

National Council of Applied Economic Research

The Third Tourism Satellite Account of India, 2015–16

CAEp

60

Study Commissioned by The Ministry of Tourism, Government of India

ReportNovember201811022018



The Third Tourism Satellite Account of India, 2015–16

Study Commissioned by The Ministry of Tourism, Government of India

November, 2018

National Council of Applied Economic Research 11 Indraprastha Estate, New Delhi 110 002

NCAER | QUALITY . RELEVANCE . IMPACT



© National Council of Applied Economic Research, 2018

All rights reserved. The material in this publication is copyrighted. NCAER encourages the dissemination of its work and will normally grant permission to reproduce portions of the work promptly. For permission to photocopy or reprint any part of this work, please send a request with complete information to the publisher below.

Published by

Prof. Anil K. Sharma Secretary and Operations Director, NCAER The National Council of Applied Economic Research NCAER India Centre, 11, Indraprastha Estate New Delhi–110 002 Tel: +91-11-2337-9861 to 3 Fax: +91-11-2307-0164 infor@ncaer.org www.ncaer.org

Publications Coordinator

Jagbir Singh Punia

Disclaimer: 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.

ii

Study Team

PROJECT LEADER

Dr Poonam Munjal

SENIOR ADVISOR

Prof M. R. Saluja

CORE RESEARCH TEAM

Mr K. A. Siddiqui Mr P. K. Ghosh Dr Palash Baruah Mr Asrar Alam Dr Gautam Das Dr Nijara Deka Ms Monisha Grover Ms Madhura Chowdhuri

EDITOR

Ms Anupma Mehta

SECRETARIAL ASSISTANCE

Ms Shashi Singh



iv



Shekhar Shah Director-General NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH

NCAER India Centre, 11 Indraprastha Estate New Delhi 110 002 Tel: +91 11 2337 0466, 2337 9861 Fax: +91 11 2337 0164 sshah@ncaer.org, www.ncaer.org



Foreword

The rich cultural heritage and numerous scenic locations of India spread across the length and breadth of the country are rapidly making it a favoured destination among foreign travellers. According to data released by the Ministry of Tourism in August 2018, there was an increase of 7.9 per cent in the number of foreign tourist arrivals to India during the period January–June 2018 over the corresponding period the previous year.¹ This was preceded by another achievement earlier, in 2017, with the number of foreign tourist arrivals crossing the one crore mark for the first time in India's tourism history, and fetching foreign exchange earnings worth \$27.3 billion, an increase of 19.1 per cent over corresponding earnings in 2016. This rise of inward tourism to India can be attributed to several factors, including flexible government policies, easy availability of e-visas for foreign tourists, development of road and rail infrastructure, and the government's efforts to promote theme-based circuits and niche areas in popular tourist destinations. The e-visa policy, launched in November 2014 for 44 countries at nine airports, has since been extended to 166 countries, 28 airports, and five seaports.

The year 2019 too began with an exceptional inflow of foreign tourists to India to celebrate the world's largest religious gathering, the Ardh Kumbh Mela, in Prayagraj. The number of religious tourists has shown a dramatic rise of 35 per cent over the last Mela in 2013.

Meanwhile, domestic tourism now constitutes an even bigger component of total tourism inflows into India, both in the number of tourists and earnings accruing from tourism expenditure. Within domestic tourism, social trips (trips undertaken by people for visiting friends or relatives) account for about four-fifths of total trips and more than half of the total expenditure incurred on domestic tourism.

While basic, mostly non-monetary tourism statistics are collected on a regular basis, these cannot be used to assess the economic contribution of tourism to GDP and to employment. Tourism Satellite Accounts (TSA) are a powerful tool for understanding and assessing the economics of tourism and for measuring the impact on GDP and employment.

NCAER has led the way in the preparation of these tourism accounts in India by pioneering the First TSA for India for 2002-03 on the request of the Ministry of Tourism. Thereafter, NCAER also compiled the Second TSA for the year 2009–10. This report represents the Third TSA, for 2015–16. This work at NCAER has been part of a long and sustained tradition of its work on input–output and national income accounts and models.

The compilation of a TSA is a complex exercise, bringing together data for both the demand and supply of different forms of inbound, domestic, and outbound tourism. Demand side data are sourced from national level tourism surveys conducted separately for both domestic and international tourists while supply side data are obtained from the national

¹http://tourism.gov.in/market-research-and-statistics.

accounts statistics. The key aggregates derived through the satellite accounts are Tourism Direct Gross Value Added (TDGVA), Tourism Direct Gross Domestic Product (TDGDP), Tourism Direct Employment, and their respective shares in the country's total GVA, GDP, and employment. The indirect contribution of tourism is also obtained through Input-Output modelling.

It gives me great pleasure to point out that like the Second TSA, India's Third TSA has also been compiled in compliance with the latest methodological recommendations of the UN World Tourism Organisation and with the International Recommendations on Tourism Statistics. All data sources and methodological details are in this Report.

I would like to thank all the agencies that provided the underlying data for the TSA 2015–16, especially the National Sample Survey Office for its Domestic Tourism Survey, the Indian Statistical Institute for its International Passenger Survey, and the Central Statistical Organisation for the national accounts statistics. NCAER is particularly grateful to nodal officers in the Ministry of Tourism, including Shri S.M. Mahajan, former Additional DirectorGeneral; Shri P.C. Cyriac, Additional Director-General; Ms Mini Prasannakumar, Director; Shri Shailesh Kumar, Deputy Director; Ms Anshika Bhatnagar, Assistant Director; and Shri S.K. Mohanta, DPA, for the valuable inputs and administrative support provided by them during the preparation of the TSA.

In ending, I would like to thank members of the NCAER TSA project team, including Senior Fellow Dr Poonam Munjal, TSA Task Team Leader, Mr K.A. Siddiqui, Senior Fellow, and Mr P.K. Ghosh, Fellow. Dr Gautam Das and Dr Nijara Deka, consultants, and Dr Palash Baruah and Mr Asrar Alam, Research Analysts, also worked tirelessly to produce yet another world-class TSA for India.

Shellon Shah

New Delhi November 30th, 2018

Dr Shekahr Shah Director-General, NCAER

Abbreviations and Acronyms

Units used in the Report

1 crore = 10 million 1 lakh = 100 thousand

ADG	Additional Director General
ASI	Annual Survey of Industries
CES	Consumer Expenditure Survey
CFC	Consumption of Fixed Capital
CIF/cif	Cost, insurance and freight (valuation of imports)
CIS	Change in stocks
COE/CoE	Compensation of Employees
COFOG	Classification of the Functions of Government
CPI	Consumer Price Index
CSO	Central Statistical Office
DTS	Domestic Tourism Survey
EUS	Employment and Unemployment Survey
EXP	Exports of goods and services
FISIM	Financial Intermediation Services Indirectly Measured
FOB/fob	Free on board/alongside (valuation of exports)
GFCE	Government Final Consumption Expenditure
GCF	Gross Capital Formation
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GVA	Gross Value Added
GVATI	Gross Value Added of Tourism Industries
IC	Intermediate Consumption
IMP	Imports of goods and services
INV	Inventories
I-O	Table Input–Output Table
IOTT	Input–Output Transaction Table
IPS	International Passenger Survey
IRTS	International Recommendations on Tourism Statistics
ISI	Indian Statistical Institute
MRP	Mixed Reference Period



MPCE	Monthly per capita consumption expenditure
NAS	National Accounts Statistics
NCAER	National Council of Applied Economic Research
NCS	Net Capital Stock
NGO	Non-Governmental Organisation
NIC	National Industrial Classification
NIT	Net Indirect Tax
NPISH	Non–Profit Institutions Serving Households
NRI	Non–Resident Indian
NSSO	National Sample Survey Office
NVA	Net Value Added
OECD	Organisation for Economic Cooperation and Development
OS	Operating Surplus
OS/MI	Operating Surplus/Mixed Income
PFCE	Private Final Consumption Expenditure
PIO	People of Indian Origin
RBI	Reserve Bank of India
RMF	Recommended Methodological Framework
Rs.	Indian Rupees
SNA	System of National Accounts
SUT	Supply and Use Tables
TDGDP	Tourism Direct Gross Domestic Product
TDGVA	Tourism Direct Gross Value Added
TSA	Tourism Satellite Account
TSA: RMF	Tourism Satellite Account: Recommended Methodological Framework
TTM	Trade and Transport Margins
UNSC	United Nations Statistical Commission
UNWTO	United Nations World Tourism Organisation
VAT	Value Added Tax
WTO	World Tourism Organisation

Contents

Study	Team	iii
Forew	pord	v
Abbre	viations	vii
List of	Tables	xi
List of	Figures	xiii
Execut	tive Summary	XU
I. Intr	roduction	1
I.1	Satellite Accounts	1
I.2	Uses of TSA	3
I.3	TSAs in Other Countries	3
I.4	TSA for India	4
I.5	Objectives of the Proposed Study	4
II. Da	ata Sources for TSA	7
II.1	Domestic Tourism Survey (DTS), 2014–15	7
II.2	International Passenger Survey (IPS), 2015–16	15
II.3	Annual Employment-Unemployment Survey (EUS), 2015	20
II.4	Consumer Expenditure Survey (CES), 2011–12	23
II.5	National Accounts Statistics (NAS), 2017	24
II.6	Supply and Use Tables (SUT), 2012–13	25
III. M	Iethodology	29
III.1	Inbound Tourism Expenditure	30
III.2	Domestic Tourism Expenditure	38
III.3	Outbound Pre-trip Tourism Expenditure	43
III.4	Total Indbound Tourism Consumption	47
III.5	Production Account of Tourism Industries	53
III.6	Domestic Supply and Internal Tourism Consumption	66
III.7	Tourism Employment	79



III.8	Tourism Gross Fixed Capital Formation	82
III.9	Tourism Collective Consumption Expenditure	86
III.10	Tourism Non-monetary Indicators	88
IV. Ind	irect Contribution of Tourism	93
IV.1	Tourism Multilpliers	95
V. Sum	mary of Findings	97
V.1	Estimated Number of Trips	97
V.2	Total Internal Tourism Consumption	97
V.3	Gross Value Added	98
V.4	Employment in the Tourism Industries	99
V.5	Cross-country Comparison	99
Appen	dix I: Technical Note	101
TN.1	Inbound Tourism Expenditure	101
TN.2	Domestic Tourism Expenditure	101
TN.3	Outbound Tourism Expenditure	104
TN.4	Production Account of Tourism Industries	104
TN.5	Employment in Tourism Industries	106
Appen	dix II	107
A.1	Concordance between the SUT 140 Products and New Extended SUT 152 Products	107
A.2	Concordance between 152 Products and 24 Products	112
A.3	Leontief Inverse Matrix - Product X Product	113
A.4	Leontief Inverse Matrix - Industry X Industry	118
A.5	Percentage Distribution of Trips with Leading Purposes Holidaying, Leisure and Recreation; Health and Medical and Shopping by States of Destinations	123
A.6	Percentage Distribution of Trips (with Leading Purposes Other Than Holidaying, Leisure and Recreation; Health and Medical and Shopping) by States of Destination	130

