

**India: Regional Tourism Satellite
Accounts, 2015-16
Andaman & Nicobar Islands**

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India: Regional Tourism Satellite Accounts, 2015-16

Andaman & Nicobar Islands

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December 2019



NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH

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The findings, interpretations, and conclusions expressed are those of the authors and do not necessarily reflect the views of the Governing Body or Management of NCAER.

FOREWORD

NCAER has been working closely with India's Union Ministry of Tourism for nearly two decades on India's Tourism Satellite Accounts. Having released the Third National TSA Report for 2015-16 in November 2018, NCAER has now prepared reports on Regional TSAs (RTSAs) and State TSAs for 2015-16. This is the second round of state TSAs, following the first round in 2009-10. Notwithstanding the many data limitations at the state level, India is one of the few countries across the world to have prepared TSAs at the sub-national level.

The reports delineate the direct as well as indirect contribution of tourism to the state economy in addition to the detailed tourism profile of the states. The RTSAs have been prepared in accordance with the United Nations World Tourism Organisation (UNWTO) framework, popularly known as the Recommended Methodological Framework or RMF:TSA 2008. The tourism statistics available are largely physical and non-monetary in nature, but their value needs to be quantified for estimation of the share of tourism in economic aggregates like GDP and employment. A good TSA estimates these values by using the macro-economic framework of the System of National Accounts (SNA) by integrating tourism statistics into them and measuring the linkages between the demand and supply for goods and services related to tourism.

The challenges of the unequal geographical distribution of tourism activity within a nation, the varied tourism destinations offered by different states, and different development priorities of state administrations have necessitated understanding tourism as a location-specific economic activity. The UNWTO encourages countries to develop sub-national or regional TSAs to account for the decentralisation of political power, for the multi-faceted nature of tourism activities across locations, for the growing interest of tourism-related local businesses in learning about the inter-relation of their activity with others, and for the management of state-specific resources. These NCAER RTSAs have sought to address these issues by upgrading the data we have used for measuring economic impact at the sub-regional level.

I would like to take this opportunity to thank the agencies that provided the underlying data for the RTSA 2015-16, especially the National Sample Survey Office for their Domestic Tourism Survey, the Indian Statistical Institute for their International Passenger Survey, and the Central Statistics Office for National Accounts Statistics. NCAER is particularly grateful to nodal officers at the Ministry of Tourism, including Shri S.M. Mahajan, former Additional Director-General; Shri P.C. Cyriac, Additional Director-General; Ms Mini Prasannakumar, former Director; Shri Shailesh Kumar, Deputy Director; Ms Anshika Bhatnagar, Assistant Director; and Shri S.K. Mohanta, DPA, for the valuable inputs and administrative support for preparing the TSA. This work would not have been possible without their wholehearted cooperation.

For their excellent work and commitment to this research, I would like to thank members of the NCAER TSA research team led by Dr Poonam Munjal, Senior Fellow, and

including Senior Fellow Mr K.A. Siddiqui, Fellow Mr P.K. Ghosh, Associate Fellow Dr Nijara Deka, Senior Research Analysts Dr Palash Baruah and Mr Asrar Alam, and Research Associates Ms Sundus Usmani, Ms Sanjana Chhabra, Ms Gunjan Pal, and Mr Rahat Hasan Khan. They all deserve the highest praise for the care with which the State TSAs have been put together.

New Delhi
December 18, 2019

Shekhar Shah
Director General
NCAER

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ABBREVIATIONS AND ACRONYMS

Units used in the Report

1 crore = 10 million

1 lakh = 100 thousand

CES	Consumer Expenditure Survey
CSO	Central Statistical Office
DTS	Domestic Tourism Survey
EUS	Employment and Unemployment Survey
FISIM	Financial Intermediation Services Indirectly Measured
GCE/GFCE	Government Final Consumption Expenditure
GDP	Gross Domestic Product
GSDP	Gross State Domestic Product
GVA	Gross Value Added
GVATI	Gross Value Added of Tourism Industries
IPS	International Passenger Survey
IRTS	International Recommendations on Tourism Statistics
ISI	Indian Statistical Institute
ISIC	International Standard Industrial Classification (United Nations)
MPCE	Monthly per capita consumer expenditure
MRP	Mixed reference period
NAS	National Accounts Statistics
NCAER	National Council of Applied Economic Research
NIT	Net Indirect tax
NPISH	Non-Profit Institutions Serving Households
NRI	Non-Resident Indian
NSSO	National Sample Survey Office
PFCE	Private Final Consumption Expenditure
PIO	People of Indian Origin
PP	Purchasers price
RMF	Recommended Methodological Framework
SUT	Supply and Use Tables
TDGDP	Tourism Direct Gross Domestic Product
TDGVA	Tourism Direct Gross Value Added
TSA:RMF	Tourism Satellite Account: Recommended Methodological Framework
TTM	Trade and transport margins
UN	United Nations
UNWTO	United Nations World Tourism Organisation
VAT	Value Added Tax
WTO	World Tourism Organisation

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I. INTRODUCTION

Tourism Satellite Account is a framework designed to measure goods and services associated with tourism, according to internationally agreed standards, concepts, classifications and definitions

Tourism is a social, cultural and economic phenomenon related to the movement of people to places outside their usual place of residence. While recreation is the usual motive of tourism activity but it is not restricted to recreation only and expands to other motives like business, health, religious, educational and in recent times, even shopping. Owing to the rapidly increasing tourism activities across the globe and the significantly high foreign exchange earnings from such tourism activities, it has become a task of primary preference for nations to measure tourism statistics (both monetary and non-monetary).

The importance of measuring tourism statistics also emerges from the fact that tourism induces economic activity either directly or indirectly, sometimes in places beyond those visited. These could be in terms of economic output or in terms of employment generation, besides other social and infrastructural dimensions. The availability of reliable statistics on tourism sector and analysis based on them can be of utmost importance to the policymakers for decision making.

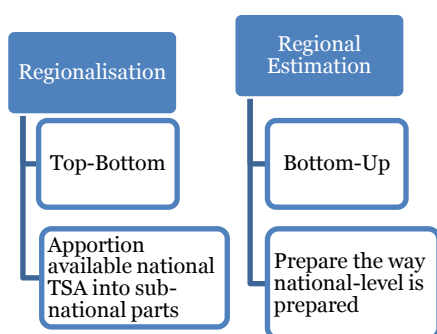
The United Nations World Tourism Organisation (UNWTO) recommends to put the relevant tourism statistics in an accounting framework so as to integrate these statistics with the System of National Accounts and to show the linkages between demand and supply for goods and services in respect of Tourism. This accounting framework is called the **Tourism Satellite Account (TSA)**. By definition, it is a framework designed to measure goods and services associated with tourism, according to internationally agreed standards, concepts, classifications and definitions. It helps in assessing the size and contribution of tourism to the economy.

While such framework is available for the preparation

of national level TSA, there is a void in the availability of such framework for preparing the regional or sub national level TSAs. Nonetheless, regional estimation of tourism statistics and bringing them together in a TSA framework has been arousing lot of interest globally and is increasingly becoming popular. This has also been recognized by UNWTO, as a result of which it has taken various initiatives to develop the regional or sub-national TSA.

In a paper published by UNWTO Statistics and Tourism Satellite Account (STSA) in October 2013, titled “Regional Tourism Satellite Account”, as one of the STSA Issue Paper Series, two distinct conceptual and methodological approaches to prepare regional TSA, have been discussed (Figure I.1). These are the following:

Figure I.1: Two approaches to prepare RTSA



Regionalisation

Also called the interregional approach or top-bottom approach, regionalization attempts to apportion the available national TSA into its sub-national parts or regions using different indicators and relevant ratios. Therefore, this approach is common to all the regions of the national territory and is based on and intimately linked to the System of National Accounts. However, this approach relies on the existence of a National TSA and the availability in each region of uniform tourism information for each of the tables and aggregates to be regionalized.

This approach has been used by many countries like Canada (Barber-Dueck et al., 2003); Australia (Van Ho et al. 2008), and the northern European countries of Denmark, Finland and Norway (Zhang 2005, Konttinen 2006, Braendvang et al. 2001). These countries have developed RTSAs using the national TSA or national accounts and the input-output system, consisting essentially of supply and use tables (SUT).

Regional Estimation

This approach, also called bottom-top approach, entails the development of a specific TSA for any given region, in which specific situations and differentials may also be identified for important sub-regional territories, provided there is sufficient information on them. Hence, this approach helps in preparing the regional TSA (RTSA), just as one would prepare the national-level TSA.

This approach has been used by the various regions of Spain, most recent been the one presented in 2010 for the Madrid region (Instituto de Estadística-C. Madrid (2011)). This approach has also been used by others like Wales in the United Kingdom (Jones et al. 2010) and Flanders-Brussels (Weekers, 2012). Such TSA's are developed using the SUT and other statistical and accounting information for the specific region concerned, reproducing the basic TSA: RMF scheme on a regional scale, with the necessary adjustments required for conceptual and statistical reasons.

However, due to the lack of a common conceptual approach across the countries, there continues to be a difficulty in making RTSA framework comparable with each other or with the national framework. Nonetheless, according to TSA: RMF 2008, there are various reasons for encouraging discussions on the preparation of RTSAs. Some of these reasons are:

- There is a worldwide trend towards a certain degree of decentralization of political power and decentralized management of national resources in federal states, regions, municipalities, etc. In order to allocate and monitor these resources effectively, more and better integrated regional and local information are required.
- The tourism activities are multifaceted in nature and can potentially benefit rural areas that are seeking to diversify.
- The unequal geographical distribution and characteristics of tourism activity within the national territory, from the standpoint of both demand and

First sub-national TSAs for Indian states and UTs were prepared for the year 2009-10, along with India's Second national-level TSA

supply, lead to additional requirements for tourism statistics at the various territorial levels.

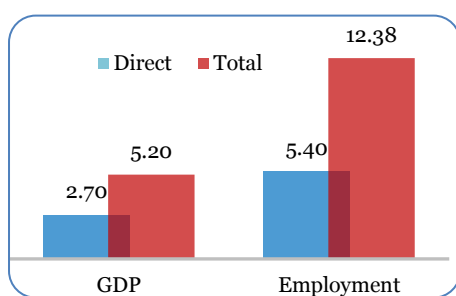
- There is a growing interest of tourism-related businesses in learning about the interrelation of their activity with others and its main determinants and seasonal cycles.
- There is a great necessity of improving the allocation of resources in national and local economies, which can only be achieved by upgrading quantitative references and measuring economic impacts.

RTSAs for states in India

In India, preparation of a national level TSA itself is a voluminous and expensive task as it requires primary surveys to be undertaken to capture the relevant information from Domestic Tourists, Inbound Tourists as well as Outbound Tourists. These are collected through two different surveys – household survey called “Domestic Tourism in India” and international tourists’ survey called “International Passenger Survey”, details of which will be presented in later sections.

So far, three national level TSAs have been prepared for India. The first TSA was for the reference year 2002-03, second for 2009-10 and the third TSA for 2015-16. With regard to the RTSAs, the data for 2009-10 were used to make the first attempt to prepare the TSAs for all the states of India for the same year. The preparation of TSAs for all states was accomplished in different phases. In its pilot phase and as part of the Second TSA-2009-10, TSAs for two states – Madhya Pradesh and Kerala – were prepared. Following this, TSAs of the remaining 33 states and UTs were prepared, using the same data, in three phases under the “3-year integrated study for the preparation of TSAs for all states and UTs of India”. All of these studies, including all the three national level TSAs and all state TSAs were commissioned to National Council of Applied Economic Research (NCAER) by the Ministry of

Figure I.2: Contribution of Tourism to national economy (%)



Source: Third Tourism Satellite Account for India – 2015-16

Tourism (MoT).

Now, continuing with the practice of preparing the TSAs at national and state level in regular intervals, MoT has entrusted NCAER again to prepare the country's Third TSA along with the TSAs for all the states and UTs. As part of this study, the present report presents the TSA for the state of Andaman and Nicobar and the key outcome is the Tourism sector's contribution in the total GDP and employment of the state.

Contribution of Tourism to national economy

At All-India level, the Third TSA reveals that tourism accounts for 2.70 percent to the GDP as its direct share. With indirect share added, the total contribution works out to be 5.20 percent. With respect to employment, the direct share is 5.40 percent which the total share, including indirect component, is 12.38 percent (Figure I.1).

Structure of the Report

The present chapter on Introduction dealt with the overview of Tourism Satellite Account and its methodology widely adopted for regional accounts across the countries. Also the chapter gave the background of the regional TSAs in India.

Chapter II presents a snapshot of the state with respect to its geographies, demographic, economic and social profile. Other indicators which are of interest with tourism perspective like infrastructure, cultural aspects and main tourism destinations are also discussed.

Chapter III talks briefly about the various data sources that were used in the preparation of the state TSA.

Chapter IV provides the framework of the recommended TSA tables and tourism aggregates that have been included in this Report. The text for this section is mainly drawn from IRTS, 2008 and TSA:

RMF 2008.

Chapter V presents the TSA tables for the year 2015-16. This Section also includes the tourism aggregates that have been derived from the TSA tables.

Chapter VI presents the key findings of TSA, 2009-10.

Annexure I presents the key challenges faced in the preparation of state-level TSA. Annexure II talks briefly about the international study visit undertaken by the team to Australia to exchange the ideas related to methodology involved in preparing regional TSAs.

The Glossary includes the conceptual issues and operational definitions of tourism, its types, forms, dimensions and related issues.

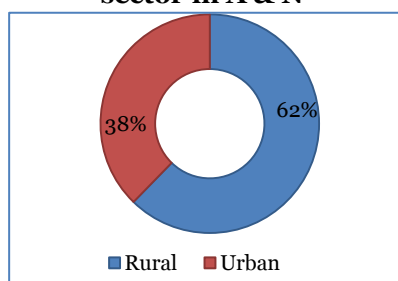
II. STATE PROFILE



❖ Capital:	Port Blair
❖ No. of Districts:	3
❖ Location:	East India Islands
❖ Land Area:	8249 sq. Km
❖ Climate:	Tropical Coastal
❖ Terrain:	Island

The Andaman and Nicobar islands are a group of Islands in the Bay of Bengal isolated from the mainland of India.

Figure II.1: Population Breakup according to Rural and Urban sector in A & N

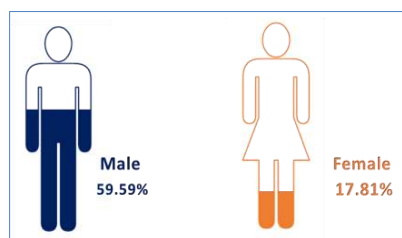


Source: Census of India

II.1. Demographics and Social Profile

Andaman and Nicobar have a population of 3.81 lakh (As per Census 2011) and 2.37 lakh people reside in the rural areas and remaining 1.43 lakh in the urban areas. Thus, 62 percent of the total population resides in rural areas while 38 percent resides in urban areas which is higher than the all India level of urban population at about 31 percent (Figure II.1).

Figure II.2: Work Force Participation Rates



Source: Census of India

The population density of the state is 46 per Sq. Km. which is lower than the national average of 382 per Sq. Km. The literacy rate is 86.27 percent in the state. The overall sex ratio is 876 females per 1000 males. The total work participation in the state is 40.08 percent which is higher than the national average of 39.8 percent. The workforce participation rate by gender is presented in Figure II.2.

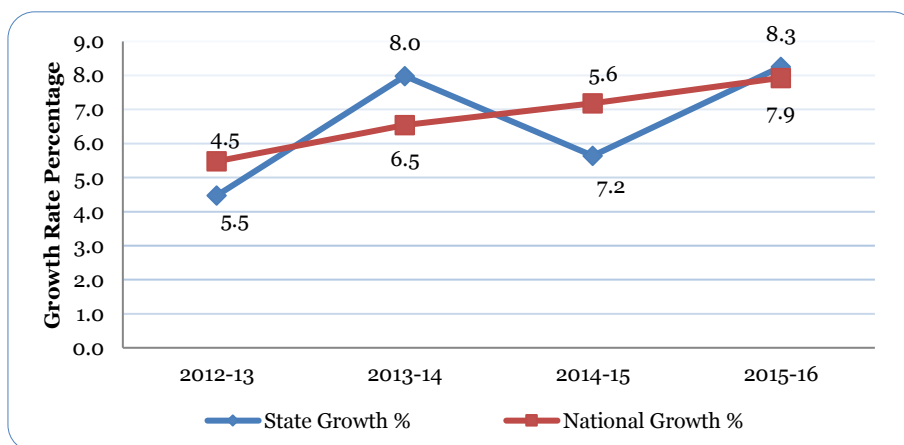
The island territory of India in the Bay of Bengal is one of the very few places on earth where the native tribal people live who are protected by the government and these tribal people are still untouched by the modern world and civilization. The major language spoken in the accessible island is Bangla, Hindi, Tamil, Telugu, and English.

II.2. Economic Profile

The macro indicators of the state in terms of Gross State Domestic product (GSDP) at constant (2011-12) price for the year 2015-16 are showing a positive trend. The GSDP was Rs. 51.33 Crore, the economic growth rate was 8.3 percent (Figure II.3). The net state domestic product was Rs. 45.52 Crore. The per capita income was Rs. 1.08 lakhs.

The economy of the UT is dependent on the agriculture and tourism sector. In the case of the primary sector, the main produce of the state is rice, coconut, oilseed, and fruits like banana, oranges and a few others. The industry sector in the state include small-scale products, handicrafts, and minor products and there are no major factories because of the lack of availability of land and also the sensitive ecological environment in the region. The islands are located in a very strategic location in the Bay of Bengal and thus the presence of Indian navy and their many assets in the region makes the Island a very important place. There are a group of many islands with the presence of many beautiful locations, beaches, clear waters, and natural beauty is soon emerging as a major tourist spot and tourism is one of the major sectors that gives job and employment to the people and is the major part of the economy of the U.T.

Figure II.3: Growth in Gross State Domestic Product (Constant Prices)



Source: Central Statistics Office

Box II.1: Infrastructural indicators

Total road: 1493 Km, Surfaced Road: 1443 Km

1 International Airport.

Optic fiber cable Laid under Bharat net Phase-1 is 2 Km.

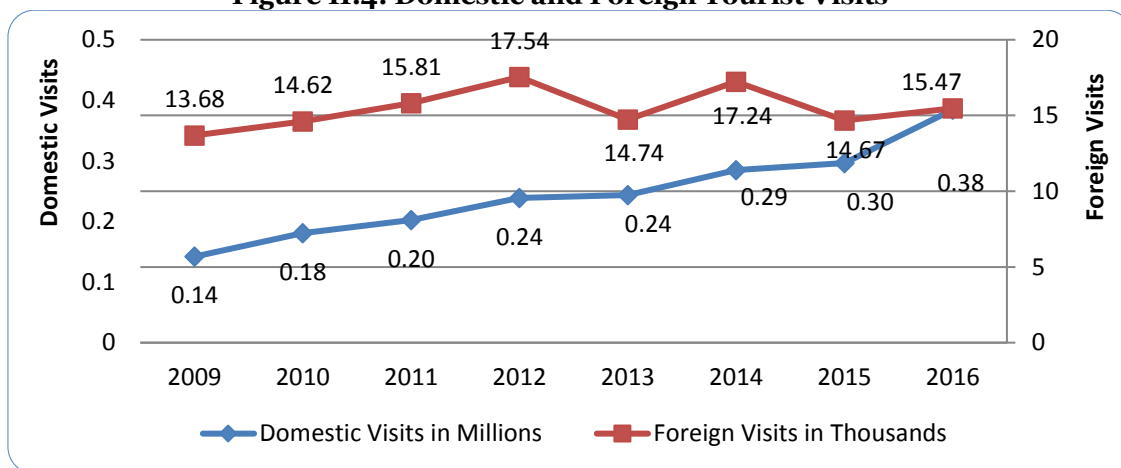
II.3. Infrastructure and Connectivity

The UT is isolated and its connectivity with the mainland is through Air connectivity and sea connectivity and thus the UT has many ports in the region ranging from large to small ports and the major mode of transportation between the Islands is boats and roads on the islands connecting various spots. The city of Port Blair will be developed as a smart city and the state have performed well in terms of Cleanliness and this parameter may boost the tourist experience and tourist visits.

Some of the key infrastructural indicators are presented in Box II. 1.

The trend of domestic as well as foreign tourist visits in the state is presented in Figure II.4.

Figure II.4: Domestic and Foreign Tourist Visits



Source: India Tourism Statistics, Ministry of Tourism

II.4. Tourist Attractions

The islands were controlled by the Britishers during the British era in India and was a strategic location for them and therefore there are buildings and monuments of that era which have now become a tourist attraction. These buildings include the famous Cellular Jail national memorial, Ross Island, Viper

Box II.2: Major Types of Tourism



Island, Chatham Island, Netaji flag hoisting memorial, Param Vir Chakra memorial.

The UT is a group of many Island and beaches with exotic experience which are the main attraction among the tourists and these include Havelock Island, Neil Island, Long Island, Baratang Island, Rangat, Mayabunder, Diglipur, Barren Island, Great Nicobar, Campbell Bay, Little Andaman.

Although the Islands used to have a decent population of the greater Andaman tribe, since the colonization of the Britishers their population has drastically declined. Therefore, government has also been giving protection this tribe. The culture of the people residing in the islands is very diverse and the population are from almost all the eastern coastal states. The major festivals includes Christmas, Durga Puja, New Year, Diwali, Eid and many other traditional festivals.

By the virtue of their geography and location the UT has many adventure and water sports which are almost rare in rest of India. These activities include Water Sports, Game Fishing, Forest And Beach Camping, Snorkeling And Scuba Diving, Sea Walk, Trekking, Bird Watching, Mangrove Creek Safari.

There is a good local handicraft industry and market which enriches the tourist experience and these crafts are mostly made locally from locally sourced materials. The cuisine includes fish dishes, continental food and traditional mainland dishes like curry, rice, dosa etc.

Andaman and Nicobar islands have 9 national parks of a total area of 1153.94 Sq. Km. and 96 wildlife sanctuary present. The islands have huge reserves of natural forests and many natural rare features like Volcanos and beaches with a huge land and marine biodiversity which have a huge potential for natural and wildlife tourism.

III. DATA SOURCES

Domestic Tourism Survey, 2014-15, conducted by NSSO, is the main source of Domestic Tourism expenditure, a key statistic required for TSA

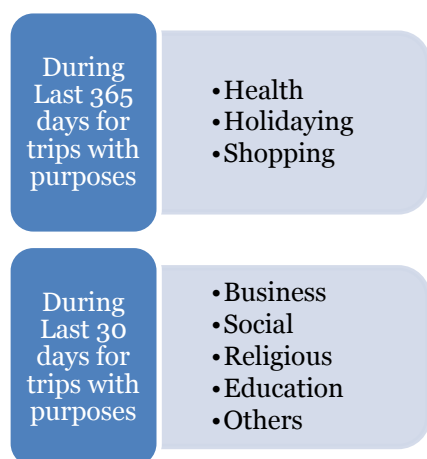
Preparation of an RTSA for a state requires the following:

- Statistics on expenditures made by visitors on different products within the state.
- Statistics on supplies from the domestic production and imports (which include from other states) to meet these purchases of tourists.
- Confrontation of the two sets of statistics in the national accounting framework through the supply and use tables so that supplies from domestic production and imports match with the expenditures made by tourists.
- Estimate the value added out of the domestic production that is involved in supplying the products to tourists' purchases.
- Statistics on employment in tourism industries.

The reference year for the Third national-level TSA and the states RTSAs is 2015-16. Accordingly, to obtain the statistics listed above, the important data sources are the following:

- Domestic Tourism Survey conducted by NSSO in 2014-15.
- International Passenger Survey conducted by Indian Statistical Institute (ISI), Kolkata in 2015-16
- Employment-Unemployment Survey, NSSO, 2011-12
- Annual Employment-Unemployment Survey (Labour Bureau), 2015-16
- Consumer Expenditure Survey of NSSO, 2011-12
- Household Consumption on Durable Goods and

DTS 2014-15 covered households which had at least one member who performed an overnight trip of the following criteria



Services, NSSO, 2014-15

- State Accounts by State Department of Economics and Statistics, 2012.
- Supply and Use Table (Central Statistics Office), 2012-13

III.1. Domestic Tourism Survey (DTS) – 2014-15

The first Domestic Tourism survey was conducted by NCAER in 2002-03, which was used in the preparation of India’s first TSA. For the second TSA, National Sample Survey Office (NSSO) conducted its first comprehensive survey on domestic tourism, called Domestic Tourism Survey, during the period July 2008 to June 2009. This was an all-India household survey and was carried out as part of NSSO’s 65th Round of sample surveys.

Later during the period July 2014 to June 2015, NSSO carried out the similar survey on Domestic Tourism, in its 72nd round of survey. The purpose of the survey was primarily to provide requisite tourism related estimates for preparing the national as well as state-level TSAs.

As per the requirement of TSA, focus of the survey was on capturing the details of domestic overnight trips. Information on household characteristics, which are the important determinants of tourism characteristics, such as household size, principal industry, principal occupation, household type, religion, social group, household consumption expenditure, particulars of overnight trips completed during the reference period and expenditure incurred by the household on domestic tourism were captured. Regarding data on particulars of expenditure, break-up of expenditure by various components of accommodation; food and drink; transport; shopping; recreation etc. were collected. Besides, some information on same-day trips was also captured.

A stratified multi-stage design was adopted for this survey. The first stage units (FSU) were the census villages in the rural areas and Urban Frame Survey (UFS) blocks in the urban areas.

The ultimate stage units (USU) were households in both rural and urban areas. A total of 8001 villages in rural India and 6061 urban blocks in urban India were surveyed after selecting by Probability Proportional to Size with Replacement (PPSWR). In all, 79497 households from rural and 60191 from urban India were surveyed.

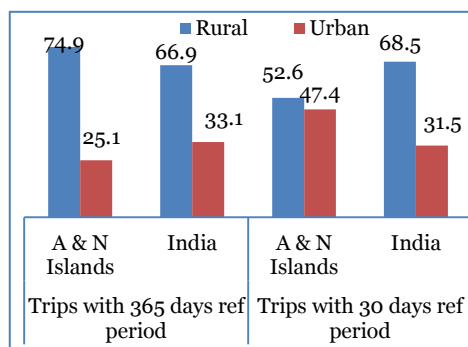
The households selected for the survey were those who met at least one of the following criteria:

- Have at least one member who performed overnight trip during last 365 days for the following leading purposes:
 - Health & medical
 - Holidaying, leisure & recreation
 - Shopping

- Have at least one member who performed overnight trip during last 30 days for the following leading purposes:
 - Business
 - Social
 - Religious & pilgrimage
 - Education & training
 - Others

The survey estimated total number of households in India to be 25.4 crore, of which 36.3 percent of the households reported at least one overnight trip. Note that this implies that 36.3 percent of the households reported at least one overnight trip with leading purposes holidaying, leisure and recreation; health & medical and shopping completed during last 365 days and/or business, social, religious & pilgrimage, education & training and others completed during last 30 days. This proportion is almost the same in rural and urban areas at 36.6 per cent and 35.7 percent respectively.

Figure III.1: Percent distribution of domestic trips by rural and urban areas



Source: DTS 2014-15 and NCAER computation

It may be noted that information on trips are collected differently for different leading purposes of trips, that is, reference period for some trips is 365 days and for others is 30 days. Hence, survey captures all the trip characteristics for two sets of trips – one with 365 days reference period and other with 30 days reference period. Even the total number of trips is presented separately for these two sets of trips

Key DTS findings for Andaman and Nicobar

In Andaman & Nicobar Islands, the sample number of households was 706, comprising 350 from rural areas and 356 from urban areas. Number of sample households reporting overnight visitors were 562. In other words, 80 per cent of the sample households reported overnight visitors.

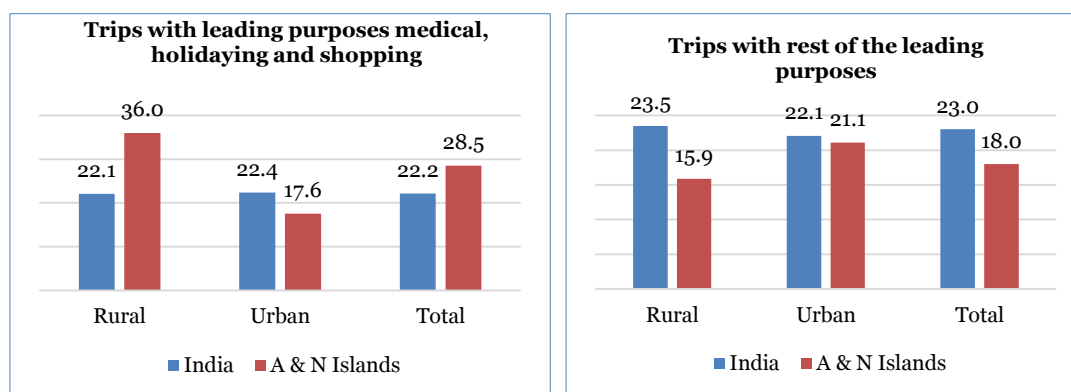
The survey estimates the total number of households in Andaman & Nicobar Islands to be 1.1 lakh. Of these, 35.5 thousand households (or 32.59 percent) reported having overnight visitors. The rural-urban breakup suggests that of the total visitor reporting households, 67.6 percent belong to the rural areas.

About 75 per cent of the overnight trips with reference period 365 days (with purposes medical, holidaying and shopping) and 52.6 per cent among reference period 30 days (with rest of the purposes), originated from rural areas of the state (Figure III.1)

The intensity of domestic tourism in each state is measured by the number of trips per 100 household during the reference period. With leading purposes medical, holidaying and shopping (with reference period of 365 days), a higher number of trips per 100 households originate from Andaman & Nicobar Islands than the national average number of trips per 100 households. This is true for rural areas. Among all the states and UTs of India, Andaman & Nicobar Islands ranks 8th position with respect to tourism intensity for trips with leading purposes medical, holidaying and shopping.

