

15th National Convention on Statistics

October 3-5, 2022

TITLE OF PAPER:

Towards the Localization of Tourism Satellite Accounts

By

Aldrin Federico R. Bahit, Jr., Aeron Joe C. Bahug and Villafe P. Alibuyog

For additional information, please contact:

Author: ALDRIN FEDERICO R. BAHIT, JR.
Designation Chief Statistical Specialist

Co-author: AERON JOE C. BAHUG
Designation CAR TSA Project Staff

Co-author: VILLAFE P. ALIBUYOG
Designation Regional Director

Affiliation PHILIPPINE STATISTICS AUTHORITY - Cordillera

Address 3F CTLL Bldg., 141 Abanao Extension, 2600 Baguio City
Tel. No. +63 917 836 7508
Email: aldrib@gmail.com

Towards the Localization of Tourism Satellite Accounts

By

Aldrin Federico R. Bahit, Jr.¹, Aeron Joe C. Bahug² and Villafe P. Alibuyog³

ABSTRACT

The Cordillera Region started the compilation of subnational tourism satellite accounts to account the contribution of tourism to the regional economy. Out of the ten (10) Philippine Tourism Satellite Accounts (PTSA) tables being compiled, the region is able to generate four (4) TSA tables and a few derived indicators.

With the availability of tourism arrivals data from the provinces, several TSA tables are compiled for the attempt to generate provincial level TSA. The following TSA tables are prepared for the provinces and highly urbanized city (HUC) of the Cordillera Administrative Region (CAR):

Table 1: Inbound Tourism Expenditures

Table 2: Domestic Tourism Expenditures

Table 4: Internal Tourism Expenditures

The generated provincial TSA tables are able to answer the questions such as: What are the contributions of each province and HUC to the regional tourism expenditures? What province or city of the Cordillera contributes the highest to the total regional tourism expenditures?

The results of the focus group discussion (FGD) with the provincial tourism officers are also discussed in this paper. The FGD tackled the collection of tourism statistics, problems encountered and ways to improve local/provincial tourism statistics.

¹ CAR TSA Project Leader and Chief Statistical Specialist, Statistical Operations and Coordination Division (SOCD), Regional Statistical Services Office-Cordillera Administrative Region, Philippine Statistics Authority (PSA RSSO-CAR)

² CAR TSA Project Staff, SOCD, PSA RSSO-CAR

³ CAR TSA Project Adviser and Regional Director, PSA RSSO-CAR

INTRODUCTION

Tourism is one of the world's major economic sectors. According to the United Nations World Tourism Organization (UNWTO), tourism is the third-largest export category (after fuels and chemicals) and accounted 7% of global trade in 2019. Tourism for some countries can represent over 20% of their Gross Domestic Product (GDP). Tourism supports one in 10 jobs and provides livelihoods for millions of individuals in both developing and developed countries (United Nations World Tourism Organization, 2020).

The contribution of tourism industry to the Philippine economy averages 5.8% for years 2000-2010 (National Statistical Coordination Board, 2011) and contributed 5.4% in 2020. In 2019, tourism industries employed 5.72 million and in 2020, employed 4.68 million comprising 11.9% of the total employment in the country (Philippine Statistics Authority, 2021).

The regional tourism satellite accounts are pioneered by the Cordillera Administrative Region (CAR) and is able to compile four out of ten Philippine Tourism Satellite Accounts (PTSA) tables for the period 2016-2020. The average share of tourism expenditures of the region to the national total for years 2016-2020 is 0.35% (Table 1). For 2017 to 2019, tourism expenditures accounted for an average of 3.71% of the region's Gross Regional Domestic Product (GRDP) or Gross Regional Domestic Expenditure (GRDE). The pandemic affected the region's tourism industry that tourism expenditures shrank by 82.4% and its contribution to the region's economy reduced to 0.66% (Table 2).