List of Tables

I.1: List of countries that have developed TSAs	4
II.1: Conceptual Differences between DTS 2014–15 and DTS 2008–09	9
II.2: Basic Domestic Tourism Statistics	14
II.3: List of Airports and Land Check Posts	15
II. 4: Per cent distribution of all visitors by Country of Normal Residence	17
II. 5: Distribution of International Tourists by Gender	18
II.6: Distribution of Outbound Indians by the State of Residence	19
II.7: Percentage Distribution of Outbound Indians by Age Group	20
II. 8: Distribution of Employed Persons by Work Status (%)	23
II. 9: Absolute and Percentage Break-up of MPCE by Item Group	24
II.10: Comparing New GDP Series with the Old Series	26
III.1: Products Recommended in TSA: RMF 2008 and Products Included in India's TSA	30
III.2: Concordance between TSA Products and IPS Consumption Items	31
TSA Table 1: Inbound Tourism Expenditure	32
III.3: Concordance between TSA Products and DTS Consumption Items	39
TSA Table 2: Domestic Tourism Expenditure	40
TSA Table 3: Outbound Pre-trip Tourism Expenditure	44
TSA Table 4: Total Internal Tourism Consumption	49
III.4: Per cent distribution of Internal Tourism Consumption by Products and Services	51
III.5: Per cent distribution of Internal Tourism Expenditure by Type of Tourism	52
TSA Table 5: Production Account of Tourism and other Industries	55
III.6: Economic Aggregates of Industries	65
TSA Table 6: Domestic Supply and Internal Tourism Consumption	67
III. 7: Supply and Consumption of Products/Services and Tourism Product Ratios	75
III. 8: GVA, TDGVA and Tourism Industry Ratios	76
TSA Table 7: Employment in Tourism Industries (Number of jobs)	80
III. 9: Tourism Employment using TIRs	81

TSA Table 8: Gross Fixed Capital Formation of Tourism and Other Industries	83
III.10: GFCF, NCS and Output to NCS Ratio	84
III. 11: Employment-Investment Elasticity	85
TSA Table 9: Tourism Consumption Expenditure by Government (Rs. crore)	87
III.12: Government Final Consumption Expenditure by Economic and Purpose Classification	87
TSA Table 10.1: Inbound Tourism in India	88
TSA Table 10.2: FTAs in India from different Regions of the World, 2014–2016	88
TSA Table 10.3: Month-wise number & percentage share of FTAs in India during 2015–2017	89
TSA Table 10.4: FTAs in India According to Mode of Travel, 2001–2016	89
TSA Table 10.5: Number Of Indian Nationals Departure from India, 1991 to 2016	89
TSA Table 10.6: Domestic & Foreign Tourist visits to States/UTs, 1991–2016	90
TSA Table 10.7: Number of Approved Hotels and Availability of Hotel Rooms in the country, as on 31st December, 2016	90
TSA Table 10.8: Average Number of Total Employees per Hotel (Permanent /Contract/Full Time /Part Time), by Category of Hotels, 2015–16	91
TSA Table 10.9: Hotel Guests by Category of Hotels, 2015–16	91
TSA Table 10.10: State/UT Wise Number of Recognized Travel Service Provider in the country during 2016, as on 31st December, 2016	92
IV.1: Values of Multipliers (2009–10 and 2015–16)	95
V.1: Estimated Number of Tourists/Trips (in million numbers)	97
V.2: Total Internal Tourism Consumption (2009–10 and 2015–16)	98
V.3: TDGVA and TDGDP (2009–10 and 2015–16)	99
V.4: Employment—Number of Jobs (2009–10 and 2015–16)	99
V.5: Cross-country Comparison of Share of Tourism in GDP and Employment	99
T.1: Consumption Expenditure Adjustment Factors	103
T.2: SUT Products Disaggregated for New Industries	105

The manual states of the second states of the secon

List of Figures

II.1: Distribution of International Tourists by Age Groups	19
II.2: Percentage Distribution of All Visitors by Type of Accommodation	19
II.3: Outbound Indians by Purpose of visit (% distribution)	20
III.1: Distribution of Inbound Tourists and Expenditure	33
III.2: Average per-trip Inbound Tourism Expenditure (Rs.)	33
III.3: Inbound Tourism Expenditure Pattern – NRIs	34
III.4: Expenditure Pattern of Tourism Connected Products – NRIs	35
III.5: Tourism Expenditure pattern – PIOs	35
III.6: Expenditure pattern of Tourism Connected Products – PIOs	35
III.7: Tourism Expenditure pattern – OCIs	36
III.8: Expenditure pattern of Tourism Connected Products – OCIs	36
III.9: Tourism Expenditure pattern – Other Foreign Nationals	36
III.10: Expenditure pattern of Tourism Connected Products – Other Foreign Nationals	37
III.11: Tourism Expenditure pattern – Overall Inbound Tourism	37
III.12: Expenditure pattern of Tourism Connected Products – Overall Inbound Tourism	37
III.13: Inbound Tourism Aggregates (2009–10 and 2015–16)	38
III.14: Distribution of Domestic Trips and Expenditure	41
III.15: Domestic Tourism Expenditure Pattern (% distribution by items)	42
III.16: Average Per-trip Domestic Tourism Expenditure (Rs.)	42
III.17: Domestic Tourism Aggregates (2009–10 and 2015–16)	43
III.18: Distribution of Outbound Tourists and Expenditure	45
III.19: Outbound Tourism Pre-trip Expenditure Pattern (%)	46
III.20: Average Per-trip Outbound Tourism Expenditure (Rs.)	46
III.21: Outbound Tourism Aggregates (2009–10 and 2015–16)	47
III.22: Percentage distribution of Tourism Expenditure by Types (2009–10 and 2015–16)	53
III.23: Total GVA and GVATI (2009–10 and 2015–16)	66
III.24: Tourism Direct GVA, Taxes and GDP (Rs. crore) (2009–10 and 2015–16)	77
III.25: New Series GDP versus Old Series GDP (Rs. lakh crore)	78
III.26: Tourism Employment – Number of jobs (2009–10 and 2015–16)	82



EXECUTIVE SUMMARY

The Third Tourism Satellite Account for India (TSAI) has been compiled for the year 2015–16, in conceptual compliance with the recommended methodology of the United Nations World Tourism Organisation (UNWTO) as provided in TSA: RMF 2008. The TSAI has been built upon a comprehensive data set on tourismrelated goods and services, from both the demand and supply sides. The demand side data have been collected through the domestic and international tourism surveys, which capture information on tourism expenditure. The supply side data pertain to data sourced from the producers or suppliers of tourism goods and services. These have been obtained from the Supply and Use Tables.

As per the TSA: RMF 2008, the TSA for any country comprises a set of ten standard tables which constitute the key for estimating the economic contribution of tourism in the economy. These ten tables include the detailed presentation of consumption of goods and services acquired by the tourists (tourism internal consumption) as well as the supply of industries that produce these goods and services. The key aggregates of TSA, which have been derived using the consumption and production data, are as follows:

- Internal tourism expenditure and internal tourism consumption;
- Tourism Direct Gross Value Added (TDGVA); and
- Tourism Direct Gross Domestic Product (TDGDP).

In addition, TSA details the employment in tourism industries owing to the frequent strategic importance of tourism in the development of the employment policy. The investment in tourism industries and government expenditures in producing tourism-related services also form part of TSA and have been presented as tourism gross fixed capital formation and tourism collective consumption, respectively. Various nonmonetary indicators related to tourism form the last part of the TSA.

The Third TSAI highlights a significant increase in the values of all the key aggregates, given above, over their respective values detailed in the Second TSAI of 2009-10. However, there is a moderation in the share of tourism in GDP, when compared with the previous TSAI. The key findings have been delineated below.

Key Findings

Number of Tourists/Trips

- The number of total inbound tourists who visited India inthe reference year, 2015–16, is estimated to be 13.52 million.
- The intensity of domestic tourism, as measured by the total number of domestic trips, is estimated at 1.20 billion trips.
- The estimated number of outbound tourists or Indian residents visiting abroad stood at 20.29 million.
- The above figures mark a growth of 24.9 per cent, 28.0 per cent, and 87.2 per cent, respectively, over the corresponding estimated numbers of India's second TSA for 2009-10.

Number of Tourists/Trips (% Growth)



Tourism Expenditure

- With regard to the values of expenditure, the total inbound tourism expenditure is estimated at Rs. 2.35 lakh crore for 2015-16, which is 44 per cent higher than the corresponding figure for 2009-10.
- The total domestic tourism expenditure is estimated at Rs.5.53 lakh crore, which is 40.8per cent higher than the figure recorded in 2009-10.
- The total outbound tourism expenditure, at Rs. 0.24 lakh crore, indicated a growth of 142.2 per cent over the figure in 2009-10.
- Taking into account the imputed tourism consumption, which includes tourism consumption due to vacation homes, social transfers in kind, Financial Intermediation Services Indirectly Measured (FISIM), producers' guest houses, and the imputed expenditure of households on food for tourists, the total internal tourism consumption works out to be Rs. 9.54 lakh crore. This is 53.7 per cent higher than the corresponding figure estimated for 2009-10.
- In terms of its contribution to the total internal tourism

consumption, domestic tourism accounts for the highest share of 58.0 per cent, followed by inbound tourism accounting for 24.7 per cent, and pre-trip expenditure of outbound tourism with a share of 2.6 per cent. The remaining 14.8 per cent is accounted for by the imputed components.

TSA Aggregates

- The share of the TDGVA to the total GVA is estimated at 2.78 per cent. The corresponding figure for 2009–10 was 3.80 per cent.
- The share of the TDGDP to the total GDP is estimated at 2.70 per cent. The corresponding figure for 2009–10 was 3.68 per cent.
- The tourism GVA multiplier, obtained from the IO model, works out to be 1.9236. The higher value of the multiplier, as compared with the corresponding figure for 2009-10 (at 1.8518), shows that the linkages of the tourism sector with the other sectors of the economy have become stronger. Hence, any increase in tourism activity triggered faster and increased activities in other sectors of the economy in 2015–16 than it did in 2009–10.
 - With a multiplier of 1.9236, the

direct and indirect contribution of tourism to GVA is estimated at 5.35 per cent in 2015–16. The contribution of tourism to GDP is estimated at 5.20 per cent.

Tourism Employment

- The direct share of tourism to the total employment, defined by the number of jobs in the tourism characteristic industries, stood at 5.40 per cent in 2015–16. The corresponding figure share was 4.37 per cent in 2009–10.
- The employment multiplier works out to be 2.2931 for 2015-16, somewhat less than the multiplier of 2.3256 in 2009–10.
- The direct and indirect share of tourism employment to the total employment comes out to be 12.38 per cent, as compared to the corresponding total share of 10.17 per cent in 2009-10.

 Inbound 44.0 %

 Domestic 40.8 %

 Outbound 142.2 %

Tourism Expenditure (% Growth)

Introduction

In the context of national accounts, the activity of tourism remains difficult to define and measure. Therefore, there is little room for organising data into a structure that permits examination and analysis by function. In such cases, where the core System of National Accounts (SNA) do not provide the required information, there is an ostensible need for the development of satellite accounts within the framework, concepts, and definitions of SNA. These satellite accounts draw from the core accounts in concept, framework and data but are recast to highlight a particular aspect of the economy that may not be adequately described. One such aspect, tourism, is presented in the Tourism Satellite Account (TSA), and is hence the most comprehensive way of measuring the economic importance of tourism in an economy.

I.1 Satellite Accounts

Satellite accounts are prepared to enable a better understanding and analysis of special aspects of the economy that may transcend the traditional notion of industries. The economic aspects of the traditional industries are presented in the National Accounts of a particular country. Broadly speaking, the national accounts comprise a set of aggregated economic statistics that are presented in a format designed for economic analysis. They represent "the books" of the nation's economy, providing the national estimates of the Gross Domestic Product (GDP), the balance of payments, national production, consumption, investment, and other fundamental attributes of the national economy.

In contrast, the satellite accounts constitute a framework to measure the size of economic sectors that are not defined as industries in the National Accounts. Unlike national accounts where the unit of analysis is an establishment, satellite accounts derive the economic aspects of the sectors by analysing their transactions. Hence, they focus on the sectors of particular interest, most commonly tourism, environment, education, health, and transportation, among others, in which the transactions are analysed from the expenditure side. These accounts expand the capacity of the national accounts while maintaining a loose relationship with the national accounts, while expanding and re-classifying the boundaries.

