

# REPUBLIC OF THE PHILIPPINES

## DEALING WITH DATA SHORTFALLS

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## INTRODUCTION

Inbound tourist arrivals in the Philippines expanded steadily at an average annual rate of 8.1% between 1994 and 1998, despite the difficulties brought about by the Asian financial crisis and the lingering effects of the El Niño phenomenon. During the same period, an increasing demand for tourism products and services expanded employment opportunities offered by tourism industries by an average of 5.6% a year.<sup>1</sup>

Tourism clearly offers excellent opportunities for economic growth as shown by the influx of foreign exchange earnings from tourism expenditures. But tourism's impact is not totally positive. The socio-cultural and environmental impact of tourism must be weighed against its positive economic contribution.

Until recently, there had been no measurement of the economic reality of the tourism industry – its economic importance through the supply side, the capital formation it

generates, its value added and its contribution to employment, balance of payments and gross national income.

The social impact of tourism notwithstanding, up-to-date, reliable and relevant tourism statistics must be generated. These can help guide the formulation of public policies, promote the importance of the tourism sector, and stimulate recognition of the contribution of private sector tourism operators in the socio-economic development of the nation.

One element of flexibility introduced in the 1993 System of National Accounts (SNA), which documents the latest recommendations on the compilation of national accounts, is the extension of the system to incorporate new development concerns. This expands the analytical capacity of the SNA for selected areas of concern, without overburdening the central framework. With this, analysis of particular interest for a given field can be given ample emphasis.

## DEVELOPING THE PHILIPPINE TSA (PTSA)

Although tourism is still embedded somewhere in the different economic sectors covered in the compilation of the Philippine SNA (PSNA), the Philippines has been one of the pioneers in developing the TSA. In 1988, the National Statistical Coordination Board (NSCB), through its Grants-in-Aid statistical development programme, provided funds and technical assistance to the Department of Tourism (DOT) to conduct a research study, which aimed to explore the contribution of tourism to the Philippine economy using an input-output analysis approach. This study derived income multipliers for the different economic activities concerning tourism, which showed tourism accounting for 2.8% of the country's economy in 1987.

In 1996, DOT and the World Travel & Tourism Council (WTTC) collaborated

closely on the early stages of development of a TSA for the Philippines. Part of this collaboration was a study conducted in 1997 using the estimation procedure of a simulated satellite account for tourism developed by the WEFA Group (formerly Wharton Econometric Forecast Associates and now DRI-WEFA) under the direction of WTTC. The estimated contribution to GDP was determined through the travel and tourism shares for each of the expenditure items. This study, which benefited from the technical support of the NSCB, showed that travel and tourism accounted for 8.7% of Philippine GDP in 1997.

On 5 December 1996, DOT and NSCB signed a memorandum of agreement for the development of the PTSA. With the collaboration and financial assistance of DOT, NSCB undertook a project in 1997 that conceptualised the framework for the PTSA. Under this project, NSCB pursued the initial compilation of the tourism accounts covering the years 1994 and 1998, under the guidance of an inter-agency committee, which was tasked to oversee the development of a satellite account on tourism for the country.<sup>2</sup>

While the above-mentioned studies made use of the input-output (IO) tables, the resulting aggregate measures are not fully comparable with that of the SNA, as the approach was not completely hinged with the concepts of the central framework. By contextualising tourism within the national accounts framework and separately identifying its economic aspect, the estimates and analyses are presented credibly as a subset of the PSNA. This is in line with the perspective emphasised at the World Tourism Organization (WTO) conference in Nice, France in June 1999 to adopt a set of concepts and definitions that are consistent with the core national accounts.

Considering TSA-related developments in the international scene, the NSCB once again



undertook a project with DOT in July 1999. The project pursued the formulation of a conceptual framework for the PTSA. It was carried out through the creation of a Development of the Satellite Account on Tourism Team which, under the guidance and directions of the IAC-DSAT, worked to make the draft conceptual framework operational through the compilation of tourism accounts for 1994 and 1998.