On the other hand, the tourism intensity for the rest of the leading purposes (with reference period of 30 days) is less than the national average. With regard to tourism intensity for these trips, Andaman & Nicobar Islands secures 24th position among all states and UTs of India. (Figure III.2)

Figure III.2: Average Number of domestic Trips per Hundred Households

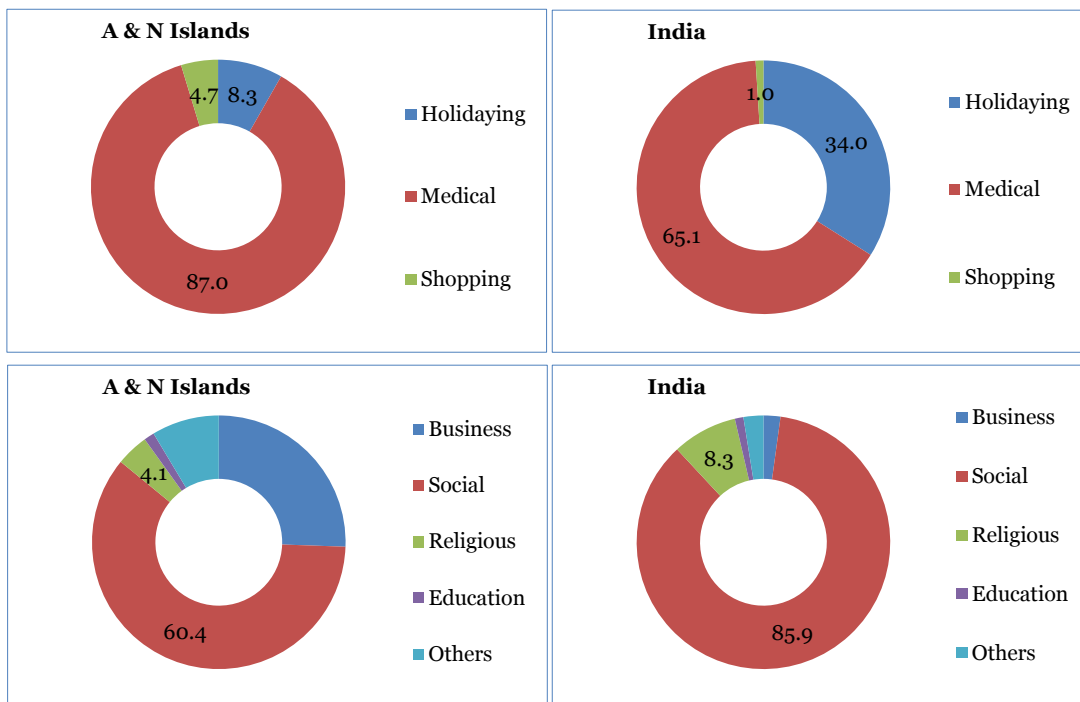


Source: DTS 2014-15 and NCAER computation

The distribution of overnight trips by leading purposes – medical, holidaying and shopping - reveal that people living in Andaman & Nicobar Islands travel mostly for medical with 87 percent of trips in this category. It is followed by 8.3 percent of trips made for holidaying. While at all-India level, among these three purposes, almost 65.1 percent travel for medical purpose, in Andaman & Nicobar Islands this category shows maximum number of trips.

The distribution of trips by rest of the purposes is not very different in Andaman & Nicobar Islands from that in India. For both Andaman & Nicobar Islands and all-India, most of the trips undertaken are for social purpose, accounting for 60.4 percent in Andaman & Nicobar Islands and 85.9 percent in India, as a whole. (Figure III.3).

Figure III.3: Distribution of domestic Trips by Leading Purposes



Source: DTS 2014-15 and NCAER computation

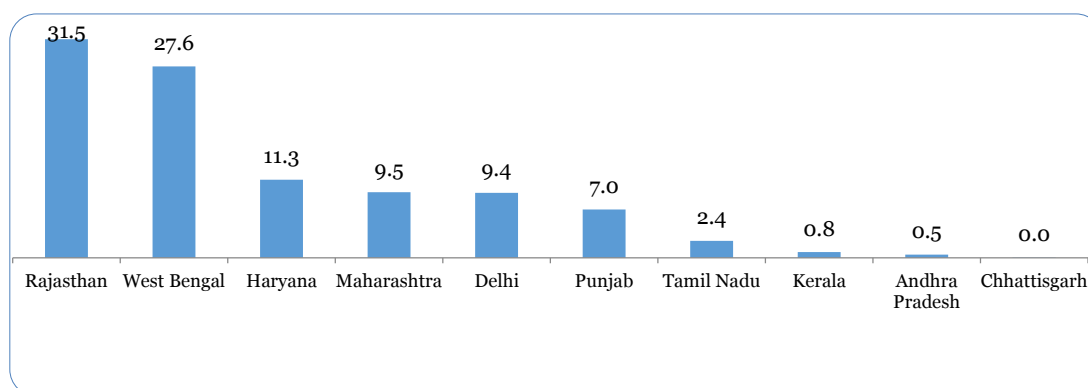
Most of the overnight trips, across all purposes, were undertaken within the state. This is true for almost all the states and hence is reflected in national average too. The following table (Table III.1) presents the percent trips undertaken within the state, compared with all-India average.

Table III.1: Percent trips undertaken within the state

	Andaman & Nicobar Islands	All-India average
Reference Period 365 days		
Holidaying	82.2	65.9
Medical	74.9	91.8
Shopping	97.2	81.2
Reference Period 30 days		
Business	91.5	70.9
Social	92.5	93.1
Religious	69.0	75
Education	68.9	76.2
Others	85.9	84

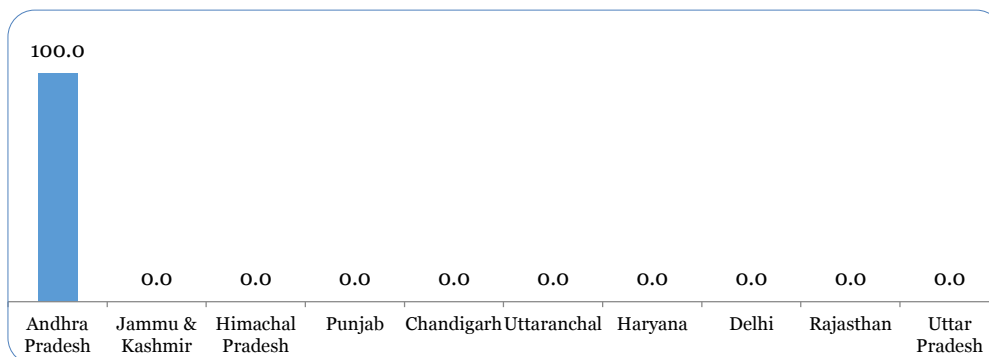
Source: DTS 2014-15 and NCAER computation

Among the trips undertaken from other states of India for the leading purposes holiday, medical and shopping, the majority are undertaken from Rajasthan, West Bengal and Haryana. The percent distribution of trips undertaken from “outside state” is presented in Figures III.4a and Figure III.4b.

Figure III.4a: Percent domestic trips (with leading purposes holiday, medical and shopping and with 365-day reference period) to A&N from top 10 other states

Source: DTS 2014-15 and NCAER computation

Figure III.4b: Percent domestic trips (with leading purposes other than holiday, medical and shopping and with 30-day reference period) to A&N from top 10 other states



Source: DTS 2014-15 and NCAER computation

Use of DTS data for TSA

The DTS data that were used in the preparation of TSA for Andaman & Nicobar Islands were the expenditure data by items of expenditure and by purpose of travel. These expenditures were collected for the tourists who travelled within the state providing information on Domestic Tourism Expenditure of the state.

Also these data were used to arrive at the expenditures of those tourists who belonged to other states of India but whose main destination was Andaman & Nicobar Islands. This formed one part of Inbound Tourism Expenditure, the other part being expenditure of foreign tourists that visit the state, which was obtained from the International Passenger Survey.

Types of tourists covered in IPS:

1. Non-Resident Indians (NRIs)
2. Persons of Indian origin (PIOs)
3. Overseas citizens of India (OCIs)
4. Other Foreigners

III.2. International Passenger Survey (IPS) – 2015-16

MoT commissioned the Indian Statistical Institute (ISI), Kolkata to conduct the International Passenger Survey (IPS) for the year 2015-16. The survey targeted the following three categories of International tourists, namely.

- Foreign nationals visiting India,
- Non-Resident Indians visiting India, and
- Indian Residents travelling abroad.

A multistage sampling design was adopted to conduct the survey at each of the airports and land check posts. At the first stage, six airports, namely Bangalore, Chennai, Dabolim (Goa), Delhi, Kolkata and Mumbai were selected purposely keeping in mind the different geographical zones of India.

Among the remaining international airports, four other airports namely, Amritsar, Cochin, Hyderabad and Pune, were selected using sampling scheme with probability proportional to foreigner's departure volume in the year 2012 as its size measure.

Among the land posts, Haridaspur was selected purposely based on the experience from the previous IPS. Among the remaining land check posts, survey could be conducted at only two check posts, namely Changrabandha and Mahadipur.

Use of IPS data for TSA

The data from IPS can be used to obtain the expenditure incurred by the foreign tourists in India, by items of expenditure and by types of tourists, namely NRIs, PIOs, OCIs and other foreign tourists. These data are used in the preparation of TSA at national level.

For state-level TSA, the information on expenditure incurred in the state of destination could not be derived directly from the data. However, these are imputed using the expenditure incurred in the last places of night halt (LPNH). The respondents were

asked to name these places, which are locations in the various states. The detailed methodology is discussed in the following chapter on Methodology.

For Andaman and Nicobar, the following locations were identified as LPNH by the respondents:

- Cornwallis
- Diglipur
- Elphinstone Harbour
- Mayabunder
- Meadows
- Port Blair
- Rangat
- Ranghat Bay
- Smith and Ross
- Havelock Island

For outbound tourism, Indian residents travelling abroad were canvassed through a separate questionnaire focusing on Outbound Tourism. The data on pre-trip expenditure incurred by these tourists, before the actual outbound trip was undertaken, were collected. The survey provides information on the respondent's state of residence; hence we can obtain the data on number of tourists travelling abroad from each state and on their pre-trip expenditure which is assumed to have been largely incurred in the state of reference. These expenditures are obtained by the items of expenditure and by purpose of travel.

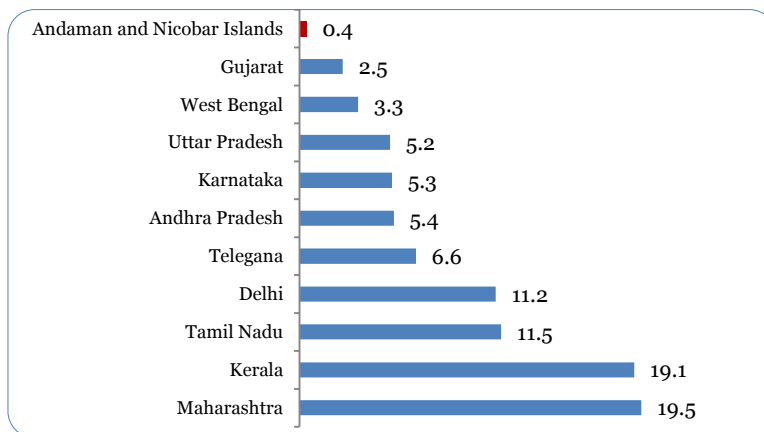
Key IPS findings for Andaman & Nicobar Islands

The estimated total number of all visitors coming to India is 83,290,78. Estimated total number of outbound Indians is 20,523,715. The age group 31 - 40 years was found to be the modal class for the Foreigners. Modal age group for outbound passengers was 18 - 30 years.

From Andaman & Nicobar Islands, number of

outbound tourists travelling abroad is estimated to be 80,913, which is 0.4 percent of total outbound tourists from India. This places Andaman & Nicobar Islands at 17th position among all the states of India (Figure III.5).

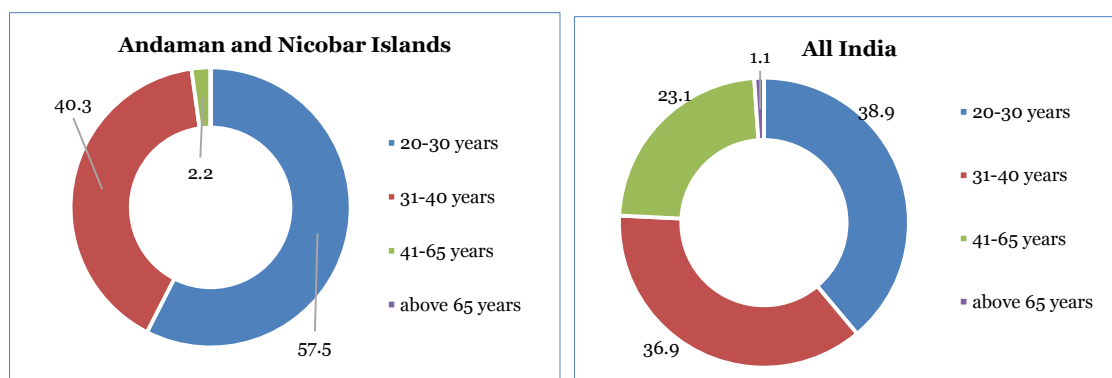
Figure III.5: Percentage share of Top 10 states in total Outbound Tourists



Source: IPS 2015-16 and NCAER computation

The distribution of outbound tourists by age groups reveal that of the total state residents travelling abroad, the majority (57.5 percent) belong to young age of 20 to 30 years. This is followed by 40.3 percent of those who belong to 31 to 40 years age group. As compared to this, at all- India 20-30 years age group remains as a leading category with 38.9 percent tourists (Figure III.6).

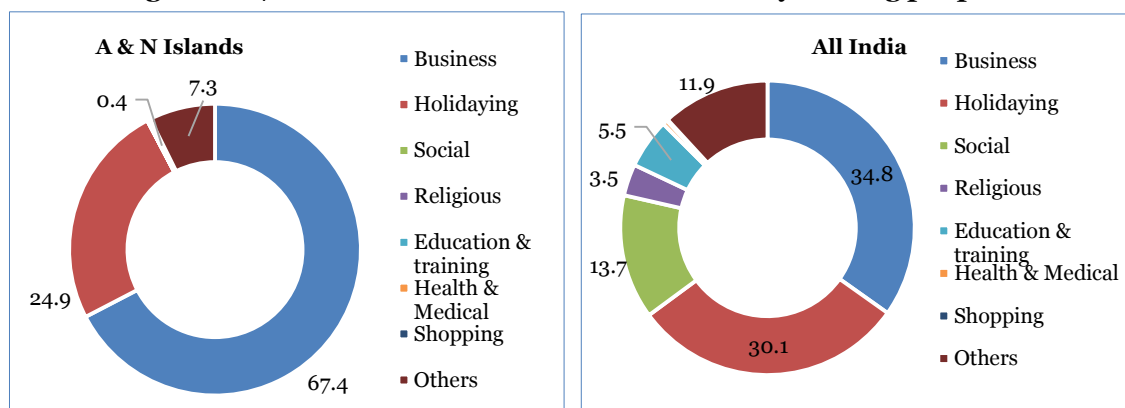
Figure III.6: Distribution of Outbound tourists by age-groups



Source: IPS 2015-16 and NCAER computation

The leading purpose of most of the outbound tourists travelling from Andaman & Nicobar Islands to other countries is business or professional. This is true for residents belonging to both rural and urban areas together and is not in contrast with the distribution observed at all-India level also. (Figure III.7).

Figure III.7: Distribution of Outbound tourists by leading purpose



Source: IPS 2015-16 and NCAER computation

Three reference periods are used in quinquennial programme of NSSO these surveys

- One year
- One week
- Each day of the week.

Based on these three periods different measures of employment are arrived at.

III.3. Employment-Unemployment Survey NSSO (EUS) – 2011-12

Employment and employment survey is part of the quinquennial programme of NSSO surveys. The quinquennial EUSs of NSSO aim to measure the extent of 'employment' and 'unemployment' in quantitative terms disaggregated by household and population characteristics. The persons surveyed are classified into various economic activity categories on the basis of the activities pursued by them during certain specified reference periods.

Three reference periods are used in these surveys. These are (i) one year, (ii) one week and (iii) each day of the week. Based on these three periods, three different measures of employment are arrived at, of which the one with 365 days reference period, called workforce according to 'usual status' approach, is widely used.

A stratified multi-stage design was adopted for the 68th round survey. The first stage units (FSU) were the 2001 census villages (Panchayat wards in case of Kerala) in the rural sector and Urban Frame Survey (UFS) blocks in the urban sector. The ultimate stage units (USU) were households in both the sectors.

The number of households surveyed was 1,01,724 (59,700 in rural areas and 42,024 in urban areas) and number of persons surveyed was 4,56,999 (2,80,763 in rural areas and 1,76,236 in urban areas).

Key EUS findings for Andaman & Nicobar Islands

From Andaman & Nicobar Islands, a total of 567 households were surveyed with 280 households from rural areas and the remaining from urban areas. From these households, 1147 persons were surveyed from rural and 1000 from urban areas.

The survey estimates the number of households to be 88 thousand in Andaman & Nicobar Islands. With the average household size of 3.7, the survey

estimates the total population at 3.3 lakh. Table III.2 presents the estimated number of workers by principal and subsidiary status.

Table III.2: Estimated number of workers by status- Andaman & Nicobar Islands (EUS-NSS)

Worker		Rural			Urban			All		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Principal	Own Account worker	26598	9371	35969	7003	1056	8059	33601	10427	44028
	Employer	260	100	360	256	0	256	516	100	616
	Regular Employee	26431	8655	35086	20486	6883	27369	46917	15538	62455
	Casual wage labour	10393	2100	12493	7229	3082	10311	17622	5182	22804
	Total	63682	20226	83908	34974	11021	45995	98656	31247	129903
Subsidiary	Own Account worker	1415	5364	6779	271	439	710	1686	5803	7489
	Employer	0	0	0	0	0	0	0	0	0
	Regular Employee	134	747	881	339	174	513	473	921	1394
	Casual wage labour	5585	1322	6907	751	875	1626	6336	2197	8533
	Total	7134	7433	14567	1361	1488	2849	8495	8921	17416
Principal + Subsidiary	Own Account worker	28013	14735	42748	7274	1495	8769	35287	16230	51517
	Employer	260	100	360	256	0	256	516	100	616
	Regular Employee	26565	9402	35967	20825	7057	27882	47390	16459	63849
	Casual wage labour	15978	3422	19400	7980	3957	11937	23958	7379	31337
	Total	70816	27659	98475	36335	12509	48844	107151	40168	147319

Source: NSSO EUS, 2011-12

Use of EUS for TSA

For the TSA tables, the employment data is based on usual activity status in both principal and subsidiary activities. The usual activity status (it is the activity situation in which a person is found during a reference period that relates to the person's participation in economic and non-economic activities) relates to the activity status of a person during the reference period of 365 days preceding the date of survey. The activity status on which a person spent relatively longer time (major time criterion) during the 365 days preceding

the date of survey is considered the principal usual activity status of the person.

However, the latest EUS data conducted by NSSO is available for the year 2011-12, whereas the reference year for state RTSA is 2015-16. Hence, we also make use of data on Employment and Unemployment from annual survey conducted by Labour Bureau.

III.4. Annual Employment-Unemployment Survey, Labour Bureau (EUS-LB)

Ministry of Labour Bureau, government of India has been conducting Annual Employment-Unemployment Survey in the country since the year 2010. The first survey was conducted in 28 States/UTs by covering 300 districts. The second, third and Fourth Annual Employment-Unemployment Surveys were more comprehensive in terms of coverage as well as parameters estimated and conducted in all the States/UTs by covering all the districts in the country. The survey deals with important parameters namely Labour Force Participation Rate, Worker Population Ratio, Unemployment Rate based on Usual Principal Status Approach and Usual Principal & Subsidiary Status Approach, distribution of employed persons by different activity, extent of underemployment etc.

Field work for Fifth Annual Employment-Unemployment Survey was executed from April, 2015 to December, 2015 in all the 36 States/UTs by covering all the districts in the country. *A moving reference period of last twelve completed months from the date of survey is used to derive various estimates of labour force and its derivatives.*

The survey covered both rural and urban areas of the country. A total of about 7.82 lakh members were inquired from a sample of about 1.57 lakh households in the country. Of the total sample, about 57 per cent were drawn from rural areas where remaining 43 per cent were from urban areas. All the Labour Force Estimates have been derived for persons aged 15 years and above only (Table III.3).

Table III.3: Estimated number of workers by status- Andaman & Nicobar Islands (EUS-Labour Bureau)

Worker		Rural			Urban			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Principle	Own account worker	26253	3372	29625	13303	3636	16940	39557	7009	46565
	Employer	5292	7233	12525	886	1000	1887	6178	8234	14412
	Regular employee	25475	5573	31048	8760	4103	12863	34234	9676	43910
	Casual wage labour	34528	8239	42767	13502	1346	14847	48030	9585	57615
	Total	91548	24417	115965	36451	10086	46537	127999	34503	162502
Subsidiary	Own account worker	324	324	648	1379	1379	2758	1703	1703	3405
	Employer	0	0	0	1908	3815	5723	1908	3815	5723
	Regular employee	226	226	451	0	0	0	226	226	451
	Casual wage labour	0	0	0	0	0	0	0	0	0
	Total	549	549	1099	3287	5194	8481	3836	5744	9580
Principle + Subsidiary	Own account worker	26577	3696	30273	14682	5015	19698	41260	8712	49970
	Employer	5292	7233	12525	2794	4815	7610	8086	12049	20135
	Regular employee	25701	5799	31499	8760	4103	12863	34460	9902	44361
	Casual wage labour	34528	8239	42767	13502	1346	14847	48030	9585	57615
	Total	92097	24966	117064	39738	15280	55018	131835	40247	172082

Source: Annual Employment-Unemployment Survey, Labour Bureau, 2015

III.5. Consumer Expenditure Survey of NSSO (CES), 2011–12

NSSO has been conducting the 'Household Consumer Expenditure surveys' (CES) on quinquennial basis. The latest available CES data is for year 2011-12.

A stratified multi-stage design was adopted for the CES. The number of households surveyed in 68th round was 101662 (59695 in rural areas and 41967 in urban areas). The prime aim of the CES was to generate estimates on monthly per capita consumer expenditure (MPCE) and its distribution across the different sections of the population like rural and urban and different socio- economic groups etc. both at country level as well as the State level.

In the 68th round of CES, two types of schedules of enquiry, type 1 and type 2, were canvassed. The only difference in the two types of the schedules was the reference period used for collection of consumption data. Data from type 1 schedule has been used in the estimations used in State TSAs.

Schedule Type 1 was canvassed following the traditional way of the previous quinquennial CES rounds. For less frequently consumed items, the information was collected for last 30 days and last 365 days consumption while for more frequently used items like food and fuel etc. the information was collected for the last 30 days consumption only.

On the other hand, the reference periods for schedule type 2 were last 365 days (only) for the infrequently purchased items, last 7 days for very frequently consumed items like some of the food items, pan, tobacco and intoxicants etc. and last 30 days for other food items, fuel etc.

A very detailed item classification was adopted to collect information on consumption of more than 300 items consumed by the households. The items on which the information was collected include 142 items

of food, 15 items of energy (fuel, light and household appliances), 28 items of clothing, bedding and footwear, 19 items of educational and medical expenses, 51 items of durable goods, and 89 other items. Other demographic information on household members like age, sex, educational attainment etc. were also collected through the CES schedules

Use of CES for TSA

The main use of CES results in the preparation of TSAs is to estimate the product level ratios of tourist expenditures as percentage of overall household expenditures and these ratios are applied on the PFCE estimates coming from the national accounts statistics. This adjustment is important to ensure the overall consistency of survey results with the national accounts statistics. The data source on household expenditure table for the State TSAs is the 68th round of CES for the year 2011-12

Key CES findings for Andaman & Nicobar Islands

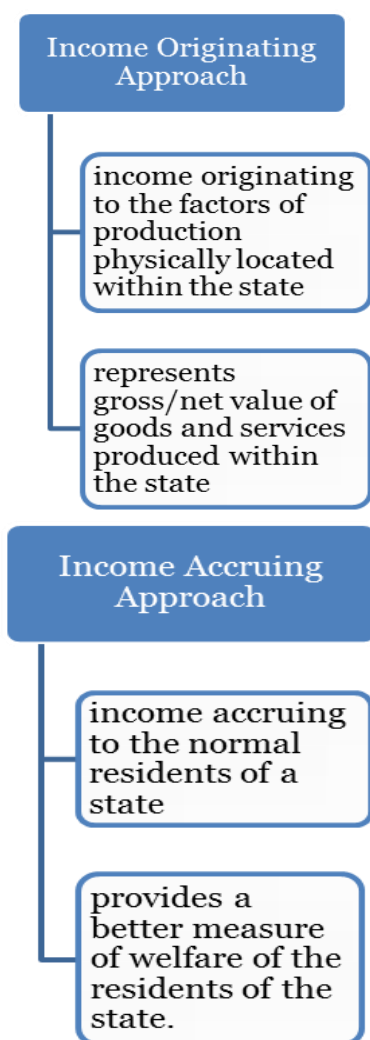
According to CES, MPCE (at MRP) on both food and non-food in rural and urban Andaman & Nicobar Islands is higher than that for All India MPCEs respectively. Overall MPCE in rural Andaman & Nicobar Islands (Rs. 2508.17) is about 48 percent higher than all India (Rs. 1287.17) and same for urban Andaman & Nicobar Islands (Rs. 4439.04) is also about 44 percent higher than that for urban India (Rs. 2477.03) as given in Table III.4.

Table III.4: Food and Non-Food Expenditure (MRP) in 2011-12

State Name	Rural/Urban	Food Expenditure	Non-Food Expenditure	MPCE (MMRP)
Andaman & Nicobar Islands	Rural	1175.67	1332.5	2508.17
	Urban	1531.6	2907.44	4439.04
All India	Rural	621.96	665.21	1287.17
	Urban	922.91	1554.12	2477.03

Source: NSS 68th round, Key Indicators of Household Consumer Expenditure in India, 2011-12

Approaches to State Income



III.6. State GDP Accounts, 2015–16

At national level, the estimates of Gross Domestic Product are prepared and published annually by the Central Statistical Office (CSO). Similarly, at state-level, the State Domestic Product estimates are prepared annually by the State Directorate of Economics and Statistics (DES). The state DES is the nodal agency for the coordination of statistical activities in the state.

DES annually estimates the State Domestic Product (SDP) using the concepts and methodology approved by the System of National Accounts (SNA) of the international agencies and finalize after the reconciliation with CSO.

Like GDP, SDP is the monetary value of all the goods and services produced within the geographical boundaries of the state, without duplication, within a given period of time, generally a year. The goods cover all possible items like agricultural crops, livestock products, fisheries, forest products, manufacture of materials in the registered and unregistered sectors, construction of buildings, roads etc. Services cover medical and educational services, domestic services, hotels, restaurants, trade, transport and public services etc.

Conceptually, the estimates of State Income can be prepared by adopting two approaches, namely, income originating and income accruing. In the income originating approach, the measurement corresponds to income originating to the factors of production physically located within the geographical boundaries of the state and represents gross/net value of goods and services produced within the state. On the other hand, the income accruing approach relates to the income accruing to the normal residents of a state. Since this measures the income that become available to the residents of a state, it provides a better measure of welfare of the residents of the state.

However, for compiling the State Domestic Product (SDP) estimates by income accruing approach one needs data on flows of factor incomes to/from the

boundaries of state i.e. on inter-state flows as well as flows to/from abroad. Due to lack of availability of these data, presently, the estimates of SDP are compiled by the respective DES in the states following the income originating approach. Thus the current concept of compiling the Gross/Net SDP is similar to that of compiling the GDP/NDP of the entire economy i.e., measuring the volume in monetary terms, the total value of goods and services produced within the geographical boundary of the state.

The general methodology for compiling the estimates of state income is to first compile the estimates at disaggregated level for each economic activity and then aggregating them for the whole region/state.

In the preparation of State TSAs, the SDP accounts are used to arrive at the supply side information of the tourism industries. While the SDP data are not available for all of these industries, the national level ratios are used to disaggregate the available data.

III.7. Supply and Use Tables (SUT), 2012-13

The central framework of the SNA also provides for the compilation of supply and use tables (SUT) with a focus on the processes of production and consumption of individual types of goods and services. The SUTs depict, in matrices form, where the products come from and how they are used. Their main use is to act as an integration framework for balancing the national accounts, by recording how the supplies of different kinds of goods and services originate from domestic industries and imports, and how those supplies are allocated between various intermediate or final uses, including exports. The framework thus provides for balancing the supply and uses of each type of goods and services, without leaving the scope for discrepancies.

The SUTs build up on the concept that the amount of a product available for use within the economy must have been supplied either by domestic production or by imports. The same amount of the product entering an economy during an accounting period must be used for intermediate consumption, final consumption,

capital formation (including changes in inventories) or exports. The TSA uses this framework to estimate tourism product shares, tourism industry shares, Gross Value Added Tourism Industries (GVATI), Tourism Direct Gross Value Added (TDGVA), and Tourism Direct Gross Domestic Product (TDGDP).

The Supply Table and Use Table are product by industry matrices but their entries are different. In the Supply Table, each column presents the values of products (kept in rows) produced by an industry or the products supplied by industries to the economy, distinguishing the domestic supply from foreign supply (imports). These are at basic prices. The total supply of each product at the purchasers' price has been obtained by adding taxes less subsidies on products and trade and transport margins.

On the other hand, a Use Table shows the use of the product (a good or service and kept in rows) by the type of use (kept in columns), that is, as intermediate consumption by industries, final consumption, gross capital formation and exports. They are all at purchasers' prices.

In India, the SUTs were not prepared until the Central Statistics Office (CSO) released India's first SUT for 2011–12 and 2012–13. These tables have been compiled at a level of disaggregation of 140 products and 66 industries. These 140 product groups have been taken up keeping in view the availability of product details from the data sources and also the products/items included in the compilation of the Index of Industrial Production (IIP). Similarly, 66 industries have been considered keeping in view the requirements of the NSA.

The total supply of goods and services available, as given in the Supply Table, is the sum of domestic production and imports. The domestic production or the value of output is at basic prices and the imports are inclusive of the Cost of Insurance and Freight (CIF). The CIF adjustment is done to bring them to Free on Board (FOB) prices. The domestic output matrix is at basic prices. This matrix is revalued since the use matrix is at the purchasers' prices. Hence, the supply matrix is revalued by adding taxes on products

less subsidies on products and adding the trade and transport margins.

The Use Table is at the purchasers' prices (unbalanced), which, in turn, consists of three sub-matrices:

The intermediate use matrix, which shows the input requirements of goods and services for the production of output of each industry sector;

The final use matrix (final demand column vectors) shows categories of final uses as final consumption expenditure (FCE) by households, Non-profit Institutions Serving Households (NPISH) and the government, gross fixed capital formation, changes in stocks, valuables and exports of products; and

The gross value added (row vector), at basic prices, which shows the components of value added by industry sectors.

In the Indian National Accounts, FCE by NPISH is not yet separately available. Thus, the private FCE comprising Household FCE and NPISH FCE has been adopted as the category of FCE and product-wise estimates of Private FCE (PFCE) have been obtained following the commodity flow approach.

For the Third National TSA, India's SUT of 2012–13 has been used, but it has been updated for the TSA reference year of 2015–16, using the GVA and output data of 2015–16, at the most disaggregated level as available in NAS.

The updated SUT, comprising 140 products and 66 industries, has been aggregated to 25 industries and 25 products. The aggregated SUT has been used for preparing the core table of TSA for deriving the Tourism Industry and Tourism Product Ratios. Further, this SUT has been converted into an Input-Output Table to derive the output and employment multipliers for the indirect contribution of the tourism sector.

At state-level, SUTs are not available. For the regional TSAs, state SUTs are prepared using the available state-level data on sectors' output and value added. These data are sourced from the CSO. These are used

for the outer boundary elements of the SUTs whereas for inter-industry supply and use transactions, national level ratios are used. The state-level SUTs form the Production account of tourism industries.