Tourism is one such sector which is not defined separately in the



Many aspects of tourism are already embedded in the system of national accounts but are not readily apparent. While the other sectors follow a definition based on the supply side, tourism is a demand side activity, defined in terms of the consumption of a visitor. national accounts, which necessitates preparation of its satellite account. It is important to note that of all the satellite accounts (environment, health, unpaid household activity), the Tourism Satellite Account (TSA) is the only account approved by the UN Statistical Commission as an international recommendation.

Tourism primarily relates to the movement of people to places outside their usual places of residence, with pleasure being the usual motivation for such travel. It induces economic activity either directly or indirectly, even in places beyond those visited by the tourist. Such activity could be in terms of economic output or in employment, besides other social and infrastructural developments. Therefore, in order to ensure a holistic approach to tourism development, it is necessary to generate reliable statistics on the tourism sector and provide an analysis based on tourism statistics to policy makers for decision-making. It is, therefore, important to measure the impacts of increased social and economic activity due to tourism and identify these data separately in the official statistics.

Unlike other sectors of national accounts, tourism is defined by the characteristic of the purchaser demanding the products, and not by the products themselves. Many aspects of tourism are already embedded in the system of national accounts but are not readily apparent. While the other sectors follow a definition based on the supply side, tourism is a demand side activity, defined in terms of the consumption of a visitor. The value of output of a particular sector is measured as the total produce or the total supply of the sector, but as far as the tourism sector is concerned, the

total value of its output is the value that is demanded by the consumer or tourist.

The United Nations World Tourism Organisation (UNWTO) lays down standard international guidelines for the collection, compilation and dissemination of statistics on tourism by the member countries. The latest publication, International Recommendations for Tourism Statistics 2008 (IRTS, 2008) focuses on the activities carried out by visitors and on measuring them using both monetary and non-monetary indicators. It provides a common reference framework for countries to use in the compilation of tourism statistics. This ensures international comparability of tourism statistics and enhances the coherence of tourism statistics in relation to other official statistics and further development of tourism satellite accounts.

The Tourism Satellite Account (TSA) measures the economic importance of tourism in national or sub-national economies. It is an accounting procedure designed to measure goods and services associated with the activity of tourism undertaken within the boundary of a country or a region or a state.

In the TSA, the national accounts framework and methodology are applied to ensure that the industries supplying the tourism output are identified in the production account, while at the same time showing the visitors' expenditures identified by functions, which is the determining characteristic of tourism, on the expenditure side. The national account framework further allows confrontation of these two dimensions through the supply and use tables for arriving at a consistent set of economic data.

The framework for TSA is laid down by the UNWTO in their publication, "Tourism Satellite Account: Recommended Methodological Framework 2008 (TSA: RMF 2008)". According to this, TSA comprises a set of tables and is mainly descriptive in nature. It helps in assessing the size and contribution of tourism to the economy. It provides accounts and tables and macroeconomic aggregates, principal among them being the Gross Value Added of the Tourism Industry (GVATI), Tourism Direct Gross Value Added (TDGVA) and Tourism Direct Gross Domestic Product (TDGDP). The TSA also has a scope to link economic data with the investment being made in tourism, employment in the tourism industry, and other nonmonetary (quantitative) information or statistics related to tourism and tourists.

I.2 Uses of TSA

The important uses and applications of TSA are that it:

- Analyses tourism from an economic point of view;
- Generates a set of accounts that are internationally compatible, working within national accounting principles;
- Offers policymakers insights into tourism and its socio-economic functions and impacts (in both current prices as well as in volume terms);
- Calculates the tourism value added for a given list of industries in a coherent system;
- Provides information on the employment profiles of the tourism industry;

- Indicates the production functions of the tourism industry and illustrates the inter-linkages between the tourism industry and the rest of the economy;
- Offers a reference framework within which impact models and other analytical economic models of tourism can be calculated;
- Proffers an indication of the size of the tourism capital investment and the means to analyse its link with the tourism supply; and
- Supplies information on the industry's capital stock and capital base.

I.3 TSAs in Other Countries

Canada was one of the first countries to develop a TSA and it published its first results in July 1994. Other countries such as the Dominican Republic, France, New Zealand, Mexico, Poland, Norway, Singapore, Sweden and the United States of America, have either published a TSA or developed rigorous pilot exercises (TSA: RMF 2008).

Of all the 156 UNWTO member countries, a total of 60 countries have already produced or are developing the TSAs for their economies ("TSA Data around the world", UNWTO, 2010). However, this was the status in early 2010 and since then, some more countries are likely to have developed or initiated the development of TSAs. Table I.1 presents the list of 60 countries that have hitherto developed their TSAs.

With regard to the regional TSA too, Canada leads the pack and was the first country to develop the regional TSA titled "Provincial and Territorial Tourism Satellite Account (PTSA)" in 1998. These accounts were developed

Macroeconomic aggregates obtained from TSA

Tourism Direct Gross Value Added (TDGVA)

> Tourism Direct Gross Domestic Product (TDGDP)

Gross Value

Added of

Tourism Industries

(GVATI)



Table I.1: List of Countries that have Developed TSAs

Countries		
1. Australia	21. Germany	41. Netherlands
2. Austria	22. Greece	42. New Zealand
3. Bahamas	23. Guatemala	43. Nicaragua
4. Belgium	24. Honduras	44. Oman
5. Brazil	25. Hong Kong, China	45. Peru
6. Canada	26. Hungary	46. Philippines
7. Chile	27. India	47. Poland
8. China	28. Indonesia	48. Portugal
9. Colombia	29. Ireland	49. Romania
10. Cuba	30. Israel	50. Saudi Arabia
11. Cyprus	31. Italy	51. Singapore
12. Czech Republic	32. Jamaica	52. Slovakia
13. Denmark	33. Japan	53. Slovenia
14. Denmark	34. Kazakhstan	54. Spain
15. Ecuador	35. Korea, Republic of	55. Sweden
16. Egypt	36. Latvia	56. Switzerland
17. El Salvador	37. Lithuania	57. Taiwan, Prov. of China
18. Estonia	38. Malaysia	58. United Kingdom
19. Finland	39. Mexico	59. United States
20. France	40. Morocco	60. Uruguay

Source: TSA Data around the world, UNWTO, 2010.

for Canada's 12 provinces. Similarly, Australia prepares separate regional TSAs for its 13 regions. Other prominent countries which prepare sub-national or regional TSAs are the United Kingdom, Spain, Japan and Denmark.

I.4 TSA for India

For India, NCAER pioneered the first ever TSA for the year 2002–03, at the behest of the Ministry of Tourism (MoT), Government of India. This TSA was prepared following UNWTO's Tourism Satellite Account: Recommended Methodological Framework 2000. Later, India's second TSA was also entrusted to NCAER by the MoT. This TSA was prepared for the reference year 2009–10. The methodological and conceptual bases for TSA, 2009–10 were UNWTO's documents, namely TSA: RMF 2008 and IRTS 2008.

After the successful culmination of "Second Tourism Satellite Account for India", the MoT commissioned a "three-year integrated study to prepare the TSAs for all the states and Union Territories (UTs) of India" to NCAER, which comprised the preparation of TSAs for all the States/UTs of India, 10 in each year; and two research papers in each year. The TSAs for the states of Madhya Pradesh and Kerala were already prepared along with the Second TSA of India. The remaining 33 state TSAs were prepared during the period of implementation of the three year integrated study.

Now, continuing with the practice of preparing the TSA at the national and sub-national levels at regular intervals, the MoT has again entrusted NCAER with the task of preparing the country's Third TSA along with the TSAs for all the states and UTs. The duration of the study is two years and the key outcome will be the contribution of the tourism sector in the national and state level economies' GDPs and employment.

I.5 Objectives of the Proposed Study

The broad objective of the study is to prepare the Tourism Satellite Account for India (TSAI) and regional TSAs for all the states and UTs (RTSA) of India. This is being done to estimate the direct as well as indirect contribution of tourism to the overall GDP and employment of the national or state economy. The detailed Terms of Reference (ToR) are as follows:

- a. Conceptualisation of the Third TSA
- b. Understanding and preparation of the data sets – International Passenger Survey data and Domestic Tourism Expenditure Survey;
- c. Reorganisation of the information/ data given in the National Accounts Statistics (NAS) and supplementing it with additional information/data;
- d. Exploratory analysis of the data sets to check the suitability and robustness of data to be used for preparation of TSA;
- e. Preparation of all 10 tables for the 3rd TSA of India following UNWTO's Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF) 2008.
- f. Preparation of the Regional TSA for all States/UTs following TSA: RMF 2008.
- g. Consultation with national and international experts;
- Assessment of the best global practices on the subjects and their incorporation in quantification and analytical methodologies;
- i. Organisation of an international workshop involving national and international experts and other stakeholders to share the draft report of the 3rd TSA and the Regional TSA; however,

international experts invited for this workshop shall have to bear all the costs entailed in their participation in the workshop;

- j. Preparation of a detailed methodology for working out the contribution of the tourism in the GDP and employment for the intervening period in addition to the preparation of the
- k. methodology and provision of estimates using the same; and
- Working out of the employment elasticity of investment for different tourism characteristics and connected industries.

As per the above ToR, the TSA 2015–16 is prepared in conceptual compliance with the UNWTO's recommended methodology as provided in TSA: RMF 2008. Accordingly, ten tables are prepared, which provide the estimates of tourism value added and employment and their respective shares in the national and sub-national data.

In addition to the above-mentioned ten tables, a methodology/worksheet for working out the contribution of tourism in the GDP and employment will be provided to the MoT, which will help the Ministry in compiling the estimates of aggregates pertaining to tourism for the intervening period between the third and fourth TSAs. NCAER will provide these two figures to the MoT on a yearly basis for the intervening period.



Data Sources for TSA

"Developing a country's Tourism Satellite Account requires from the compiler not only a transformation and partitioning of the information already existing in the supply and use tables of the country (or used in their compilation) but also a basic set of direct datacollection procedures regarding tourism data."

Source: Tourism Satellite Account: Recommended Methodological Framework, 2008

The preparation of TSA requires data on tourism-related goods and services, from both the demand and supply sides. The demand side data are collected through the domestic and international tourism surveys, which capture information on tourism expenditure. The supply side data relates to the data coming from the producers or suppliers of tourism goods and services. These are obtained from the Supply and Use Tables.

The consolidation of demand side and supply side data is the core element of TSA as it derives the tourism industry ratios or extracts the tourism component from the goods and services which are considered to be closely related to tourism but are consumed by both tourists and non-tourists.

The important data sources used for the preparation of the Third TSA for India are the following:

 Domestic Tourism Survey of National Sample Survey Office (NSSO), 2014–15.

- International Passenger Survey of Indian Statistical Institute (ISI), 2015–16.
- Annual Employment-Unemployment Survey (Labour Bureau), 2015–16.
- Consumer Expenditure Survey (NSSO), 2011–12.
- National Accounts Statistics (Central Statistics Office), 2017.
- Supply and Use Table (Central Statistics Office), 2012–13.

II.1 Domestic Tourism Survey (DTS), 2014–15

'Domestic Tourism in India' is an all-India household survey on domestic tourism (DTS, 2014-15), carried out during the period July 2014 to June 2015 by the National Sample Survey Office (NSSO) as part of its 72nd Round of sample surveys. The first such comprehensive survey on domestic tourism was undertaken by NSSO during the 65th Round (July ш



2008–June 2009). The information collected in these rounds included the volume of domestic tourism in terms of the number of visitors, number of households undertaking domestic tourism activity and number of trips that contributed to domestic tourism and average tourism expenditure in India were collected.

While the scope of both the 65th and 72nd Round surveys was the same, few conceptual differences were introduced in the 72nd Round to facilitate improvements over the 65th Round.