TABLE 1. Share of CAR Internal Tourism Expenditures to Philippines: 2016-2020

	2016	2017	2018	2019	2020
PHILIPPINES (In Millions, At Current Prices)	2,191,002	2,805,257	3,291,672	3,742,358	689,475
CORDILLERA ADMINISTRATIVE REGION (In Millions, At Current Prices)	9,251	10,625	12,016	11,101	1,959
% Share of CAR to PHILS.	0.42	0.38	0.36	0.30	0.28

Source: Philippine Statistics Authority - RSSO CAR

TABLE 2. Share of Tourism Expenditures to GRDP/GRDE: 2017-2020

	2017	2018	2019	2020
GROSS REGIONAL DOMESTIC PRODUCT/ GROSS REGIONAL DOMESTIC EXPENDITURE (In Millions, At Current Prices)	280,806	308,267	322,106	296,523
INTERNAL TOURISM EXPENDITURES (In Millions, At Current Prices)	10,625	12,016	11,101	1,959
Percent Share	3.78	3.90	3.45	0.66

Source: Philippine Statistics Authority - RSSO CAR

The compilation of the regional tourism satellite accounts of CAR necessitates the collection of tourism arrivals data from the city and provinces of the region. With the available provincial and city data, three regional tourism accounts table can be disaggregated: (1) inbound tourism expenditures, (2) domestic tourism expenditures, and (3) internal tourism expenditures.

OBJECTIVES

This paper attempts to localize the tourism satellite accounts and disaggregate the compiled regional tourism satellite accounts of CAR by provincial and highly urbanized city (HUC) level. The specific objectives are:

1. To present the generated provincial and HUC TSA tables;
2. To identify the provincial/HUC contributions to the regional TSA; and
3. To discuss the results of the focus-group discussion (FGD) with the provincial tourism officers on the challenges of generating tourism statistics.

METHODOLOGY

A. Framework

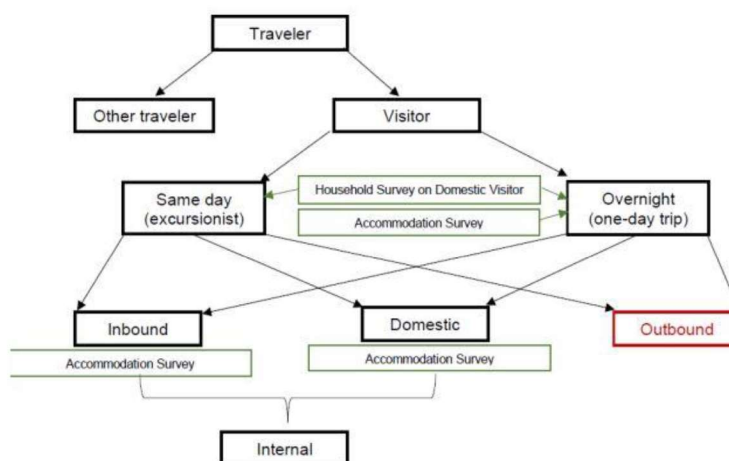
The Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF) 2008 and the International Recommendation for Tourism Statistics 2008 (IRTS 2008) are used in the compilation of tourism satellite accounts. These are adopted by members of the United Nations (UN) as the overarching principle for tourism satellite accounting ensuring to have a comparable and consistent accounting across countries. These are the tools adopted by compilers of tourism accounts.

In order to ensure that the compilation of the integrated tourism statistics is in line with the compilation practices of other economic statistics, it was decided that it shall be further aligned with the updated System of National Accounts 2008 (SNA 2008).

B. Scope and Coverage

The paper covers the period 2016-2020 and presents three out of ten TSA tables namely inbound tourism expenditures (PTSA Table 1), domestic tourism expenditures (PTSA Table 2), and internal tourism expenditures (PTSA Table 4).

The following diagram shows the tourism flow (black box) and the sources used in the study (green box).



C. Data Sources

	Data	Source
Inbound Tourism	Visitor arrivals (foreign and balikbayan)	Establishment survey of accommodation establishments of the local government units (LGUs) and the Department of Tourism (DOT)
	Average daily expenditures of tourists and average length of stay	Establishment survey and Visitor Sample Survey (VSS) of the Department of Tourism (DOT)
Domestic Tourism	Visitor arrivals, domestic, same-day and overnight	Establishment survey of accommodation establishments of LGUs and DOT
	Average daily expenditures of tourists and average length of stay	Household Survey on Domestic Visitors (HSDV) of DOT and PSA; Establishment survey and VSS of DOT