The official GSDP account for the state, as available with CSO, is given in Table III.5.

Table III.5: Gross Value Added by Economic activity at Current prices of Andaman & Nicobar Islands

(RS. IN LAKH)

Sl. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16
1	Agriculture, forestry and fishing	59737	61996	72409	76719	80850
1.1	Crops	26565	26839	31672	34094	37847
1.2	Livestock	13673	15165	19074	19549	19678
1.3	Forestry and logging	4044	3903	4560	4626	5070
1.4	Fishing and aquaculture	15456	16089	17102	18451	18254
2.	Mining and quarrying	2867	3901	6220	15268	13264
	Primary	62604	65897	78628	91987	94114
3	Manufacturing	6334	6450	6685	4948	5618
4	Electricity, gas, water supply & other utility services	15924	17167	18670	23026	28436
5	Construction	53695	60319	67996	68927	75750
	Secondary	75953	83936	93351	96901	109804
6	Trade, repair, hotels and restaurants	33937	41707	51294	51989	49764
6.1	Trade & repair services	31581	39108	48512	49032	46516
6.2	Hotels & restaurants	2355	2600	2782	2957	3248
7	Transport, storage, communication & services related to broadcasting	46482	52010	56196	60954	72341
7.1	Railways					
7.2	Road transport	14800	16052	17299	19110	20498
7.3	Water transport	6654	7773	8488	7530	10029
7.4	Air transport	2143	3659	3010	4888	9037
7.5	Services incidental to transport	18357	19516	21052	22221	24336
7.6	Storage	25	43	42	41	42
7.7	Communication & services related to broadcasting	4503	4968	6305	7163	8399
8.	Financial services	12774	11323	12458	13028	14530
9.	Real estate, ownership of dwelling & professional services	32304	35879	41171	44531	47962
10.	Public administration	74783	85078	89168	101788	103597
11.	Other services	64942	74413	81605	93852	101130
	Tertiary	265222	300411	331892	366142	389324
12	TOTAL GSVA at basic prices	403779	450244	503871	555029	593242
13	Taxes on Products	4416	5493	10048	6422	7089
14	Subsidies on products	10328	13598	11610	13645	7124
15	Gross State Domestic Product	397867	442139	502309	547806	593207
16	Population ('00)	3860	3950	4030	4120	4220
17	Per Capita GSDP (Rs.)	103074	111934	124643	132963	140570

Source: Central Statistical Office

IV. METHODOLOGY

There are two main types of approaches to prepare the regional TSAs – Regionalisation or Top-bottom approach and

Regional estimation or Bottom-up approach. While regionalization approach requires the existence of national TSA, regional estimation requires the availability of SUT for each region.

The advantage of regionalisation approach is that the TSAs for each region are consistent with each other with respect to concepts and methodology. On the flip side, there is a disadvantage of overlooking regional specific details.

With regard to regional estimation approach, the advantage is that the regional specific details are taken into account as the approach is based on regional information. However, the disadvantage is that the regional TSAs may not be consistent or comparable with other region TSAs or even national TSA.

In Indian context, regionalization approach is more appropriate, mainly due to the non-availability of SUT at state level. The state TSAs for 2009-10 were also prepared using this approach, while the available state tourism statistics were used to the extent possible.

Table IV.1 presents the suitability of these approaches based on the status of availability of requisite information:

Table IV.1: Availability of data for compiling State TSAs according to different approaches

Approach	Data requirement	Data availability
Regional estimation (bottom-up)	Statistics on expenditures made by visitors on different products within the state	Data is available from the DTS, 2014-15 and IPS, 2015-16 (subject to some assumptions)
	Statistics on supplies from the domestic production and imports (which include from other states) to meet these purchases of tourists	- Data on supplies from domestic production is available - Data on imports at state level is not available
	Confrontation of the two sets of statistics in the national accounting framework through the supply and use tables so that supplies from domestic production and imports match with the expenditures made by tourists	- In the absence of data on imports, it is not possible to compile SUT at state level. - However, State SUT can be constructed for domestic supplies and total of capital formation and net exports as other final demand in the use table. - This SUT though not suitable for TSA, can be used for estimating indirect effects of tourism consumption, value added and employment. -
	Estimate value added out of the domestic production that is involved in supplying products for tourists' purchases	- Not possible, as how much of domestic production is able to meet the tourists' demand is not known in the absence of information on imports. - However, it is possible to compute GVATI and TDGVA using national tourism ratios of output of industries, as suggested in the TSA: RMF 2008.
Regionalisation (top-down)	National TSA and tourism ratios by products and industries	Available
	State level tourism consumption	Available
	State level estimates of output and value added by tourism and other industries	Available
	State level estimates of employment by tourism and other industries	Available

Source: NCAER compilations

Hence, for Indian states, the RTSAs are prepared by:

- using the Regionalization approach;
- using the tourism industry ratios from national TSA and other state characteristics to derive the state-level tourism industry ratios; and
- applying these on the output of the respective industries in the state.

IV.1. TSA Framework

Tourism consumption representing Total Tourism Demand is the key component of a TSA. The concepts and definitions of components of Tourism consumption are different in national and regional TSAs. The other key component is the Supply of tourism industries. The confrontation of the demand and supply is the core element of the TSA framework as this confrontation results in Tourism Product and Industry Ratios, which enable the computation of Tourism Direct Gross Value Added (TDGVA) and Tourism Direct Gross Domestic Product (TDGDP). The following figures (Figure Iv.1 and Iv.2) present the difference in the consumption concepts of national and regional TSAs and also present their complete framework:

Figure IV.1: Conceptual Framework of National TSA

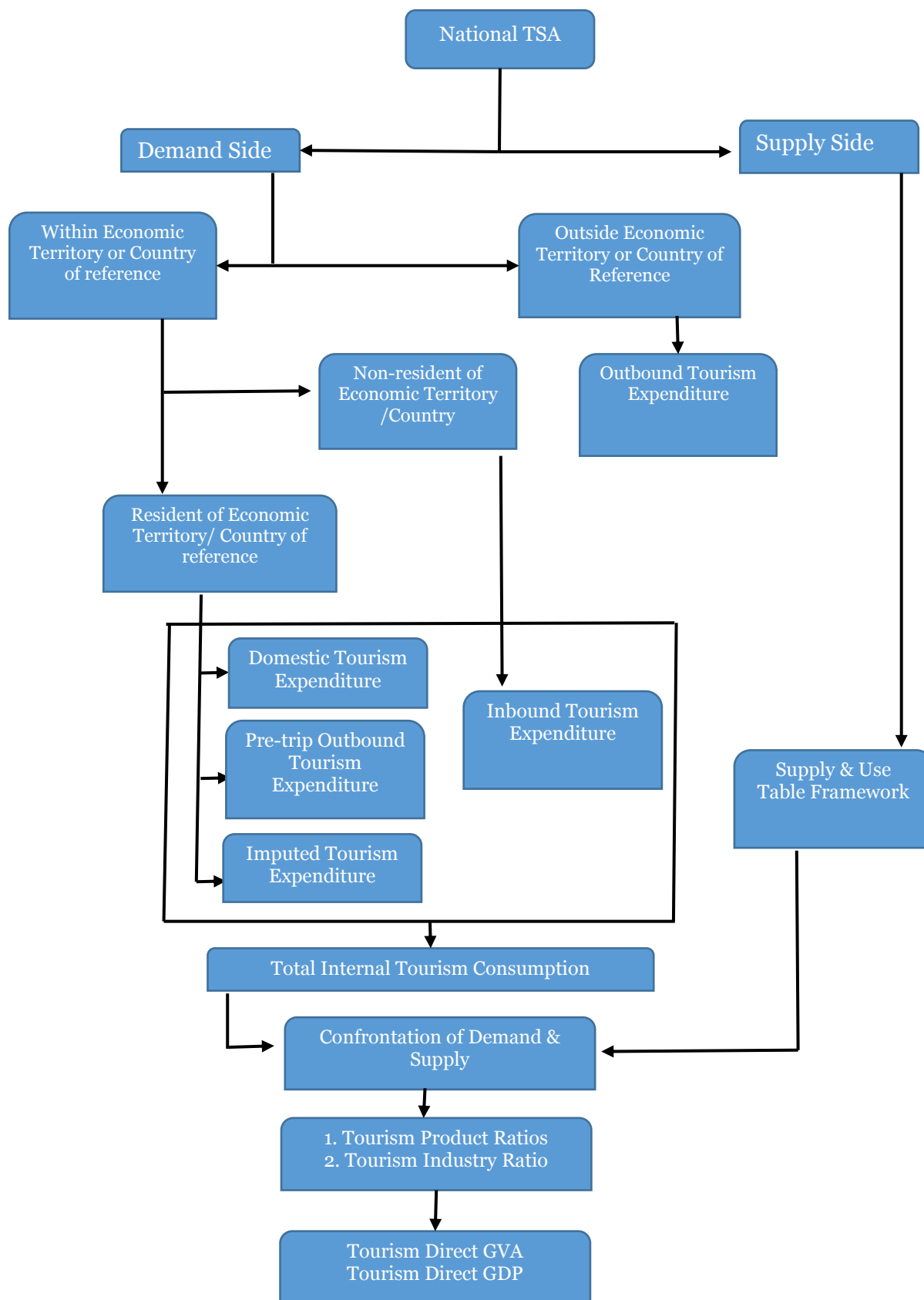
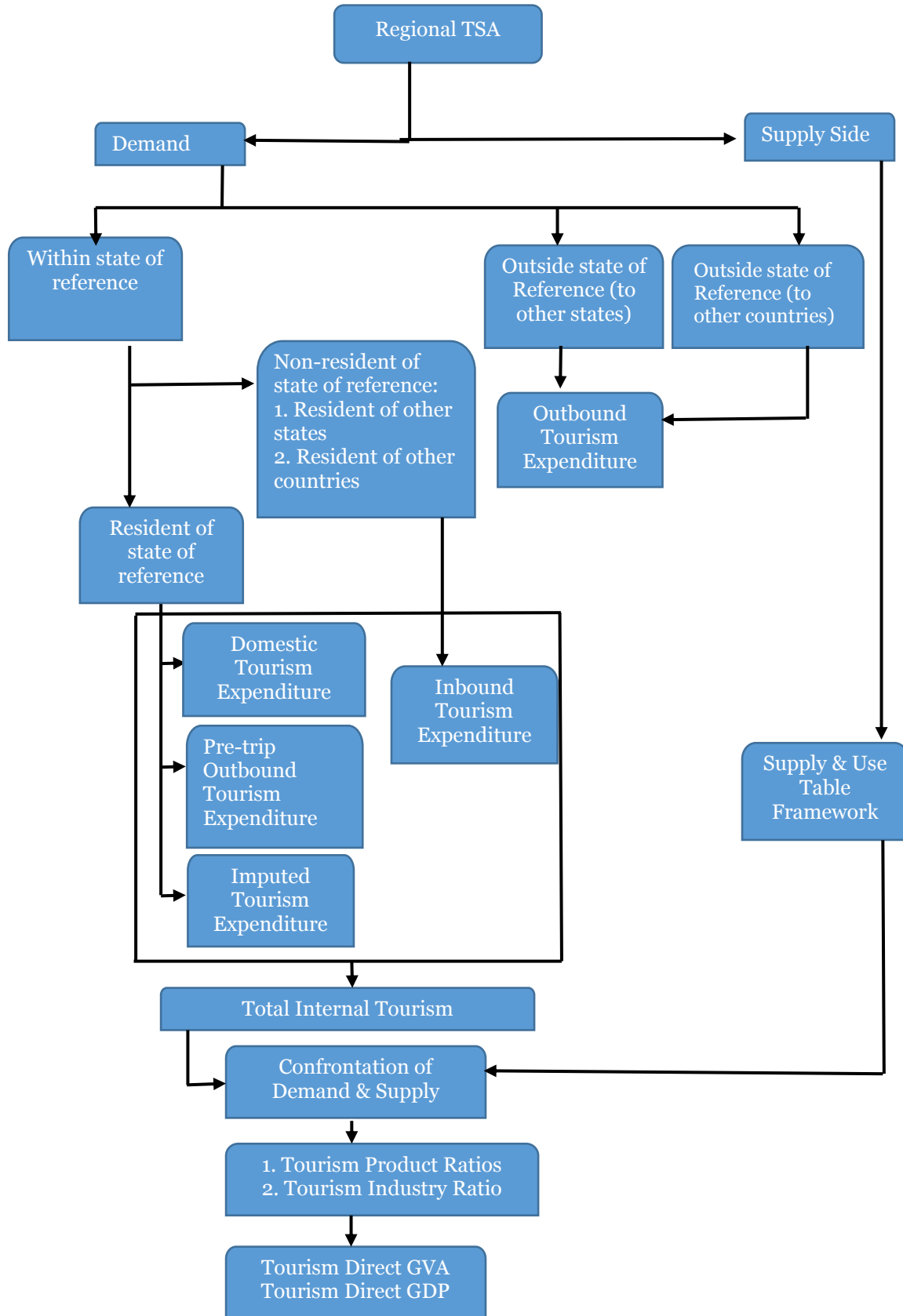


Figure IV.2: Conceptual Framework of State TSA



IV.2. Compilation of State TSAs

According to the UNWTO's TSA: RMF-2008, TSA comprises of the following 10 standard Tables:

1. Inbound Tourism Expenditure
2. Domestic Tourism Expenditure
3. Outbound Tre-trip Tourism Expenditure
4. Total Internal Tourism Consumption
5. Production Account of Tourism Industries
6. Supply and Internal Tourism Consumption
7. Tourism Employment
8. Tourism Gross Fixed Capital Formation
9. Tourism Collective Consumption
10. Non-Monetary Tourism Indicators

As mentioned earlier, we broadly follow Regionalisation approach for the preparation of RTSAs. However, with the information that is available at State level in India, it is possible to compile TSA Tables 1 to 5 and 7 without much difficulty, though some assumptions would need to be made for this. Also, Tables 8 and 9 on Tourism Gross Fixed Capital Formation and Tourism Collective Consumption respectively cannot be included in the State TSAs due to the non-availability of these data at state level.

Before presenting the description of the state TSA Tables, it is important to mention that TSA: RMF 2008 (Table IV.2) recommends certain set of activities and products to be included while compiling the TSA. While some of the activities have been specified distinctly, some are recommended to be country-specific. Accordingly, a comprehensive set of activities and products were identified in the compilation of national as well as state TSAs. Both the recommended and the adopted classifications separately for products and activities are shown in the table below.

Table IV.2: Products recommended in TSA: RMF 2008 Vs. Products included in TSA, 2015-16

Products Recommended in the TSA: RMF 2008	Products Used for TSA in India
Accommodation services for visitors	Hotels
Food and beverage serving services	Restaurants
Railway passenger transport services	Railway passenger transport services
Road passenger transport services	Land passenger transport including via pipeline
Water passenger transport services	Water passenger transport
Air passenger transport services	Air passenger transport
Transport equipment rental services	Renting of transport equipment
Travel agencies and other reservation services	Tourism related supporting and auxiliary transport activities
Cultural services	Cultural and religious services
Sports and recreational services	Sporting and recreational services
Country-specific tourism characteristic goods	Medical and health
Country-specific tourism characteristic services	Processed food products
	Beverages
	Tobacco products
	Readymade garments
	Printing and publishing
	Leather footwear
	Travel related consumer goods
	Soaps and cosmetics
Gems and jewellery	

Source: NCAER compilations

IV.3. Inbound Tourism Expenditure

Inbound Tourism Expenditure forms Table 1 of the TSA. At regional or state level, inbound tourism expenditure comprises of expenditure incurred by visitors from other countries as well as by those from other states of the same country. These expenditures are incurred within the state of reference on tourism

characteristic and tourism connected products and services. An inbound tourism trip refers to the travel of a visitor from the time of arriving in a country/state to the time of leaving that country/state.

Inbound Tourism Expenditure incurred by international tourists:

The data on Inbound Tourism Expenditure were collected through the International Passenger Survey (IPS), 2015-16, conducted by the Indian Statistical Institute (ISI), Kolkata. The national-level estimates could be easily derived and are reported in the Third Tourism Satellite Account of India, 2015-16. However, for the state-level estimates, it is important to capture data on expenditure incurred in the state of destination by an inbound tourist visiting that state. It may also be noted that the inbound tourist may have travelled to one or more number of states. For obvious reasons, the survey data does not capture the expenses incurred in each of these states of destination, separately.

Nonetheless, the survey does ask the respondents to give the names of last place of night halt (LPNH). The detailed information on item-wise expenses incurred at LPNH were also collected, besides the expenditure incurred during the entire trip to India. We have imputed the inbound tourism expenditure incurred by the international tourists using these data on expenditure at LPNH.

These places of night halt were mapped with the states they are located in. An aggregation of the expenditure incurred, by each item separately, in all of the places located in a particular state were used to get the expenditure pattern in that state. The number of tourists reporting these expenditures were also obtained.

These expenditure data were inflated to account for the package component and for the amount paid or reimbursed by government or others. Since package and reimbursed components could not be obtained by states, the national level factor is used to inflate them.

Such obtained expenditure by types of tourists for the

state of reference is used to get the per-tourist item-wise expenditure. This is because these expenditures are based on only few locations within the state which were the last places of night halt.

Further, to arrive at the actual imputed item-wise expenditure, the per-tourist expenditure was applied on the number of tourist arrivals in the state, as provided by the Ministry of Tourism's India Tourism Statistics¹ for 2017.

In the case of Andaman & Nicobar Islands, there was no data point on LNPH in IPS. Hence, national level per-tourist expenditure is used and applied on the number of tourist arrivals in the state.

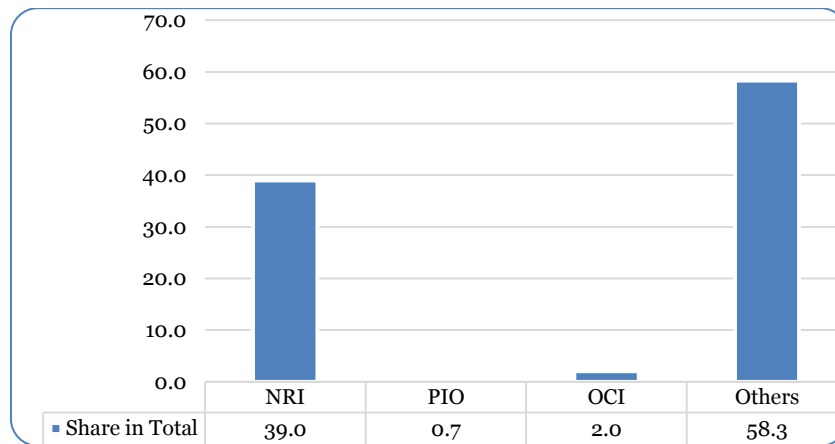
The imputed state-level Inbound Tourism Expenditure from other countries is obtained for the state of reference. This is presented in TSA Table 1A.

A total of 8507 residents from other countries are estimated to have travelled to the state of reference as inbound international tourists during 2015-16. Of these, maximum (58.3 percent) belonged to 'others' category, followed by 39.0 percent NRI tourists (Figure IV.3).

The following figure (Figure IV.4) presents the average per-tourist expenditure incurred by an international tourist visiting the state of reference. The average per-tourist expenditure is estimated at Rs. 201161. Figure IV.5 presents the percent distribution of expenditure by major items of consumption.

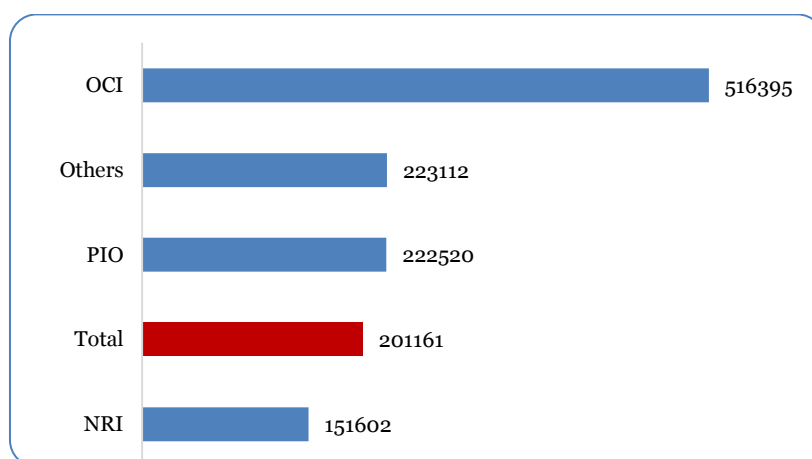
¹ It may be noted that India Tourism Statistics reports the number of Foreign Tourist Visits (FTV) by states. Also available is the total number of tourist arrivals (FTA) in the country as a whole. The ratio of national level FTV and FTA is applied on state-level FTV to arrive at state-level FTA.

Figure IV.3: Percent distribution of International inbound tourists



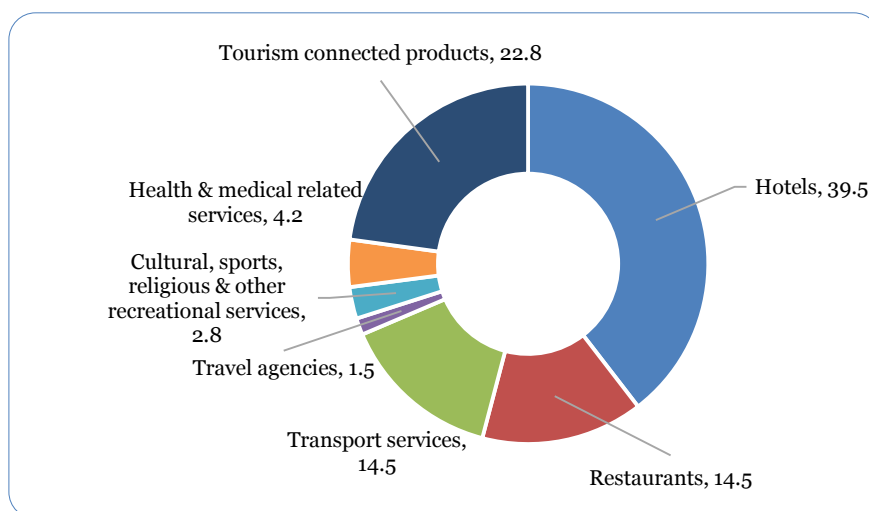
Source: NCAER computation using IPS-2015-16

Figure IV.4: Average per-tourist expenditure (Rs.) incurred by international inbound tourist in the state



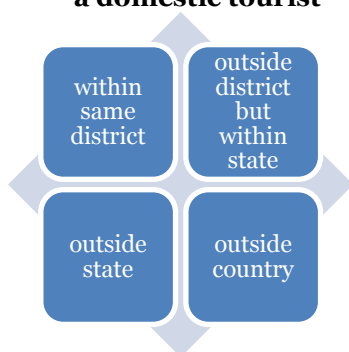
Source: NCAER computation using IPS-2015-16

Figure IV.5: Percent distribution of Inbound Tourism Expenditure (incurred by international tourists) by products and services



Source: NCAER computation using IPS-2015; NCAER -16

Figure IV.6: Main destination for a domestic tourist



Inbound Tourism Expenditure incurred by tourists arriving from other states:

The state-level inbound tourism also includes tourism activities of visitors from other states of India, to the state of reference. Hence, this component is part of domestic tourism activities for which the tourism expenditures were collected in the Domestic Tourism Survey (DTS), conducted by the National Sample Survey Organisation (NSSO) during 2014-15.

This survey collected comprehensive information on the expenditure incurred by tourists on a detailed set of items which were mapped with the tourism characteristic and tourism connected (together called tourism-specific) products and services. Also collected was the information on the place of

destination, which was categorized as given in Figure IV.6.

The data on item-wise expenditure incurred during the overnight trips originating from any state (other than the state of reference) and for which main destination was the state of reference, were collected to arrive at this component of inbound tourism expenditure. These expenditures were estimated by the leading purpose of the trip.

The table on this component of inbound tourism is prepared by each leading purpose of travel, that is, business, leisure, social, religious, educational, medical, shopping, and others.

Also added are the package component of the expenditure and the amount paid or reimbursed by government or others.

The item-wise expenditures are also adjusted for the under-estimation observed in such data when collected through household surveys. This under-estimation results from the inability to recall the expenses and in some cases, reluctance to report the actual expenses. The under-estimation is established when household consumption expenditure collected through survey are compared with the Private Final Consumption Expenditure (PFCE) given in the National Accounts Statistics. The factors for adjusting this under-estimation at state-level are assumed to be the same as those for All-India.

The item-wise adjustment factors are presented in the table below:

Table IV.3: Consumption Expenditure Adjustment Factors

Tourism-specific Products/Services	Adjustment Factors 2015-16
A 1. Tourism characteristic products	
1. Accommodation services/hotels	1.00
2. Food and beverage serving services/restaurants	1.48
3. Railway passenger transport services	1.32
4. Road passenger transport services	5.68
5. Water passenger transport services	11.93
6. Air passenger transport services	6.81
7. Transport equipment rental services	1.00
8. Travel agencies and other reservation services/supporting and	6.71
9. Cultural and religious services	0.10
10. Sports and other recreational services	0.10
11. Health and medical related services	1.21
A.2 Tourism connected products	
12. Readymade garments	1.81
13. Processed food	1.32
14. Alcohol and tobacco products	3.24
16 Travel-related consumer goods	1.74
17 Footwear	2.49
18 Soaps, cosmetics and glycerine	0.82
19 Gems and jewellery	1.45
20 Books, journals, magazines, stationery, etc.	0.53

Source: NCAER computation

Further, since the reference period for the RTSA is 2015-16, we have imputed the number of trips by purposes, using the growth seen in the number of domestic tourist visits in 2015-16 over 2014-15.²

Also item-wise price adjustment is done due to price change between 2014-15 and 2015-16.

The estimated number of trips for 365-day reference period is taken as it is. For 30-day reference period, the estimated number of trips is imputed by applying the ratio of 365-day to 30-day trips as found in DTS-2008-09 on it (Refer to Technical Note of "Third Tourism Satellite Account

² Refer to India Tourism Statistics, 2017.

for India – 2015-16”).

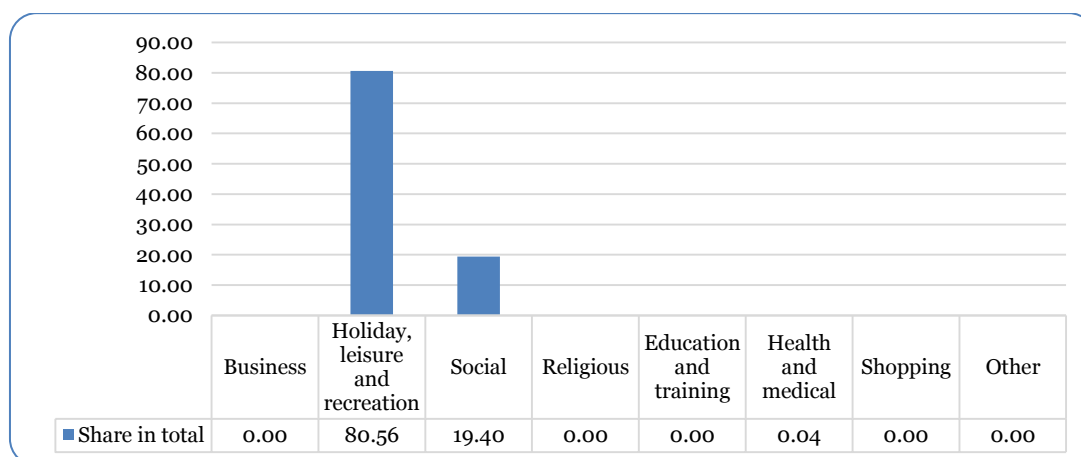
Hence obtained table on expenditure is presented in the TSA Table 1B on Inbound Tourism Expenditure incurred by tourists from other states to the state of reference.

A total of 29417 residents of other states are estimated to have travelled as inbound tourists to the state of reference during 2015-16. Of these, maximum (80.56 percent) travelled for Holiday, followed by 19.40 percent who travelled for ‘social’ purpose (Figure IV.7).

Figure IV.8 presents the average per-tourist expenditure incurred by tourists from other states visiting the state of reference. The average per-tourist expenditure is estimated at Rs. 495839.

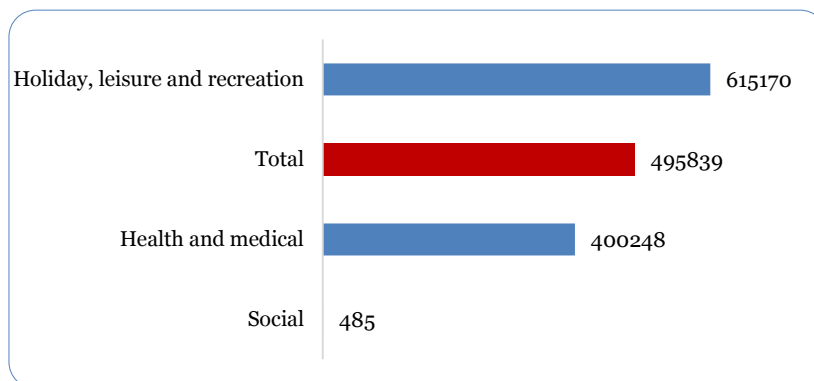
Figure IV.9 presents the percent distribution of expenditure by major items of consumption.

Figure IV.7: Percent distribution of inbound tourists from other states to the state of reference by leading purposes of travel



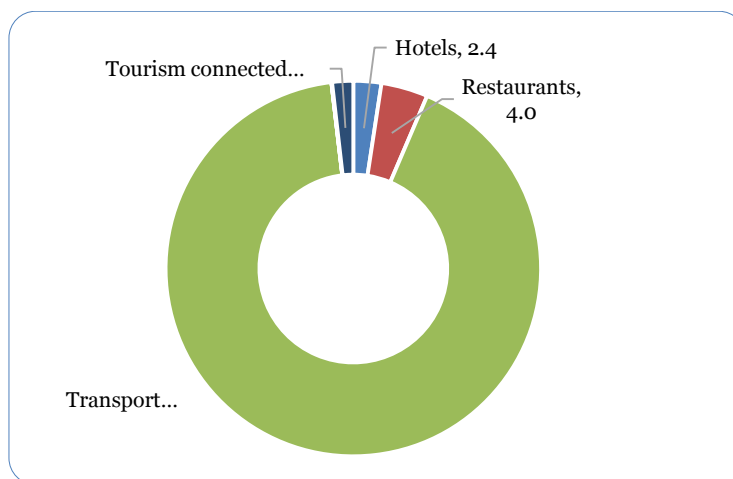
Source: NCAER computation using DTS 2014-15

Figure IV.8: Average per-tourist expenditure (Rs.) incurred by tourists from other states to the state of reference



Source: NCAER computation using DTS 2014-15

Figure IV.9: Percent distribution of Inbound Tourism Expenditure (incurred by tourists from other states) by products and services



Source: NCAER computation using DTS 2014-15

IV.4. Domestic Tourism Expenditure

TSA Table 2 focuses on domestic tourism by products and by purpose of travel. This table presents the Domestic Tourism Expenditure which refers to the expenditure of a resident visitor within the economy of reference. At state level, this table refers to tourists from within the state that is tourists living in the state of reference travelling to another place within the same state of reference.