These differences are briefly stated in Table II.1.

II.1.1 Sampling Design

A stratified multi-stage sampling design was adopted for DTS 2014-15. The first stage units (FSUs) were the census villages in the rural sector and urban frame survey blocks in the urban sector. For large FSUs, an intermediate stage of sampling was the division of the FSUs into a number of parts followed by random selection of one part for the survey. The ultimate stage sampling units were households. In all, 1,39,688 households were surveyed from 8001 sample villages and 6061 urban blocks spread across all the States and Union Territories of India. Of the total households, 79,497 (57 per cent) belonged to the rural areas and 60,191 to the urban areas.

II.1.2 Scope of the Survey

A detailed schedule of enquiry wasused to collect data from the sample households on various parameters, which primarily includes:

 Household characteristics such as household size, principal industry, principal occupation, household type, religion, social group, and consumption expenditure;

- Data for each household member on age, gender, marital status, educational level, usual principal activity status, industry and occupation of the employed members;
- Details of overnight trips completed during the:
 - » last 365 days were collected only from those households which performed a trip for either of the leading purposes, namely health and medical, holidaying, leisure and recreation, and shopping and
 - » last 30 days were collected from those households which performed a trip for either of the leading purposes of business, social, pilgrimage and religious activities, education and training and others (which does not include health and medical, holidaying, leisure and recreation and shopping);
- Information on expenditure for all trips during 365 days or 30 days, including accommodation, food and drink, transport, shopping, and recreation, as also information on reimbursement/direct payment by any institution;
- Particulars and expenditure of special domestic trips of more 180 days and less than or equal to 365 days by the household member during the last 365 days; and
- Introduction of a new code as Transgender for collecting information on gender, which was incorporated for the first time in this round of the survey.

II.1.3 Objectives of DTS 2014–15

The main objective of the survey was to capture appropriate information for the Ministry of the Tourism for preparing the Third Tourism Satellite Account (TSA). In order to fulfil thisrequirement of the TSA, the survey primarily focused on the:

- Number of visitors, number of households undertaking domestic tourism activity, and number of trips that contributed to domestic tourism in India.
- Characteristics of visitors such as age, economic level, activity status, occupation, and industry of work.
- Characteristics of trips such as the purpose, and main destination, among others; and
- Expenditure incurred by the households in domestic tourism activity.

II.1.4 Important Concepts/ Definitions Used in DTS

Domestic Overnight Trip: Thisrefers to the movement by one or more household member(s) travelling within the country of residence, to aplace outside their usual environment for purposes other than those of migration or getting employed or setting up of residence in that place, which is outside their regular routine of life, for a duration of not less than twelve hours (including 12 midnight to 5 AM) in two consecutive calendar days (that is, crossing midnight or 00-00 hours) and of not more than six months. However, in the Indian context and with reference to domestic tourism, the number of trips taken for a duration of less than a year but more than six months, for purposes

Table II.1: Conceptual Differences between DTS 2014–15 and DTS 2008–09

DTS 2014–15	DTS 2008-09
'Overnight stay' was defined as a stay with a duration of more than 12 hours including 12 midnight to 5 AM.	'Overnight stay' covered at least two calendar days, wholly or partly.
Two reference periods have been used—one for the last 30 days in the case of overnight trips completed with leading purposes: business, social, pilgrimage and religious activities, education and training, while the second one is for the last 365 days in the case of overnight trips completed for purposes like holidaying, leisure and recreation, health and medical and shopping.	The reference period was only for the last 30 days. Here all the estimates were derived using the information collected for the reference period of 30 days and these estimates were inflated for 365 days.
Detailed information on same-day trips was collected only at the household level.	Detailed information on same-day trips was collected at both the household and individual levels.
Information on the total number of trips undertaken by the household and by the individuals during the last 365 days was not collected.	A question irrespective of the leading purpose of the trip/visitor trip was included to collect the information on the total number of trips undertaken by the household and by the individuals during the last 365 days.
Expenditure details were collected for all the overnight trips completed by the household during the reference period.	Expenditure details were collected for the latest three trips by the household.
For international trips, the final domestic port of departure was canvassed.	Details on international trips were not sought in this round.
A single question covers the information on the usual household consumer expenditure in a month.	Five questions were asked to collect the information on the household consumer expenditure in a month.
Information pertaining to visits of NRIs to the household and their impact, renting out of some portion of the house to tourists during the last 365 days, and awareness about tourism promotional campaigns was not collected in this round.	However, all this information was collected during this round.

Source: NCAER compilation using DTS Report No. 580.

other than those mentioned above, is negligible. Hence, for all practical purposes, the trips identified by DTS, by and large, conform to the TSA: RMF, 2008 definition, which refers to the movement by a traveller to a main destination outside his/her usual environment, for less than a year 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.

Domestic Visitor: Such a visitor is a person (household member), residing in the country, who performed an overnight trip. The main or leading purpose of the trip is defined as the

Domestic trip refers to the movement by a traveller to a main destination outside his/ her usual environment, for less than a year for any main purpose (business, leisureor other personal purpose) other than to be employed by a resident entity in the country or place visited.



purpose in the absence of which the trip would not have taken place. The leading purpose for all the members who are performing a trip is that purpose without which none of the members in that trip would have undertaken the trip. Clearly, the leading purpose of a trip will be the same for all the members who undertook that trip.

Business Trip: This category includes trips of employees of government, public or private organisations or selfemployed people, trips for installation of equipment, inspection, purchase and sale for enterprise; for attending conferences, congresses, trade fairs and exhibitions; for delivering lectures or concerts; and for participation in professional sport activities, among others. For example, official tours of government officials posted outside Delhi to attend occasional official meetings at Delhi would fall in this category.

Leisure Trip: This category includes sightseeing, attending sporting and cultural events, non-professional active sports, adventure sports, recreational activities, cultural activities, holidays at beaches and hill stations, summer camps, dining out, visiting spas and other establishments specialising in well-being and fitness except in the context of a medical treatment (in which case the purpose would be health and medical), among other such activities.

Social Trip: This category includes visits to friends and relatives, attending marriages or other family events, or other social functions, visiting home towns, and visits to arrange short-term caring for the baby, or any sick or old members, among others.

Religious Trip: This category includes attending various religious

meetings and events, and undertaking pilgrimages to different places of worship or holy places.

Educational Trip: This category includes trips to join short-term courses (of less than six months) following particular programmes of study, education and research programming, or for acquiring specific skills through formal on-the-job training including paid study. For example, the trip of an academician (such as a college lecturer/school teacher) for acquiring a particular academic qualification would come under this category. However, if the trip primarily involves delivering academic lectures, then the purpose of such a trip was reported not as education and training but as business.

Medical Trip: This category includes trips to spa, fitness and health resorts, treatments and cures, ayurvedic and other health resorts offering traditional medicines, for availing of shortterm (less than six months) medical treatment.

Shopping Trip: This category includes trips for making purchases of consumer goods for own use or as gifts but not for resale or for use in a future productive process (in which case the purpose would be business). For example, in many places in India, people visit some nearby city/town or marketplace primarily for the purpose of purchasing consumer goods during festivals like Durga Puja, Diwali, Eid, and Christmas, or during social functions like marriages and birthdays in their households. For such trips, the purpose was taken as shopping. But if a shopkeeper undertakes a trip to a city/town to make wholesale purchases for retail selling, then the purpose of his trip was taken as business and not shopping.

Others: This category includespurposes which are not indicatedelsewhere. For example, making a trip to render some social service, such as attending a blood donation camp to donate blood, falls under this category.

However, as regards a particulartrip, different members of the household might have undertakenthe trip because of different purposes. During canvassing of the schedule, if a household member reported the purpose of a trip as, say, 'business', then in order to ascertain the purpose of the trip, the household member was asked whether he/she would have still undertaken the trip if no business was needed to be done. If the answer was 'No', the purpose was taken as 'business' only. In this way, the purpose of the trip undertaken by each individual member of the household was recorded. There may be exceptional situations where no single purpose can be identified as the primary objective of the trip. In such a case, the purpose was identified as that which the informant considered to be the most important for the trip member concerned.

Since it is difficult to distinguish domestic tourists from other travellers who are travelling within the boundary of the country of reference, it is important to identify them by carefully examining their purpose and duration of travel. This requires more scrutiny. The following points may be noted in this regard.

 All movements of persons commuting regularly and frequently (nearly every day/ every week/every fortnight) between their usual environment and some fixed places for the purpose of work or study, visiting homes of friends or relatives, shopping centres, religious places, centres of health care or any other facilities that might be at a substantial distance away but were nevertheless visited regularly and frequently were not considered as trips.

- Similarly, all movements of persons, whose nature of activities within their regular routine of life involved making movements outside their usual environment to different places, like travelling salesmen, mobile hawkers, medical representatives, on-board staff of airlines/railways or of buses, and hired taxis, among others, were not considered as trips.
- Exceptions for exclusion from the coverage of the trips, as mentioned above, were all domestic
 movements undertaken vide air travel except for the purpose of migration or getting employed or setting up of residence in that place. Such movements were considered as trips even if they comprise a part of the regular routine in the life of the visitor. However, domestic movements undertaken by on-board aircraft crew as part of their duty were not considered as trips.

II.1.5 Particulars of Expenditure

DTS 2014–15 collected information on expenditure, including all expenditures in connection with the trip except those to be used or intended to be used for resale or for productive purposes. Details of expenditure made before, during and after the trip, and which was related to that trip, were recorded. The payment may have been made through cash, cheque, credit card, debit card, or in instalments, among other modes. It is difficult to distinguish domestic tourists from other travellers who are travelling within the boundary of the country of reference. Hence, it is important to identify them by carefully examining their purpose and duration of travel.



The total expenditure in all such cases, irrespective of the mode of payment, was recorded. Expenditure related to the trip, whether directly paid or reimbursed, by some institution like the government or other agencies on behalf of the selected household was also included. All expenditure made by a sample household (whose members are on a trip) on members of other households was included, but all expenditures by other households for any trip undertaken by the sample household were excluded.

The expenditures were recorded under the following five major heads.

Accommodation: The expenditure incurred on accommodationrelated to a trip was recorded under hotels, private guest house, government guest house, dharamshala, rented house, friends or relatives' house. If during a trip, the household members stayed in their friends' or relatives' houses, then the expenditure towards this accommodation is assumed to be nil and need not be recorded. If the informant reports that accommodation charges were paid to friends or relatives, the visitors should be regarded as having stayed in a rented house. Other expenditure categories denote the amount spent on all other types of accommodation except those mentioned above. Examples of such types of accommodation include carriages/ coaches, tents, and second/vacation homes, among others. For each household, there is a dwelling that is considered as its primary home and whose location defines the usual place of residence for the members of this household. All other dwellings for this household

are to be considered as second/ vacation homes. Sometimes expenditure on accommodation may not be available separately in cases of carriages/coaches, which is generally included in the cost of transportation itself. For example, railway reservation charges are included in the fare as reservation charges for a night journey.

- **Food and drink:** This item includes expenditures on the purchase of food and drinks for consumption during the trip. The expenditure may have been incurred within or outside the accommodation unit during the journey in transit.
- **Transport:** This includes expenditures related to the various forms of transport used for movement during a particular trip. The modes of transport in this category include railways, road, water, and air transport; transport equipment rental; travel agency service/tour operators and other supporting services (including expenditure on other motorised and non-motorised modes of transport not mentioned elsewhere) related to a trip, such as transport on animals like horse and pony; transport by humans such as in a palki (palanquin), doli (carriage), and dandi; and transport by cable car/ropeway..
- Shopping: This relates to the purchase of any consumer goods for own consumption or for gifts but not for resale or for use in a future productive process. The consumption may have been incurred during the trip or after the trip but not before the trip. This purchase may be made before, during or after the trip but it

must be related to that trip. The items under 'shopping' include clothing and garments, processed food, tobacco products, alcohol, travelrelated consumer goods (including items like suitcases, trunk, hand bag, other travel goods, spectacles, sunglasses, pen, lock, umbrella, radio, walkman, torch, batteries; photographic items like film, video cassette, CD, and tripod; sportsitems, and toys, except footwear. Even expenditure incurred on items of high unit values like cars, and computers, incurred during a trip should be included if those are used for consumption purpose and not for productive purpose. The other items in this category for which the expenditure needs to be recorded include footwear; toiletries; gems and jewellery; books, journals, magazines, stationery,; and others (all expenses on shopping not mentioned elsewhere come under this item, for example, expenditure on items like souvenirs, handicrafts, and mementos).