D. Estimation

Inbound Tourism Expenditures

Inbound tourism refers to tourism of non-resident visitors (foreign visitors and nationals permanently residing abroad) within the economic territory of the country of reference. Inbound tourism expenditures are the sum of the products of total inbound visitor arrivals (r), average length of stay (l), and average daily expenditures for each of the expenditure items (e_i);

whereas: i refers to the expenditure items, namely:

$$TE_{inbound} = \sum_{i=1}^7 [(r) \cdot (l) \cdot (e_i)]$$

1. accommodation services for visitors
2. food and beverage serving services
3. transport services
4. travel agencies and other reservation services
5. entertainment and recreation
6. country specific tourism characteristic goods (shopping)
7. miscellaneous

Domestic Tourism Expenditures

Domestic tourism refers to tourism of resident visitors within the economic territory of the country of reference. Domestic tourism expenditures are the sum of the products of total

annual domestic visitor trips (r), average length of stay (l), and average daily expenditures for each of the expenditure items (e_i):

$$TE_{domestic} = \sum_{i=1}^7 [(r), (l), (e_i)]$$

whereas: i refers to the expenditure items, namely:

1. accommodation services for visitors
2. food and beverage serving services
3. transport services
4. travel agencies and other reservation services
5. entertainment and recreation
6. country specific tourism characteristic goods (shopping)
7. miscellaneous

Internal Tourism Expenditures

Internal tourism comprises the activities of resident and non-resident visitors within the country of reference as part of a domestic trip or international trip. Internal tourism expenditures are the sum of inbound and domestic tourism expenditures.

$$TE_{internal} = TE_{inbound} + TE_{domestic}$$

E. Data Gaps and Data Limitations

Data availability is already considered on the early part of the preparation of the tourism accounts of CAR. Some of the indicators used in the PTSA are not available at the regional and provincial level. There are years where provincial visitor arrivals data are not supplied and/or reported by the LGU. In those cases, imputation techniques are done.

The estimates of the average daily expenditures for the different tourism products are calculated at the regional level. The regional average daily expenditures for inbound and domestic tourists are used to estimate the tourism expenditures of the city and provinces.

The data on regional tourism employment are from the Labor Force Survey (LFS) of the PSA. LFS does not have provincial estimates of employment statistics. Data for the provincial table on employment in tourism-related industries are still to be compiled. This could be done thru a separate survey or preparation of an administrative form to record employment in tourism-related industries.

RESULTS AND DISCUSSIONS

Inbound Tourism Expenditures

Total inbound tourism expenditures in 2016 were estimated at PhP1.88 billion, decreased to PhP1.53 billion in 2017 and further decreased to PhP1.37 billion in 2018. Expenditures slightly increased to PhP1.41 billion in 2019 but made a huge drop to PhP152.1 million (-89.2%) in 2020 due to the pandemic. Share of inbound tourism expenditures to total tourism expenditures from 2016 to 2019 ranges from 11.4% to 20.3%. In 2020, the share went down to 7.8%.

TABLE 3. Inbound Tourism Expenditures by Province and HUC, CAR: 2016-2021
In Million Philippine Peso, at Current Prices

PROVINCE	2016	2017	2018	2019	2020
INBOUND TOURIST EXPENDITURE	1,875.66	1,530.18	1,375.17	1,414.23	152.09
Abra	6.08	3.55	6.76	2.25	0.13
Apayao	3.43	4.99	5.0	3.0	0.32
Baguio City	1,165.29	961.16	691.9	537.2	51.53
Benguet	37.53	26.46	19.1	11.4	0.48
Ifugao	246.22	298.58	425.7	630.6	75.93
Kalinga	213.62	83.84	89.5	52.2	4.88
Mt Province	203.48	151.59	137.3	177.7	18.8

Source: Philippine Statistics Authority - RSSO CAR

The top contributor among provinces and HUC from 2016 to 2018 was Baguio City with shares of more than half of the region's inbound tourism expenditures. However, it shifted to Ifugao in 2019 and 2020 when the province contributed almost half of the inbound tourism expenditures. Abra and Apayao provinces were the least contributor among all provinces and HUC for all the accounting period.