### The conceptual framework

The TSA as developed by WTO, OECD and Eurostat, and approved by the United Nations Statistical Commission – in the Tourism Satellite Account: Recommended Methodological Framework (TSA:RMF) provides a comprehensive set of information on tourism

<sup>1</sup> Basic data was sourced from the 1994 and 1998 Statistical Report of the Department of Tourism (DOT) and from the 1994 and 1998 October rounds of the Labor Force Survey (LFS) conducted by the National Statistics Office (NSO).

<sup>2</sup> The creation of the Inter-Agency Committee on the Development of a Satellite Account on Tourism (IAC-DSAT) was approved by the NSCB in 1997. It is chaired by the NSCB Secretary General, co-chaired by the DOT Undersecretary for Planning, and has the following members: Director of the Department of Economic Research, Bangko Sentral ng Pilipinas (BSP); Director of Trade, Industry and Utilities Staff, National Economic and Development Authority (NEDA); Administrator of the National Statistics Office (NSO); Dean of the UP-Asian Institute of Tourism (AIT); Director of the Economic and Social Statistics Office, NSCB; and representatives from the UP School of Economics and Philippine Institute of Development Studies (PIDS).



that facilitates its analysis in the context of macro-economic accounts, since it is fully linked with the SNA central framework. The preliminary PTSA framework deviates very little from the TSA, with data constraints playing a significant role in making it operational. A number of conceptual issues need to be studied further and resolved in the continuing efforts to improve the PTSA.

In general, the PTSA shows two facets of tourism. First, it highlights the output of tourism industries vis-à-vis the consumption expenditures of tourists, thereby providing insights into the relationship of supply and use of tourism goods and services. The second aspect demonstrates the impact of tourism through physical indicators such as employment, tourist arrivals, length of stay, types of accommodation and means of transport.

## Main aggregates

As currently designed, the TSA consists of ten tables derived from or related to the tables of the 1993 SNA on the supply and use of goods and services, and which can be used for the international comparison of tourism statistics. The recommendation is for these tables to be developed in two stages: tables 1-6 and 10 in the first stage (see Appendix A) and the rest in

the second stage. As far as valuation is concerned, the TSA adopts the same principles followed by the 1993 SNA. Production should be valued at basic prices and consumption and use at purchasers' prices, and accounting should be on an accrual basis.

In addition to the ten tables, the TSA produces estimates of the following main aggregates:

**Value added on tourism industries (VATI):** the sum of the value added of all tourism-characteristic industries. This does not include the value-added contribution of industries producing tourism products only as a secondary output.

**Tourism value added (TVA):** the value added generated in the economy by the tourism industries and other industries in response to internal tourism consumption. It includes the value added of the principal activity, but not of any secondary activity of tourism industries, and the secondary tourism characteristic activities of other industries generated in the provision of goods and services directly to visitors.

**Tourism gross domestic product (TGDP):** the sum of the value added (at basic prices) generated by all industries in response to

internal tourism consumption, and the amount of net taxes on products and imports included within the value of this expenditure. It excludes value added generated by the supply to non-visitors of the tourism industries as well as value added generated by the supply to non-visitors by activities not in the tourism industries.

## Other aggregates

In addition to the main aggregates, the TSA also provides estimates of the following:

**Tourism employment:** limited to employment in tourism industries.

**Tourism gross fixed capital formation:** includes gross fixed capital formation of tourism industries as well as those of government agencies providing tourism services. Also included are public investments in infrastructure such as roads constructed specially to support tourism activities.

**Tourism collective consumption:** Collective non-market services provided by the government in support of tourism and for which individual usage cannot be recorded, nor charged for payment. In the SNA, this is part of government services on the supply side and government consumption expenditures on the demand side.

**Tourism demand:** the sum of tourism consumption, tourism gross fixed capital formation and tourism collective consumption.

## Non-monetary indicators

Non-monetary indicators include the number of visitor arrivals; length of stay in the Philippines by inbound visitors; means of transport; and types of accommodation used by visitors. These can be used to firm up and validate the resulting PTSA estimates by providing certain attributions of the performance of tourism industries vis-à-vis the development in the total economy.