- Recreation, religious, cultural and sporting activities: These include expenditures incurred on entertainment such as cinema, theatre, and amusement destinations, among others (expenditures on personal recreation services like sauna bath, steam bath, and massaging have also been recorded here); entry fee and other expenses at religious and cultural sites; sporting activities; and medical and health-related activities.
- All other expenditures not indicated elsewhere, such as payment made to a tourist guide

fall under the separate category of Others.

II.1.6 Key Findings

Table II.2 gives a brief comparative snapshot of the basic domestic tourism statistics obtained from DTS 2014–15 and 2008–09.

- It may be noted that the estimates of DTS 2008–09 and DTS 2014–15 are not strictly comparable as the former reports the estimated number of trips and tourists for all the leading purposes and for a reference period of the last 365 days. In contrast, the latter survey reports the estimated number of trips and tourists separately for trips with a reference period of 365 days and trips with a reference period of 30 days. Clearly, the two estimates are not additive.
- Of the total households, 36.3 percent of the households reported having undertaken at least one overnight trip with the leading purposes being holidaying, leisure and recreation; health and medical; and shopping during the last 365 days and/or at least one trip with the leading purposes being business; social; pilgrimage and religious activities; education and training; and others, during the last 30 days.
- The average number of overnight trips with the leading purposes\ being holidaying, leisure and recreation; health and medical; and shopping undertaken during the last 365 days per 100 households was 22.2 (Table II.2). The average number of overnight trips with the leading purposes being business; social; pilgrimage and religious

Table II.2: Basic Domestic Tourism Statistics

Sl.No		DTS 2008-09			DTS 2014–15		
	(in millions)	Rural	Urban	Total	Rural	Urban	Total
1.	Estimated number of households	158.2	66.5	224.7	170.42	83.48	253.8
2.	Estimated number of tourist households	146.4	59.7	206.1	62.36	29.78	92.14
3.	Estimated number of tourists (who undertook trips with leading purposes medical, holidaying and shopping in last 365 days and with rest of the leading purposes in the last 30 days)*	573.4	210.1	783.5	148.81	70.3	219.147
4a.	Estimated number of trips with leading purposes medical, holidaying and shopping (reference period 365 days)*	696.5	242.6	939.1	37.66	18.65	56.31
4b.	Estimated number of trips with rest of the leading purposes (reference period 30 days)				40.04	18.4	58.41
5a.	Estimated number of tourist-trips with leading purposes medical, holidaying and shopping (reference period 365 days)	1555.8	561.7	2117.4	80.25	41.55	121.8
5b.	Estimated number of tourist-trips with rest of the leading purposes (reference period 30 days)				86.27	38.54	124.81
	Ratios						
6.	Tourists per household (3÷1)	3.62	3.16	3.49	0.87	0.84	0.86
7.	Tourists per tourist household (3÷2)	3.92	3.52	3.80	2.39	2.36	2.38
8a.	Trips per household for trips with leading purposes medical, holidaying and shopping (reference period 365 days) (4a÷1)	4.40	3.65	4.18	0.22	0.22	0.22
8b.	Trips per household with rest of the leading purposes (reference period 30 days) (4b÷1)				0.23	0.22	0.23
9a.	Trips per tourist household for trips with leading purposes medical, holidaying and shopping (reference period 365 days) (4a+2)	4.76	4.06	4.56	0.60	0.63	0.61
9b.	Trips per tourist household with rest of the leading purposes (reference period 30 days) (4b÷2)				0.64	0.62	0.63
10.	Tourists per trip for trips with leading purposes medical, holidaying and shopping (reference period 365 days) (5a÷4a)	2.23	2.32	2.25	2.13	2.23	2.16
11.	Tourists per trip for trips with rest of the leading purposes (reference period 30 days) (5b÷4b)				2.15	2.09	2.14

Source: NSSO's Domestic Tourism Survey, 2014–15 and Domestic Tourism Survey, 2008–09.

Note*: For DTS 2008-09, the estimated number of trips and tourists are for all the leading purposes taken together, with a reference period of 365 days.

activities; education and training; and others undertaken during the last 30 days per 100 households was 23.0.

II.2 International Passenger Survey (IPS), 2015–16

An International Passenger Survey (IPS) for the year 2015-16 was conducted by the Indian Statistical Institute (ISI), Kolkata. Following are the three board categories of international tourists surveyed by IPS:

- Foreign nationals visiting India;
- Non-resident Indians, visiting India; and
- Indian residents travelling abroad.

The IPS targeted tourists visiting India and Indian tourists visiting abroad. These tourists were interviewed at the exit points. For the purpose of the survey, two separate questionnaires were prepared for foreign residents/ NRIs and outbound Indian residents.

II.2.1 Sampling Design

The following advantages of stratification are well known:

- It minimises sample selection bias and
- It ensures that certain segments of the population are not over represented or under-represented.

For IPS, a multistage sampling design for each of the airports and land check posts was adopted (Table II.3). Stratification of the population was done to obtain a sample that would best represent the entire population being studied.

During 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 Rao, Hartley and Cochran's (1962) sampling scheme with the probability proportional to the volume of foreigners' departure during the year 2012 as its size measure.

Haridaspur was selected purposely based on the experience from the last IPS. Among the remaining land check posts, the survey could be conducted at only two check posts, namely Changrabandha and Mahadipur, which were selected using Rao, Hartley and Cochran's (1962) sampling scheme with the probability proportional to the volume of foreigners' departure during the year 2012 as its size measure.

The entire survey year period, i.e. April, 2015 to March, 2016, was divided into four strata with the following time periods:

- Stratum 1: Summer: April 2015– June 2015;
- Stratum 2: Monsoon: July 2015– October, 2015;
- Stratum 3: Winter: November 2015–January 2016; and
- Stratum 4: Spring: February 2016– March 2016.

II.2.2 Scope of the Survey

The main objective of the survey was to collect relevant data on tourism for preparing Tourism Satellite Account (TSA) for India. Suitably designed questionnaires in line with the WTO/UN guidelines were administered amongst respondents to obtain the required expenditure

Table II.3: List of Airports and Land Check Posts

Category	Ports
Airport	Delhi, Mumbai, Kolkata, Chennai, Dabolim, Bangalore, Hyderabad, Cochin, Pune, Amritsar
Land Check Post	Haridaspur, Mahadinpur, Changrabandha



data. Questionnaires were designed separately for foreign nationals and outbound Indian residents. The questionnaires comprised both closeended as well as open-ended questions.

Data were collected on the following broad heads:

- Demographics;
- Travel pattern;
- Purpose and motivation of the visit;
- Tour planning;
- Expenditure pattern; and
- Experience evaluation and satisfaction.

A demographic, economic and social profile of foreign visitors was obtained from the survey. Data were collected for each foreign visitor on their nationality, age, gender, marital status, educational level, family size, and occupation, among other things. Data on various trip characteristics were also collected. These included the major purpose of the trip, main destination, number of places visited, mode of travel, type of stay, place of night halt, number of nights spent outside the usual place of residence, and so on.

Finally, for the latest trip, detailed data were collected on the particulars of expenditure on different items under various heads such as accommodation, food and drink, transport, shopping, recreation, religious, cultural, sporting and health-related activities, and other expenditures along with information on reimbursement/direct payment by any institution for such trips. Data on the expectations and satisfaction level of the tourist with regard to accommodation have also been collected for the purpose of evaluating the quality of the existing tourist facilities.

II.2.3 Objectives of the Survey

The principal objectives of the survey were to:

- Estimate the total number of tourist arrivals in India; the tourists were to be identified as foreign tourists (PIOs, OCIs and others) and non-resident Indians.
- Assess the detailed expenditure pattern of the foreign tourists visiting the country, which included expenditure incurred on tourism goods and services, including transport and accommodation, food and beverages, travel agencies, tour operators, cultural services, and recreational and other entertainment services.
- Determine the number of outbound tourists to various countries.
- Evaluate the average duration of stay of foreign tourists in India including country-wise details.
- Obtain demographic, economic and social profiles of foreign tourists visiting India.

An 'International Passenger' is defined as a resident of a country other than India and the duration of whose stay in India was more than one day but less than one year. Such individuals as defined above constituted the sampling units for the IPS Foreigner (IPSF) schedule. For outbound Indians, however, such a constraint on the duration of their stay abroad was not imposed on the sampling units

An 'International Passenger'is defined as a resident of acountry other than India and the duration of whose stay in India was more than one day but less than one year. defined for the IPS Outbound (IPSO) schedule.

II.2.4 Key Findings

- The survey estimated the total number of foreign tourists visiting India in 2015–16 to be 8.3 million. Table II.4 presents the percentage distribution of tourists by countries of normal residence.
- It is observed that the three countries contributing the maximum number of tourists, respectively, under the group 'NRI' are Singapore, USA and

Oman; under the group 'PIO' are China, UK and Malaysia; under the group 'OCI' are USA, UK and Australia; And under the group 'Foreigner Others' are Bangladesh, UK and USA.

- Table II.5 presents the percentage distribution (estimated) of all visitors by gender. The table shows that among the foreign visitors, 73.34 per cent are male, 26.48 per cent are female, and only 0.18 per cent are transgenders.
- Figure II.1 presents the distribution of tourists by different age groups. It shows that the majority of

Country of Normal Residence	NRI	PIO	OCI	Foreigner Others	All Visitors
Afghanistan	0.15	0.02	0	0.09	0.09
Australia	1.03	1.51	11.18	4.18	4.01
Bangladesh	3.61	3.14	1.04	16.4	14.53
Canada	1.75	0.47	1.17	1.29	1.32
China	0.6	12.68	2.2	2.08	2.03
France	0.79	0.1	3.94	5.72	5.06
Germany	0.43	1.42	2.39	4.69	4.16
Italy	0.65	1.42	0.03	1.63	1.47
Japan	0.82	0.34	1.23	4.85	4.25
Malaysia	2.82	7.37	7.04	3.9	3.9
Nepal	0.4	0.08	0.45	0.98	0.89
Oman	6.02	1.8	2.15	1.02	1.58
Pakistan	0	0	0	0.05	0.04
Republic of Korea	0.01	0	0.04	0.2	0.17
Russia	0.08	1.42	0.27	2.82	2.43
Singapore	10.86	5.32	7.04	4.12	4.92
Sri Lanka	0.46	0.8	0.74	2.53	2.23
Thailand	1.4	0.81	3.46	1.96	1.93
UK	3.78	9.59	13.87	10.06	9.61
USA	6.49	3.9	13.89	9.82	9.49
Other Countries	57.87	47.78	27.88	21.61	25.89
Total (%)	100	100	100	100	100
Total Number	880859	81941	246203	7081882	8290885

Table II.4: Per cent Distribution of all Visitors by Country of Normal Residence

Source: International Passenger Survey in India (2015–16).

