities and inputs from each respondent. In addition, the section on employment (Module VI), currently two pages, can be simplified by replacing the current questions on monthly rate by employment type, section, and residential status to a 'total' salary and wages paid to employees disaggregated between domestic and foreign employees. An additional question on average number of regular employees over a 12-month period may be added to maintain the unit on the Business Register and determine significance for future survey sampling. Module VIII on types of expenditure can be reduced significantly from its current eight pages by aggregating some of the expenditure by types (particularly questions 8.3, 8.4 and 8.5).

27.   The questions on gross fixed capital formation (module IX) should be modified to explicitly collect details of own account investment activity. Information collected about fixed capital formation clearly differentiates between purchases ("increases") including estimated asset life and disposals of fixed assets. No categories are available to identify own account capital

formation, which can be important in the case of certain industries such as mining, as noted in the January 2018 mission.

E. Government Output and Final Consumption Expenditure Classified According to Function

28.   Regular production of government output and final consumption expenditure classified according to function support policy-making. This permits trends in government expenditure on particular functions to be examined over time. The mission provided guidelines, using 2016 government expenditure data as an example, for compiling output and final consumption expenditure by COFOG. For most government entities, it was not possible to use detailed transactions as units of classification. As a general principle, the mission suggested that each government agency, department and ministry is assigned to a COFOG division – it is therefore assumed all outlays by this unit relate to a single function. In the case of some government entities that performed multiple functions, expenditure was assigned to multiple functions based on judgments made in consultation with the LSB staff.

29.   Government output and final consumption expenditure which benefits individual households can now be identified to derive the aggregates for actual final consumption of households (actual individual consumption). The COFOG divisions covering individual and collective consumption expenditures of government are indicated in the international standards.[16]

30.   The quality of government expenditure data transmitted to the LSB needs to be assessed. The mission identified significant gaps in the government data supplied to the LSB - expenditure data for key ministries including the Ministry of Defense and the Ministry of Security could not be identified (citing confidentiality/sensitivity concerns) and is likely to cause under coverage of GDP.[17] In addition, the LSB did not have sufficient information to classify separate expenditures by purpose for Recreation, Culture and Religion (COFOG Division 08) and Education (COFOG Division 09) provided by the Ministry of Education and Sport. Finally, the Ministry of Finance (the entity responsible for production of Lao PDR's Government Finance Statistics) should be responsible for the compilation of government expenditure by COFOG, with cooperation and coordination between the LSB and the Ministry of Finance essential to its success.

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[16] *System of National Accounts, 2008*, paragraphs 29.9-29.12; 29.15-29.16.

[17] The mission encouraged the LSB to pursue greater coordination with the Ministry of Finance during a government finance statistics mission scheduled for July 2018.

F. Officials Met During the Mission

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