TABLE 4. Contribution to Inbound Tourism Expenditures by Province and HUC, CAR: 2016-2021
In Percent

PROVINCE	2016	2017	2018	2019	2020
INBOUND TOURIST EXPENDITURE	100.00	100.00	100.00	100.00	100.00
Abra	0.32	0.23	0.49	0.16	0.09
Apayao	0.18	0.33	0.36	0.21	0.21
Baguio City	62.13	62.81	50.31	37.99	33.88
Benguet	2.00	1.73	1.39	0.81	0.32
Ifugao	13.13	19.51	30.96	44.59	49.92
Kalinga	11.39	5.48	6.51	3.69	3.21
Mt Province	10.85	9.91	9.98	12.57	12.36

Source: Philippine Statistics Authority - RSSO CAR

Among all provinces and HUC, Ifugao was the only province consistently increasing its inbound tourism expenditures from 2016 to 2020.

Domestic Tourism Expenditures

Domestic tourism expenditures increased from PhP6.11 billion for overnight stay and PhP1.26 billion for same-day tourists in 2016 to PhP8.94 billion for overnight stay and PhP1.70 billion for same-day tourists in 2018. Over-all domestic tourism expenditures decreased by -9.0% in 2019 from PhP10.6 billion to PhP9.7 billion and further went down by -81.3% in 2020 to PhP1.8 billion (PhP1.53 billion for overnight stay and PhP0.28 billion for same-day tourists).

Share of domestic tourism expenditures to total tourism expenditures from 2016 to 2020 ranged from 79.7% to 92.2%.

TABLE 5. Domestic Tourism Expenditures by Province and HUC, CAR: 2016-2020
In Million Philippine Pesos, at Current Prices

	2016	2017	2018	2018	2019
DOMESTIC TOURIST EXPENDITURE	7,374.96	9,094.90	10,640.86	9,686.95	1,807.12
Abra	35.15	33.97	35.75	13.04	2.74
Apayao	18.69	13.18	32.19	49.47	11.13
Baguio City	5,532.20	7,236.87	8,822.74	7,807.52	1,541.61
Benguet	373.72	405.59	318.71	428.89	26.20
Ifugao	160.10	207.36	277.74	251.14	23.30
Kalinga	611.94	445.93	515.98	367.24	103.38
Mt Province	643.16	752.00	637.75	769.64	98.76

Source: Philippine Statistics Authority - RSSO CAR

Baguio City consistently contributed the most to the region's domestic tourism expenditures from 2016 to 2020, ranging from 75% to as high as 85%. From 2016 to 2018, Apayao province was the least contributor but improved its performance and made Abra province the least contributing province in 2019 and 2020.

TABLE 6. Contribution to Domestic Tourism Expenditures by Province and HUC, CAR: 2016-2020
In Percent

	2016	2017	2018	2018	2019
DOMESTIC TOURIST EXPENDITURE	100.00	100.00	100.00	100.00	100.00
Abra	0.48	0.37	0.34	0.13	0.15
Apayao	0.25	0.14	0.30	0.51	0.62
Baguio City	75.01	79.57	82.91	80.60	85.31
Benguet	5.07	4.46	3.00	4.43	1.45
Ifugao	2.17	2.28	2.61	2.59	1.29
Kalinga	8.30	4.90	4.85	3.79	5.72
Mt Province	8.72	8.27	5.99	7.95	5.47

Source: Philippine Statistics Authority - RSSO CAR

Internal Tourism Expenditures

Summing up inbound and domestic tourism expenditures, internal tourism expenditures were estimated at PhP9.25 billion in 2016. Total tourism expenditures increased to PhP10.63

billion in 2017 and further increased to PhP12.00 billion in 2018. However, tourism expenditures decreased to PhP11.10 billion (-7.6%) in 2019 and further dropped to 2.0 billion (-82.4%) in 2020. Domestic tourism expenditures shared an average of 87% to the internal tourism expenditures while inbound tourism expenditures only shared an average of 13% during the five-year accounting period.