Table II. 5: Distribution of International Tourists by Gender

Category	All Visitors			
Country of Normal Residence	Male	Female	Transgender	Total Number
Afghanistan	94.77	5.23	0.00	7830
Australia	67.95	32.03	0.02	3,33,542
Bangladesh	86.08	13.86	0.07	11,98,127
Canada	66.38	33.07	0.54	1,10,011
China	67.90	31.99	0.10	1,68,578
France	62.62	37.33	0.05	4,21,547
Germany	69.41	30.37	0.22	3,43,333
Italy	55.49	44.11	0.40	1,22,419
Japan	68.78	31.11	0.12	3,54,217
Malaysia	75.17	24.74	0.09	3,24,651
Nepal	62.97	37.03	0.00	73,933
Oman	65.45	32.98	1.57	1,31,986
Pakistan	86.78	13.22	0.00	3689
Republic of Korea	84.98	15.02	0.00	14,479
Russia	51.76	48.22	0.03	2,02,080
Singapore	77.05	22.47	0.48	4,09,386
Sri Lanka	76.60	23.22	0.18	1,85,757
Thailand	77.07	22.8	0.13	1,60,372
UK	66.86	33.03	0.12	7,87,548
USA	74.00	25.83	0.16	7,89,584
Total (20 countries)	72.54	27.29	0.17	61,43,069
Others	75.65	24.16	0.19	21,47,816
Grand Total	73.34	26.48	0.18	82,90,885

20

Source: International Passenger Survey in India (2015–16).

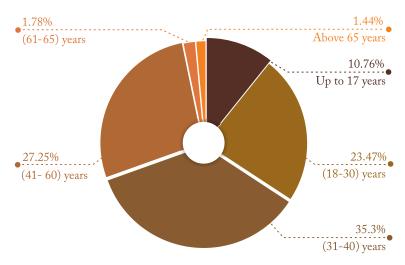
visitors belonged to the age group of 31–40 years, accounting for 35.3 per cent of the total tourists. This was followed by tourists in the age-group of 41–60 years, who comprised 27.3 per centof the total tourists.

 The percentage distribution of tourists by type of accommodation reveals that a significant proportion (66.06 per cent) of visitors chose hotels for accommodation while 14.75 per cent preferred to stay at the homes of their friends or relatives (Figure II.2).

II.2.5 Outbound Indians

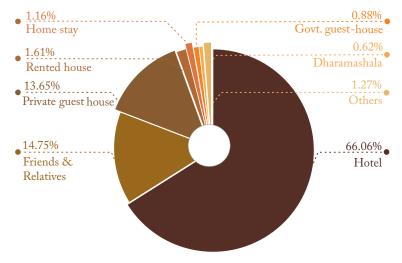
Overall, an estimated number of 20.5 million Indians travelled abroad during 2015–16. The distribution by gender reveals that among the outbound Indians, 74.3 per cent were male, 25.4 per cent were female, and the remaining 0.23 per cent were transgenders.

The distribution of outbound tourists by the states of residence, as presented in Table II.6, suggests that the maximum proportion of outbound tourists are from Maharashtra (19.5 per cent), followed closely by Kerala (19.1 per cent).



Source: International Passenger Survey in India (2015-16).

Figure II.2: Percentage Distribution of All Visitors by Type of Accommodation



Source: International Passenger Survey in India (2015-16).

Table II.6: Distribution of OutboundIndians by the State of Residence

State of Residence	% Share
Andhra Pradesh	5.38
Delhi	11.20
Gujarat	2.46
Karnataka	5.28
Kerala	19.12
Maharashtra	19.53
Tamil Nadu	11.52
	(Contd.)

Table II.6: Distribution of Outbound Indians by the State of Residence (Contd.)

State of Residence	% Share
Telangana	6.64
Uttar Pradesh	5.16
West Bengal	3.34
Others	10.32
Non Response	0.05
Total (%)	100
Total Number	2,05,23,715

Source: International Passenger Survey in India (2015–16).



Table II.7: Percentage Distribution of Outbound Indians by Age Group

.....

Age (Years)	% Share
Up to 17	9.52
18–30	35.18
31–40	33.39
41–65	20.94
Above 65	0.97
Total (%)	100
Total Number	2,05,23,715

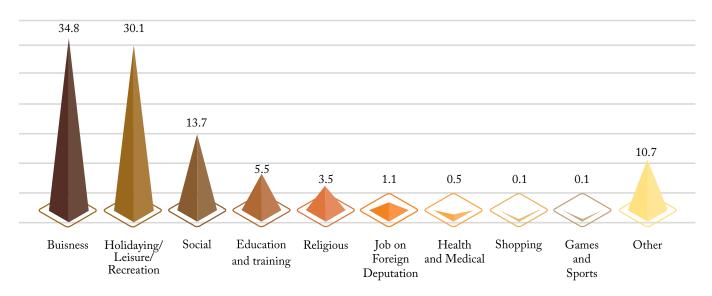
As regards age, a majority (35.18 per cent) of the outbound Indians belonged to the age group of 18–30 years, while 33.39 per cent belonged to the age group of 31–40 years (Table II.7).

The distribution of outbound Indian residents by purpose of visit shows

that 34.8 per cent of the visits made abroad by Indian nationals were dueto business followed by holidaying/ leisure (30.1 per cent) and social visits (13.7 per cent) whereas 'Education and Training' accounted for 5.5 per cent. (Figure II.3).

Source: International Passenger Survey in India (2015–16).

Figure II.3: Outbound Indians by Purpose of visit (% distribution)



Source: International Passenger Survey in India, 2015-16.

II.3 Annual Employment-Unemployment Survey (EUS), 2015

The Ministry of Labour, Government of India, has been conducting Annual Employment-Unemployment Surveys in the country since the year 2010. The first survey covered 300 districts across 28 States/UTs. The second, third and Fourth Annual Employment-Unemployment Surveys were more comprehensive in terms of coverage as well as the parameters estimated and conducted in all the States/ UTs by covering all the districts in the country. The fifth Annual EmploymentUnemployment Survey was executed from April 2015 to December 2015 in all the 36 States/ UTs by covering all the districts in the country.

The survey deals with important parameters, namely, the Labour Force Participation Rate, Worker Population Ratio, Unemployment Rate based on the Usual Principal Status Approach and Usual Principal and Subsidiary Status Approach, distribution of employed persons by different activity, and extent of under–employment, among other things.

The survey covered both rural and urban areas of the country. A totalof 13,059 Villages/UFS Blocks were covered in the sample, out of which 7405 are Villages and 5654 are UFS Blocks. A total of about 7.82 lakh members were canvassed from a sample of about 1.57 lakh households. Of the total sample, about 57 per cent were drawn from rural areas while the remaining 43 per cent were from urban areas. All the Labour Force Estimates have been derived for persons aged 15 years and above only.

Considering the importance of the labour force parameters and demands from different various quarters, the fifth Annual Employment-Unemployment Survey Report 2015–16 is being brought out in four volumes.

Volume I, entitled "Employment– Unemployment Scenario 2015–16" deals with important parameters, namely, the Labour Force Participation Rate, Worker Population Ratio, Unemployment Rate based on Usual Principal Status Approach and Usual Principal and Subsidiary Status Approach, distribution of employed persons by different activity, and the extent of under-employment, among other things.

Volume II, entitled "Youth Employment–Unemployment Scenario 2015–16", deals with the Labour Force Participation Rate, Worker Population Ratio, and Unemployment Rate, among other things, for different age groups, viz. 15–17 years, 18–29 years, and 30 years and above. Volume III, entitled "Education, Skill and Labour Force 2015–16", deals with vocational training and the main activity pursued, educational level and main activity, and the type of formal and non-formal training attained, among other things.

Volume IV, entitled "Employment-Unemployment Scenario among Different Social Groups 2015–16", deals with the labour force-related parameters and their derivatives for various social groups.

In addition, considering the demand for district level estimates for decentralised planning, the Bureau has worked with five States/UTs, namely, Maharashtra, Telangana, J&K, Andhra Pradesh and Puducherry. These States/UTs have covered matching samples along with the Labour Bureau main survey. After pooling the samples, the district level estimates for these States/UTs are also a part of Fifth Annual Employment-Unemployment Survey 2015–16.

The labour force estimates have been derived on the basis of two approaches, namely, the Usual Principal Status (UPS) approach and Usual Principal and Subsidiary Status (UPSS) approach.

A moving reference period of last twelve months from the date of survey was used to derive the estimates based on the UPS and UPSS approaches.

All the labour force-related tables have been generated by States, Gender, Sector and Social Groups.

II.3.1 Key Findings

As regards the number of employed persons in the households, it has been found that 48.4 per cent of the households had only one employed person, followed by 30.6 per cent of the The 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.



households with two employed persons. Households with three employed persons constituted 10.7 per cent of the households while those with four and above persons accounted for only 5.2 per cent of the households. The remaining 5.1 per cent of the households did not have even a single employed person/earner.

- The Labour Force Participation Rate (LFPR) was estimated to be 50.3 per cent under the UPS approach at the all-India level or in other words, 50.3 per cent of the persons aged 15 years and above were either working or seeking work during the reference period.
- In the rural sector, the LFPR was estimated to be 53 per cent whereas in the urban sector the LFPR was 43.5 per cent under the UPS approach.
- The female LFPR was significantly lower as compared to the corresponding male LFPR. At the all-India level, the female LFPR was estimated to be 23.7 per cent as compared to the corresponding rates of 75 per cent for males and 48 per cent for transgenders.
- The Worker Population Ratio (WPR) was estimated to be 47.8 per cent at the all-India level under the UPS approach or in other words, 47.8 per cent of the persons aged 15 years and above were reported to be employed under the reference period.
- In the rural sector, the WPR was estimated to be 50.4 per cent under the UPS approach as compared to the corresponding rate of 41.4 per cent in the urban sector.
- The female WPR was estimated

to be 21.7 per cent at the all-Indialevel under the UPS approach as compared to the corresponding WPR rates of 72.1 per centfor males and 45.9 per cent for transgenders.

- The unemployment rate was estimated to be 5.0 per cent at the all-India level under the UPS approach, or in other words 5.0 per cent of the persons aged 15 years and above, who were available for work, could not get work during the reference period.
- The unemployment rates were 5.1 per cent and 4.9 per cent in the urban and rural sectors, respectively, under the UPS approach.
- The unemployment rate was significantly higher among females as compared to males. At the all-India level, the female and male unemployment rates were estimated to be 8.7 per cent and 4.0 per cent, respectively, under the UPS approach.
- In the urban areas, the female unemployment rate was estimated to be 12.1 per cent at the all-India level under the UPS approach as compared to the corresponding rates of 3.3 per cent for males and 10.3 per cent for transgenders.
- A majority of the employed persons were found to be selfemployed on the basis of both the UPS and UPSS approaches.
- At the all-India level, 46.6 per cent and 32.8 per cent of the workers were found to be selfemployed and casual labourers, respectively, under the Usual Principal Status approach. Only 17 per cent of the employed persons were wage/salary earners while the rest 3.7 per cent were contract workers (Table II.8).

- The survey results show that

 a majority of the persons were
 employed in the primary sector.
 At the all-India level, based on
 Usual Principal Status Approach,
 46.1 per cent of the persons were
 estimated to be employed in the
 agriculture, forestry and fishing
 sector, followed by 32 per cent in
 the tertiary sector, and 21.8 per
 cent in the secondary sector, based
 on the UPS approach.
- This survey is used to estimate the employment in tourism industries for the Third TSA.

II.4 Consumer Expenditure Survey (CES), 2011–12

The National Sample Survey Organisation (NSSO) has been conducting the Consumer Expenditure Survey (CES) on a quinquennial basis. The first round of the CES survey (October 1972–September 1973) in the quinquennial series was the 27th and the latest round, which was the ninth survey in the series, was part of the 68th round conducted during the period July 2011–June 2012.