## Sources and methods

### Scope and coverage

Since this is an initial effort to make the TSA:RMF operational despite severe data constraints, results from the PTSA currently

cover 1994 and 1998 only. The choice of reference years took into account the availability of the input-output (IO) accounts for 1994 and the expectation that 1998 would be the next reference year for the Census of Establishments (CE), and thus the next benchmark IO. However, the 1998 CE was not undertaken by NSO due to budget constraints.

The tourism industries covered were identified on the basis of the list prescribed by WTO and the Standard International Classification of Tourism Activities (SICTA) adjusted to local conditions.

Compiling the prescribed tables was limited by the available data. Thus, table 3 on outbound tourism was not compiled. The other tables, although compiled, had their limitations. For example, information was not available on same-day visitors and other components of visitor consumption such as final consumption expenditures in kind, tourism social transfers in kind other than individual non-market cultural services, and tourism business expense. Table 5 was compiled based on the 1994 IO accounts with the output gathered from the Industry by Commodity Make Matrix and the intermediate consumption from the Commodity by Industry Use Matrix.

Table 6, which was modified by showing details of the final demand, was short of establishing the linkage between tourism supply and internal tourism consumption. Table 8 was established with the objective of estimating tourism ratios to eventually come up with the TVA. But this still needs refinements to correct tourism ratios, which are more than 100%. Table 7 did not include information on the number of jobs and status of employment. Table 8 classified capital goods on the basis of available disaggregation. Table 9 does not provide disaggregation by level of government. Lastly, for table 10 not all suggested sub-tables were compiled.

## Data sources

The compilation of the PTSA makes use of administrative data and survey results as well as derived statistics like those provided by the IO table and the National Accounts. The National Accounts and the IO table are being compiled by NSCB in collaboration with NSO in the case of the IO. Survey results used in the compilation are the annual Visitors Sample



Survey (VSS) and the Sample Survey of Regional Travelers in Accommodation (SSRTA) conducted by DOT; and the 1994 CE and Labor Force Survey of NSO. Administrative data include the DOT Statistical Report; the General Appropriations Act (GAA) and the Annual Reports of the General Government published by the Department of Budget and Management (DBM).

## Compilation methodology

The compilation of the PTSA involves the preparation of the PTSA tables, which modifies the TSA:RMF tables to conform to the PTSA framework.

### ■ Tourism consumption expenditure

Tourism consumption expenditure was derived by summing up visitor consumption expenditures, government (collective) consumption expenditures and gross fixed capital formation.

### ■ Visitor consumption expenditure

Tourism consumption expenditure by product was estimated based on data gathered from the DOT Statistical Report and from the results of the VSS and SSRTA. Information on average daily expenditure, tourism consumption by product and average length of stay were provided by the above-mentioned surveys. On the other hand, total inbound tourist arrivals were sourced from the DOT Statistical Report and total domestic tourist arrivals were taken from the results of the SSRTA.

Tourism consumption expenditure was estimated separately for inbound and domestic tourism. For inbound tourism, where data was available for 1994 and 1998, tourism consumption expenditure by tourism product was estimated first by allocating the average daily expenditure to the different tourism products, using the structure of the data on tourism consumption by product. Having derived average tourism consumption expenditure by product, each was multiplied by average length of stay and number of tourist arrivals.

For domestic tourism, basically the same procedure was followed except that, for 1998, the number of domestic tourist arrivals had to be estimated. With data on domestic tourist arrivals only available for

1993 and 1997, plus estimates for 1994 and 1998, the 1993 and 1997 figures were extrapolated using the geometric mean of the growth rate between the two periods.

### ■ Tourism collective consumption

Tourism collective consumption expenditure covered the expenditures of the whole of DOT, and selected units of the Department of Foreign Affairs (DFA), Department of Education, Culture and Sports (DECS) and Department of National Defense (DND), which have been identified as agencies providing tourism collective services. To be consistent with the accrual valuation basis of the SNA, the Commission on Audit (COA) would be the logical data source. But while the COA figures provide data on personal services, maintenance and operating expenses and receipts from operations, they do not provide the details required by the framework on type of tourism service. This information can be generated from data on specific programmes and projects in the GAA.