TABLE 7. Internal Tourism Expenditures by Province and HUC, CAR: 2016-2020
In Million Philippine Pesos, at Current Prices

	2016	2017	2018	2019	2020
INTERNAL TOURISM EXPENDITURE	9,250.6	10,625.1	12,016.0	11,101.2	1,959.2
Abra	41.2	37.5	42.5	15.3	2.9
Apayao	22.1	18.2	37.2	52.4	11.5
Baguio City	6,697.5	8,198.0	9,514.6	8,344.7	1,593.1
Benguet	411.3	432.0	337.8	440.2	26.7
Ifugao	406.3	505.9	703.4	881.7	99.2
Kalinga	825.6	529.8	605.5	419.4	108.3
Mt. Province	846.6	903.6	775.0	947.4	117.6

Source: Philippine Statistics Authority - RSSO CAR

Baguio City was still the top contributor of the internal tourism expenditures of the region with 81% share in 2020. Mt. Province and Kalinga province had similar numbers only contributing around 6% of the expenditures, Ifugao province contributed 5%, Benguet with 1%, and Apayao with 0.58%. Abra contributed the least with only 0.15% of the total regional expenditures of all tourists.

TABLE 8. Contribution to Internal Tourism Expenditures by Province and HUC, CAR: 2016-2020
In Percent

	2016	2017	2018	2019	2020
INTERNAL TOURISM EXPENDITURE	100.00	100.00	100.00	100.00	100.00
Abra	0.45	0.35	0.35	0.14	0.15
Apayao	0.24	0.17	0.31	0.47	0.59
Baguio City	72.40	77.16	79.18	75.17	81.31
Benguet	4.45	4.07	2.81	3.97	1.36
Ifugao	4.39	4.76	5.85	7.94	5.06
Kalinga	8.92	4.99	5.04	3.78	5.53
Mt. Province	9.15	8.50	6.45	8.53	6.00

Source: Philippine Statistics Authority - RSSO CAR

TOURISM STATISTICS AT THE LOCAL LEVEL

The data crucial for the localization of tourism satellite accounts are the tourist arrivals statistics compiled by the LGUs. The collection of which is faced with some challenges. To have better understanding and get a clearer picture of these challenges, focused group discussions (FGD) were conducted with the provincial tourism officers of the city and provinces of the region on 28-29 September 2020 via virtual platform. The activity was conducted to get

acquainted with the processes in the collection of tourism statistics, issues and/or problems encountered and ways to improve local tourism statistics. The FGD questions that the tourism officers had to answer and discussed with were the following:

Question 1: Do you collect data? How do you (Q1.1) collect, (Q1.2) compile/process, (Q1.3) validate, (Q1.4) report tourism data? Frequency of reporting (Q1.5) and to whom the report is submitted (Q1.6) were further asked.

Question 2: What are the problems encountered during data collection?

Question 3: What will you do to strengthen/improve local/provincial tourism statistics?

Question 4: What are your recommendations in the improvement of tourism statistics as a whole?

Collection, compilation/processing, validation and reporting

- Provincial tourism officers collect reports from the tourism officers of the municipalities or directly from private tourism destinations/accommodation facilities. Customized Excel file prepared by the Department of Tourism (DOT) is given to accommodation establishments (AEs) and the accomplished forms are sent back or collected from the EAs either electronically or in hard copies.
- Data are consolidated using the same Excel file/forms provided to the EAs, another Excel file, or encoded in the DOT-provided system.
- Data are validated thru the DOT system, meetings with municipal tourism officers, and phone calls and private messages to the EAs.
- Quarterly reports with monthly disaggregation are submitted to DOT-CAR. Others provide reports to the planning offices and/or governor's office. Tourism officers seldom prepare publications or information and dissemination materials on their local tourism statistics.

Problems and/or issues in data collection

Data Collectors	<ul style="list-style-type: none"> - No permanent tourism officers; no complete focus on tourism-related work since they are "designates" and tourism is an added task - Lack of interest in data gathering due to lack of knowledge on benefits of tourism statistics
Data Providers	<ul style="list-style-type: none"> - Late and non-submission of data due to (1) fast turnover of staffs and (2) lack of knowledge on benefits of tourism statistics - Not providing correct data because of notion of taxation use
Facilities and Processes	<ul style="list-style-type: none"> - Poor cellular signal affecting the submission of electronic reports - Lack of technical know-how on the DOT reporting system or computer applications - No coordination to properly account visitors and tourists visiting within the province

Improving local tourism statistics

What tourism officers can do?	<ul style="list-style-type: none"> - Recommend to local chief executives (LCEs) the creation of permanent tourism officers and/or staff, establishment of tourism division/department. - Push for the improvement of the internet connection in the provinces and municipalities
-------------------------------	--