II.4.1 Sampling Design

A stratified multi-stage design has been adopted for the 68th round of the survey. The first stage units (FSUs) are the 2001 census villages (Panchayat wards in Kerala) in the rural sector and urban frame survey (UFS) blocks in the urban sector. The ultimate stage units (USUs) are households in both the sectors. In the case of large FSUs, one intermediate stage of sampling is the selection of two hamlet groups (HGS) or sub-blocks (SBS) from each rural/ urban FSU. The list of 2001 Census villages constitutes the sampling frame

TableII. 8: Distribution of Employed Persons by Work Status (%)

Approach	Self- employed	Wage/salary earner	Contract worker	Casual labour	Total
Principal status	46.6	17.0	3.7	32.8	100.0
Principal + Subsidiary status	47.2	16.2	3.5	33.1	100.0

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

for the rural and urban sectors of the latest available UFS blocks.

The number of households surveyed was 1,01,662, including 59,695 in rural areas and 41,967 in urban areas.

II.4.2 Scope of the Survey

Two types of schedules of enquiry-Type 1 and Type 2-were canvassed in the 68th round of the CES survey. The only difference between the two types of the schedules was the reference period used for the collection of consumption data. Schedule Type 1 was canvassed following the traditional way of the previous quinquennial CES rounds. For less frequently consumed items, the information collected was based on the consumption during the past 30 days and the past 365 days, while for more frequently used items like food and fuel, the information collected was based on the past 30 days' consumption. On the other hand, the reference periods for schedule Type 2 were the past 365 days (only) for the infrequently purchased items, the past 7 days for very frequently consumed items like some of the food items, pan, tobacco and intoxicants, and the past 30 days for other food items, and fuel, among other things.

A very detailed item classification was adopted to collect information on the consumption of more than 300 itemsconsumed by the households. Other demographic information on



household members like age, sex, and educational attainment was also collected through the CES schedules.

II.4.3 Objective of the Survey

In the Consumer Expenditure Survey, 1.01 lakh households were surveyed, including 59,695 in rural areas and 41,967 in urban areas.

The prime aim of the CES survey was to generate estimates on the monthly per capita consumer expenditure (MPCE) and its distribution across the different sections of the population like the rural and urban populations, and different socio-economic groups, at

lules.important measures of the level of
living of the respective domains of the
population. The distribution of MPCE
highlights the differences in the level
of living of the different segments of
the population, and is an effective tool
forstudying the prevalence of poverty
and inequality.oss

both the country as well as state levels.

These indicators are amongst the most

II.4.4 Key Findings

The average MPCE for rural India stood at Rs. 1430, of which 52.9 per cent was spent on food items and the rest on non-food items. In urban India, the average MPCE stood at Rs. 2630, of which food accounted for 42.6 per cent and non-food accounted for the remaining 57.4 per cent. Table II.9 presents the average MPCE andpercentage share for the different items of consumption.

II.5 National Accounts Statistics (NAS), 2017

The National accounts are a set of macroeconomic accounts that provide a comprehensive view of a country' economy in terms of the production, income, and expenditure activities of the institutional sectors (government, corporations and households) of the nation, as also their relations with the external sector. Thus, the national accounts present a great mass of detailed information in a condensed manner.

Most of the important macro-economic aggregates, such as the Gross Domestic Product (GDP), gross national income, gross national disposable income, and savings, are derived as balancing items from the sequence of accounts. Of these

Item Group	МРС	E (Rs)	Percent to total MPCE		
	Rural	Urban	Rural	Urban	
Cereals and cereal substitutes	154	175	10.8	6.7	
Pulses and their products	42	54	2.9	2.0	
Milk and milk products	115	184	8.0	7.0	
Edible oil	53	70	3.7	2.7	
Egg, fish and meat	68	96	4.8	3.7	
Vegetables	95	122	6.6	4.6	
Fruits	41	90	2.8	3.4	
Sugar, salt and spices	76	94	5.3	3.6	
Beverages, refreshments and processed food	113	236	7.9	49.0	
Food total	756	1121	52.9	42.6	
Pan, tobacco and intoxicants	46	42	3.2	1.6	
Fuel and light	114	176	8.0	6.7	
Clothing and footwear	100	167	7.0	6.4	
Education	50	182	3.5	6.9	
Medical	95	146	6.7	5.5	
Conveyance	60	171	4.2	6.5	
Consumer services excluding conveyance	57	147	4.0	5.6	
Miscellaneous goods, entertainment	76	152	5.3	5.8	
Rent	7	164	0.5	6.2	
Taxes and cesses	4	22	0.2	0.8	
Durable goods	65	139	4.5	5.3	
Non-food total	673	1509	47.1	57.4	
All items	1430	2630	100.0	100.0	

Source: NSS Report, Level and Pattern of Consumer Expenditure, 2011–12.

aggregates, the most frequently quoted indicator of economic performance is the GDP.

There are three equivalent approaches to measure the GDP, namely, production, income, and expenditure. These three forms are circular in nature. The production approach GDP measures the sum of value added of all the economic activities within the country's territory (the sum of output minus intermediate consumption) plus indirect taxes minus subsidies on products. The expenditure approach GDP depicts the final use (demand) of the output and comprises: (i) Government Final Consumption Expenditure (GFCE), (ii) Private Final Consumption Expenditure (PFCE), (iii) Gross Fixed Capital Formation (GFCF), (iv) Change in Stocks (CIS), and (v) Net Export of Goods and Services. The income (value added) generated through the production activity is distributed between the two

factors of production, namely, labour and capital, which receive, respectively, the salaries and the operating surplus/ mixed income of self-employed. Thus, the income approach GDP is the sum of compensation of employees, gross operating surplus, and gross mixed income plus the taxes net of subsidies on production.

In the context of TSA, the production approach is more relevant, as the objective of the TSA is to estimate the contribution of the domestic production activities to the value added in response to the consumption of products by tourists.

For the present TSA, with reference year 2015–16, National Accounts Statistics (NAS) for 2017 has been used. The NAS 2017 presents the set of statements with the new series of base year of 2011–12, based on new methodology to estimate the GDP accounts.¹

It may be noted that the second TSA was prepared using the GDP or production accounts of tourism industries with the base year 2004-05 while the present third TSA has been prepared using the new series with the base year 2011–12. Hence, the estimates may not be truly and completely comparable.

The differences between the coverage and methodological differences between the series based on the previous and new base years are worthnoting. Some of these have been summarised in Table II.10.

II.6 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

¹The new series with base year 2011–12 in place of the previous base year of 2004–05, was released by the Central Statistics Office (CSO) on January 30, 2015 through a press release. This new series provided the estimates of National Income, Consumption Expenditure, Savings and Capital Formation for the years 2011–12 to 2013–14.

TableII.10: Comparing New GDP Series with the Old Series

.....

GDP Old Series (Base Year 2004–05) – Used in the 2nd TSA	GDP New Series (Base Year 2011–12) – Used in the 3rd TSA			
Coverage				
The private corporate sector was covered using the RBI Study on Company Finances, covering the financial results of around 2500 companies	Coverage of the corporate sector has been done using the annual accounts of companies as filed with the Ministry of Corporate Affairs (MCA) under their e-governance initiative, MCA21, covering the financial results of about 5 lakh companies			
Private financial corporations was limited to a few mutual funds.	Coverage has been expanded by including stock brokers, stock exchanges, asset management companies, mutual funds and pension funds, as well as the regulatory bodies, SEBI, PFRDA and IRDA.			
Limited information on local bodies and autonomous institutions was collected from only seven autonomous institutions and local bodies of four states—Delhi, Himachal Pradesh, Meghalaya and Uttar Pradesh.	Improved coverage of local bodies and autonomous institutions, covering around 60 per cent of the grants/transfers provided to these institutions.			
Most of the data used were not the latest or recent.	Most recent data have been used like the NSS 68th Round survey on Employment– Unemployment (2011–12); NSS 67th Round survey on unincorporated non-agricultural enterprises (2010–11); Livestock Census (2012); NSS 70th Round survey on Debt and Investment (2013); Population Census (2011); and many more.			
Methodological				
Accounts were not in line with international standards.	Accounts were in line with international standards as in the System of National Accounts 2008.			
Valuation was done for the factor cost and market prices.	Valuation of GVA, NVA and related aggregates was done at basic prices and GDP at market prices.			
Non-financial assets were classified as 'construction' and 'machinery'.	Non-financial assets have been classified as 'dwellings, other buildings and structures', 'machinery and equipment', 'cultivated biological resources' and 'intellectual property products'.			
The Labour Input (LI) method was used for compiling the GVA per worker from the Enterprise Surveys.	The modified LI method was used for compiling the GVA per worker by assigning weights to the different categories of workers.			
CPI (Agricultural labour and Industrial Worker) was used as an indicator for the movement in retail prices.	These have been replaced by the broad-based CPI-Rural/Urban/Combined figures, which have since become available.			
The GVA of wholesale and retail trade was estimated using Gross Trading Income (GTI).	The GVA of the wholesale and retail trade was estimated by converting sales tax to turnover.			
The GVA of hotels and restaurants was estimated using Gross Trading Income (GTI).	The GVA was estimated using corporate growth.			
Land transport was estimated using growth in the number of registered vehicles * WPI and LI methods.	This was estimated using growth in the number of registered vehicles * CPI (transport and communication).			

Source: NCAER compilation.

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 beused 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 X 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 TSA, 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.



Methodology

The Tourism Satellite Account: Recommended Methodological Framework, 2008 (TSA: RMF 2008), developed by the United Nations World Tourism Organisation (UNWTO), provides an updated framework for constructing a Tourism Satellite Account. It permits greater internal consistency of tourism statistics with the rest of the statistical system of a country, as well as increased international comparability of these data.

As per the TSA:RMF 2008, the TSA for any country comprises a set of 10 standard tables which are the key to estimating the economic contribution of tourism in the economy. Preparing the tables in the standard recommended format and following a standard broad methodology enables international comparisons owing to the homogeneity among countries. However, each country has the flexibility to decide on the most adequate format and also the methodology, taking into account its tourism reality and the scope of available data.

This chapter presents both the recommended and adopted methodologies in the preparation of the ten tables for India's Third TSA for 2015–16. These ten tables include the detailed presentation of consumption of goods and services acquired by the tourists (tourism internal consumption) as well as the supply of industries that produce these goods and services. The key aggregates of TSA have been derived using the consumption and production data. These key aggregates are:

Internal tourism expenditure and internal tourism consumption;

Tourism direct gross value added (TDGVA); and

Tourism direct gross domestic product (TDGDP).

In addition, TSA details the employment in tourism industries owing to the frequent strategic importance of tourism in the development of the employment policy. The investment in tourism industries and government expenditures in producing tourism-related services also form part of TSA and are presented as tourism gross fixed capital formation and tourism collective consumption, respectively. Various non-monetary indicators related to tourism form the last part of the TSA.

Each table presents the desired information for a set of goods and services, identified as tourism-specific products, which are further classified as follows: 

Tourism Characteristic Products:

These are the products that 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, the 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. The international TSA standards also recommend that country-specific tourism characteristic products should be identified.

Tourism Connected Products: These are the products which are consumed

TableIII.1: Products Recommended in TSA: RMF 2008 and Products Included in India's TSA

Products Recommended in TSA: RMF 2008	Products in India's TSA
1. Accommodation services for visitors	1. Hotels
2. Food and beverage serving services	2. Restaurants
3. Railway passenger transport services	3. Railway passenger transport services
4. Road passenger transport services	4. Road passenger transport
5. Water passenger transport services	5. Water passenger transport
6. Air passenger transport services	6. Air passenger transport
7. Transport equipment rental services	7. Renting of transport equipment
8. Travel agencies and other reservation services	8. Tourism related supporting and auxiliary transport activities
9. Cultural services	9. Cultural and religious services
10. Sports and recreational services	10. Sporting and recreational services
11. Country-specific tourism characteristic services	11. Health and medical related services
12. Country-specific tourism connected products	12. Readymade garments
	13. Processed food products
	14. Alcohol and tobacco products
	15. Travel related consumer goods
	16. Leather footwear
	17. Soaps and cosmetics
	18. Gems and jewellery
	19. Printing and publishing

Source: NCAER compilation.

by visitors but are not considered as tourism characteristic products.