According to the TSA: RMF 2008 recommendations, household surveys should be conducted to collect information on domestic tourism expenditure. According to IRTS 2008, “Because there are no international borders to cross, the observation of the flows of domestic tourism requires the use of different statistical procedures. As far as overnight tourism is concerned, accommodation statistics are an important statistical source of information on domestic and inbound visitors. Measurement challenges nonetheless arise with these statistics in terms of separating out visitors from other travelers, and domestic from inbound visitors. Information can also be obtained from household surveys by interviewing people about trips undertaken in a specified period”.

The domestic tourism expenditure was derived from the Domestic Tourism Survey (DTS), conducted by the National Sample Survey Organization (NSSO) during 2008-09. The detailed information was collected on the expenditure incurred by tourists on a detailed set of items which were mapped with the tourism characteristic and tourism connected (together called tourism specific) products and services.

For state-level TSAs, domestic tourism expenditure incurred by tourists originating from a state and visiting another place of same state is taken under consideration.

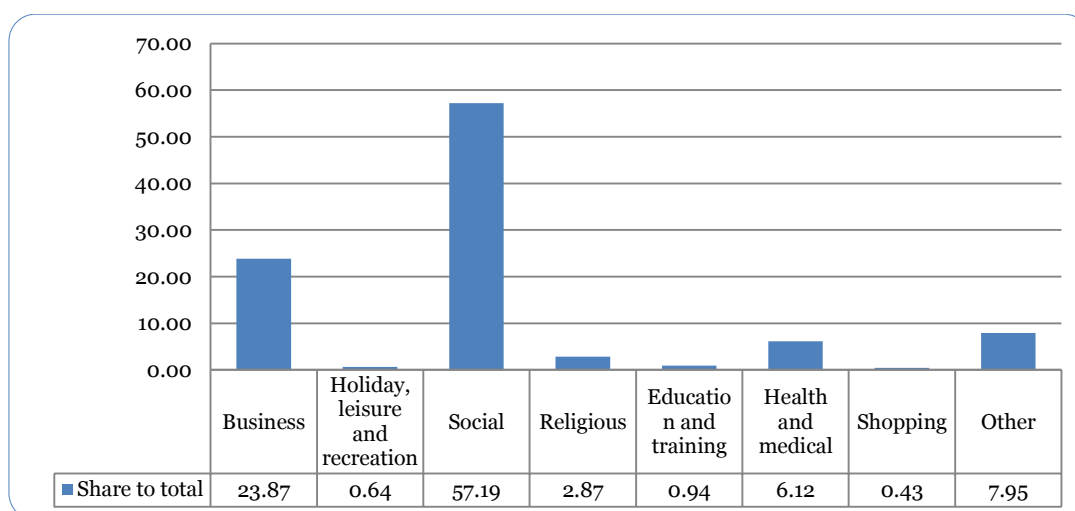
The methodology used for estimation of expenditure is the same as used for estimating the inbound tourism expenditure incurred by tourists from other states to state of reference.

The estimated domestic tourism expenditure incurred by tourists within the state of reference is presented in TSA Table 2.

A total of 373405 residents of the state are estimated to have travelled within the state as domestic tourists during 2015-16. Of these, maximum (57.19 percent) travelled for social purpose, followed by 23.87 percent who travelled for business purpose (Figure IV.10).

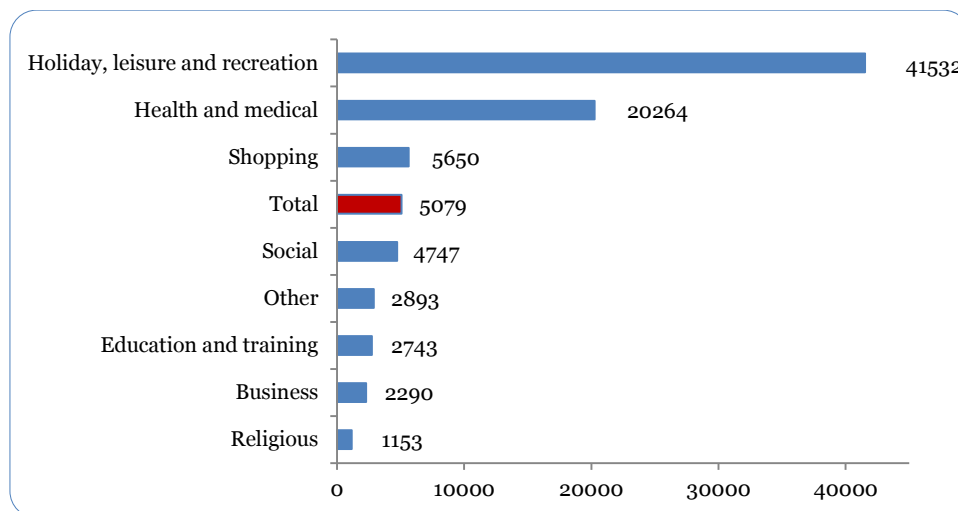
Figure IV.11 presents the average per-tourist expenditure incurred by tourists from within the state of reference. The average per-tourist expenditure is estimated at Rs. 5079. Figure IV.12 presents the percent distribution of expenditure by major items of consumption.

Figure IV.10: Percent distribution of domestic tourists by leading purposes of travel



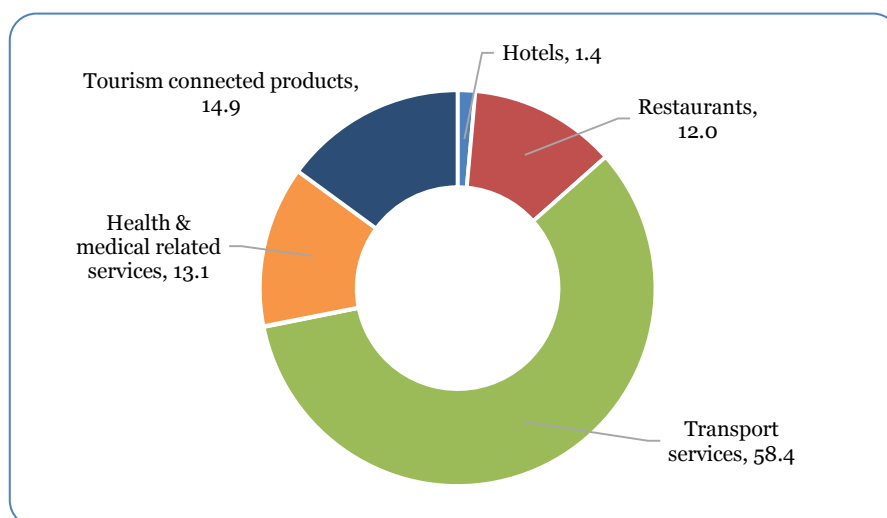
Source: NCAER computation using DTS 2014-15

Figure IV.11: Average per-tourist expenditure (Rs.) incurred by tourists from within the state of reference



Source: NCAER computation using DTS 2014-15

Figure IV.12: Percent distribution of Domestic Tourism Expenditure (incurred by tourists from within the state) by products and services



Source: NCAER computation using DTS 2014-15

IV.5 Outbound Pre-trip Tourism Expenditure

TSA Table 3 focuses on outbound tourism. This table presents the tourism expenditure incurred by resident visitors outside the country of reference on tourism characteristic and tourism connected products and services, respectively. This expenditure could have been incurred either as part of an outbound tourism trip or as part of a domestic trip. Both correspond to the travel between leaving the place of residence and returning. However, a domestic trip has a main destination within the country of residence of the traveller, while an outbound trip has a main destination outside this country.

At state-level, outbound trip refers to the trip undertaken by the resident of the state of reference outside the country and also that undertaken in another state of the country. The expenditure, which is taken into account in both the cases, is the pre-trip expenditure, that is, the expenditure undertaken within the state of reference before the actual trip starts. This expenditure is mainly on shopping items purchased in the preparation of the outbound trip or transport services used to travel from residence to final port of exit to other country or state.

The data on outbound tourism pre-trip expenditure incurred by residents travelling abroad were collected in a separate survey conducted by the ISI, Kolkata, which was a part of IPS. However, data on expenditure incurred by resident visitors travelling to other states of India was beyond the scope of any survey – DTS or IPS.

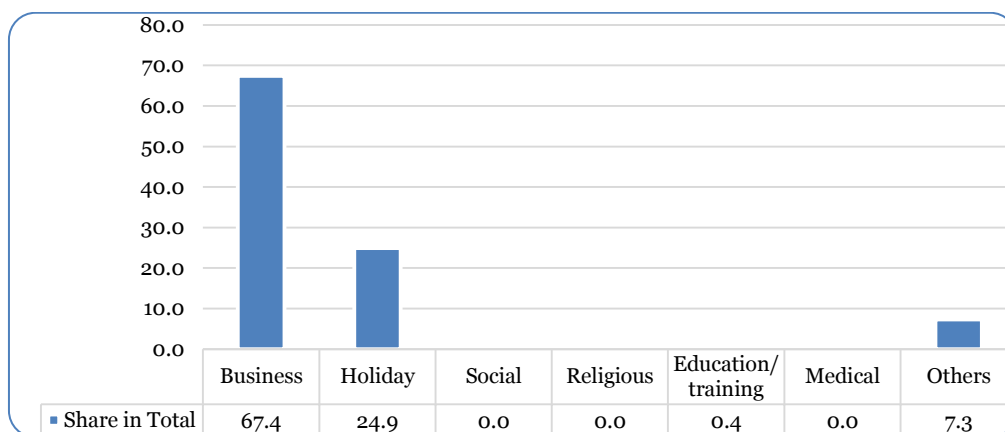
The pre-trip expenditure incurred by outbound tourists was recorded for a detailed set of items and was mapped with the tourism characteristic and tourism connected products and services. The mapping of consumption items with the tourism-specific products and services is the same as that in the case of inbound tourism expenditure (TSA Table 1). The total item-wise expenditure incurred by

outbound tourists within the state is presented in TSA Table 3.

A total of 80913 residents of the state are estimated to have travelled abroad as outbound tourists during 2015-16. Of these, maximum (64.4 percent) travelled for business purpose, followed by 24.9 percent who travelled for holiday (Figure IV.13).

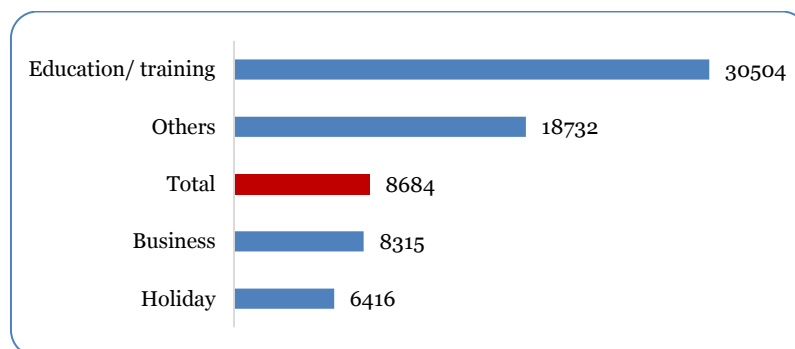
Figure IV.14 presents the average per-tourist expenditure incurred by outbound tourists originating from the state of reference. The average per-tourist expenditure is estimated at Rs. 8684. Figure IV.15 presents the percent distribution of expenditure by major items of consumption.

Figure IV.13: Percent distribution of outbound tourists by leading purposes of travel



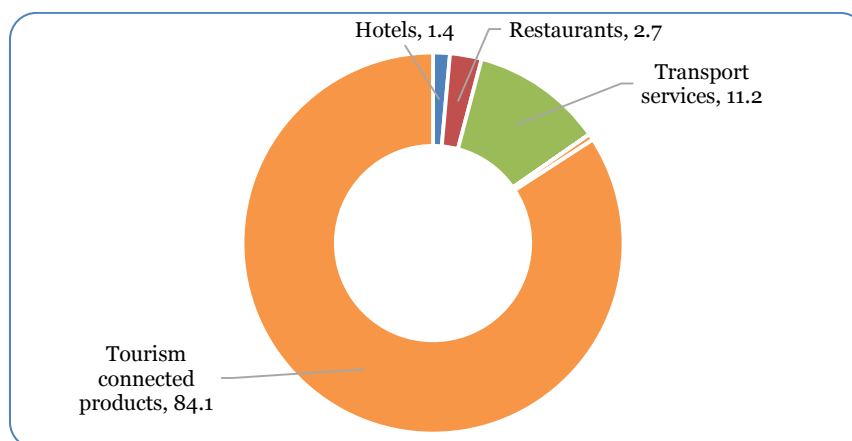
Source: NCAER computation using IPS 2015-16

Figure IV.14: Average per-tourist expenditure (Rs.) incurred by outbound tourists in the state of reference



Source: NCAER computation using IPS 2015-16

Figure IV.15: Percent distribution of Outbound Tourism Expenditure by products and services



Source: NCAER computation using IPS 2015-16

IV.6. Total Internal Tourism Consumption

TSA Table 4 presents the total internal tourism consumption which is the sum of total internal tourism expenditure and the imputed tourism consumption. The total internal tourism expenditure

is the sum-total of total Inbound, Domestic and Outbound pre-trip tourism expenditure, presented in TSA Tables 1, 2a, 2b and 3. Hence, it refers to the expenditure incurred by all tourists within the state of reference. In addition, the components of imputed consumption are given in separate rows, to make up the total internal tourism consumption.³ Since these components are not directly available from any data source, they are derived using certain plausible assumptions.

The components of imputed consumption, as recommended in TSA: RMF 2008, along with their methods of computation, are described below:

- The imputed consumption on services associated with vacation homes on own account. This is assumed to be equal to 1 per cent of the urban owner occupied dwelling services.⁴
- Imputed consumption towards tourism social transfers in kind (except refunds) is derived from the component of “social transfer in kind” against “Recreation and Culture” in the Classification of Individual Consumption Expenditure of Households (COICOP). Household consumption on any item of consumption comprises the individual consumption expenditure and social transfers in kind (paid by the government). Since the data on the shares of these transfers that goes to the tourists and to non-tourists are not available, it is assumed to be 50 per cent for each.
- The FISIM value on purchases related to tourism trips is obtained using the share of FISIM in PFCE (as in NAS) and applying it to the total internal tourism consumption expenditure.
- The imputed consumption of services

³ The TSA: RMF 2008 recommends that imputed consumption may be shown against a separate column, but since most of these items fall under non-tourism products, these are shown against supplementary rows under domestic tourism.

⁴ The economic activities covered under owner-occupied dwelling services include ownership of dwellings (occupied residential houses) and the imputed value of owner-occupied dwellings.

rendered by vacation residences provided by producers for the benefit of their employees refers to the cost borne by the companies (mostly private corporates) on the services that they provide in their guest houses for the benefit of employees. This is assumed to be about half per cent of the total output of the organised private corporate sector.

- While the accommodation cost is recommended to be excluded from tourism consumption when the tourists stay at their friends'/relatives' places while on a trip, the expense incurred on food is taken as one of the components of imputed tourism consumption. This is obtained by multiplying the average per day expenditure of food (obtained from PFCE, NAS) with the number of days spent at the friends'/relatives' places during all the tourist trips undertaken in a reference year.

The sum of the total internal tourism expenditure and the imputed tourism consumption gives the total tourism consumption, which is presented in TSA Table 4.

The percentage distribution of total internal tourism consumption by forms of tourism is presented in the table below:

Table IV.4: Total Internal Tourism Consumption by forms of tourism (% distribution)

Items	Inbound from other countries	Inbound from other states	Domestic	Outbound	Total
1. Accommodation services/Hotels	63.5	33.0	2.6	0.9	100.0
2 Food and beverage serving services/Restaurants	23.0	54.2	21.1	1.7	100.0
3 Railway passenger transport services	5.5	94.0	0.1	0.4	100.0
4 Road passenger transport services	13.7	22.0	62.8	1.5	100.0
5 Water passenger transport services	0.7	14.3	85.0	0.0	100.0
6 Air passenger transport services	0.6	98.0	0.9	0.5	100.0
7 Transport equipment rental services	35.6	24.1	38.9	1.5	100.0
8 Travel agencies and other reservation services/ Supporting and auxiliary transport activities	96.6	0.0	3.4	0.0	100.0
9 Cultural and religious services	98.6	0.7	0.7	0.0	100.0
10 Sports and other recreational services	69.7	30.3	0.0	0.0	100.0
11 Health and medical related services	22.2	0.5	76.3	1.1	100.0
12 Readymade garments	22.2	17.3	22.5	38.0	100.0
13 Processed Food	11.4	10.2	21.0	57.4	100.0
14 Alcohol & Tobacco products	52.8	11.0	36.1	0.0	100.0
15 Travel related consumer goods	22.7	11.3	12.3	53.7	100.0
16 Footwear	10.9	42.1	7.8	39.2	100.0
17 Soaps, cosmetics and glycerin	14.7	4.0	33.1	48.3	100.0
18 Gems and jewellery	94.5	2.1	1.8	1.6	100.0
19 Books, journals, magazines, stationery etc.	13.3	8.0	12.0	66.7	100.0
Total Expenditure	9.1	77.2	10.0	3.7	100.0
A.3 Other imputed connected products	0.0	0.0	100.0	0.0	100.0
Total (Rs. Crore)	8.4	71.6	16.6	3.4	100.0

Source: NCAER computation using TSA Table 4

IV.7. Production Account of Tourism Industries

The production accounts of tourism industries and other industries in the economy of reference is presented in TSA Table 5. It conforms to the format established in the Systems of National Accounts (SNA) for production accounts.

The gross value added of all the tourism characteristic and tourism connected industries put together is referred to as Gross Value Added of

Tourism Industries (GVATI). The GVATI, however, has a limited role as being a relevant indicator of tourism's contribution to the economy. This is because not all the gross value added of these industries are on account of tourism activity; part of it is on account of non-tourism too.

As recommended, the production account for the state TSAs has been prepared using India's Supply and Use Table (SUT) for the year 2015-16. The latest official SUT for India, as prepared by the Central Statistics Office (CSO), is available for 2012-13. This has been updated for 2015-16 for the preparation of India's third TSA. The updated SUT is then used to compile the state-level SUTs. For this, the latest data available from official sources on the Value of Output and Gross Value Added, at the most disaggregated level, have been used. These data form the control totals of all the rows and columns of both Supply Table and Use Table. The inter-industry transactions are derived using the national-level ratios.

The detailed SUT with 142 products and 80 industries is aggregated to 24 industries and products, 19 industries were the tourism specific industries, for which the information on tourism consumption is available and presented in TSA Table 4; and the remaining 5 industries and products are the tourism non-specific industries and products, which, however, would have linkages with tourism industries/products.

The source of data for Tables 5 and 6 is the detailed data on state domestic product, that has been provided by the CSO and the respective state Directorates of Economics and Statistics. The all-India ratios have been used for deriving output, intermediate consumption or for splitting of industries and products at state level, wherever there is lack of information by states.

The 24X24 SUT for the state of reference, is presented as TSA Table 5 in Chapter V.

The following table summarises the production

account of 24 industries. The GVATI works out to be Rs. 45708 lakh, which is 7.6 percent of total GVA of the state economy.

Table IV.5: Economic Aggregates of Industries

Sl. No	Industry	Gross Value of Output (Rs. lakh)	GVA (Rs. lakh)	Share in Total GVA (%)
1	Agriculture and allied	104721	83314	13.8
2	Mining, other manufacturing, construction, electricity, gas and water supply	39497	15216	2.5
3	Trade	70380	51990	8.6
4	Transport freight services	83426	37782	6.3
5	All non-tourism specific services	1645096	368686	61.2
6	Accommodation services/Hotels	1282	438	0.1
7	Food and beverage serving services/Restaurants	8108	2767	0.5
8	Railway passenger transport services	0	0	0.0
9	Passenger transport services	17880	7939	1.3
10	Water passenger transport services	17807	5270	0.9
11	Air passenger transport services	31278	7192	1.2
12	Transport equipment rental services	40	27	0.0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	5484	2608	0.4
14	Cultural and religious services	80	52	0.0
15	Sports and other recreational services	1742	988	0.2
16	Health and medical related services	29922	18516	3.1
17	Readymade garments	0	0	0.0
18	Processed Food	-5517	-502	-0.1
19	Alcohol & Tobacco products	1079	361	0.1
20	Travel related consumer goods	0	0	0.0
21	Footwear	0	0	0.0
22	Soaps, cosmetics and glycerin	114	25	0.0
23	Gems and jewellery	0	0	0.0
24	Books, journals, magazines, stationery etc.	124	28	0.0
	Total – all industries	1052541	602695	100
	Total Tourism specific industries (Tourism characteristic and Tourism connected)	109421	45708	7.6

Source: NCAER computation using TSA Table 5

IV.8. Tourism Industry Ratios and TDGVA

The most crucial table in a TSA is TSA Table 6, which is the core of the TSA system as it is where the confrontation and reconciliation between domestic supply and internal tourism consumption take place. In this table, the total supply of goods and services in the economy of reference by products, which

includes domestic production (production by resident industries) and imports, (including valuation adjustments), is compared to internal tourism consumption that is derived in TSA Table 4.

Using the results of TSA Table 6, estimates can be derived regarding the gross value added attributable to tourism for each of the domestic industries that serve visitors. This provides the basic information that is necessary for the computation of tourism ratios for products and industries, TDGVA (Tourism Direct Gross Value Added) and TDGDP (Tourism Direct Gross Domestic Product) and their components. The table together with the associated Use Table provides a basis to compile input-output tables and input-output models that facilitate estimation of indirect contribution of tourism to the economy.

On comparing the demand side and supply side data, the Tourism Product Ratios (TPR) are derived for each of the 24 product categories. By definition, the Tourism Product Ratio is that proportion of the total supply of a product which is consumed by the tourists or is on account of tourism activity.

These TPRs, when applied to each industry column of the supply table, yield the Tourism Industry Ratios (TIRs) for each of the 24 industry categories. Using these ratios, the estimates can be derived regarding the GVA attributable to tourism for each of the domestic industries that serve visitors.

At state level, the Supply Table presents only domestic supply as state-level trade data are not available. It was for this reason that the regional TSAs, prepared for 2009-10, did not derive the Tourism product and industry ratios by bringing together the Total supply and Tourism Demand data. The Tourism industry ratios, instead, were calculated using the small area estimation techniques.

However, for the present TSAs for 2015-16, an effort is made to use the standard methodology for

deriving the Tourism product and industry ratios by using the similar SUT framework as used for national TSA.

For this, the total supply (inclusive of imports) is derived by applying the share of State Domestic supply in India's Domestic Supply to India's Total Supply. This is based on the assumption that the share of a state in India's Total Supply is same as its share in India's domestic supply.

In the case of Use Table, Final demand is kept as a single aggregate column vector.

By doing this, tourism product ratios for all products are derived by comparing Total Supply of each product with Total Tourism Consumption of that product. In the case of products, for which these ratios did not look plausible enough, these have been replaced with the national ratio for that product. The Tourism consumption for that product is accordingly adjusted and referred as Adjusted Tourism Consumption.

These TPRs are applied on each industry column to derive the Tourism Industry Ratios. These ratios bring out the tourism component from each industry's GVA, hence bringing out the Total Tourism Direct GVA (TDGVA). The share of TDGVA to total state GVA is the contribution of Tourism to state's economy.

It may be noted that because of the difference in methodology in deriving the Tourism Industry Ratios and TDGVA in state TSAs of 2009-10 and 2015-16, the shares of Tourism to state economy may not be strictly comparable. However, the state TSAs of 2015-16 clearly are an improvement over the same of 2009-10 as the methodology converges to that of national methodology and hence to the internationally recommended methodology.

The production account of industries along with their respective tourism components are presented in TSA Table 6 for each product and services of consumption. The following table summarises the

same and presents the share of TDGVA in state total GVA.

Table IV.6: Total Supply, Tourism Consumption and TDGVA

S.No.	Items	Total Supply (Rs. Lakh)	Adjusted Tourism Consumption (Rs. Lakh)	Tourism Product Ratio (%)	Tourism Industry Ratio (%)	GVA (Rs. Lakh)	TDGVA (Rs. Lakh)
1	Agriculture and allied	234666	0	0.0	0.00	83314	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	433198	0	0.0	0.00	15216	0
3	Trade	0	0	0.0	1.51	51990	783
4	Transport freight services	0	0	0.0	0.86	37782	325
5	All non-tourism specific services	411089	22610	5.5	3.12	368686	11492
6	Accommodation services/Hotels	1853	1776	95.8	94.40	438	413
7	Food and beverage serving services/Restaurants	8684	4625	53.3	55.43	2767	1533
8	Railway passenger transport services	0	0	0.0	0.00	0	0
9	Road passenger transport services	18663	8052	43.1	36.12	7939	2867
10	Water passenger transport services	19981	5196	26.0	26.01	5270	1371
11	Air passenger transport services	35094	28460	81.1	81.10	7192	5832
12	Transport equipment rental services	45	17	38.0	38.00	27	10
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	6153	3154	51.3	51.25	2608	1337
14	Cultural and religious services	89	18	20.1	20.10	52	11
15	Sports and other recreational services	1961	211	10.8	10.77	988	106
16	Health and medical related services	33572	3268	9.7	9.73	18516	1802
17	Readymade garments	9	3	35.5	0.00	0	0
18	Processed Food	-26633	-260	1.0	0.00	-502	0
19	Alcohol & Tobacco products	2373	664	28.0	0.03	361	0
20	Travel related consumer goods	276	195	70.7	0.00	0	0
21	Footwear	2	0	19.2	0.00	0	0
22	Soaps, cosmetics and glycerin	229	3	1.4	0.00	25	0
23	Gems and jewellery	5	0	3.3	0.00	0	0
24	Books, journals, magazines, stationery etc.	178	8	4.7	0.00	28	0
	Total	1181488	78003	6.6	4.63	602695	27883

Source: NCAER computation using TSA Table 6

Key Findings:

- The value of Total supply of all industries in the state is Rs. 11.81,488 lakh, of which Rs. 78,003 lakh is on account of tourism. This is 6.6 percent of total supply.
- The TPR and TIR are the largest for the accommodation services, at 95.8 and 94.4 percent respectively.
- The TDGVA of the state stands at Rs. 27883 lakh, which is 4.63 percent of Total GVA.
- Hence, the direct share of tourism in state GVA is 4.63 percent.

IV.9. Tourism Employment

TSA Table 7 presents the employment situation in tourism industries in the state of reference. According to TSA: RMF 2008, *“seasonality, high variability in the working conditions, flexibility, and the informality of jobs in several small units are the major challenges in collecting data on employment in tourism industries”*.

Further, labour is a factor of production and is generally associated with an establishment wherein various products are produced. Therefore, relating employment to a specific product or group of products of a given establishment is a complex issue in measuring tourism direct employment.

For this reason, tourism employment, referring to the employment strictly related to the goods and services (tourism characteristic, tourism connected, and other) acquired by visitors and produced by either tourism industries or other industries cannot be assessed directly.

Hence, it is recommended to restrict to employment in tourism characteristic industries as the direct tourism employment.

For TSAs for India and the states of India, the TSA Table 7 presents the total number of jobs (one employed person can take up more than one job, with

the second being of a subsidiary nature). The table also distinguishes jobs in tourism industries by nature of employment, that is, the self-employed and employees.

The data on state-wise employment are sourced from the Annual Employment Unemployment Survey, conducted in 2015–16 by the Labour Bureau (LB).

But due to some limitations in this dataset, certain adjustments have been done using the NSSO conducted Employment-Unemployment survey for 2011-12.

The LB data presents the employment by industries at the three-digit level of NIC-2008 classification. Further, this data canvassed persons aged 15 years and above. Besides, the survey did not capture the data on multiple activities, that is, the number of persons employed in both principal and subsidiary status. Hence, the survey presents the headcount employment and does not estimate the number of jobs.

In order to comply with the methodology followed in the previous TSA, and for estimating the number of jobs, the number of persons employed by each three-digit industry code has been adjusted for age. For this purpose, the factors were taken from the NSS data on the Employment–Unemployment Survey conducted in 2011–12.

In the first stage of adjustment, an industry-wise factor was obtained by taking the ratio of the employed persons of all ages to the employed persons aged 15 years and above, using the NSS 2011–12 data. This industry-wise factor was applied on the respective industry-wise estimated employment obtained using the LB 2015–16 data.

In the second stage of adjustment, another industry-wise factor was obtained by taking the ratio of the number of jobs to the number of workers, using the NSS 2011–12 data. This factor was applied on the industry-wise employment obtained after the first

stage of adjustment.

The final estimates were also adjusted using the population projection for 2015–16, in order to adjust for under-estimation in population.

The estimates of number of jobs, hence obtained, were disaggregated to 4 or 5-digit level of classification, wherever required, so that the number of jobs in the 11 tourism characteristics industries could be estimate. This disaggregation was also done using the proportions obtained from NSS dataset.

TSA Table 7 presents the number of jobs, by work status, for all the 11 tourism characteristics industries. The sum-total of these jobs is referred to as tourism employment and its share in total state employment is the direct share of Tourism to state employment.

IV.10. Indirect Contribution of Tourism

The indirect benefits of tourism result due to the inter-linkages of tourism specific industries with other industries of the economy. Besides, these result when the money spent by the tourists in an area is re-circulated and re-spent in the local economy, thereby generating extra income and output. The actual economic benefit to the area is, therefore, greater than the original amount spent by the tourists.

As suggested in the TSA: RMF 2008, the Input–Output (IO) model is used to quantify the indirect benefits. The model generates the output, GVA and employment multipliers, which are the measures of the indirect benefits of a sector to the economy’s output, GVA/GDP, and employment, respectively.

The basic requirement of an IO model is the IO table, which is prepared using the Supply and Use Table (SUT). The SUT for the state is presented in TSA Table 5. This SUT is converted to an IO table for deriving the required multipliers for the tourism

sector. However, the SUT of 24 industries and products does not list tourism as a separate sector, which is embedded within the tourism characteristic and connected industries and products. Thus, in order to segregate the tourism component from these industries and products, the tourism industry ratios and tourism products ratios are applied on each industry column and product row, respectively.

The indirect benefits due to the interlinkages of the tourism industry with other industries are obtained in the Leontief Inverse matrix, simply called the “inverse” matrix, and subsequently through the multipliers. The multipliers represent a quantitative expression of the extent to which some initial, “exogenous” force or change is expected to generate additional effects through the interdependencies associated with some assumed and/or empirically established “endogenous” linkage system.

To be specific, if a sector increases its output, more inputs are required, including more intermediates from other sectors. Such an interconnection of a particular sector to another sectors is termed as a “backward linkage” and is represented by an “output multiplier”. This is the column sum of the inverse matrix. The higher the multipliers, the larger are the effects on the input–output system of the economy.

The employment multiplier is the ratio of the employment linkage coefficient to the employment direct coefficient. The direct coefficient is the employment to output ratio and the employment linkage coefficient is obtained by multiplying the row vector of the employment direct coefficient with the inverse matrix. It may be noted that employment refers to the number of jobs in an industry, so as to be in conformity with the TSA Table on Employment.