The structure of expenditures taken from the GAA is applied to the COA data. From the GAA, the tourism-related programmes and projects of DOT, DFA, DND and DECS are identified and classified by type of tourism service. Their corresponding costs of operations (personnel services and maintenance and operating expenses) and receipts from sale of tourism services (mostly entrance fees) were tabulated by type of tourism service and by agency. The corresponding COA levels were then derived given the shares computed from the GAA details and the tourism collective consumption subsequently estimated.

### ■ Tourism gross fixed capital formation

Tourism gross fixed capital formation (GFCF) covers both the public and the private sectors. The 1994 CE provided data on capital formation for private business. For DOT, the COA provided the data on capital formation. However for DFA, DND and DECS, where only specific units provide tourism service, the GAA provided the details of their tourism-related programmes and projects. Given their shares in capital formation as computed from the GAA data, these were then applied to the COA-audited figures on capital outlays of the agency. Investments cover land improvements, buildings and structures, equipment, furniture and fixtures.



### ■ Value added of tourism industries (VATI)

The VATI was estimated from the Use and Make Matrices of the 1994 IO table. Given the identified characteristic tourism industries, their corresponding outputs were lifted from the Industry by Commodity Make Matrix and the intermediate inputs and value added components were lifted from the Commodity by Industry Use Matrix of the 1994 IO. Since there was no IO for 1998, these figures were extrapolated by applying the trends derived from the annual National Accounts. This assumes that the structure did not change between the two periods.

### ■ Ratio of tourism demand to tourism supply (tourism ratios)

The tourism ratios show the confrontation between the supply of tourism goods and

services and tourism demand. This is one step leading to deriving the TVA.

The 1994 IO commodity-by-commodity matrix, which has been purified in the sense that secondary products have been transferred to their corresponding industry groupings, was the basis in establishing the ratios. The total supply of tourism-characteristic products to meet the demand of tourism consumption was derived from this commodity-by-commodity matrix. Both measures are understated by the amount of import duties that still has to be estimated.

This supply was then matched with tourism consumption by product, following the disaggregation from the demand side. When the resulting share of tourism consumption to supply exceeded 100%, the corresponding industries were lumped together. For example, hotels and





restaurants were combined due to the difficulty in collecting information on the availability of their services separately, which could have resulted in double counting. For 1998, the supply of tourism goods and services was derived by extrapolating the 1994 figures, using the trends from the National Accounts.

## ■ Tourism employment

Employment generated by tourism industries was sourced from the 1994 and 1998 October rounds of the Labor Force Survey (LFS). However, the disaggregation by type of tourism activities was not directly available from the LFS. To disaggregate the LFS employment levels, the employment structure of the 1994 CE and the Statistical Report of DOT were adopted. The 1994 CE was used for passenger transport (land, water and air) and recreation, entertainment and cultural services. While it is recognised that the CE may not be a good basis for disaggregating LFS employment for industries with a big informal sector component, as in the case of transport, this is the only indicator available. The DOT Statistical Report, on the other hand, provided the structure for hotels and similar activities.

## ■ Non-monetary indicators

The number of arrivals for inbound visitors was readily available from the DOT reports. However, for domestic visitors, the SSRTA, which generates this information, was only available for 1993 and 1997. Hence the 1994 and 1998 figures were derived by extrapolating the figures for 1993 and 1997.

Length of stay was derived by applying the distribution of tourists by length of stay from the DOT Statistical Report. The number of inbound visitors by type of transport used was available from the publications of DOT. For accommodation available for tourists, only the occupancy ratio disaggregated into the different types of accommodation



was available, hence the ratio was applied to the total number of visitors. It was assumed that the ratio holds true both for inbound and the domestic visitors.

## PRELIMINARY RESULTS

The preliminary results of the PTSA are very limited in scope and coverage due to the data constraints that hinder the analysis of the link between tourism consumption and the supply of tourism goods and services. The following represents some of the main PTSA aggregates.

### Tourism expenditures

Total tourism expenditures (tourism demand) was recorded at P140 billion in 1994 and P274 billion in 1998, translating to an average annual increase of 11% between the two years. Visitor consumption expenditures had the biggest share, averaging more than 60% of tourism expenditures.