	<ul style="list-style-type: none"> - Strengthen information drive on the importance of tourism statistics - Propose and/or participate in the crafting of local guidelines/ordinances in the submission of statistics
Improving tourism statistics as a whole	<ul style="list-style-type: none"> - Creation of permanent positions in the LGUs - Statistical trainings for the LGUs - Enforce existing laws: RA 9593 (Tourism Act of 2009) and RA 10625 (Philippine Statistics Act) - Attendance in and conduct seminars for tourism stakeholders - Continuous training for the tourism frontliners on reporting statistics and data standards in order to professionalize the industry - Provision of incentives/awards to compliant tourism establishments

It is noted that provincial tourism officers all suggest to create permanent plantilla positions for tourism officers at the provincial and municipal level. This can be addressed by Republic Act 9593 also known as Tourism Act of 2009 that mandates LGUs to create permanent plantilla position for tourism officer, that he or she shall be responsible for preparing, implementing and updating local tourism development plans, and enforcing tourism laws, rules and regulations. In the performance of his or her functions, the tourism officer shall coordinate with the Department of Tourism and its attached agencies. Corollary to the duties of tourism officers is the statistical activities related to tourism.

Better acquaintance and knowledge of tourism statistics, their importance and uses will improve the appreciation of stakeholders on tourism statistics and positively affect the behavior towards the compilation of tourism data. Hence, intensive and extensive data dissemination on gathered tourism data through the use of tri-media is a worthwhile and important activity. Reporting the numbers will cast a more vivid picture of tourism in the locality and the connection to the everyday lives of the people. With better appreciation on the statistical work of tourism officers and staff, better social connections and partnerships with different agencies and establishments will be forged. This will consequently lead to more complete and accurate local tourism data that are being collected and reported.

The regular conduct and participation of tourism officers in the regional data review of DOT is an activity that should be sustained. The review of gathered local tourism statistics is a mechanism for tourism data quality assurance.

WAYS FORWARD

It is hoped that the initial provincial and city tables on tourism satellite accounts will continue to sustain the discussions with the LGUs on how to improve the collection of tourism statistics at their locality. This is also to follow-up on whatever efforts they had put towards improvement of local tourism statistics and to document and share their best practices.

The preparation of estimates on the city and provincial average daily expenditures is for further study. The regional average daily expenditures for the seven expenditure items

(accommodation services for visitors, food and beverage serving services, transport services, travel agencies and other reservation services, entertainment and recreation, country specific tourism characteristic goods (shopping), and miscellaneous) are applied to the city and provinces. The estimates can be improved by taking into consideration the provincial inflation data or provincial price statistics available for the seven tourism products.

One of the four TSA regional tables is the employment in tourism-related industries. This is not possible yet to have city and provincial disaggregation. The data on regional tourism employment are derived from the Labor Force Survey (LFS) of the PSA and does not have provincial estimates. One possible way to gather local employment is to prepare a separate survey or craft an administrative form to record employment in tourism-related industries. When this is instituted, the regional employment table will also be improved.

The Cordillera region is also embarking on the estimation of provincial and city product accounts this 2022. The provincial TSA tables is going to be companion economic estimates that would identify the contribution of tourism to the economies of the provinces and HUC. With the localization of TSA tables, the region is already poised for deeper understanding of the relationships of economic sectors of the localities and the tourism-related industries.

REFERENCES

- National Statistical Coordination Board. (2011). *Philippine Tourism Satellite Accounts (PTSA) Report*. Philippine Statistics Authority. (2018-2020). *Philippine Tourism Satellite Accounts (PTSA) Reports*. Philippine Statistics Authority. (2021). *2020 Philippine Tourism Satellite Accounts (PTSA)*. United Nations Statistics Division. (2008). *System of National Accounts (SNA)*. United Nations World Tourism Organization. (2010). *International Recommendations for Tourism Statistics 2008*. United Nations World Tourism Organization. (2020). *Tourism and COVID-19 - Unprecedented Economic Impacts*. <https://www.unwto.org/>. United Nations World Trade Organization. (2008). *Tourism Satellite Account: Recommended Methodological Framework 2008*.