IV.11. NON-MONETARY TOURISM INDICATORS

TSA Tables 8 and 9 on Tourism Gross Fixed Capital Formation and Tourism Collective Consumption respectively are beyond the scope of regional TSAs due to non-availability of data.

TSA Table 10 presents a few quantitative indicators that are important for the interpretation of the monetary information presented. The indicators include the estimated number of tourist households and tourists, trips per 100 households, distribution of trips (for states of origin) by leading purposes; distribution of trips (for states of destination) by leading purposes, distribution of trips by main destination, distribution of trips by starting month of travel. It may be noted that the set of non-monetary indicators may vary from country to country depending on the availability of data.

V. TSA TABLES

TSA Table 1A: Inbound Tourism Expenditure incurred by International Tourists by Products and by types of tourists

(Rs. Lakh)

Item	NRI	PIO	OCI	Others	Total
A.1. Tourism characteristic products					
1. Accommodation services/Hotels	1225	38	222	5283	6768
2 Food and beverage serving services/Restaurants	772	21	67	1629	2488
3 Railway passenger transport services	42	0	3	83	128
4 Road passenger transport services	446	34	34	592	1106
5 Water passenger transport services	9	0	6	21	36
6 Air passenger transport services	313	12	16	497	838
7 Transport equipment rental services	51	1	12	308	373
8 Travel agencies and other reservation services/ Supporting and auxiliary transport activities	47	1	8	200	256
9 Cultural and religious services	60	0	57	222	339
10 Sports and other recreational services	47	0	25	74	147
11 Health and medical related services	409	2	68	246	724
A.2 Tourism connected products					
12 Readymade garments	792	11	137	739	1679
13 Processed Food	95	2	31	107	235
14 Alcohol & Tobacco products	80	1	43	226	351
15 Travel related consumer goods	34	0	7	35	76
16 Footwear	95	1	18	118	232
17 Soaps, cosmetics and glycerin	29	0	2	22	53
18 Gems and jewellery	438	3	123	590	1153
19 Books, journals, magazines, stationery etc.	47	1	9	73	130
Total Expenditure	5030	128	890	11065	17113
Estimated Number of tourists 2015-16	3318	57	172	4959	8507
Per Tourist Expenditure (Rs.)	151602	222520	516395	223112	201161

Source: NCAER computation

TSA Table 1B: Inbound Tourism Expenditure incurred by Tourists from other states by Products and by leading purposes (Rs. LAKH)

Item	Business	Holiday, leisure and recreation	Social	Religious	Education and training	Health and medical	Shopping	Other	Total
A.1. Tourism characteristic products									
1. Accommodation services/Hotels	0	3512	0	0	0	1	0	0	3513
2 Food and beverage serving services/Restaurants	0	5869	2	0	0	1	0	0	5872
3 Railway passenger transport services	0	2158	22	0	0	0	0	0	2179
4 Road passenger transport services	0	1775	0	0	0	0	0	0	1775
5 Water passenger transport services	0	742	0	0	0	0	0	0	742
6 Air passenger transport services	0	128764	0	0	0	40	0	0	128804
7 Transport equipment rental services	0	252	0	0	0	0	0	0	252
8 Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0	0	0	0
9 Cultural and religious services	0	3	0	0	0	0	0	0	3
10 Sports and other recreational services	0	64	0	0	0	0	0	0	64
11 Health and medical related services	0	15	0	0	0	1	0	0	15
A.2 Tourism connected products								0	
12 Readymade garments	0	1303	0	0	0	0	0	0	1303
13 Processed Food	0	206	4	0	0	0	0	0	210
14 Alcohol & Tobacco products	0	73	0	0	0	0	0	0	73
15 Travel related consumer goods	0	38	0	0	0	0	0	0	38
16 Footwear	0	897	0	0	0	0	0	0	897
17 Soaps, cosmetics and glycerin	0	14	0	0	0	0	0	0	14
18 Gems and jewellery	0	26	0	0	0	0	0	0	26
19 Books, journals, magazines, stationery etc.	0	78	0	0	0	0	0	0	78
Total Expenditure	0	145787	28	0	0	43	0	0	145859
Estimated number of trips 2015-16	0	23699	5707	0	0	11	0	0	29417
Per-trip Expenditure(Rs.)	0	615170	485	0	0	400248	0	0	495839

Source: NCAER computation

TSA Table 2: Domestic Tourism Expenditure incurred by Tourists from within the state of reference by Products and by leading purposes (RS. LAKH)

Item	Business	Holiday, leisure and recreation	Social	Religious	Education and training	Health and medical	Shopping	Other	Total
A.1. Tourism characteristic products									
1. Accommodation services/Hotels	14	8	119	0	0	126	3	3	273
2 Food and beverage serving services/Restaurants	316	99	1049	5	23	699	11	79	2280
3 Railway passenger transport services	0	0	0	0	0	2	0	0	2
4 Road passenger transport services	231	334	3618	72	26	407	11	355	5054
5 Water passenger transport services	500	483	2954	3	7	350	15	105	4418
6 Air passenger transport services	520	0	377	0	0	140	20	138	1194
7 Transport equipment rental services	6	7	174	0	8	182	2	28	406
8 Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	4	0	0	5	0	0	9
9 Cultural and religious services	0	0	0	2	0	0	0	0	2
10 Sports and other recreational services	0	0	0	0	0	0	0	0	0
11 Health and medical related services	0	0	72	0	0	2420	0	0	2492
A.2 Tourism connected products								0	
12 Readymade garments	397	0	1064	39	23	161	10	0	1694
13 Processed Food	20	25	272	2	2	83	9	22	434
14 Alcohol & Tobacco products	8	26	67	0	0	17	1	121	240
15 Travel related consumer goods	0	0	38	0	0	3	0	0	41
16 Footwear	0	1	148	0	6	11	1	0	167
17 Soaps, cosmetics and glycerin	30	5	51	0	0	22	2	8	118
18 Gems and jewellery	0	0	14	0	0	0	8	0	22
19 Books, journals, magazines, stationery etc.	0	0	117	0	0	0	0	0	117
Total Expenditure	2041	988	10139	123	96	4628	90	858	18965
Estimated number of trips 2015-16 (000)	89	2	214	11	3	23	2	30	373
Per-trip Expenditure(Rs.)	2290	41532	4747	1153	2743	20264	5650	2893	5079

Source: NCAER computation

TSA Table 3: Pre-trip Outbound Tourism Expenditures incurred by resident visitors travelling abroad by products and leading purposes

(RS. LAKH)

Item	Business	Holiday	Social	Religious	Educational/ training	Medical	Others	Total
A.1. Tourism characteristics services								
1. Accommodation services/Hotels	100	0	0	0	0	0	0	100
2 Food and beverage serving services/Restaurants	138	32	0	0	0	0	18	189
3 Railway passenger transport services	0	0	0	0	0	0	10	10
4 Road passenger transport services	59	18	0	0	15	0	24	117
5 Water passenger transport services	0	0	0	0	0	0	0	0
6 Air passenger transport services	0	646	0	0	0	0	0	646
7 Transport equipment rental services	2	10	0	0	0	0	3	15
8 Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0	0	0
9 Cultural and religious services	0	0	0	0	0	0	0	0
10 Sports and other recreational services	0	0	0	0	0	0	0	0
11 Health and medical related services	5	1	0	0	30	0	0	37
A.2 Tourism connected products								
12 Readymade garments	1949	389	0	0	30	0	503	2871
13 Processed Food	977	0	0	0	0	0	206	1183
14 Alcohol & Tobacco products	0	0	0	0	0	0	0	0
15 Travel related consumer goods	0	180	0	0	0	0	0	180
16 Footwear	650	0	0	0	15	0	171	836
17 Soaps, cosmetics and glycerin	2	0	0	0	0	0	171	173
18 Gems and jewellery	0	17	0	0	0	0	3	19
19 Books, journals, magazines, stationery etc.	650	0	0	0	0	0	0	650
Total Expenditure	4533	1295	0	0	90	0	1109	7027
Estimated Number of tourists - 2015-16	54516	20180	0	0	295	0	5922	80913
Per-tourist Expenditure (Rs.)	8315	6416	0	0	30504	0	18732	8684

Source: NCAER computation

TSA Table 4: Total Internal Tourism Consumption

(RS. LAKH)

Item	Inbound from other countries	Inbound from other states	Domestic	Outbound	Total
A.1. Tourism characteristic products					
1. Accommodation services/Hotels	6768	3513	273	100	10654
2 Food and beverage serving services/Restaurants	2488	5872	2280	189	10830
3 Railway passenger transport services	128	2179	2	10	2319
4 Road passenger transport services	1106	1775	5054	117	8052
5 Water passenger transport services	36	742	4418	0	5196
6 Air passenger transport services	838	128804	1194	646	131483
7 Transport equipment rental services	373	252	406	15	1046
8 Travel agencies and other reservation services/ Supporting and auxiliary transport activities	256	0	9	0	265
9 Cultural and religious services	339	3	2	0	344
10 Sports and other recreational services	147	64	0	0	211
11 Health and medical related services	724	15	2492	37	3268
A.2 Tourism connected products					
12 Readymade garments	1679	1303	1694	2871	7547
13 Processed Food	235	210	434	1183	2062
14 Alcohol & Tobacco products	351	73	240	0	664
15 Travel related consumer goods	76	38	41	180	336
16 Footwear	232	897	167	836	2132
17 Soaps, cosmetics and glycerin	53	14	118	173	358
18 Gems and jewellery	1153	26	22	19	1221
19 Books, journals, magazines, stationery etc.	130	78	117	650	974
Total Expenditure	17113	145859	18965	7027	188963
A.3 Other imputed connected products					
21 Vacation homes (assumed to be 1% of urban owner occupied dwelling services, total Rs. 1,69,363 crore)	0	0	111		111
22 Social transfers in kind (50% of GFCE of tourism and cultural services)	0	0	643		643
23 FISIM (calculated from the share of fisim in PFCE)	0	0	9976		9976
24 Producers' guest houses (.5% of private corporate sector output)	0	0	2667		2667
25 Imputed expenditures of households on food for tourists staying with them	0	0	1484		1484
Total (Rs. Crore)	17113	145859	33845	7027	203843

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Supply Table - Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Industry as per the Serial No. given in first column				
		1	2	3	4	5
1	Agriculture and allied	103290	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	1431	38509	0	0	279512
3	Trade	0	690	69664	0	0
4	Transport freight services	0	0	0	81762	0
5	All non-tourism specific services	0	5	716	0	368805
6	Accommodation services/Hotels	0	0	0	0	0
7	Food and beverage serving services/Restaurants	0	0	0	0	0
8	Railway passenger transport services	0	0	0	0	0
9	Road passenger transport services	0	0	0	1663	0
10	Water passenger transport services	0	0	0	0	0
11	Air passenger transport services	0	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0
15	Sports and other recreational services	0	0	0	0	0
16	Health and medical related services	0	0	0	0	0
17	Readymade garments	0	0	0	0	0
18	Processed Food	0	19	0	0	0
19	Alcohol & Tobacco products	0	1	0	0	0
20	Travel related consumer goods	0	102	0	0	0
21	Footwear	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	100	0	0	0
23	Gems and jewellery	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	70	0	0	0
	Total Value of Output (Rs. Lakh)	104721	39497	70380	83426	648317

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Supply Table - Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Industry as per the Serial No. given in first column				
		6	7	8	9	10
1	Agriculture and allied	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	0	0	0
3	Trade	0	0	0	0	0
4	Transport freight services	0	0	0	2911	0
5	All non-tourism specific services	0	0	0	0	0
6	Accommodation services/Hotels	1238	413	0	0	0
7	Food and beverage serving services/Restaurants	44	7695	0	0	0
8	Railway passenger transport services	0	0	0	0	0
9	Road passenger transport services	0	0	0	14969	0
10	Water passenger transport services	0	0	0	0	17807
11	Air passenger transport services	0	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0
15	Sports and other recreational services	0	0	0	0	0
16	Health and medical related services	0	0	0	0	0
17	Readymade garments	0	0	0	0	0
18	Processed Food	0	0	0	0	0
19	Alcohol & Tobacco products	0	0	0	0	0
20	Travel related consumer goods	0	0	0	0	0
21	Footwear	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	0	0	0
23	Gems and jewellery	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0	0
	Total Value of Output (Rs. Lakh)	1282	8108	0	17880	17807

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Supply Table - Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Industry as per the Serial No. given in first column				
		11	12	13	14	15
1	Agriculture and allied	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	0	0	0
3	Trade	0	0	0	0	0
4	Transport freight services	0	0	0	0	0
5	All non-tourism specific services	0	0	0	0	0
6	Accommodation services/Hotels	0	0	0	0	0
7	Food and beverage serving services/Restaurants	0	0	0	0	0
8	Railway passenger transport services	0	0	0	0	0
9	Road passenger transport services	0	0	0	0	0
10	Water passenger transport services	0	0	0	0	0
11	Air passenger transport services	31278	0	0	0	0
12	Transport equipment rental services	0	37	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	5484	0	0
14	Cultural and religious services	0	0	0	74	0
15	Sports and other recreational services	0	0	0	0	1616
16	Health and medical related services	0	0	0	0	0
17	Readymade garments	0	0	0	0	0
18	Processed Food	0	0	0	0	0
19	Alcohol & Tobacco products	0	0	0	0	0
20	Travel related consumer goods	0	0	0	0	0
21	Footwear	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	0	0	0
23	Gems and jewellery	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0	0
	Total Value of Output (Rs. Lakh)	31278	37	5484	74	1616

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Supply Table - Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Industry as per the Serial No. given in first column				
		16	17	18	19	20
1	Agriculture and allied	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	-33	37	0
3	Trade	0	0	-142	34	0
4	Transport freight services	0	0	0	0	0
5	All non-tourism specific services	0	0	-1	5	0
6	Accommodation services/Hotels	0	0	0	0	0
7	Food and beverage serving services/Restaurants	0	0	0	0	0
8	Railway passenger transport services	0	0	0	0	0
9	Road passenger transport services	0	0	0	0	0
10	Water passenger transport services	0	0	0	0	0
11	Air passenger transport services	0	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0
15	Sports and other recreational services	0	0	0	0	0
16	Health and medical related services	25598	0	0	0	0
17	Readymade garments	0	0	0	0	0
18	Processed Food	0	0	-5297	36	0
19	Alcohol & Tobacco products	0	0	-22	967	0
20	Travel related consumer goods	0	0	-3	0	0
21	Footwear	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	-19	0	0
23	Gems and jewellery	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0	0
	Total Value of Output (Rs. Lakh)	25598	0	-5517	1079	0

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Supply Table - Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Industry as per the Serial No. given in first column				Total Domestic Supply at BP
		21	22	23	24	
1	Agriculture and allied	0	0	0	0	103290
2	Mining, other manufacturing, construction, electricity, gas and water supply	0	97	0	117	319670
3	Trade	0	2	0	1	70250
4	Transport freight services	0	0	0	0	84674
5	All non-tourism specific services	0	0	0	0	369531
6	Accommodation services/Hotels	0	0	0	0	1651
7	Food and beverage serving services/Restaurants	0	0	0	0	7739
8	Railway passenger transport services	0	0	0	0	0
9	Road passenger transport services	0	0	0	0	16632
10	Water passenger transport services	0	0	0	0	17807
11	Air passenger transport services	0	0	0	0	31278
12	Transport equipment rental services	0	0	0	0	37
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	5484
14	Cultural and religious services	0	0	0	0	74
15	Sports and other recreational services	0	0	0	0	1616
16	Health and medical related services	0	0	0	0	25598
17	Readymade garments	0	0	0	0	0
18	Processed Food	0	2	0	0	-5241
19	Alcohol & Tobacco products	0	0	0	0	945
20	Travel related consumer goods	0	0	0	0	100
21	Footwear	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	12	0	0	93
23	Gems and jewellery	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	5	75
	Total Value of Output (Rs. Lakh)	0	114	0	124	1051305

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Supply Table - Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Product taxes less Subsidies	Output at Producer price (OP)	Trade and Transport Margins (TTM)	Output at Purchaser's price (OP + TTM)	Total Supply (domestic + Imports)
1	Agriculture and allied	-60	103230	105920	209150	234666
2	Mining, other manufacturing, construction, electricity, gas and water supply	380	320050	66044	386094	433198
3	Trade	1	70251	-70251	0	0
4	Transport freight services	6	84679	-84679	0	0
5	All non-tourism specific services	80	369610	0	369610	411089
6	Accommodation services/Hotels	0	1651	0	1651	1853
7	Food and beverage serving services/Restaurants	1	7740	0	7740	8684
8	Railway passenger transport services	0	0	0	0	0
9	Road passenger transport services	1	16633	0	16633	18663
10	Water passenger transport services	2	17808	0	17808	19981
11	Air passenger transport services	1	31278	0	31278	35094
12	Transport equipment rental services	0	37	0	37	45
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	5484	0	5484	6153
14	Cultural and religious services	0	74	0	74	89
15	Sports and other recreational services	6	1622	0	1622	1961
16	Health and medical related services	0	25598	0	25598	33572
17	Readymade garments	5	5	4	8	9
18	Processed Food	16	-5224	-18513	-23737	-26633
19	Alcohol & Tobacco products	28	974	1141	2115	2373
20	Travel related consumer goods	2	101	145	246	276
21	Footwear	1	1	1	2	2
22	Soaps, cosmetics and glycerin	6	100	104	204	229
23	Gems and jewellery	3	3	1	4	5
24	Books, journals, magazines, stationery etc.	0	76	83	159	178
	Total Value of Output (Rs. Lakh)	478	1051783	0	1051783	1181488

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Use Table -Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Industry as per the Serial No. given in first column				
		1	2	3	4	5
1	Agriculture and allied	10825	2763	0	466	14642
2	Mining, other manufacturing, construction, electricity, gas and water supply	5980	19793	10857	26802	175545
3	Trade	0	0	0	0	0
4	Transport freight services	0	0	0	0	0
5	All non-tourism specific services	1033	733	4396	13952	57873
6	Accommodation services/Hotels	7	9	233	174	827
7	Food and beverage serving services/Restaurants	23	41	1094	817	3881
8	Railway passenger transport services	0	28	17	25	208
9	Road passenger transport services	376	191	1155	392	2704
10	Water passenger transport services	0	0	29	8	412
11	Air passenger transport services	0	588	150	382	4280
12	Transport equipment rental services	0	1	5	3	45
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	238	772	314
14	Cultural and religious services	0	0	0	0	0
15	Sports and other recreational services	18	34	27	96	140
16	Health and medical related services	0	0	0	0	15
17	Readymade garments	16	29	65	979	1188
18	Processed Food	3069	4	5	0	13015
19	Alcohol & Tobacco products	0	0	0	0	481
20	Travel related consumer goods	11	29	36	94	450
21	Footwear	0	0	0	0	29
22	Soaps, cosmetics and glycerin	0	5	46	0	47
23	Gems and jewellery	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	50	34	38	681	784
	Total IIUSE at PP	21407	24281	18390	45644	276879
	Output at BP	104721	39497	70380	83426	648317
	GVA	83314	15216	51990	37782	371438

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Use Table -Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Industry as per the Serial No. given in first column				
		6	7	8	9	10
1	Agriculture and allied	415	2624	0	299	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	78	496	0	6412	9230
3	Trade	0	0	0	0	0
4	Transport freight services	0	0	0	0	0
5	All non-tourism specific services	39	245	0	2870	2143
6	Accommodation services/Hotels	0	1	0	35	41
7	Food and beverage serving services/Restaurants	1	4	0	164	191
8	Railway passenger transport services	0	0	0	0	0
9	Road passenger transport services	0	3	0	0	0
10	Water passenger transport services	0	0	0	0	0
11	Air passenger transport services	0	1	0	2	4
12	Transport equipment rental services	0	0	0	2	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	1	3	0	9	15
14	Cultural and religious services	0	0	0	0	0
15	Sports and other recreational services	2	14	0	2	157
16	Health and medical related services	0	0	0	0	0
17	Readymade garments	1	6	0	82	372
18	Processed Food	273	1725	0	0	0
19	Alcohol & Tobacco products	26	162	0	0	0
20	Travel related consumer goods	0	1	0	12	32
21	Footwear	0	0	0	0	0
22	Soaps, cosmetics and glycerin	9	57	0	0	0
23	Gems and jewellery	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	51	351
	Total IIUSE at PP	845	5341	0	9942	12536
	Output at BP	1282	8108	0	17880	17807
	GVA	438	2767	0	7939	5270

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Use Table -Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Industry as per the Serial No. given in first column				
		11	12	13	14	15
1	Agriculture and allied	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	15569	7	1563	21	130
3	Trade	0	0	0	0	0
4	Transport freight services	0	0	0	0	0
5	All non-tourism specific services	5979	4	936	2	511
6	Accommodation services/Hotels	95	0	11	0	1
7	Food and beverage serving services/Restaurants	444	0	54	0	4
8	Railway passenger transport services	3	0	3	0	2
9	Road passenger transport services	1	0	42	0	17
10	Water passenger transport services	0	0	1	0	0
11	Air passenger transport services	24	0	40	0	3
12	Transport equipment rental services	1	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	81	0	4
14	Cultural and religious services	0	0	0	0	0
15	Sports and other recreational services	68	0	8	0	17
16	Health and medical related services	0	0	0	0	0
17	Readymade garments	995	0	78	1	4
18	Processed Food	0	0	0	0	0
19	Alcohol & Tobacco products	0	0	0	0	0
20	Travel related consumer goods	84	0	7	0	1
21	Footwear	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	0	0	0
23	Gems and jewellery	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	823	0	53	0	4
	Total IIUSE at PP	24086	12	2876	25	699
	Output at BP	31278	37	5484	74	1616
	GVA	7192	25	2608	49	917

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Use Table -Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Industry as per the Serial No. given in first column				
		16	17	18	19	20
1	Agriculture and allied	0	0	-4603	656	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	8619	0	-221	40	0
3	Trade	0	0	0	0	0
4	Transport freight services	0	0	0	0	0
5	All non-tourism specific services	903	0	-42	2	0
6	Accommodation services/Hotels	3	0	0	0	0
7	Food and beverage serving services/Restaurants	12	0	0	0	0
8	Railway passenger transport services	0	0	-1	0	0
9	Road passenger transport services	3	0	-7	0	0
10	Water passenger transport services	2	0	0	0	0
11	Air passenger transport services	66	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0
15	Sports and other recreational services	14	0	0	0	0
16	Health and medical related services	83	0	0	0	0
17	Readymade garments	40	0	0	0	0
18	Processed Food	0	0	-134	16	0
19	Alcohol & Tobacco products	0	0	-6	4	0
20	Travel related consumer goods	1	0	0	0	0
21	Footwear	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	0	0	0
23	Gems and jewellery	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	14	0	0	0	0
	Total IIUSE at PP	9758	0	-5015	718	0
	Output at BP	25598	0	-5517	1079	0
	GVA	15840	0	-502	361	0

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Use Table -Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	Industry as per the Serial No. given in first column			
		21	22	23	24
1	Agriculture and allied	0	3	0	12
2	Mining, other manufacturing, construction, electricity, gas and water supply	0	84	0	80
3	Trade	0	0	0	0
4	Transport freight services	0	0	0	0
5	All non-tourism specific services	0	1	0	2
6	Accommodation services/Hotels	0	0	0	0
7	Food and beverage serving services/Restaurants	0	0	0	0
8	Railway passenger transport services	0	0	0	0
9	Road passenger transport services	0	0	0	0
10	Water passenger transport services	0	0	0	0
11	Air passenger transport services	0	0	0	0
12	Transport equipment rental services	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0
14	Cultural and religious services	0	0	0	0
15	Sports and other recreational services	0	0	0	0
16	Health and medical related services	0	0	0	0
17	Readymade garments	0	0	0	0
18	Processed Food	0	1	0	0
19	Alcohol & Tobacco products	0	0	0	0
20	Travel related consumer goods	0	0	0	0
21	Footwear	0	0	0	0
22	Soaps, cosmetics and glycerin	0	1	0	0
23	Gems and jewellery	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0
	Total IIUSE at PP	0	89	0	96
	Output at BP	0	114	0	124
	GVA	0	25	0	28

Source: NCAER computation

TSA Table 5: Production Account of Tourism Industries - Use Table -Andaman & Nicobar Islands 2015-16 (Rs. Lakh) (Cont.)

S. No.	Industry	IIUSE	TFUSE	Total Use
1	Agriculture and allied	28102	181048	209150
2	Mining, other manufacturing, construction, electricity, gas and water supply	281085	105009	386094
3	Trade	0	0	0
4	Transport freight services	0	0	0
5	All non-tourism specific services	91582	278028	369610
6	Accommodation services/Hotels	1435	216	1651
7	Food and beverage serving services/Restaurants	6728	1012	7740
8	Railway passenger transport services	285	-285	0
9	Road passenger transport services	4877	11757	16633
10	Water passenger transport services	453	17355	17808
11	Air passenger transport services	5540	25738	31278
12	Transport equipment rental services	58	-21	37
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	1437	4047	5484
14	Cultural and religious services	1	73	74
15	Sports and other recreational services	596	1026	1622
16	Health and medical related services	99	25499	25598
17	Readymade garments	3858	-3849	8
18	Processed Food	17973	-41710	-23737
19	Alcohol & Tobacco products	667	1448	2115
20	Travel related consumer goods	757	-511	246
21	Footwear	29	-27	2
22	Soaps, cosmetics and glycerin	164	40	204
23	Gems and jewellery	0	4	4
24	Books, journals, magazines, stationery etc.	2883	-2724	159
	Total IIUSE at PP	448609	603173	1051783
	Output at BP	1051305		
	GVA	602695		

Source: NCAER computation

TSA Table 6: Total Supply and Internal Tourism Consumption - Andaman & Nicobar Islands (Rs. Lakh)

S. No.	Industry	Industry as per the Serial No. given in first column					
		1	TS*	2	TS*	3	TS*
1	Agriculture and allied	103290	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	1431	0	38509	0	0	0
3	Trade	0	0	690	0	69664	1021
4	Transport freight services	0	0	0	0	0	0
5	All non-tourism specific services	0	0	5	0	716	39
6	Accommodation services/Hotels	0	0	0	0	0	0
7	Food and beverage serving services/Restaurants	0	0	0	0	0	0
8	Railway passenger transport services	0	0	0	0	0	0
9	Road passenger transport services	0	0	0	0	0	0
10	Water passenger transport services	0	0	0	0	0	0
11	Air passenger transport services	0	0	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0	0
15	Sports and other recreational services	0	0	0	0	0	0
16	Health and medical related services	0	0	0	0	0	0
17	Readymade garments	0	0	0	0	0	0
18	Processed Food	0	0	19	0	0	0
19	Alcohol & Tobacco products	0	0	1	0	0	0
20	Travel related consumer goods	0	0	102	0	0	0
21	Footwear	0	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	100	0	0	0
23	Gems and jewellery	0	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	70	0	0	0
	Total Value of Output (Rs. Lakh)	104721	0	39497	0	70380	1060
	Intermediate consumption (Rs. Lakh)	21407	0	24281	0	18390	277
	GVA (Rs. Lakh)	83314	0	15216	0	51990	783
	Tourism Industry Ratios (%)		0		0		2

Note - TS* (Tourism share)

Source: NCAER Computations

TSA Table 6: Total Supply and Internal Tourism Consumption - Andaman & Nicobar Islands (Rs. Lakh)

S. No.	Industry	Industry as per the Serial No. given in first column					
		4	TS*	5	TS*	6	TS*
1	Agriculture and allied	0	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	279512	0	0	0
3	Trade	0	0	0	0	0	0
4	Transport freight services	81762	0	0	0	0	0
5	All non-tourism specific services	0	0	365584	20107	0	0
6	Accommodation services/Hotels	0	0	0	0	1238	1187
7	Food and beverage serving services/Restaurants	0	0	0	0	44	23
8	Railway passenger transport services	0	0	0	0	0	0
9	Road passenger transport services	1663	718	0	0	0	0
10	Water passenger transport services	0	0	0	0	0	0
11	Air passenger transport services	0	0	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0	0
15	Sports and other recreational services	0	0	0	0	0	0
16	Health and medical related services	0	0	0	0	0	0
17	Readymade garments	0	0	0	0	0	0
18	Processed Food	0	0	0	0	0	0
19	Alcohol & Tobacco products	0	0	0	0	0	0
20	Travel related consumer goods	0	0	0	0	0	0
21	Footwear	0	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	0	0	0	0
23	Gems and jewellery	0	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0	0	0
	Total Value of Output (Rs. Lakh)	83426	718	645096	20107	1282	1210
	Intermediate consumption (Rs. Lakh)	45644	393	276410	8615	845	797
	GVA (Rs. Lakh)	37782	325	368686	11492	438	413
	Tourism Industry Ratios (%)		1		3		94

Note - TS* (Tourism share)

Source: NCAER Computations

TSA Table 6: Total Supply and Internal Tourism Consumption - Andaman & Nicobar Islands (Rs. Lakh)

S. No.	Industry	Industry as per the Serial No. given in first column					
		7	TS*	8	TS*	9	TS*
1	Agriculture and allied	0	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	0	0	0	0
3	Trade	0	0	0	0	0	0
4	Transport freight services	0	0	0	0	2911	0
5	All non-tourism specific services	0	0	0	0	0	0
6	Accommodation services/Hotels	413	396	0	0	0	0
7	Food and beverage serving services/Restaurants	7695	4098	0	0	0	0
8	Railway passenger transport services	0	0	0	0	0	0
9	Road passenger transport services	0	0	0	0	14969	6458
10	Water passenger transport services	0	0	0	0	0	0
11	Air passenger transport services	0	0	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0	0
15	Sports and other recreational services	0	0	0	0	0	0
16	Health and medical related services	0	0	0	0	0	0
17	Readymade garments	0	0	0	0	0	0
18	Processed Food	0	0	0	0	0	0
19	Alcohol & Tobacco products	0	0	0	0	0	0
20	Travel related consumer goods	0	0	0	0	0	0
21	Footwear	0	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	0	0	0	0
23	Gems and jewellery	0	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0	0	0
	Total Value of Output (Rs. Lakh)	8108	4494	0	0	17880	6458
	Intermediate consumption (Rs. Lakh)	5341	2960	0	0	9942	3591
	GVA (Rs. Lakh)	2767	1533	0	0	7939	2867
	Tourism Industry Ratios (%)		55		0		36

Note - TS* (Tourism share)

Source: NCAER Computations

TSA Table 6: Total Supply and Internal Tourism Consumption - Andaman & Nicobar Islands (Rs. Lakh)