#### Visitor consumption expenditures

■ Consumption expenditures of tourists surged at an annual rate of 20%, brought about mainly by the 33% average annual rate of expansion of domestic tourism consumption. Inbound tourism recorded a 13% average increase during the period.

■ Total consumption of resident tourists contributed 2% and 4% to total personal consumption expenditures (PCE) in 1994 and 1998, respectively. The consumption of inbound tourists, on the other hand, accounted for 11% in 1994 and 7% in 1998 of the country's total exports.

■ The share of internal tourism consumption to GDP was 5% and 7% in 1994 and 1998, respectively.

#### Government (collective) consumption expenditures

■ Estimated tourism government collective consumption expenditures amounted to P40 billion in 1994 and P91 billion in

1998, for an average annual growth rate of 23%.

■ The share of tourism collective consumption to total government expenditures was 22% and 26%, in 1994 and 1998 respectively.

#### Capital investment (gross fixed capital formation)

■ The GFCF for the private sector could not be estimated for 1998 due to data constraints. For 1994, tourism GFCF showed a 3% share of the country's GFCF.

■ For the public sector, GFCF expanded at an average annual rate of 10%.

#### Value added of tourism industries

■ VATI was estimated at P200 billion in 1994 and P334 billion in 1998, representing 12% and 13% respectively of the country's GDP.

#### Tourism employment

■ Between 1994 and 1998, employment generated by tourism increased from 20% to 22% of total employment for the whole economy with an average annual increase of 6%.

■ While there are more men than women employed by the tourism industries (on average, 63% of those employed in tourism industries are men and 37% are women), employed women accounted for a larger share of total employment generated in the economy (24% in 1994 and 25% in 1998 as against 17% in 1994 and 20% in 1998 for men).

#### Non-monetary indicators

■ Inbound tourists in the country increased at an average annual rate of 8%, while domestic tourists grew by an annual rate of 11%.

■ The average number of nights spent by inbound visitors declined from 11 nights in 1994 to nine in 1998.

■ The main means of transport of inbound tourists is still air travel (99% in 1994 and 97% in 1998).

#### Areas for future improvements

##### ■ Frequency and distance dimensions of the concept of usual environment

These two dimensions concerning the usual environment of visitors are critical in defining tourism consumption expenditures distinctively from other personal consumption

expenditures of individuals that are non-tourism in nature. It is imperative that these be established in statistical terms such as the regularity of journeys for the frequency of visits and/or the geographical/administrative boundaries of local places for the distance of travel.

■ The borderline between characteristic and connected goods and services needs to be delineated further

■ Coverage of the current estimates must be expanded to fully measure the economic contribution of tourism

This would entail compiling consumption expenditures on pre-travel by resident tourists, expenditures of same-day visitors and of the households on behalf of tourists. Likewise, there is a need to include outbound tourism, both on the expenditure and the supply side, which would affect estimates of the tourism net receipts from the rest of the world.

■ The initial compilation methodology must be refined

There is a need to establish more clearly the conceptual linkage between tourism consumption expenditure and the production of tourism industries. Tourism on the demand side must be incisively scrutinised, and this entails going back to the survey tools utilised during the data collection process. Further efforts must similarly be undertaken to gain a deeper conceptual understanding of the inclusion of the indirect effects of tourism industries, specifically their backward linkages.

P51.30 = US\$1 in February 2002

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# PHILIPPINES



## APPENDIX A

### List of TSA Tables

**Table 1:**

Inbound tourism consumption by products and categories of visitors (visitor final consumption expenditure in cash)

**Table 2:**

Domestic tourism consumption by product- and ad hoc sets of resident visitors (visitor final consumption expenditure in cash)

**Table 3:**

Outbound tourism consumption by products and categories of visitors (visitor final consumption expenditure in cash)

**Table 4:**

Internal tourism consumption by products and types of tourism

**Table 5:**

Production accounts of tourism industries and other industries

**Table 6:**

Domestic supply and internal tourism consumption by products

**Table 7:**

Employment in the tourism industries

**Table 8:**

Tourism gross fixed capital formation of tourism industries and other industries

**Table 9:**

Tourism collective consumption by functions and levels of government

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