CONSTRUCTING A NEW BENCHMARK FOR CAMBODIAN NATIONAL ACCOUNTS

Documentation of process and results









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This study documents the context and process of constructing the supply and use table of Cambodia to develop a new benchmark for producing national accounts statistics.

The study is one of a series of five on successful statistics development initiatives implemented as part of the Regional Programme on Economic Statistics in Asia and Pacific. The studies are intended to inspire and support other countries that may wish to replicate the initiatives in their own national context. The study has been prepared by the National Institute of Statistics (NIS) of Cambodia and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) with funding support by the United Kingdom Foreign, Commonwealth and Development Office (previously Department for International Development).

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### Acronyms

ВОР	Balance of Payments
CEC	Cambodia Economic Census
CIES	Cambodia Intercensal Economic Survey
CSES	Cambodia Socio-Economic Survey
DFID	Department for International Development of the United Kingdom
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
GFS	Government Finance Statistics
GVA	Gross Value Added
ISIC	International Standard Industrial Classification of All Economic Activities
MAFF	Ministry of Agriculture, Forestry, and Fisheries
MEF	Ministry of Economics and Finance
NAD	National Accounts Department
NCPA	National Classification of Products by Activity
NIS	National Institute of Statistics
RPES	Regional Programme for Economic Statistics
SNA	System of National Accounts
SUT	Supply and Use Tables
ТА	Technical Assistance

## I. EXECUTIVE SUMMARY

Until recently, Cambodia's Gross Domestic Product (GDP) has been estimated using a benchmark from the year 2000 - a time when the structure and size of the national economy was vastly different from today. Recognizing the limited experience, capacity and resources, the National Institute of Statistics (NIS) of Cambodia requested the assistance of United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) to compile their new benchmark national accounts. Under the Regional Programme on Economic Statistics (RPES), ESCAP engaged an international expert to support Cambodia in revising the GDP. Drawing from a range of available survey and administrative data sources from 2014, and following the expert's advice, NIS produced the 2014 Supply and Use Tables (SUTs) that enabled the estimation of the new benchmark GDP for Cambodia.

The new benchmark GDP and sectoral estimates showed increased value of production across sectors in 2014. Early findings suggest the results represent a more reflective picture of the economic production in Cambodia than were previously available and captured in the 2000-based GDP estimates. It should be noted, however, that the final tables have not been released and are still undergoing review and validation.

Cambodia's national accounts are now aligned with the latest international standards and recommendations: the 2008 System of National Accounts (SNA) and the International Standard Industrial Classification of All Economic Activities (ISIC, Revision 4). The initiative has provided not only a more reflective economic statistics for Cambodia but has considerably strengthened the capacity of NIS. Staff are now trained and experienced in producing SUTs, and once reliable and accessible data sources become available and are confirmed, they will be able to regularly compile and review this approach to ensure the GDP estimates remain as accurate as possible.

Countries who plan to develop new benchmarks using supply and use tables framework can hopefully benefit and be inspired by the approach taken in Cambodia. The skills and lessons learned include application of international best practices at the national level, and the use of advanced features of MS Excel for efficient data management, including preparation, estimation, compilation and production. Recommendations from NIS emphasise the importance of conducting regular household and economic surveys and securing easy access to administrative data sources.

## II. BACKGROUND AND CONTEXT

Gross Domestic Product (GDP) is a measure of the value of the economic activity in a country. According to international standards, estimates of GDP should be made where the transactions involved are accurately recorded in censuses, surveys or administrative systems. These sources of data should include informal and even illegal activities (such as smuggling goods, and the production output of unregistered businesses) as well as the imputed value of rent of owneroccupied dwellings. Only services produced by households for their own use (such as childcare or meal preparation) are not included as economic production.

Prior to the implementation of the project, estimates of Cambodia's GDP were compiled with 2000 as benchmark. To the extent possible, the previous benchmark used data from census, surveys and/or administrative systems for the year 2000. In some cases, data for other years were used as proxy indicators. Cambodia has undergone considerable development since then and estimates from the 2000 benchmark no longer reflect the current structure of the economy.

Since 2000, much change has taken place. Buildings, bridges and roads have been constructed. Commodity prices have increased over time, especially the price of land, housing units, and other real estate-related structures. Many rural villages have been reclassified as urban villages because of their rapid economic development. Paddy farms and ponds have become factories, supermarkets, markets, or commercial and residential buildings. Due to this substantial development, the year 2000 data could no longer accurately capture the reality of the national economy and updating of the 2000 benchmark to a more recent year was necessary.

Updating the benchmark for Cambodia was also an opportunity to implement the most recent international standards set out in the 2008 SNA and the latest industrial classification (ISIC, Revision 4), which had been used in the 2011 Cambodia Economic Census (CEC), 2014 Cambodia Intercensal Economic Survey (CIES), and 2014 Cambodia Socio-Economic Survey (CSES): all key sources for estimating the new GDP benchmark.

## III. SUPPLY AND USE TABLE: THE BASIC FRAMEWORK

The SUT framework is an integrated framework that allowed national accounts compilers at the NIS to assemble data on the Cambodian economy from all available sources. These data were classified into resources (supply) and demand (uses), which facilitated the assessment of data consistency (from input to output). The framework allowed NIS data compilers to identify imbalances in some products or industries and find ways to balance them. When values of all products or industries were balanced in the 2014 SUT, a new benchmark GDP for Cambodia became available for the same year.

#### Why use SUT?

SUTs are an integral part of the 2008 SNA: the international standard for producing national accounts.3 They are the central framework for the compilation of a single and coherent estimate of GDP by integrating all the components of production, income and expenditure approaches, as well as providing key links to other parts of the SNA framework. SUTs simply describe how products (goods and services) are brought into an economy (either as a result of domestic production, or imports from other countries), and how those same products are used, which includes intermediate consumption, household final consumption, non-profit institutions serving households, general government final consumption, gross capital formation and exports. They link to the components of Gross Value Added (GVA), industry inputs and industry outputs. These inter-linkages or inter-dependence among industries facilitate data confrontation and harmonization. They integrate data on goods and services obtained from different statistical sources such as business surveys, household

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