S. No.	Industry	Industry as per the Serial No. given in first column					
		10	TS*	11	TS*	12	TS*
1	Agriculture and allied	0	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	0	0	0	0
3	Trade	0	0	0	0	0	0
4	Transport freight services	0	0	0	0	0	0
5	All non-tourism specific services	0	0	0	0	0	0
6	Accommodation services/Hotels	0	0	0	0	0	0
7	Food and beverage serving services/Restaurants	0	0	0	0	0	0
8	Railway passenger transport services	0	0	0	0	0	0
9	Road passenger transport services	0	0	0	0	0	0
10	Water passenger transport services	17807	4631	0	0	0	0
11	Air passenger transport services	0	0	31278	25365	0	0
12	Transport equipment rental services	0	0	0	0	40	15
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0	0
15	Sports and other recreational services	0	0	0	0	0	0
16	Health and medical related services	0	0	0	0	0	0
17	Readymade garments	0	0	0	0	0	0
18	Processed Food	0	0	0	0	0	0
19	Alcohol & Tobacco products	0	0	0	0	0	0
20	Travel related consumer goods	0	0	0	0	0	0
21	Footwear	0	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	0	0	0	0
23	Gems and jewellery	0	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0	0	0
	Total Value of Output (Rs. Lakh)	17807	4631	31278	25365	40	15
	Intermediate consumption (Rs. Lakh)	12536	3260	24086	19533	13	5
	GVA (Rs. Lakh)	5270	1371	7192	5832	27	10
	Tourism Industry Ratios (%)		26		81		38

Note - TS* (Tourism share)

Source: NCAER Computations

TSA Table 6: Total Supply and Internal Tourism Consumption - Andaman & Nicobar Islands (Rs. Lakh)

S. No.	Industry	Industry as per the Serial No. given in first column					
		13	TS*	14	TS*	15	TS*
1	Agriculture and allied	0	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	0	0	0	0
3	Trade	0	0	0	0	0	0
4	Transport freight services	0	0	0	0	0	0
5	All non-tourism specific services	0	0	0	0	0	0
6	Accommodation services/Hotels	0	0	0	0	0	0
7	Food and beverage serving services/Restaurants	0	0	0	0	0	0
8	Railway passenger transport services	0	0	0	0	0	0
9	Road passenger transport services	0	0	0	0	0	0
10	Water passenger transport services	0	0	0	0	0	0
11	Air passenger transport services	0	0	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	5484	2811	0	0	0	0
14	Cultural and religious services	0	0	80	16	0	0
15	Sports and other recreational services	0	0	0	0	1742	188
16	Health and medical related services	0	0	0	0	0	0
17	Readymade garments	0	0	0	0	0	0
18	Processed Food	0	0	0	0	0	0
19	Alcohol & Tobacco products	0	0	0	0	0	0
20	Travel related consumer goods	0	0	0	0	0	0
21	Footwear	0	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	0	0	0	0
23	Gems and jewellery	0	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0	0	0
	Total Value of Output (Rs. Lakh)	5484	2811	80	16	1742	188
	Intermediate consumption (Rs. Lakh)	2876	1474	27	5	753	81
	GVA (Rs. Lakh)	2608	1337	52	11	988	106
	Tourism Industry Ratios (%)		51		20		11

Note - TS* (Tourism share)

Source: NCAER Computations

TSA Table 6: Total Supply and Internal Tourism Consumption - Andaman & Nicobar Islands (Rs. Lakh)

S. No.	Industry	Industry as per the Serial No. given in first column					
		16	TS*	17	TS*	18	TS*
1	Agriculture and allied	0	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	0	0	-33	0
3	Trade	0	0	0	0	-142	0
4	Transport freight services	0	0	0	0	0	0
5	All non-tourism specific services	0	0	0	0	-1	0
6	Accommodation services/Hotels	0	0	0	0	0	0
7	Food and beverage serving services/Restaurants	0	0	0	0	0	0
8	Railway passenger transport services	0	0	0	0	0	0
9	Road passenger transport services	0	0	0	0	0	0
10	Water passenger transport services	0	0	0	0	0	0
11	Air passenger transport services	0	0	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0	0
15	Sports and other recreational services	0	0	0	0	0	0
16	Health and medical related services	29922	2913	0	0	0	0
17	Readymade garments	0	0	0	0	0	0
18	Processed Food	0	0	0	0	-5297	0
19	Alcohol & Tobacco products	0	0	0	0	-22	0
20	Travel related consumer goods	0	0	0	0	-3	0
21	Footwear	0	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	0	0	-19	0
23	Gems and jewellery	0	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0	0	0
	Total Value of Output (Rs. Lakh)	29922	2913	0	0	-5517	0
	Intermediate consumption (Rs. Lakh)	11407	1110	0	0	-5015	0
	GVA (Rs. Lakh)	18516	1802	0	0	-502	0
	Tourism Industry Ratios (%)		10		0		0

Note - TS* (Tourism share)

Source: NCAER Computations

TSA Table 6: Total Supply and Internal Tourism Consumption - Andaman & Nicobar Islands (Rs. Lakh)

S. No.	Industry	Industry as per the Serial No. given in first column					
		19	TS*	20	TS*	21	TS*
1	Agriculture and allied	0	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	37	0	0	0	0	0
3	Trade	34	0	0	0	0	0
4	Transport freight services	0	0	0	0	0	0
5	All non-tourism specific services	5	0	0	0	0	0
6	Accommodation services/Hotels	0	0	0	0	0	0
7	Food and beverage serving services/Restaurants	0	0	0	0	0	0
8	Railway passenger transport services	0	0	0	0	0	0
9	Road passenger transport services	0	0	0	0	0	0
10	Water passenger transport services	0	0	0	0	0	0
11	Air passenger transport services	0	0	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0	0
15	Sports and other recreational services	0	0	0	0	0	0
16	Health and medical related services	0	0	0	0	0	0
17	Readymade garments	0	0	0	0	0	0
18	Processed Food	36	0	0	0	0	0
19	Alcohol & Tobacco products	967	0	0	0	0	0
20	Travel related consumer goods	0	0	0	0	0	0
21	Footwear	0	0	0	0	0	0
22	Soaps, cosmetics and glycerin	0	0	0	0	0	0
23	Gems and jewellery	0	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0	0	0
	Total Value of Output (Rs. Lakh)	1079	0	0	0	0	0
	Intermediate consumption (Rs. Lakh)	718	0	0	0	0	0
	GVA (Rs. Lakh)	361	0	0	0	0	0
	Tourism Industry Ratios (%)		0		0		0

Note - TS* (Tourism share)

Source: NCAER Computations

TSA Table 6: Total Supply and Internal Tourism Consumption - Andaman & Nicobar Islands (Rs. Lakh)

S. No.	Industry	Industry as per the Serial No. given in first column					
		22	TS*	23	TS*	24	TS*
1	Agriculture and allied	0	0	0	0	0	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	97	0	0	0	117	0
3	Trade	2	0	0	0	1	0
4	Transport freight services	0	0	0	0	0	0
5	All non-tourism specific services	0	0	0	0	0	0
6	Accommodation services/Hotels	0	0	0	0	0	0
7	Food and beverage serving services/Restaurants	0	0	0	0	0	0
8	Railway passenger transport services	0	0	0	0	0	0
9	Road passenger transport services	0	0	0	0	0	0
10	Water passenger transport services	0	0	0	0	0	0
11	Air passenger transport services	0	0	0	0	0	0
12	Transport equipment rental services	0	0	0	0	0	0
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0
14	Cultural and religious services	0	0	0	0	0	0
15	Sports and other recreational services	0	0	0	0	0	0
16	Health and medical related services	0	0	0	0	0	0
17	Readymade garments	0	0	0	0	0	0
18	Processed Food	2	0	0	0	0	0
19	Alcohol & Tobacco products	0	0	0	0	0	0
20	Travel related consumer goods	0	0	0	0	0	0
21	Footwear	0	0	0	0	0	0
22	Soaps, cosmetics and glycerin	12	0	0	0	0	0
23	Gems and jewellery	0	0	0	0	0	0
24	Books, journals, magazines, stationery etc.	0	0	0	0	5	0
	Total Value of Output (Rs. Lakh)	114	0	0	0	124	0
	Intermediate consumption (Rs. Lakh)	89	0	0	0	96	0
	GVA (Rs. Lakh)	25	0	0	0	28	0
	Tourism Industry Ratios (%)		0		0		0

Note - TS* (Tourism share)

Source: NCAER Computations

TSA Table 6: Total Supply and Internal Tourism Consumption - Andaman & Nicobar Islands (Rs. Lakh)

S. No.	Industry	Total Domestic Supply at BP	Tourism share	Product taxes less Subsidies	Tourism share	Output at Producer price (OP)	Tourism share
1	Agriculture and allied	103290	0	-60	0	103230	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	319670	0	380	0	320050	0
3	Trade	70250	1021	1	0	70251	1021
4	Transport freight services	84674	0	6	0	84679	0
5	All non-tourism specific services	366309	20147	80	4	366389	20151
6	Accommodation services/Hotels	1651	1583	0	0	1651	1583
7	Food and beverage serving services/Restaurants	7739	4121	1	1	7740	4122
8	Railway passenger transport services	0	0	0	0	0	0
9	Road passenger transport services	16632	7176	1	1	16633	7176
10	Water passenger transport services	17807	4631	2	0	17808	4631
11	Air passenger transport services	31278	25365	1	0	31278	25366
12	Transport equipment rental services	40	15	0	0	40	15
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	5484	2811	0	0	5484	2811
14	Cultural and religious services	80	16	0	0	80	16
15	Sports and other recreational services	1742	188	6	1	1747	188
16	Health and medical related services	29922	2913	0	0	29922	2913
17	Readymade garments	0	0	5	2	5	2
18	Processed Food	-5241	0	16	0	-5224	0
19	Alcohol & Tobacco products	945	0	28	8	974	8
20	Travel related consumer goods	100	0	2	1	101	1
21	Footwear	0	0	1	0	1	0
22	Soaps, cosmetics and glycerin	93	0	6	0	100	0
23	Gems and jewellery	0	0	3	0	3	0
24	Books, journals, magazines, stationery etc.	75	0	0	0	76	0
	Total Value of Output (Rs. Lakh)	1052541	69986	478	19	1053019	70005
	Intermediate consumption (Rs. Lakh)	449846	42103				
	GVA (Rs. Lakh)	602695	27883				
	Tourism Industry Ratios (%)		5				

Note - TS* (Tourism share)

Source: NCAER Computations

TSA Table 6: Total Supply and Internal Tourism Consumption - Andaman & Nicobar Islands (Rs. Lakh)

S. No.	Industry	Trade and Transport Margins (TTM)	Tourism share	Output at Purchaser's price (OP + TTM)	Tourism share
1	Agriculture and allied	105920	0	209150	0
2	Mining, other manufacturing, construction, electricity, gas and water supply	66044	0	386094	0
3	Trade	-70251	-1021	0	0
4	Transport freight services	-84679	0	0	0
5	All non-tourism specific services	0	0	366389	20151
6	Accommodation services/Hotels	0	0	1651	1583
7	Food and beverage serving services/Restaurants	0	0	7740	4122
8	Railway passenger transport services	0	0	0	0
9	Road passenger transport services	0	0	16633	7176
10	Water passenger transport services	0	0	17808	4631
11	Air passenger transport services	0	0	31278	25366
12	Transport equipment rental services	0	0	40	15
13	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	5484	2811
14	Cultural and religious services	0	0	80	16
15	Sports and other recreational services	0	0	1747	188
16	Health and medical related services	0	0	29922	2913
17	Readymade garments	4	136	8	138
18	Processed Food	-18513	278	-23737	278
19	Alcohol & Tobacco products	1141	113	2115	121
20	Travel related consumer goods	145	44	246	45
21	Footwear	1	269	2	269
22	Soaps, cosmetics and glycerin	104	60	204	60
23	Gems and jewellery	1	22	4	22
24	Books, journals, magazines, stationery etc.	83	99	159	99
	Total Value of Output (Rs. Lakh)	0	0	1053019	70005
	Intermediate consumption (Rs. Lakh)				
	GVA (Rs. Lakh)				
	Tourism Industry Ratios (%)			1181488	

Note - TS* (Tourism share)

Source: NCAER Computations

TSA Table 7: Employment in Tourism industries (Number of jobs)

Item	Self Employed	Employees	Total
1. Accommodation services/Hotels	0	0	0
2 Food and beverage serving services/Restaurants	6289	511	6800
3 Railway passenger transport services	1080	0	1080
4 Road passenger transport services	5184	2989	8173
5 Water passenger transport services	882	176	1058
6 Air passenger transport services	0	0	0
7 Transport equipment rental services	0	0	0
8 Travel agencies and other reservation services/ Supporting and auxiliary transport activities	1076	1289	2365
9 Cultural and religious services	278	1196	1474
10 Sports and other recreational services	646	0	646
11 Health and medical related services	3143	89	3232
Total jobs in tourism characteristic industries	18578	6250	24828
Total Jobs in the state	127786	96152	223938
Share of Tourism in total	14.54	6.50	11.09

Source: NCAER computation

TSA Table 10.1: State-wise Estimated number of households and persons

States	Households			Persons		
	Rural	Urban	Total	Rural	Urban	Total
Jammu & Kashmir	15,20,631	4,85,388	20,06,019	76,49,291	22,61,378	99,10,670
Himachal Pradesh	13,64,113	214051	15,78,164	58,80,223	6,49,267	65,29,490
Punjab	34,58,705	25,74,170	60,32,875	1,63,33,883	95,41,305	2,58,75,188
Chandigarh	7730	192670	200400	33,612	7,48,512	7,82,124
Uttarakhand	14,65,093	557306	20,22,398	68,30,221	23,58,918	91,89,139
Haryana	30,23,247	18,74,356	48,97,603	1,57,42,452	82,18,356	2,39,60,808
Delhi	101604	32,25,854	33,27,458	4,30,017	1,32,62,782	1,36,92,799
Rajasthan	96,31,191	33,13,974	1,29,45,164	4,96,91,162	1,51,49,690	6,48,40,852
Uttar Pradesh	2,66,30,004	81,32,969	3,47,62,973	14,15,73,352	3,93,92,178	18,09,65,530
Bihar	1,69,74,924	20,37,288	1,90,12,212	8,33,21,237	98,64,355	9,31,85,593
Sikkim	103294	36105	1,39,399	4,05,490	1,12,410	5,17,900
Arunachal Pradesh	1,92,684	51282	2,43,967	9,18,894	2,00,684	11,19,579
Nagaland	2,62,575	102591	3,65,166	12,53,508	4,79,636	17,33,144
Manipur	3,78,132	1,68,516	5,46,647	19,08,504	8,04,656	27,13,160
Mizoram	114656	91,470	2,06,126	5,17,140	4,21,372	9,38,513
Tripura	6,65,001	193774	8,58,775	26,47,650	6,93,524	33,41,174
Meghalaya	4,97,989	125194	6,23,183	24,47,298	5,16,936	29,64,233
Assam	54,79,336	7,71,818	62,51,154	2,60,21,852	30,35,793	2,90,57,646
West Bengal	1,42,58,071	64,64,619	2,07,22,690	5,94,52,706	2,41,77,905	8,36,30,611
Jharkhand	47,61,190	14,45,003	62,06,194	2,42,50,347	64,27,222	3,06,77,569
Odisha	81,22,539	18,01,574	99,24,113	3,44,03,572	66,39,480	4,10,43,053
Chhattisgarh	43,67,924	11,86,143	55,54,067	1,91,87,915	48,00,730	2,39,88,645
Madhya Pradesh	1,04,79,028	38,58,775	1,43,37,803	5,05,38,282	1,71,85,652	6,77,23,934
Gujarat	67,24,622	53,23,086	1,20,47,708	3,24,48,409	2,40,21,335	5,64,69,744
Daman & Diu	13466	70288	83754	48,129	2,52,260	3,00,389
D & N Haveli	44176	42550	86726	1,53,857	1,51,894	3,05,751
Maharashtra	1,30,14,548	1,13,25,283	2,43,39,831	5,90,20,714	4,62,80,284	10,53,00,998
Andhra Pradesh	89,65,874	42,34,416	1,32,00,290	3,20,91,824	1,42,30,501	4,63,22,325
Karnataka	81,53,194	60,59,261	1,42,12,455	3,54,39,816	2,22,30,714	5,76,70,530
Goa	125329	238769	364098	5,36,144	8,08,796	13,44,940
Lakshadweep	2085	9752	11837	10,705	49,726	60,431
Kerala	43,65,286	35,97,077	79,62,363	1,75,03,582	1,35,51,023	3,10,54,606
Tamil Nadu	99,19,515	96,95,734	1,96,15,249	3,52,91,111	3,20,81,613	6,73,72,724
Puducherry	108799	216413	325212	3,56,291	7,52,723	11,09,014
A & N Islands	64791	44222	109013	2,42,504	1,45,529	3,88,034
Telangana	50,61,181	36,17,954	86,79,135	1,73,94,810	1,25,29,834	2,99,24,644
Total	170422524	83379697	253802221	78,19,76,506	33,40,28,976	1,11,60,05,481

Source: NCAER computation

**TSA Table 10.2a: State-wise Trips per 100 households with leading purposes
holidaying, medical and shopping**

States	Trips per 100 Households			Rank among states		
	Rural	Urban	Total	Rural	Urban	Total
Jammu & Kashmir	33.2	27.2	31.8	7	8	5
Himachal Pradesh	25.8	19.4	24.9	11	21	14
Punjab	25.0	31.4	27.7	13	7	10
Chandigarh	12.2	14.5	14.4	33	33	33
Uttarakhand	22.8	20.3	22.1	18	19	21
Haryana	20.7	25.5	22.6	22	12	19
Delhi	7.6	23.5	23.1	36	15	18
Rajasthan	23.8	21.0	23.1	17	17	17
Uttar Pradesh	18.0	18.5	18.1	29	25	29
Bihar	17.2	17.1	17.2	30	28	31
Sikkim	21.3	9.3	18.2	21	36	28
Arunachal Pradesh	43.9	44.6	44.0	4	3	3
Nagaland	16.4	15.7	16.2	31	31	32
Manipur	24.0	25.0	24.3	16	13	15
Mizoram	34.3	19.4	27.7	6	22	11
Tripura	25.3	26.2	25.5	12	11	12
Meghalaya	28.0	26.8	27.8	10	9	9
Assam	9.4	16.0	10.2	35	30	36
West Bengal	24.6	26.8	25.3	14	10	13
Jharkhand	18.9	37.1	23.2	28	6	16
Odisha	29.8	39.2	31.5	9	5	6
Chhattisgarh	11.5	15.5	12.3	34	32	35
Madhya Pradesh	19.4	21.8	20.0	25	16	23
Gujarat	20.4	19.1	19.8	23	23	24
Daman & Diu	21.8	18.8	19.3	20	24	26
D & N Haveli	19.2	19.4	19.3	26	20	25
Maharashtra	32.7	24.8	29.0	8	14	7
Andhra Pradesh	19.9	11.8	17.3	24	34	30
Karnataka	22.6	17.0	20.2	19	29	22
Goa	19.0	18.2	18.5	27	26	27
Lakshadweep	71.0	94.5	90.4	2	1	1
Kerala	44.1	40.7	42.6	3	4	4
Tamil Nadu	24.0	20.9	22.5	15	18	20
Puducherry	71.8	54.9	60.5	1	2	2
A & N Islands	36.0	17.6	28.5	5	27	8
Telangana	15.5	10.7	13.5	32	35	34
Total	22.1	22.4	22.2			

Source: NCAER computation

TSA Table 10.2b: State-wise Trips per 100 households with rest of the leading purposes

States	Trips per 100 Households			Rank among states		
	Rural	Urban	Total	Rural	Urban	Total
Jammu & Kashmir	33.2	27.2	31.8	7	8	5
Himachal Pradesh	25.8	19.4	24.9	11	21	14
Punjab	25.0	31.4	27.7	13	7	10
Chandigarh	12.2	14.5	14.4	33	33	33
Uttarakhand	22.8	20.3	22.1	18	19	21
Haryana	20.7	25.5	22.6	22	12	19
Delhi	7.6	23.5	23.1	36	15	18
Rajasthan	23.8	21.0	23.1	17	17	17
Uttar Pradesh	18.0	18.5	18.1	29	25	29
Bihar	17.2	17.1	17.2	30	28	31
Sikkim	21.3	9.3	18.2	21	36	28
Arunachal Pradesh	43.9	44.6	44.0	4	3	3
Nagaland	16.4	15.7	16.2	31	31	32
Manipur	24.0	25.0	24.3	16	13	15
Mizoram	34.3	19.4	27.7	6	22	11
Tripura	25.3	26.2	25.5	12	11	12
Meghalaya	28.0	26.8	27.8	10	9	9
Assam	9.4	16.0	10.2	35	30	36
West Bengal	24.6	26.8	25.3	14	10	13
Jharkhand	18.9	37.1	23.2	28	6	16
Odisha	29.8	39.2	31.5	9	5	6
Chhattisgarh	11.5	15.5	12.3	34	32	35
Madhya Pradesh	19.4	21.8	20.0	25	16	23
Gujarat	20.4	19.1	19.8	23	23	24
Daman & Diu	21.8	18.8	19.3	20	24	26
D & N Haveli	19.2	19.4	19.3	26	20	25
Maharashtra	32.7	24.8	29.0	8	14	7
Andhra Pradesh	19.9	11.8	17.3	24	34	30
Karnataka	22.6	17.0	20.2	19	29	22
Goa	19.0	18.2	18.5	27	26	27
Lakshadweep	71.0	94.5	90.4	2	1	1
Kerala	44.1	40.7	42.6	3	4	4
Tamil Nadu	24.0	20.9	22.5	15	18	20
Puducherry	71.8	54.9	60.5	1	2	2
A & N Islands	36.0	17.6	28.5	5	27	8
Telangana	15.5	10.7	13.5	32	35	34
Total	22.1	22.4	22.2			

Source: NCAER computation

TSA Table 10.3a: State-wise (state of origin) percent distribution of trips with leading purposes holidaying, medical and shopping

States	Holidaying	Medical	Shopping	Total
Jammu & Kashmir	28.1	66.0	5.9	100.0
Himachal Pradesh	18.8	81.0	0.2	100.0
Punjab	57.3	42.5	0.2	100.0
Chandigarh	85.7	4.4	9.8	100.0
Uttarakhand	44.1	54.7	1.2	100.0
Haryana	46.1	53.2	0.8	100.0
Delhi	92.6	6.9	0.5	100.0
Rajasthan	22.4	77.2	0.4	100.0
Uttar Pradesh	27.1	72.3	0.6	100.0
Bihar	25.7	73.2	1.1	100.0
Sikkim	31.0	65.3	3.7	100.0
Arunachal Pradesh	47.9	38.0	14.1	100.0
Nagaland	25.2	42.9	31.9	100.0
Manipur	25.6	55.3	19.1	100.0
Mizoram	14.8	49.9	35.4	100.0
Tripura	16.7	82.4	0.9	100.0
Meghalaya	43.5	45.9	10.6	100.0
Assam	23.0	73.8	3.2	100.0
West Bengal	26.8	72.9	0.3	100.0
Jharkhand	38.1	60.4	1.5	100.0
Odisha	40.8	58.5	0.6	100.0
Chhattisgarh	30.8	67.3	1.9	100.0
Madhya Pradesh	28.6	69.9	1.5	100.0
Gujarat	46.6	53.0	0.4	100.0
Daman & Diu	26.1	70.2	3.7	100.0
D & N Haveli	23.0	77.0	0.0	100.0
Maharashtra	54.7	44.5	0.8	100.0
Andhra Pradesh	13.1	86.4	0.5	100.0
Karnataka	32.1	66.7	1.1	100.0
Goa	18.0	80.0	2.0	100.0
Lakshadweep	11.1	71.1	17.8	100.0
Kerala	19.2	80.3	0.5	100.0
Tamil Nadu	29.2	69.9	0.9	100.0
Puducherry	72.1	27.4	0.5	100.0
A & N Islands	8.3	87.0	4.7	100.0
Telangana	26.3	73.6	0.1	100.0
Total	34.0	65.1	1.0	100.0

Source: NCAER computation

TSA Table 10.3b: State-wise (state of origin) percent distribution of trips with rest of the leading purposes

States	Business	Social	Religious	Education	Others	Total
Jammu & Kashmir	2.6	88.1	6.6	0.7	1.9	100.0
Himachal Pradesh	2.2	92.3	3.0	0.8	1.7	100.0
Punjab	2.6	78.0	16.5	0.6	2.4	100.0
Chandigarh	0.2	84.1	11.9	0.4	3.5	100.0
Uttarakhand	3.0	83.0	11.4	1.2	1.4	100.0
Haryana	0.5	90.8	5.6	1.5	1.7	100.0
Delhi	0.6	77.3	9.0	0.3	12.8	100.0
Rajasthan	2.4	88.6	6.2	1.0	1.8	100.0
Uttar Pradesh	1.8	89.4	4.4	1.2	3.3	100.0
Bihar	2.5	85.3	5.4	1.5	5.3	100.0
Sikkim	5.2	83.6	7.1	1.2	2.9	100.0
Arunachal Pradesh	15.5	41.7	10.1	9.5	23.2	100.0
Nagaland	14.6	64.9	3.7	4.3	12.5	100.0
Manipur	8.2	70.7	12.1	4.3	4.6	100.0
Mizoram	6.1	70.1	13.6	1.0	9.2	100.0
Tripura	0.2	94.3	1.2	0.7	3.7	100.0
Meghalaya	9.0	59.0	8.6	4.3	19.0	100.0
Assam	2.3	91.6	1.5	1.0	3.6	100.0
West Bengal	3.3	89.5	3.1	1.2	2.8	100.0
Jharkhand	1.1	91.3	2.8	1.8	3.0	100.0
Odisha	1.3	92.5	4.2	0.5	1.6	100.0
Chhattisgarh	1.8	91.1	3.6	2.0	1.5	100.0
Madhya Pradesh	1.1	91.3	4.8	0.6	2.2	100.0
Gujarat	2.1	88.5	8.4	0.4	0.6	100.0
Daman & Diu	4.4	94.2	1.4	0.0	0.0	100.0
D & N Haveli	0.0	99.3	0.5	0.2	0.0	100.0
Maharashtra	2.4	82.7	12.6	0.9	1.4	100.0
Andhra Pradesh	2.2	85.0	9.7	1.2	1.9	100.0
Karnataka	2.3	76.8	19.1	1.2	0.6	100.0
Goa	1.0	51.0	39.0	0.9	8.2	100.0
Lakshadweep	0.0	59.4	10.3	11.5	18.8	100.0
Kerala	4.1	79.8	9.1	1.9	5.1	100.0
Tamil Nadu	1.8	78.1	17.3	0.8	2.1	100.0
Puducherry	2.2	67.7	27.6	1.3	1.3	100.0
A & N Islands	25.6	60.4	4.1	1.3	8.6	100.0
Telangana	0.3	89.5	8.1	1.0	1.1	100.0
Total	2.2	85.9	8.3	1.1	2.5	100.0

Source: NCAER computation

TSA Table 10.4a: State-wise (state of destination) percent distribution of trips with leading purposes holidaying, medical and shopping

States	Holidaying	Medical	Shopping	Total
Jammu & Kashmir	52.4	43.7	3.9	100.0
Himachal Pradesh	55.2	44.7	0.1	100.0
Punjab	52.1	47.3	0.6	100.0
Chandigarh	25.1	73.1	1.8	100.0
Uttarakhand	64.5	34.6	0.9	100.0
Haryana	31.7	68.0	0.3	100.0
Delhi	44.1	53.6	2.3	100.0
Rajasthan	31.5	68.0	0.5	100.0
Uttar Pradesh	30.3	69.3	0.4	100.0
Bihar	31.4	67.5	1.1	100.0
Sikkim	85.0	14.5	0.4	100.0
Arunachal Pradesh	59.5	29.6	10.9	100.0
Nagaland	25.9	41.2	33.0	100.0
Manipur	29.6	53.2	17.3	100.0
Mizoram	20.1	45.3	34.6	100.0
Tripura	18.9	80.0	1.0	100.0
Meghalaya	47.7	41.7	10.6	100.0
Assam	20.0	75.5	4.5	100.0
West Bengal	22.8	76.9	0.4	100.0
Jharkhand	41.2	57.2	1.6	100.0
Odisha	42.6	56.6	0.7	100.0
Chhattisgarh	24.9	73.9	1.1	100.0
Madhya Pradesh	27.2	71.2	1.6	100.0
Gujarat	33.3	66.2	0.4	100.0
Daman & Diu	37.7	62.3	0.0	100.0
D & N Haveli	30.8	69.2	0.0	100.0
Maharashtra	49.2	50.0	0.9	100.0
Andhra Pradesh	21.0	78.6	0.4	100.0
Karnataka	30.1	68.7	1.2	100.0
Goa	85.8	13.9	0.3	100.0
Lakshadweep	48.7	49.1	2.2	100.0
Kerala	17.2	82.7	0.1	100.0
Tamil Nadu	31.3	67.7	1.0	100.0
Puducherry	23.2	76.8	0.0	100.0
A & N Islands	51.6	45.2	3.2	100.0
Telangana	-	-	-	-
Total	34.0	65.1	1.0	100.0

Source: NCAER computation

TSA Table 10.4b: State-wise (state of destination) percent distribution of trips with rest of the leading purposes

States	Business	Social	Religious	Education	Others	Total
Jammu & Kashmir	2.5	81.1	13.8	0.6	2.0	100.0
Himachal Pradesh	1.7	85.8	8.4	2.1	2.0	100.0
Punjab	2.8	81.4	13.1	0.8	1.9	100.0
Chandigarh	4.6	88.9	0.9	1.8	3.8	100.0
Uttarakhand	5.3	65.2	27.0	1.3	1.2	100.0
Haryana	0.4	93.7	2.9	0.9	2.1	100.0
Delhi	9.9	71.8	3.1	6.5	8.7	100.0
Rajasthan	1.7	89.1	6.8	0.9	1.5	100.0
Uttar Pradesh	1.5	89.5	4.2	1.0	3.8	100.0
Bihar	2.1	88.4	3.8	0.6	5.1	100.0
Sikkim	1.5	80.1	5.1	7.8	5.5	100.0
Arunachal Pradesh	11.7	40.7	17.7	8.9	20.9	100.0
Nagaland	14.2	64.9	3.4	3.0	14.6	100.0
Manipur	6.7	75.8	10.3	3.3	4.0	100.0
Mizoram	5.5	72.1	12.9	0.7	8.8	100.0
Tripura	3.7	90.3	1.0	0.7	4.3	100.0
Meghalaya	6.2	60.4	8.5	4.4	20.6	100.0
Assam	3.1	90.8	1.5	1.2	3.5	100.0
West Bengal	2.1	90.9	3.0	1.2	2.7	100.0
Jharkhand	2.3	88.4	5.3	1.3	2.7	100.0
Odisha	1.6	92.1	4.3	0.5	1.5	100.0
Chhattisgarh	1.5	90.5	4.7	1.8	1.5	100.0
Madhya Pradesh	1.1	91.3	5.3	0.6	1.6	100.0
Gujarat	3.2	88.8	6.7	0.4	0.9	100.0
Daman & Diu	38.7	61.3	0.0	0.0	0.0	100.0
D & N Haveli	0.0	99.2	0.8	0.0	0.0	100.0
Maharashtra	2.9	80.9	13.3	1.3	1.6	100.0
Andhra Pradesh	1.1	84.7	11.5	1.2	1.4	100.0
Karnataka	3.8	79.0	15.1	1.0	1.1	100.0
Goa	5.2	63.1	27.8	0.0	3.9	100.0
Lakshadweep	0.0	59.1	10.5	11.1	19.3	100.0
Kerala	2.2	81.8	8.6	1.9	5.6	100.0
Tamil Nadu	1.8	78.9	16.7	0.6	1.9	100.0
Puducherry	0.7	80.2	18.9	0.0	0.2	100.0
A & N Islands	25.5	62.4	3.1	1.0	8.0	100.0
Telangana	-	-	-	-	-	-
Total	2.2	85.9	8.3	1.1	2.5	100.0

Source: NCAER computation

TSA Table 10.5: State-wise distribution of trips (with 365 days reference period) by main destination

States	Destination within the district	Destination outside the district but within the state	Destination outside the state but within the country	Final port of departure in Indian Territory for International trip	Total
Jammu & Kashmir	45.2	42.7	12.1	0.0	100.0
Himachal Pradesh	59.9	17.0	22.9	0.2	100.0
Punjab	30.7	47.3	21.7	0.3	100.0
Chandigarh	1.9	2.0	96.1	0.0	100.0
Uttarakhand	29.8	54.0	16.1	0.0	100.0
Haryana	38.9	22.8	37.7	0.7	100.0
Delhi	2.1	3.8	93.9	0.2	100.0
Rajasthan	49.1	33.5	17.4	0.1	100.0
Uttar Pradesh	50.8	32.4	16.6	0.2	100.0
Bihar	44.8	41.8	13.1	0.3	100.0
Sikkim	32.5	28.4	38.5	0.6	100.0
Arunachal Pradesh	27.2	37.1	35.4	0.3	100.0
Nagaland	39.4	49.8	10.9	0.0	100.0
Manipur	29.6	58.5	11.7	0.1	100.0
Mizoram	54.1	37.4	8.5	0.0	100.0
Tripura	43.2	35.5	21.3	0.0	100.0
Meghalaya	43.0	37.6	19.3	0.0	100.0
Assam	38.4	49.0	12.5	0.1	100.0
West Bengal	55.5	27.5	16.6	0.4	100.0
Jharkhand	49.7	30.3	20.0	0.0	100.0
Odisha	62.2	29.1	8.8	0.0	100.0
Chhattisgarh	47.4	34.6	17.8	0.2	100.0
Madhya Pradesh	46.6	32.9	20.4	0.2	100.0
Gujarat	40.3	38.9	20.4	0.4	100.0
Daman & Diu	32.2	3.4	62.0	2.4	100.0
D & N Haveli	65.1	2.6	32.4	0.0	100.0
Maharashtra	46.5	38.4	14.9	0.2	100.0
Andhra Pradesh	70.9	20.9	8.0	0.1	100.0
Karnataka	40.8	39.7	19.5	0.0	100.0
Goa	63.3	13.8	20.2	2.7	100.0
Lakshadweep	21.9	9.3	68.8	0.0	100.0
Kerala	65.2	21.2	13.5	0.2	100.0
Tamil Nadu	48.6	42.4	9.0	0.0	100.0
Puducherry	26.0	3.2	70.8	0.0	100.0
A & N Islands	63.0	13.5	23.4	0.0	100.0
Telangana	56.6	36.7	6.7	0.0	100.0
Total	49.2	33.7	16.9	0.2	100.0

Source: NCAER computation

TSA Table 10.6: State-wise distribution of trips (with 365 days reference period) by starting month of travel

States	January	February	March	April	May	June	July	August	September	October	November	December	Total
Jammu & Kashmir	5.7	7.5	9.0	6.5	9.2	14.2	12.1	8.8	6.5	6.9	7.0	6.6	100.0
Himachal Pradesh	7.0	6.5	9.5	6.5	7.1	10.3	11.5	10.4	9.6	6.8	8.0	6.9	100.0
Punjab	5.5	5.8	7.6	6.1	3.5	15.8	9.6	8.5	5.4	13.5	4.5	14.3	100.0
Chandigarh	3.1	16.0	5.9	14.1	1.7	31.7	1.6	5.1	4.8	3.0	5.1	7.9	100.0
Uttarakhand	6.3	8.0	8.2	7.0	12.0	14.8	8.0	8.4	6.0	11.2	4.2	5.9	100.0
Haryana	7.5	5.4	6.9	8.5	11.5	19.5	6.9	8.6	5.4	6.8	7.7	5.3	100.0
Delhi	9.4	8.4	7.1	8.3	14.2	17.0	4.0	6.2	3.1	11.4	5.1	5.7	100.0
Rajasthan	6.5	7.9	5.7	6.4	10.5	11.6	10.1	9.4	7.4	11.5	7.3	5.8	100.0
Uttar Pradesh	6.7	7.2	7.9	8.3	9.0	12.7	9.2	10.3	7.4	10.4	6.2	4.6	100.0
Bihar	7.8	6.0	9.7	6.5	10.0	11.9	8.2	10.2	8.5	9.6	6.6	5.1	100.0
Sikkim	9.7	5.2	9.7	4.5	8.8	4.5	6.7	8.8	11.4	11.5	7.4	11.7	100.0
Arunachal Pradesh	10.4	7.1	5.2	7.9	8.9	6.7	9.7	11.7	8.4	8.8	6.6	8.5	100.0
Nagaland	5.8	8.8	3.7	8.3	5.4	6.0	10.4	6.8	8.0	6.2	7.6	23.0	100.0
Manipur	6.5	9.9	9.3	10.7	11.3	8.9	9.6	10.2	5.3	6.8	6.5	5.0	100.0
Mizoram	4.6	4.6	5.3	7.8	7.1	12.6	6.9	12.1	8.4	8.9	7.3	14.5	100.0
Tripura	4.8	9.4	10.0	14.0	9.1	7.9	11.2	8.3	8.3	6.3	5.2	5.4	100.0
Meghalaya	8.1	7.9	6.5	5.0	6.9	8.4	6.5	5.4	6.9	12.2	9.0	17.2	100.0
Assam	11.6	6.9	8.1	8.3	6.4	6.1	7.6	7.9	8.4	12.3	7.7	8.9	100.0
West Bengal	8.8	8.4	8.0	8.5	7.5	7.8	9.2	9.2	8.8	9.2	6.5	8.0	100.0
Jharkhand	5.2	6.2	8.3	5.1	12.8	9.0	7.8	8.8	6.7	14.5	5.9	9.7	100.0
Odisha	8.4	6.2	6.8	7.3	8.4	11.2	8.3	7.8	6.6	14.0	5.6	9.4	100.0
Chhattisgarh	6.7	12.5	6.0	6.8	10.5	9.1	8.3	7.6	8.5	8.6	8.7	6.7	100.0
Madhya Pradesh	6.6	6.6	7.7	7.6	11.6	8.8	9.9	10.8	7.1	10.9	7.5	5.0	100.0
Gujarat	6.7	6.3	6.4	8.0	11.2	8.3	7.0	10.0	6.9	14.1	8.9	6.2	100.0
Daman & Diu	13.0	8.3	4.2	7.3	13.8	12.4	3.5	1.8	3.9	5.0	6.3	20.4	100.0
D & N Haveli	7.0	6.1	5.0	5.4	2.2	9.6	17.1	10.4	9.6	10.4	6.8	10.4	100.0
Maharashtra	8.5	6.1	6.6	7.5	13.6	7.1	7.3	9.3	6.8	11.0	7.3	9.1	100.0
Andhra Pradesh	8.6	6.1	4.0	8.0	13.9	5.7	8.7	9.6	9.5	9.4	7.8	8.8	100.0
Karnataka	10.0	6.0	7.1	8.1	8.0	10.0	8.0	10.4	7.4	9.1	7.3	8.4	100.0
Goa	8.0	6.1	3.8	8.3	18.7	3.9	3.1	13.3	7.7	12.6	7.3	7.1	100.0
Lakshadweep	23.2	5.2	2.2	1.6	4.2	2.1	8.5	7.9	10.3	6.7	15.1	13.0	100.0
Kerala	8.5	8.5	6.5	9.7	9.2	6.5	8.9	9.2	8.5	9.0	7.0	8.5	100.0
Tamil Nadu	6.7	6.4	6.8	10.0	20.0	8.1	8.4	7.8	7.7	6.5	5.8	5.8	100.0
Puducherry	6.3	5.2	4.3	10.6	21.3	5.7	6.4	14.2	7.6	7.6	4.6	5.9	100.0
A & N Islands	5.0	7.4	7.1	6.8	13.3	12.5	10.6	6.7	6.4	8.2	11.0	5.1	100.0
Telangana	9.0	5.3	8.0	6.0	15.6	7.4	7.1	9.5	8.0	10.6	5.7	7.7	100.0
Total	7.7	6.9	7.2	7.9	11.0	9.7	8.5	9.3	7.5	10.3	6.7	7.4	100.0

Source: NCAER computation

VI. SUMMARY OF FINDINGS

This report provides various tourism statistics and economic aggregates, obtained in the compilation of Tourism Satellite Account for Andaman and Nicobar Islands. These statistics and aggregates include the intensity of tourism activity in terms of number of trips or number of tourists; tourism consumption by different forms of tourism; Gross Value Added of Tourism Industries (GVATI); Tourism Direct Gross Value Added (TDGVA); Tourism Employment; and most importantly, the contribution of TDGVA to State Total GVA and of Tourism Employment to State Total Employment. The contribution is obtained taking into account both direct and indirect effects of tourism, where indirect effects arise due to inter-linkages of tourism with other sectors of the economy. The key findings of the report are summarised as follows:

- An estimated number of 8507 international tourists visited the state during 2015-16. This constitutes one part of inbound tourism in the state. The other part refers to the trips undertaken by tourists from other states of the country to the state of reference. These were 29,417 in number.
- Domestic or intrastate trips stood at 3.73 lakh. This is just 0.03 percent of the country's total domestic trips⁵.
- Total Internal Tourism expenditure incurred by all inbound, domestic and outbound tourists, amounted to Rs. 1889.63 crore during 2015-16. Imputed Tourism consumption stood at Rs. 148.81 crore. Together, these constitute the Total Internal Tourism Consumption and is estimated at Rs. 2038.43 crore.
- The state's share in All-India's Total Internal Tourism Consumption is 0.21 percent.
- The state's employment, in terms of number of jobs, is estimated at 2.24 lakh. The number of jobs in tourism characteristic industries, referred to as tourism employment, is 0.25 lakh. The direct share of tourism in employment, hence, is 11.1 percent.
- Total GVA of the state was Rs. 6026.95 crore in 2015-16. Tourism Direct GVA (TDGVA) is estimated at Rs. 278.83 crore for the same year. The state's share in All-India GVA is 0.05 percent while the same in All-India TDGVA is 0.08 percent.

⁵ While national level domestic trips and state level domestic trips are conceptually different as national level domestic trips are a combination of all states' domestic trips and also inter-state trips. However, both refer to the movement within the respective geographical boundary.

Table VI.1: Key Tourism Statistics

Estimated number of Tourists/Trips			
	State (Number)	All India (Number)	Share in All-India
Inbound tourists - international	8507	13522814	0.06
Inbound trips - other states	29417	-	-
Domestic trips	373405	1201955810	0.03
Outbound tourists	80913	20291635	0.40
Estimated Tourism Consumption			
	State (Rs. Lakh)	All India (Rs. Crore)	Share in All-India
Inbound	162971	235331	0.69
- international	17113	235331	0.07
- other states	145859	-	-
Domestic	18965	553193	0.03
Outbound	7027	24575	0.29
Imputed	14881	141280	0.11
Total Internal	203843	954379	0.21
Employment - Number of jobs			
	State (lakh numbers)	All India (lakh numbers)	Share in All-India
Total Employment (in lakh)	2.24	5838.45	0.04
Tourism Characteristic Industries	0.25	315.10	0.08
Gross Value Added			
	State (Rs. Lakh)	All India (Rs. Lakh)	Share in All-India
Gross Value Added (GVA) at basic prices	602695	1245864229	0.05
Tourism Characteristic Industries (GVATI) (1)	45797	59857757	0.08
Tourism Connected Industries (2)	-89	34559289	0.00
Tourism Specific Industries (1+2)	45708	94417045	0.05
Tourism Direct GVA	27883	34649328	0.08

Tourism share in economy

Any economic sector of a region contributes directly and indirectly to the economy of that region. The direct contribution is the share of its GVA and employment in the region's GVA and employment respectively. The indirect contribution arises due to the inter-industry linkages between the sector and the sectors in its supply chain. Stronger the linkages, bigger is the indirect contribution. The sum of direct and indirect shares amount to total share of tourism in economy.

The key findings on direct and indirect shares of tourism to state GVA and employment are the following:

- Tourism (TDGVA) contributes 4.63 percent to the state GVA as its direct share. As compared to this, the direct share of TDGVA to total GVA at All-India level is 2.78 percent.

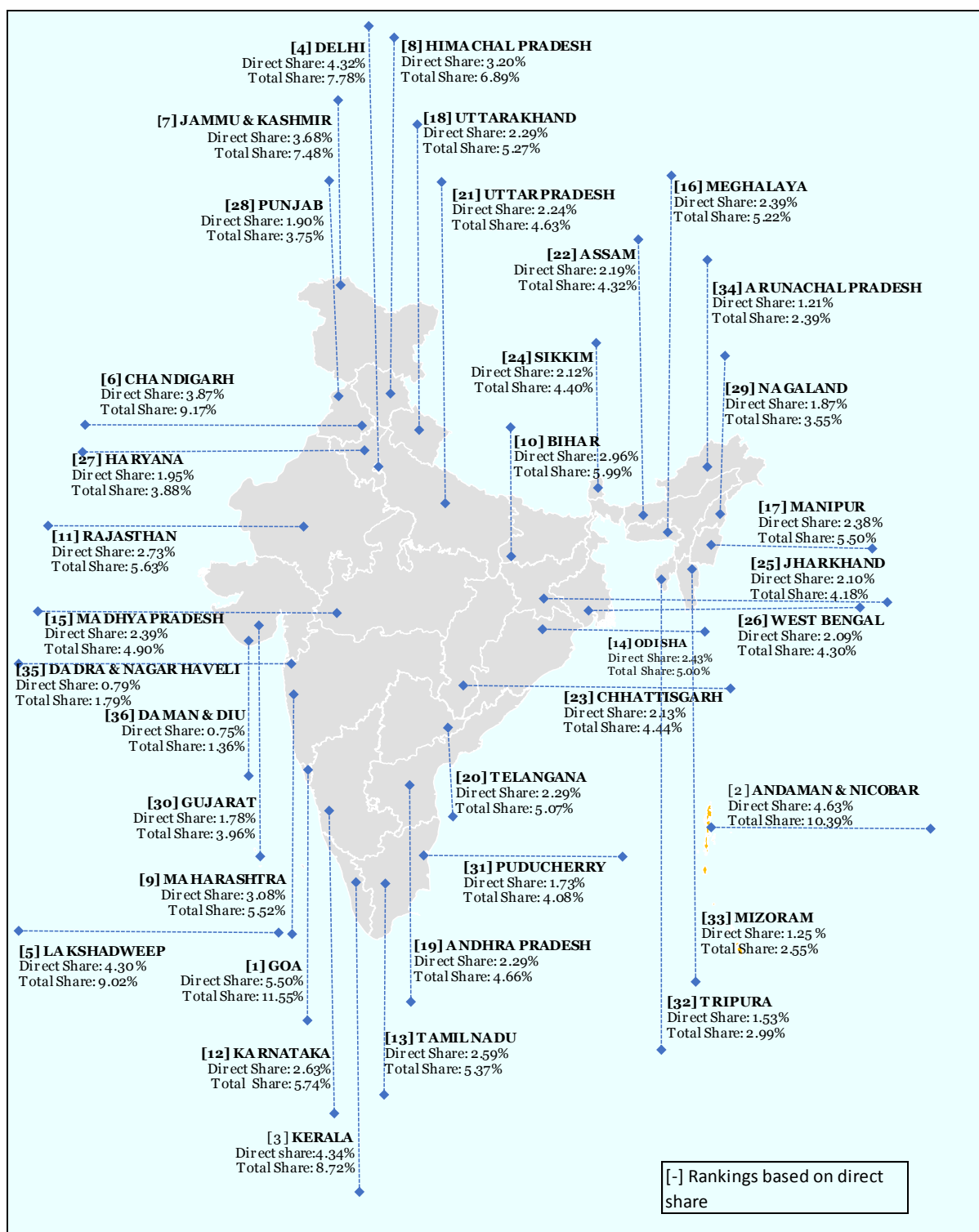
- Tourism's direct share in employment, in terms of number of jobs, is also higher than the All-India share. It is estimated at 11.09 percent for the state, compared with 5.40 percent for the country.
- The GVA multiplier, derived using the input-output model based on commodity X commodity IO matrix, is 2.2458.
- The employment multiplier, derived using the input-output model based on industry X industry IO matrix, is 2.1714.
- The total share of tourism to state GVA and employment is derived by multiplying the direct shares with the corresponding multiplier.
- Hence, the total share of tourism in GVA and in employment translates to 17.07 percent and 24.07 percent respectively.
- Table VI.2 presents these shares for state of reference and for All-India.

Table VI.2: Contribution of Tourism in economy (%)

Item	A&N	All India
Tourism Direct GVA, TDGVA	4.63	2.78
GVATI	7.60	4.80
Tourism Employment	11.09	5.40
GVA multiplier	2.2458	1.9236
Employment multipliers	2.1714	2.2931
TDGVA - direct and indirect	10.39	5.35
GVATI-direct and indirect	17.07	9.24
Tourism Employment - direct and indirect	24.07	12.38

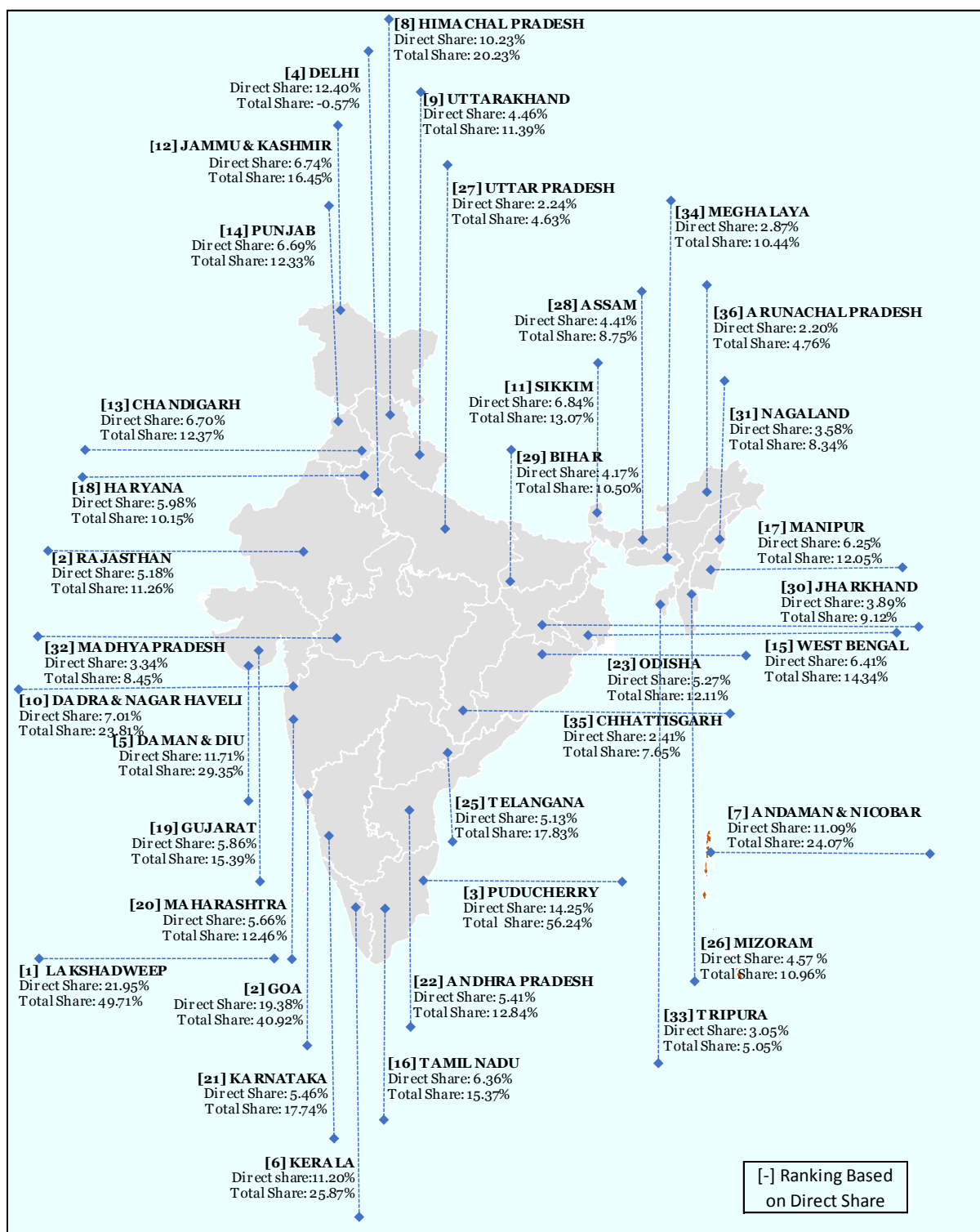
The maps below present the direct and indirect shares of tourism in GVA (Map 1) and employment (Map 2) for all the states and UTs of India, along with the states' rank on direct shares.

Figure VI.1: Direct and Indirect Share of GVA by States and Union Territories



Source: NCAER Compilations

Figure VI.2: Direct and Indirect Share of Employment by States and Union Territories



Source: NCAER Compilations

ANNEXURE 1

Key Challenges in preparing RTSA

This report presents the RTSA tables and methodology adopted in the preparation of RTSAs or TSAs at regional/state level. To the extent possible, the methodology conforms with the international recommended methodology to prepare national TSAs, as documented in the TSA:RMF-2008. However, due to certain data limitations, a number of assumptions, proxy indicators and national level rates and ratios have been used so as to arrive at a complete set of TSA tables and accounts. Out of the total recommended 10 tables, TSA Table 8 on Gross Fixed Capital Formation for Tourism industries and TSA Table 9 on Gross Collective Consumption could not be prepared at all.

The key challenges involved in the preparation of RTSAs are listed as follows:

1. Demand side data, at state-level, are sourced from the same sources as those for national level, that is, International Passenger Survey (IPS) and Domestic Tourism Survey (DTS). In the IPS, the information on states of destination is not directly captured by the international tourists. Hence, we have used the data on expenditure incurred in the “last place of night halt (LNPH)” which are locations within states. The expenditure pattern observed in LNPH is imposed on the officially available number of foreign arrivals in the state.
2. For many states, these data might not be representing actual expenditure pattern, especially for different types of international tourists.
3. Also, IPS being a nationally representative survey, lacked sufficient data points for locations within some of the smaller states. In those cases, national-level inbound tourism expenditure pattern has been used.
4. Pre-trip Outbound Tourism Expenditure, although the least of all the components of total internal tourism consumption, could not be estimated for the tourists who are residents of state of reference and travel to other states of India. Only pre-trip outbound tourism expenditure incurred by residents travelling abroad could be estimated.
5. From supply side, there are bigger limitations as the disaggregated production account or the Supply and Use tables (SUT) for states are not available. The GSDP statement, along with the national SUT ratios have been used to prepare the state level SUTs with production account of all the 19 tourism-specific and 5 tourism non-specific industries.
6. The Tourism Industry Ratios (TIR) for 2009-10 were derived from the aggregate GSDP numbers and using ratio of state level private final consumption expenditure (PFCE) to national level PFCE. This was because a complete SUT with total supply of industries could not be prepared. SUT with only domestic supply could be prepared. However, for the present RTSAs for 2015-16, attempt has been made to construct the complete SUT with total supply of industries. Hence, the TIRs have been derived from the SUT framework, as in the case of national-level TSA. The tourism shares in GDP, as given in 2009-10 and in 2015-16, are therefore not strictly comparable.

ANNEXURE 2

Study visit to Australia

As part of the Terms of Reference of the study, a study visit was undertaken to Australia during 11th to 17th January 2019. The purpose of the study visit was to understand the methodology adopted by the country in preparing their national and, in particular, the sub-national TSAs. Australia was chosen for the study visit as it is one of the few countries which prepare the TSAs at sub-national level or state-level and occasionally even at sub-state level.

Planning the Study Visit

For the study visit, Tourism Research Australia (TRA) was contacted in July, 2018 through e-mail. TRA happily accepted to host the team from NCAER and MoT and confirmed their availability in the second-third weeks of Jan, 2019. The agendas of the visit were proposed to be the following:

- Understand the methodology of Australian TSA
- Understand the methodology of constructing Regional TSA
- Data collection of International and particularly Domestic Visitor Surveys
- Data on employment for TSA
- Australian Supply and Use Table – preparation and conversion to Input-Output Table

Given the above agenda, it was decided that the study visit will include meeting the officials from TRA and Australian Bureau of Statistics (ABS) in Canberra and with Prof. Tien Pham at Griffith University in Brisbane.

Study Team to Australia

The study team comprised the following officials:

From MoT:

1. Mr. P C. Cyriac, ADG, MoT
2. Mr. Shailesh Kumar, Director, MoT

From NCAER:

3. Dr. Poonam Munjal, Team Leader
4. Dr. Palash Baruah
5. Asrar Alam

Participants from Australia

Meeting in Austrade, Canberra

1. Dr. David Smith, Manager Strategic Research and Analysis, Tourism Research Australia, Austrade
2. Mr. Jai Kookana, Principal Analyst, Tourism Research Australia, Austrade.
3. Mr. Sean Thompson, Assistant Director, Tourism and Transport Satellite Accounts Business Indicators Branch, Australian Bureau of Statistics

4. Mr. Peter R William and Mr. Marco Sun, National Accounts Benchmark Section, Australian Bureau of Statistics
5. Mr. Rod Battye, Tourism Statistics Team, Tourism Research Australia

Meeting in Griffith University, Brisbane

6. Dr Tien Pham, Principal Research Fellow, Griffith Institute for Tourism, Griffith University.

Meeting in AUSTRALIA

After a round of introduction of each participant, India team (NCAER and MoT) briefly discussed the purpose of the study visit and talked about the methodology which India follows in preparing its national and state-level TSAs.

Following this, Mr. Sean Thompson gave a detailed presentation on Australian TSA at national level. Australian TSA (ATSA) is prepared by the Tourism Research Australia (TRA) which produces a wide range of tourism research information at the national, state/territory and regional level. The Regional Tourism Profiles provide the tourism industry, tourism researchers, planners and policy makers with comprehensive activity data on the “tourism regions” in Australia.

Mr. Sean’s presentation was followed by another presentation by Mr. Peter R William and Mr. Marco Sun on Australian Supply and Use Tables (SUTs) and their conversion to Input-Output Tables (IO).

The key features of ATSA are:

- ATSA estimates and releases only direct contribution of Tourism GVA and GDP. The indirect contribution is not measured although there are some unpublished estimates on indirect contribution too.
- The ATSA is published on annual basis.
- Tourism employment is measured by the hours worked and value added per hours worked.
- No attempt is made to estimate the valuables or Tourism Gross Fixed Capital Formation
- The demand side data for TSA are collected through two nation-wide primary surveys, namely, the International Visitor Survey (IVS) and the National Visitor Survey (NVS).
- The IVS canvasses a total of 40,000 respondents every year and the NVS collects information from about 1,20,000 respondents every year. NVS is conducted entirely on mobile phone.
- The supply side data are obtained from the Annual Supply and Use Tables. The additional industry data are collected from the economy-wide business surveys to capture more detailed data on service industries.

The key features of SUTs are:

- The Australian SUTs ensure that the GDP is balanced for all three approaches – production, expenditure and income.
- Various data sources are used in the compilation of SUT.
- The SUT comprises of 67 industries and 301 products.
- Only prepared at national level.
- It is very rare that the different data sources balance without adjustments. Significant imbalances are manually reviewed and adjusted. Expert decisions are made to adjust the data.

- For the remaining adjustments, Constrained Optimisation Tool is used for balancing the SUT.
- The Australian IO Tables are used for several applications like economic modelling, environmental extensions to IO tables, productivity analysis, producer prices indices, environmental-economic accounts and satellite accounts

In the end, there was an interactive session of discussion with Mr. Rod Battye, who gave an overview of the IVS and NVS. The Indian team discussed about the similar Indian surveys – International Passenger Survey (IPS) and Domestic Tourism Survey (DTS). For regional TSAs, statistics on tourism profile are used in conjunction with other information sources, such as population statistics, feedback from local operators etc.

TRA has augmented the tourism expenditure survey data to estimate State Tourism Satellite Account as well as building in-house modelling capacity to carry out tourism economic impact analysis (a State tourism CGE model).

Meeting in GRIFFITH UNIVERSITY

The Indian team met Prof Tien Pham and his colleagues/students in Griffith University, located in Gold Coast. Prof Pham gave a presentation on the methodology adopted in preparation of ATSA at national and sub-national level. While the national level TSAs are prepared by TRA, Prof Pham prepares the sub-national TSAs for Australia. He has also worked extensively on tourism economic impact analysis using the CGE model. CGE model, being dynamic in nature, is an efficient tool to assess the impact of tourism.

He has also published research papers on other tourism related areas like sustainable tourism, sub-state level TSA, hybrid approach to derive tourism economic data at regional level.

The key features of sub-national TSA are:

- Top-bottom approach is followed. The sub-national or state shares are applied to disaggregate the national TSA into sub-national or state TSAs.
- Similarly, if state TSA is available, then for regional TSAs, the regional shares are applied to disaggregate the state TSA.
- Regional TSAs have been prepared for the regions of Queensland.
- For allocating the expenditures in each location of the regions, TRA adopts the iterative procedure and applies on the data collected by IVS and NVS.

Key Take-aways for India

The India team benefited immensely from the study visit to Australia. There was rich discussion on how both the countries, Australia and India, prepare their national and sub-national TSAs, conforming to the international methodology recommended by UNWTO.

There was a detailed discussion on how Tourism surveys are conducted in several states of India and the extensive procedure involved in these studies was much appreciated by the ABS and TRA officials.

For the preparation of India's state-level SUTs, it was suggested that Constrained Optimisation Tool may be attempted. Also, as a way forward and for the research purpose, CGE modelling may be attempted to carry out the impact analysis of Tourism sector.

In all, the study visit turned out to be extremely fruitful for the entire Indian team. The hospitality of the Australian team is much appreciated.

GLOSSARY

Basic Price

The basic price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output minus any tax payable, and plus any subsidy receivable, on that unit as a consequence of its production or sale; it excludes any transport charges invoiced separately by the producer.

Business And Government

Tourism Consumption

Also referred to as internal tourism consumption by domestic business and government visitors. Consists of the tourism consumption by resident businesses or governments on tourism related products within the economy.

Central Product Classification (CPC)

The central product classification (CPC) is a classification based on the physical characteristics of goods or on the nature of the services rendered; each type of good or service distinguished in the CPC is defined in such a way that it is normally produced by only one activity as defined in ISIC.

CIF Price

The CIF price (i.e. Cost, insurance and freight price) is the price of a good delivered at the frontier of the importing country, including any insurance and freight charges incurred to that point, or the price of a service delivered to a resident, before the payment of any import duties or other taxes on imports or trade and transport margins within the country; in SNA 1993 this concept is applied only to detailed imports.

Compensation of Employees

Compensation of employees is the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period.

Consumption of Fixed Capital

Consumption of fixed capital represents the reduction in the value of the fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence or normal accidental damage.

Direct Tourism Gross Domestic Product

Product

Is direct tourism gross value added plus net taxes on products that are attributable to the tourism industry (tourism net taxes on products). Direct tourism GDP will generally have a higher value than direct tourism value added. Direct tourism GDP is a satellite account construct to enable a direct comparison with the most widely recognised national accounting aggregate, GDP. While it is useful in this context, the direct tourism gross value added measure should be used when making comparisons with other industries or between countries. See also Direct tourism gross value added and Tourism net taxes on products.

Direct Tourism Gross Value Added

The value of direct tourism output at basic prices, less the value of the inputs used in producing these tourism products. This measure is directly comparable with the value added of 'conventional' industries such as mining and manufacturing and should also be used for comparisons across countries. See also Direct tourism output and Direct tourism GDP.

Direct Tourism Output

The value of goods and services, at basic prices, which are consumed by visitors and produced in the economy by industries in a direct relationship with visitors.

Domestic Output

Domestic output is output produced by resident enterprises.

Domestic Tourism

The travel of domestic visitors is called domestic tourism. It comprises the activities of a resident visitor within the country of reference either as part of a domestic tourism trip or part of an outbound tourism trip.

Domestic Tourism Consumption

Consists of the tourism consumption by resident visitors on tourism related products within the economy. It is the sum of household tourism consumption and business and government tourism consumption.

Domestic Travel

Travel within a country by residents is called domestic travel.

Domestic Travellers

Those who undertake domestic travel are domestic travellers.

Domestic Trip

A domestic trip is one with a main destination within the country of residence of the visitor.

Domestic Visitor

A domestic traveller qualifies as a domestic visitor if: (a) he/she is on a tourism trip and (b) he/she is a resident travelling in the country of reference.

Domestic visitors are those who travel within the country to a place other than their usual place of residence and stay at hotels or other accommodation establishments run on commercial basis or in dharamshalas/sarais/musafirkhanas/ agrashalas/choultries, etc for a duration of not less than 24 hours or one night and for not more than 12 months at a time.

Durable Consumer

Goods

Durable goods are goods that “may be used repeatedly or continuously over a period of a year or more, assuming a normal or average rate of physical usage”. When acquired by producers, these are considered to be capital goods used for production processes as is the case of vehicles, computers, etc. When acquired by households, they are considered to be consumer durable goods.

Economic Activity

Any activity resulting in production of goods and services that add value to national product is considered as an economic activity. Such activities include production of all goods and services for market (market activities), i.e. Production for pay or profit, and, among the non-market activities, the production of goods and household services with paid domestic employees and owner occupied dwellings for own consumption and own account production of fixed assets.

Employed Persons

Employed (or worker) persons are those who are engaged in any economic activity or who, despite their attachment to economic activity, abstain from work for reason of illness, injury or other physical disability, bad weather, festivals, social or religious functions or other contingencies necessitating temporary absence

	from work.
<i>Employed Persons</i>	Number of persons usually employed in the principal and subsidiary statuses.
<i>Employed As Per Principal Activity Status</i>	Those in labour force pursuing some economic activity for major time during the reference period of 365 days
<i>Employed As Per Subsidiary Activity Status</i>	Those in labour force pursuing some economic activity for a relatively shorter time (minor time) during the reference period of 365 days
<i>Enterprise</i>	An enterprise is an institutional unit in its capacity as a producer of goods and services; an enterprise may be a corporation, a quasi-corporation, a non-profit institution, or an unincorporated enterprise.
<i>Establishment</i>	An establishment is an enterprise or part of an enterprise that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.
<i>Exports of Goods</i>	Exports of goods consist of exports of the following items from residents to non-residents: generally with a change of ownership being involved: general merchandise, goods for processing, goods procured in domestic ports by non-resident carriers and non-monetary gold.
<i>Exports of Services</i>	Exports of services consist of exports of the following services provided by residents to non-residents: transportation; travel; communications; construction; insurance; financial; computer and information; royalties and licence fees; other business services; personal, cultural, and recreational services; and government services n.i.e.
<i>Excursionist</i>	Same day visitors are called excursionists.
<i>Final Demand</i>	Transactions that involve purchases of produced goods and services for final uses are presented in final demand table. The “final” use for a good or service is that it is not used up entirely in the reference year as an intermediate input in the production of some other good or service. Transactions for goods and services

Final Output

that are completely used to produce other goods and services are shown in the intermediate input (or use) table of the accounts.

This is that part of total output of each industry sold either for final consumption by households, general government or for investment (including additions to inventories) and for export. In short, it represents total output sold to final buyers. For the whole economy, total final output is equal to the value of goods and services (both domestically produced and imported) available for consumption, investment and export.

Final Consumption

Final consumption consists of goods and services used up by individual households or the community to satisfy their individual or collective needs or wants.

***Final Consumption
Expenditure of Government***

Government final consumption expenditure consists of expenditure, including imputed expenditure, incurred by general government on both individual consumption goods and services and collective consumption services.

***Final Consumption
Expenditure of Households***

Household final consumption expenditure consists of the expenditure, including imputed expenditure, incurred by resident households on individual consumption goods and services, including those sold at prices that are not economically significant.

***Final Consumption
Expenditure of Npishs***

Final consumption expenditure of npishs (non-profit institutions serving households) consists of the expenditure, including imputed expenditure, incurred by resident npishs on individual consumption goods and services.

Fob Price

The FOB price (free on board price) of exports and imports of goods is the market value of the goods at the point of uniform valuation, (the customs frontier of the economy from which they are exported); it is equal to the CIF price less the costs of transportation and insurance charges, between the customs frontier of the exporting (importing) country and that of the importing (exporting) country.

General Government

The general government sector consists of the totality of institutional units which, in addition to fulfilling

	<p>their political responsibilities and their role of economic regulation, produce principally non-market services (possibly goods) for individual or collective consumption and redistribute income and wealth.</p>
<p><i>GDP</i></p>	<p>Is the total market value of goods and services produced in the economy within a given period after deducting the cost of goods and services used up in the process of production but before deducting allowances for the consumption of fixed capital. Thus gross domestic product, as here defined, is 'at market prices'.</p>
<p><i>Gross</i></p>	<p>The term "gross" is a common means of referring to values before deducting consumption of fixed capital (generally used as in "gross capital stock" or "gross domestic product").</p>
<p><i>Gross Domestic Product - Expenditure Based</i></p>	<p>Expenditure-based gross domestic product is total final expenditures at purchasers' prices (including the FOB value of exports of goods and services), less the FOB value of imports of goods and services.</p>
<p><i>Gross Domestic Product - Income Based</i></p>	<p>Income-based gross domestic product is compensation of employees, plus taxes less subsidies on production and imports, plus gross mixed income, plus gross operating surplus.</p>
<p><i>Gross Domestic Product - Output Based</i></p>	<p>Output-based gross domestic product is the sum of the gross values added of all resident producers at basic prices, plus all taxes less subsidies on products. Output-based GDP is the sum of the gross values added of all resident producers at producers' prices, plus taxes less subsidies on imports, plus all non-deductible VAT (or similar taxes).</p>
<p><i>Gross Fixed Capital Formation</i></p>	<p>Gross fixed capital formation is measured by the total value of a producer's acquisitions, less disposals, of fixed assets during the accounting period plus certain additions to the value of non-produced assets (such as subsoil assets or major improvements in the quantity, quality or productivity of land) realised by the productive activity of institutional units.</p>
<p><i>Gross Margin</i></p>	<p>The gross margin of a provider of reservation services is the difference between the value at which the</p>

Gross Value Added

intermediated service is sold and the value accrued to the provider of reservation services for this intermediated service.

Gross value added is the value of output less the value of intermediate consumption; it is a measure of the contribution to GDP made by an individual producer, industry or sector; gross value added is the source from which the primary incomes of the SNA are generated and is therefore carried forward into the primary distribution of income account.

Gross Value Added At Basic Prices

Gross value added at basic prices is output valued at basic prices less intermediate consumption valued at purchasers' prices.

Gross Value Added of The Tourism Industries (GVATI)

Gross value added of the tourism industries is the total gross value added of all establishments belonging to tourism industries, regardless of whether all their output is provided to visitors and of the degree of specialization of their production process.

Household Tourism Consumption

Consists of the tourism consumption by resident households on tourism related products within economy.

Imports of Goods

Imports of goods consist of imports of the following items from non-residents to residents, generally with a change of ownership being involved: general merchandise, goods for processing, goods procured in foreign ports by domestic carriers, and non-monetary gold.

Imports of Services

Imports of services consist of the following services purchased by residents from non-residents: transportation; travel; communications; construction; insurance; financial; computer and information; royalties and licence fees; other business services; personal, cultural, and recreational services; and government services n.i.e.

Imports of Goods And Services

Imports of goods and services consist of purchases, barter, or receipts of gifts or grants, of goods and services by residents from non-residents; the treatment of exports and imports in the SNA is generally identical with that in the balance of

Imputed Tourism Consumption

payments accounts as described in the Balance of Payments Manual.

Consists of imputations made for the consumption by visitors of certain goods and services for which they do not make a payment. Imputation is confined to a small number of cases where a reasonably satisfactory basis for the valuation of the implied transaction is available, and where their inclusion is consistent with the production boundary in the core national accounts.

Inbound Travel

Travel to a country by non-residents is called inbound travel.

Inbound Trip

An inbound trip is one with a main destination outside the country of residence of the visitor.

Inbound Tourism

The travel of inbound visitors is called inbound tourism. It comprises the activities of a non-resident visitor within the country of reference on an inbound tourism trip.

Inbound Tourism Consumption

Inbound tourism consumption is the tourism consumption of a non-resident visitor within the economy of reference.

Input-Output Model

It provides a detailed breakdown of economic activity among business industries and a detailed breakdown of their inputs and outputs by commodity associated with some arbitrarily fixed exogenous demand. It also provides supply requirements from other sources such as imports and government production of goods and services. The input-output model is a structural model dealing primarily with resource allocation in the economy corresponding to an exogenously given demand.

Input-Output Tables

Input-output tables are derived from Supply and Use Tables, which show the process of flows of goods and services through the economic system between producers and consumers. The transactors involved in the production process are individuals (persons or households), establishments (production units of businesses and governments), non-business entities such as non-profit institutions, and governments. An

	<p>input-output table presents a detailed analysis of the process of production and the use of goods and services (products) and the income generated in that production.; they can be either in the form of (a) supply and use tables or (b) symmetric input-output tables. These tables include the Imports Use and Domestic Use matrices, industry by industry and product by product matrices plus the Leontief inverse, multipliers and other analyses of their structure.</p>
<i>Intermediate Consumption</i>	<p>Intermediate consumption consists of the value of the goods and services consumed as inputs by a process of production, excluding fixed assets whose consumption is recorded as consumption of fixed capital; the goods or services may be either transformed or used up by the production process.</p>
<i>Intermediate Output</i>	<p>That part of the total output of each industry consumed by other industries in the production process.</p>
<i>Internal Tourism</i>	<p>Comprises domestic tourism and inbound tourism, that is, the activities of resident and non-resident visitors within the country of reference as part of domestic or international tourism trips.</p>
<i>Internal Tourism Consumption</i>	<p>Internal tourism consumption is the tourism consumption of both resident and non-resident visitors within the economy of reference. It is the sum of domestic tourism consumption and inbound tourism consumption.</p>
<i>International Tourism</i>	<p>Comprises inbound tourism and outbound tourism, that is, the activities of resident visitors outside the country of reference, either as part of domestic or outbound tourism trips and the activities of non-resident visitors within the country of reference on inbound tourism trips.</p>
<i>International Tourism Consumption</i>	<p>Also referred to as internal tourism consumption by international visitors. Consists of the tourism consumption within the economy by non-residents on tourism related products.</p>
<i>International Travellers</i>	<p>Those who undertake international travel are</p>

<i>International Visitor</i>	considered as international travellers. An international traveller qualifies as an international visitor with respect to the country of reference if: (a) he/she is on a tourism trip and (b) he/she is a non-resident travelling in the country of reference or a resident travelling outside of it.
<i>ISIC</i>	ISIC is the United Nations International Standard Industrial Classification of All Economic Activities; the third revision of ISIC is used in the 1993 SNA.
<i>Leontief Inverse (Input-Output) Table</i>	The columns of the Leontief inverse (input-output) table show the input requirements, both direct and indirect, on all other producers, generated by one unit of output
<i>Main Destination</i>	The main destination of a tourism trip is defined as the place visited that is central to the decision to take the trip.
<i>Main Purpose of A Trip</i>	The main purpose of a trip is defined as the purpose in the absence of which the trip would not have taken place. The main purpose of a trip is one of the criteria used to determine whether the trip qualifies as a tourism trip and the traveller qualifies as a visitor. If the main purpose is to be employed and earn income (compensation for the labour input provided), then the trip cannot be a tourism trip and the individual taking the trip cannot be considered as a visitor (even though it is outside his/her usual environment and for less than 12 months), but as an “other traveller”.
<i>Margin</i>	This is the difference between the resale price of a good and the cost to the retailer or wholesaler of the good sold. A transport margin consists of the transport charges invoiced separately by the producer in the delivery of a good.
<i>Margin (Trade)</i>	A trade margin is the difference between the actual or imputed price realised on a good purchased for resale (either wholesale or retail) and the price that would have to be paid by the distributor to replace the good at the time it is sold or otherwise disposed of.
<i>Margin (Transport)</i>	A transport margin consists of those transport charges

Multipliers

paid separately by the purchaser in taking delivery of the goods at the required time and place.

An I-O multiplier is a quantitative measure created by a particular I-O based economic model. It is an analytical answer to a hypothetical question about how a certain expenditure is expected to impact the economy. The multipliers allow users to make estimates of the whole economy impacts of small changes in the economy.

National Tourism

Comprises domestic tourism and outbound tourism, that is, the activities of resident visitors within and outside the country of reference, either as part of domestic or outbound tourism trips.

National Tourism Consumption

National tourism consumption is the tourism consumption of resident visitors, within and outside the economy of reference. It is the sum of domestic tourism consumption and outbound tourism consumption.

Net Taxes on Products

Also referred to as taxes less subsidies on products. A tax or subsidy on a product is payable per unit of a good or service. The tax or subsidy may be a specific amount of money per unit of quantity of a good or service (quantity being measured either in terms of discrete units or continuous physical variables such as volume, weight, strength, distance, time, etc.), or it may be calculated ad valorem as a specified percentage of the price per unit or value of the goods or services transacted. A tax or subsidy on a product usually becomes payable when the product is produced, sold or imported, but it may also become payable in other circumstances, such as when a good is exported, leased, transferred, delivered, or used for own consumption or own capital formation. See also Other taxes on production and Taxes less subsidies on production and imports.

Other Taxes on Production

Consist of all taxes that enterprises incur as a result of engaging in production, except taxes on products. Other taxes on production include: taxes related to the payroll or workforce numbers excluding compulsory social security contributions paid by employers and any taxes paid by the employees themselves out of

	<p>their wages or salaries; recurrent taxes on land, buildings or other structures; some business and professional licences where no service is provided by the Government in return; taxes on the use of fixed assets or other activities; stamp duties; taxes on pollution; and taxes on international transactions. See also Taxes less subsidies on production and imports.</p>
<i>Outbound Tourism</i>	<p>The travel of outbound visitors is called outbound tourism. It comprises the activities of a resident visitor outside the country of reference, either as part of an outbound tourism trip or as part of a domestic tourism trip.</p>
<i>Outbound Tourism Consumption</i>	<p>Outbound tourism consumption is the tourism consumption of a resident visitor outside the economy of reference. Also referred to as tourism imports. Consists of the tourism consumption by resident visitors outside of the economy while on an international trip.</p>
<i>Outbound Trip</i>	<p>An outbound trip is one with a main destination outside the country of residence of the visitor.</p>
<i>Outbound Travel</i>	<p>Travel outside a country by residents is called outbound travel.</p>
<i>Output</i>	<p>Output consists of those goods or services that are produced within an establishment that become available for use outside that establishment, plus any goods and services produced for own final use.</p>
<i>Output Multiplier</i>	<p>Output multiplier for a particular industry is defined to be the total of all outputs from each domestic industry required in order to produce one additional unit of output: that is, the column sums (Σ_i) from Leontief inverse matrix (L_{ij}).</p>
<i>Principal Activity</i>	<p>The principal activity of a producer is the activity whose value added exceeds that of any other activity carried out within the same unit. The output of the principal activity must consist of goods or services that are capable of being delivered to other units even though they may be used for own consumption or own capital formation.</p>

***Principal Usual Activity
Status of Persons***

The activity status of a person during the reference period of 365 days preceding the date of survey, which is determined on the basis of a person spending relatively longer time (i.e. Major time criterion). Based on this a person is categorised as those (a) belonging to labour force and (b) not belonging to the labour force ('neither working nor available for work'). Within the labour force, the criteria of (i) 'working' and (ii) 'not working but seeking and/or available for work' is again based on the major time criterion. The principal status workers are from (i) whereas the subsidiary status workers can be from either or both of (i) and (ii).

Principal Product

The principal product of an industry is the characteristic or main product produced by the relevant industry. Producing units are classified to industries according to which products they make. If they produce more than one product, they are classified according to whichever accounts for the greatest part of their GVA.

Production

Production is an activity, carried out under the responsibility, control and management of an institutional unit that uses inputs of labour, capital and goods and services to produce outputs of other goods and services.

Production Account

The production account records the activity of producing goods and services as defined within the SNA; its balancing item, gross value added, is a measure of the contribution to GDP made by an individual producer, industry or sector.

Products

Products, also called "goods and services", are the result of production; they are exchanged and used for various purposes: as inputs in the production of other goods and services, as final consumption or for investment.

Purchaser's Price

The purchaser's price is the amount paid by the purchaser, excluding any deductible VAT or similar deductible tax, in order to take delivery of a unit of a good or service at the time and place required by the purchaser; the purchaser's price of a good includes any transport charges paid separately by the purchaser to

Same Day Visitor

take delivery at the required time and place.

A visitor (domestic, inbound or outbound) is classified as a same-day visitor (or excursionist) if his/her trip does not include an overnight stay.

Social Transfers in Kind

Social transfers in kind consist of social security and social assistance benefits in kind together with goods and services provided to individual household outside any social insurance scheme by non-market producers owned by government units or non-profit institutions (NPIS).

Subsidies

Subsidies are current unrequited payments that government units, including non-resident government units, make to enterprises on the basis of the levels of their production activities or the quantities or values of the goods or services which they produce, sell or import. They include the financing of deficits on public trading services deliberately run at a loss. There are two types, see subsidies on production and subsidies on products.

Subsidy on a Product

A subsidy on a product is a subsidy payable per unit of a good or service produced, either as a specific amount of money per unit of quantity of a good or service or as a specified percentage of the price per unit; it may also be calculated as the difference between a specified target price and the market price actually paid by a buyer. These are subsidies based on a quantity or value of goods or services sold.

Supply

The supply of a good or service is the sum of the values of its domestic output (from all sectors), plus imports, c.i.f. When measured at basic prices. At purchasers' prices, trade and transport margins and net taxes on products are also added.

Supply Table

The main body of the Supply Table shows estimates of domestic industries' output by type of product at basic prices. The columns represent the supplying industries and the rows represent the products supplied. Additional columns covering imports of goods and services, distributors' trading margins and taxes (less subsidies) on products are added to show supply of all

Supply and Use Tables

goods and services at purchasers' prices.

Supply and use tables are in the form of matrices that record how supplies of different kinds of goods and services originate from domestic industries and imports and how those supplies are allocated between various intermediate or final uses, including exports.

Tax on a Product

A tax on a product is a tax that is payable per unit of some good or service, either as a specified amount of money per unit of quantity or as a specified percentage of the price per unit or value of the good or service transacted.

Taxes

Taxes are compulsory, unrequited payments, in cash or in kind, made by institutional units to government units; they are described as unrequited because the government provides nothing in return to the individual unit making the payment, although governments may use the funds raised in taxes to provide goods or services to other units, either individually or collectively, or to the community as a whole.

Taxes on Production and Imports

Taxes on production and imports consist of taxes payable on goods and services when they are produced, delivered, sold, transferred or otherwise disposed of by their producers plus taxes and duties on imports that become payable when goods enter the economic territory by crossing the frontier or when services are delivered to resident units by non-resident units; they also include other taxes on production, which consist mainly of taxes on the ownership or use of land, buildings or other assets used in production or on the labour employed, or compensation of employees paid.

Taxes on Products

Taxes on products, excluding VAT, import and export taxes, consist of taxes on goods and services that become payable as a result of the production, sale, transfer, leasing or delivery of those goods or services, or as a result of their use for own consumption or own capital formation. These taxes are defined as product specific taxes, for example: value added tax, excise duties, air passenger tax, insurance premium tax and import duties, and are based on the volume or value of

	production sold.
<i>Total Economy</i>	The total economy consists of all the institutional units which are resident in the economic territory of a country.
<i>Total Final Expenditure</i>	This is the sum total of final consumption, gross capital formation and exports of goods and services. Total final expenditure is the same as total demand by final buyers and is equal to total final output.
<i>Total Intermediate Consumption</i>	The total intermediate consumption of each industry is the industry's total purchases of the outputs of other industries as well as purchases of imports of goods and services and intra-industry purchases for use in its production process. This is adjusted for the change in inventories of materials and fuels and excludes primary inputs.
<i>Total Tourism Internal Demand</i>	Total tourism internal demand, is the sum of internal tourism consumption, tourism gross fixed capital formation and tourism collective consumption. It does not include outbound tourism consumption.
<i>Total Output</i>	The total output of an industry is the aggregate value of the goods and services together with the work-in-progress produced by the industry. It is equal to the value of the industry's sales plus any increase (and less any decrease) in the value of its inventories of finished products and work-in progress. Output is thus measured after deducting holding gains. The outputs of the distribution and service trades industries are measured on a 'gross margin' basis.
<i>Taxes Less Subsidies on Production and Imports</i>	Defined as 'taxes on products' plus 'other taxes on production' less 'subsidies on products' less 'other subsidies on production'. The taxes do not include any taxes on the profits or other income received by an enterprise. They are payable irrespective of the profitability of the production process. They may be payable on the land, fixed assets or labour employed in the production process, or on certain activities or transactions.

Tourism

Comprises the activities of visitors.

Tourism Characteristic Industries

Are those industries that would either cease to exist in their present form, producing their present product(s), or would be significantly affected if tourism were to cease. Under the international TSA standards, core lists of tourism characteristic industries, based on the significance of their link to tourism in the worldwide context, are recommended for implementation to facilitate international comparison. Some countries use the criteria of at least 25 per cent of an industry's output must be consumed by visitors to be a country-specific tourism characteristic industry.

Tourism Characteristic Products

These are defined in the international TSA standards as those products which would cease to exist in meaningful quantity, or for which sales would be significantly reduced, in the absence of tourism. Under the international TSA standards, core lists of tourism characteristic products, based on the significance of their link to tourism in the worldwide context, are recommended for implementation to facilitate international comparison. It is also recommended in the international TSA standards that country-specific tourism characteristic products are identified.

Tourism Connected Industries

Are those, other than tourism characteristic industries, for which a tourism related

Product is directly identifiable (primary) to, and where the products are consumed by visitors in volumes which are significant for the visitor and/or the producer. All other industries are classified as non-tourism industries, though some of their products may be consumed by visitors and are included in the calculation of direct tourism gross value added and direct tourism GDP.

Tourism Connected Products

Are those that are consumed by visitors but are not considered as tourism characteristic products. All other products in the supply and use table not consumed by visitors are classified as 'all other goods and services' in the TSA.

Tourism Consumption

Tourism consumption has the same formal definition as tourism expenditure. Nevertheless, the concept of

	<p>tourism consumption used in the TSA goes beyond that of tourism expenditure. Actually, besides “the amount paid for the acquisition of consumption goods and services, as well as valuables for own use or to give away, for and during tourism trips” that corresponds to monetary transactions (the focus of tourism expenditure), it also includes services associated with vacation accommodation on own account, tourism social transfers in kind, and other imputed consumption. These transactions need to be estimated using sources different from information collected directly from the visitors such as reports on home exchanges, estimations of rents associated to vacation homes, calculations of FISIM, etc.</p>
<i>Tourism Demand</i>	<p>Expenditure made by, or on behalf of, the visitor before, during and after the trip and which expenditure is related to that trip and which trip is undertaken outside the usual environment of the visitor.</p>
<i>Tourism Direct Gross Domestic Product (TDGDP)</i>	<p>Tourism direct gross domestic product is the sum of the part of gross value added (at basic prices) generated by all industries in response to internal tourism consumption plus the amount of net taxes on products and imports included within the value of this expenditure at purchasers’ prices.</p>
<i>Tourism Direct Gross Value Added (TDGVA)</i>	<p>Tourism direct gross value added is the part of gross value added generated by tourism industries and other industries of the economy that serve directly visitors in response to internal tourism consumption.</p>
<i>Tourism Expenditure</i>	<p>The amount paid for the acquisition of consumption goods and services as well as valuables, for own use or to give away, for and during tourism trips. It includes expenditures by visitors themselves as well as expenses that are paid for or reimbursed by others.</p>
<i>Tourism Exports</i>	<p>Tourism exports are domestically produced goods and services consumed by international visitors to the country.</p>
<i>Tourism Industry Ratio</i>	<p>This is the proportion of the total value added of an industry which is related to tourism.</p>

Total Tourism Internal Demand

Computed by adding tourism internal consumption (domestic and inbound tourism consumption) with other components of internal demand, such as tourism collective consumption and tourism gross fixed capital formation.

Tourism Imports

Tourism imports are consumption of overseas produced goods and services by residents on overseas trips.

Tourism Net Taxes on Products

Consists of taxes paid less subsidies received on tourism related products which is attributable to productive activity of tourism related industries that are in a direct relationship with visitors. In the case of goods purchased by visitors, only the net taxes attributable to the value of retail trade services on those goods will be included.

Tourism Product Ratio

This is the proportion of the total supply of a product which is consumed by visitors.

Tourism Ratio

For each variable of supply in the TSA, the tourism ratio is the ratio between the total value of tourism share and total value of the corresponding variable in the TSA expressed in percentage form.

Tourism Share

Tourism share is the share of the corresponding fraction of internal tourism consumption to each component of supply. For each industry, the tourism share of output (in value), is the sum of the tourism share corresponding to each product component of its output.

Tourism Single Purpose Consumer Durable Goods

Tourism single-purpose consumer durables are a specific category of consumer durable goods that include durable goods that are used exclusively, or almost exclusively by individuals while on tourism trips.

Tourism Satellite Account

Tourism Satellite Account consists in analyzing in detail all the aspects of demand for goods and services which might be associated with tourism, in establishing the actual interface with the supply of such goods and services within the economy of reference, or outside and in describing how this supply

	(from domestic or imported origin) interacts with other economic activities, using the SUT as a reference.
<i>Tourist</i>	A visitor (domestic, inbound or outbound) is classified as a tourist (or overnight visitor) if his/her trip includes an overnight stay.
<i>Tourism Trip</i>	Trips which are undertaken by visitors.
<i>Tourism Visit</i>	The term tourism visit refers to a stay in a place visited during a tourism trip. However, while discussing the different forms of tourism (domestic, inbound and outbound), the term visitor is often used instead of tourism visit or tourism trip.
<i>Travel</i>	Travel refers to the activity of travellers.
<i>Transportation in Balance of Payments Statistics</i>	Transportation (bop item 205) covers services provided by all modes of transportation - sea, air, and other, which includes space, rail, road, inland waterway and pipeline - that are performed by residents of one economy for those of another. The different types of services offered include transport of passengers, transport of freight and other supporting and auxiliary services (e.g., storage and warehousing).
<i>Travel in Balance of Payments Statistics</i>	<p>The item Travel (bop item 236) consists of goods and services which are acquired by residents who stay abroad or foreign travellers on the national territory for less than one year.</p> <p>Note that international transportation costs of the traveller to destination are recorded under the heading "transportation", but all movements within the country, including cruises, are entered under "travel".</p>
<i>Traveller</i>	A traveller is someone who moves between different geographic locations for any purpose and any duration. Travel within a country by residents is called domestic travel. Travel to a country by non-residents is called inbound travel, whereas travel outside a country by residents is called outbound travel. Those who undertake travel, be it domestic, inbound or outbound, will be called domestic, inbound or outbound travellers, respectively.

Trip

A trip refers to the travel by a person from the time of departure from his usual residence until he/she returns to the same place: it thus refers to a round trip. A trip is made up of visits to different places. An inbound trip will correspond to the travel between arriving in a country and leaving, whereas a domestic trip or an outbound trip will correspond to the travel between leaving the place of residence and returning. A domestic trip has a main destination in the country of residence of the traveller, while an outbound trip has a main destination outside this country.

TSA Aggregates

The compilation of the following aggregates, which represent a set of relevant indicators of the size of tourism in an economy is recommended:

- Internal tourism expenditure;
- Internal tourism consumption;
- Gross value added of the tourism industries (GVATI);
- Tourism direct gross value added (TDGVA);
- Tourism direct gross domestic product (TDGDP)

Uses

The term refers to transactions in the current accounts that reduce the amount of economic value of a unit or sector, for example, wages and salaries are a type of use for the unit or sector that must pay them. By convention, uses are on the left-hand side of SNA accounts.

Usual Environment

The geographical area (though not necessarily a contiguous one) within which an individual conducts his/her regular life routines. This is made up of one or more areas in which a person undertakes their regular activities such as their residence, place of work, place of study and other places frequently visited. The usual environment criteria has two dimensions – frequency (places that are visited on a routine basis) and distance (locations close from home for overnight trips).

Usual Expenditures

In addition to the usual expenditures made by visitors while travelling (or preparing to travel) on commodities such as transport, meals or accommodation, these expenditures cover, inter alia,

Valuables

expenses incurred for the purposes of travel, such as suitcases which may be purchased some time before the planned trip. On the other hand, the measure excludes expenditure on capital equipment or other capital acquisition that may be made by a businessman while on a trip (even if that were the reason for the trip). If the trip were paid for by a non-visitor (such as parents paying for their child to visit them from abroad), it would be included because the expenditure was made on behalf of the visitor.

Valuables are produced assets that are not used primarily for production or consumption, that are expected to appreciate or at least not to decline in real value, that do not deteriorate over time under normal conditions and that are acquired and held primarily as stores of value.

Visitor

A visitor is a traveller taking a trip to a main destination outside his/her usual environment for less than a year and for any main purpose (business, leisure or other personal purpose) other than to be employed by a resident entity in the country or place visited.



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