Table III.1 presents the list of goods and services which are recommended to be used for TSA tables. Also presented are the corresponding goods and services included in India's TSA.

It is evident that most of the recommended tourism characteristic services are included in India's TSA and have a one-to-one correspondence with each other. Among countryspecific tourism characteristic services, only one service product, namely, "health and medical related services" has been added in India's TSA.¹ Further, eight tourism connected products are included under countryspecific tourism connected products (Table III.1).

III.1 Inbound Tourism Expenditure

TSA Table 1 focuses on inbound tourism or tourism activity undertaken by non-resident visitors in the economy of reference. This table presents the tourism expenditure incurred by non resident visitors within the economy 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 to the time of leaving that country.

According to TSA:RMF 2008, it is recommended that the inbound tourism expenditure should be obtained through surveys conducted at the exit points. However, some of their

¹Given the growing importance and popularity of medical tourism in India, the inclusion of "health and medical related services" in India's TSA was suggested and approved by the Advisory and Technical Committees of the Second TSA when this TSA was being prepared.

subsets may also be available from the balance of payments statistics and national accounts statistics. In the case of countries where administrative controls do not exist at the borders and where surveys of travellers cannot be implemented the border, it is recommended that surveys of travellers at places of accommodation be used in parallel with other sources (for example, surveys at popular tourism sites or other destinations).

For India's TSAs, data on inbound tourism expenditure are obtained from the International Passenger Surveys (IPS). For India's Third TSA for 2015–16, these data are derived from the IPS conducted by the International Statistical Institute (ISI), Kolkata, during 2015–16. This survey collected information on expenditure incurred by international tourists on a detailed set of items. These items were mapped with the tourism characteristic and tourism connected goods and services to arrive at the inbound tourism expenditure on the 19 tourism-specific products.

Table III.2 depicts the mapping of consumption items with the tourism characteristic and connected goods and services.

The international tourists were classified into Non–resident Indians (NRIs), People of Indian Origin (PIOs), Overseas Citizens of India (OCIs), and other Foreigners. The Inbound Tourism Expenditure includes expenditure incurred on both package and non-package trips. Also included is the expenditure paid or reimbursed by government or other agencies.²

² The step-by-step methodology involved in preparing the TSA Table 1 on Inbound Tourism Expenditure is detailed in Technical Notes in Appendix 1.

A 1. Tourism characteristic products Item Code Item Description A 1. Accommodation services/hotels 421 Hotel 4.2 Private guest house 4.2 Overnment guest house 4.2 Dharamshala 4.25 Rented house 4.24 Dharamshala 4.25 Rented house 4.26 Friends and relatives 4.27 Others 2.47 Others 3. Railway passenger transport services 441 A.1 ransport export services 442 A.1 ransport export services 442 A.1 ransport export export services 443 A.1 ransport export services 444 A.1 ransport export services 444 A.1 ransport export services 444 A.1 ransport equipment rental services 445 A.1 ransport equipment rental services 444 A.1 ransport export services 444 A.1 ransport equipment rental services 444 A.1 ransport export services 444 A.2 ransport export services 444 A.2 ransport export services 447 Miscellaneous 447 S.2 routural and religious services 447 A.2 Sporting activities 441 <	TSA-specific products		IPS
1. Accommodation services/hotels422Fiviate guest house422Government guest house423Government guest house424Dharamshala425Rented house426Friends and relatives427Others2. Food and beverage serving services/ restaurants431In the accommodation unit3. Raitway passenger transport services441Raitways4. Road passenger transport services442Road (excluding transport equipment rental)5. Water passenger transport services444Air7. Transport equipment rental services444Air7. Transport equipment rental services444Air8. Travel agencies and other reservatio services/supporting and auxiliary transport activities446Travel agency services/tour operators9. Cultural and religious services441Miccellaneous10. Sports and other recreational 			
422 Private guest house 423 Government guest house 424 Dharamshala 425 Rented house 426 Friends and relatives 427 Others 2. Food and beverage serving services 431 In the accommodation unit restaurants 432 Outside the accommodation unit and during the journey and transit 3. Railway passenger transport services 441 Railways 4. Road passenger transport services 442 Road (excluding transport equipment rental) 5. Water passenger transport services 442 Air 7. Transport equipment rental services 444 Air 7. Transport equipment rental services 444 Travel agency services/tour operators services/supporting and auxiliary transport activities 9. Cultural and religious services 472 Entry fee to and other expenses at religious sites 10. Sports and other recervational services 471 Cinema, theatre, amusements, etc. 425 Medicial cecessories 426 Medicial cecessories 11. Health and medical related services 451 Clothing and garments 13. Processed food 452 Processed food 14. Alcohol and tobacco products 453 Tobacco products 454 Katonol 151		421	Hotel
424 Dharamshala 425 Rented house 426 Friends and relatives 427 Others 2. Food and beverage serving services/ restaurants 431 In the accommodation unit 432 Outside the accommodation unit and during the journey and transit 3. Railway passenger transport services 441 Railways 4. Road passenger transport services 442 Road [excluding transport equipment rental] 5. Water passenger transport services 444 Air 7. Transport equipment rental services 444 Travel agency services/tour operators services/supporting and axiliary transport activities 446 Travel agency services/tour operators 9. Culturat and religious services 447 Miscellaneous 447 9. Culturat and religious services 447 Entry fee to and other expenses at religious sites 447 10. Sports and other recervational services 441 Medicine 448 442 Medical accessories 448 448 444 Medical accessories 448 448 444 Medical accessories 448 44	1. Accommodation services/hotels	422	Private guest house
10 Protection of the section of the secti		423	Government guest house
426Friends and relatives427Others2. Food and beverage serving services/ restaurants431In the accommodation unit432Outside the accommodation unit and during the journey and transit3. Railway passenger transport services441Railways4. Road passenger transport services442Road lexcluding transport equipment rentall5. Water passenger transport services443Water6. Air passenger transport services444Air7. Transport equipment rental services445Travel agency services/tour operators services/supporting and auxiliary transport activities7. Cultural and religious services442Road ther expenses at religious sites8. Stravel agencies and other reservation services/supporting and auxiliary transport activities442Entry fee to and other expenses at religious sites9. Cultural and religious services471Cinema, theatre, amusements, etc.9. Sports and other recreational services471Cinema, theatre, amusements, etc.11. Health and medical related services481Medicine12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products455Travel related consumer goods15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery459Books, journals, magazines,		424	Dharamshala
427Others2. Food and beverage serving services restaurants431In the accommodation unit432Outside the accommodation unit and during the journey and transit3. Railway passenger transport services441Railways4. Road passenger transport services442Road lexcluding transport equipment rentall5. Water passenger transport services444Air7. Transport equipment rental services444Air7. Transport equipment rental services445Transport equipment rental8. Travel agencies and other reservation services/supporting and auxiliary transport activities446Travel agency services/tour operators9. Cultural and religious services471Kinstellaneous10. Sports and other recereational services471Cinema, theatre, amusements, etc.11. Health and medical related services481Medicine12. Readymade garments451Cluthing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Travel related consumer goods15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine456Gems and jewellery, brass/coppervare, ivory goods, handicrafts, etc.18. Gems and jewellery458Gems and jewellery, brass/coppervare, 		425	Rented house
2. Food and beverage serving services/ restaurants431In the accommodation unit432Outside the accommodation unit and during the journey and transit3. Railway passenger transport services441Railways4. Road passenger transport services442Road (excluding transport equipment rental)5. Water passenger transport services443Water6. Air passenger transport services444Air7. Transport equipment rental services444Travel agencies and other reservation services/supporting and auxiliary transport activities446Travel agency services/tour operators9. Cultural and religious services472Entry fee to and other expenses at religious sites10. Sports and other recereational services471Cinema, theatre, amusements, etc.11. Health and medical related services481Medicine12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Travel related consumer goods15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/coppervare, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.		426	Friends and relatives
restaurants432Outside the accommodation unit and during the journey and transit3. Railway passenger transport services441Railways4. Road passenger transport services442Road lexcluding transport equipment rentall5. Water passenger transport services443Water6. Air passenger transport services444Air7. Transport equipment rental services444Travel agency services/tour operators8. Travel agencies and other reservation services/supporting and auxiliary transport activities446Travel agency services/tour operators9. Cultural and religious services472Entry fee to and other expenses at religious sites10. Sports and other recreational services471Cinema, theatre, amusements, etc.11. Health and medical related services481Medicine12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Toalacco products456Footwear456Footwear15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine458Gerns and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,458Books, journals, magazines, stationery, etc.		427	Others
432Outside the accommodation unit and during the journey and transit3. Railway passenger transport services441Railways4. Road passenger transport services442Road [excluding transport equipment rental]5. Water passenger transport services443Water6. Air passenger transport services444Air7. Transport equipment rental services445Transport equipment rental8. Travel agencies and other reservation services/supporting and auxiliary transport activities446Travel agency services/tour operators9. Cultural and religious services472Entry fee to and other expenses at religious sites10. Sports and other recreational services471Cinema, theatre, amusements, etc.11. Health and medical related services481Medicine12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Tobacco products15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, etc.		431	In the accommodation unit
4. Road passenger transport services442Road (excluding transport equipment rental)5. Water passenger transport services443Water6. Air passenger transport services444Air7. Transport equipment rental services445Transport equipment rental8. Travel agencies and other reservation services/supporting and auxiliary transport activities446Travel agency services/tour operators9. Cultural and religious services472Entry fee to and other expenses at religious sites10. Sports and other recreational services471Cinema, theatre, amusements, etc.11. Health and medical related services481Medicine12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Tobacco products15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine458Gems and jewellery18. Gems and jewellery458Gems and jewellery, brass/coppervare, ivory goods, handicrafts, etc.	restaurants	432	
5. Water passenger transport services 443 Water 6. Air passenger transport services 444 Air 7. Transport equipment rental services 445 Transport equipment rental 8. Travel agencies and other reservation services/supporting and auxiliary transport activities 446 Travel agency services/tour operators 9. Cultural and religious services 472 Entry fee to and other expenses at religious sites 10. Sports and other recreational services 471 Cinema, theatre, amusements, etc. services 473 Medicine 11. Health and medical related services 481 Medicine 482 Medical accessories 483 Other health related services 12. Readymade garments 451 Clothing and garments 451 13. Processed food 452 Processed food 454 14. Alcohol and tobacco products 453 Tobacco products 454 15. Travel related consumer goods 455 Travel related consumer goods 456 16. Footwear 456 Footwear 458 Gerns and jewellery, brass/copperware, ivory goods, handicrafts, etc. 19. Books, journals, magazines, 459 Books, journals, ma	3. Railway passenger transport services	441	Railways
6. Air passenger transport services444Air7. Transport equipment rental services445Transport equipment rental8. Travel agencies and other reservation services/supporting and auxiliary transport activities446Travel agency services/tour operators9. Cultural and religious services472Entry fee to and other expenses at religious sites10. Sports and other recreational services471Cinema, theatre, amusements, etc.11. Health and medical related services481Medicine482Medical accessories483Other health related services484452Processed food12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Tobacco products15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine458Germs and jewellery, brass/coppervare, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.	4. Road passenger transport services	442	Road (excluding transport equipment rental)
Arrow processed interpretation of the services	5. Water passenger transport services	443	Water
8. Travel agencies and other reservation services/supporting and auxiliary transport activities 446 Travel agency services/tour operators 9. Cultural and religious services 472 Entry fee to and other expenses at religious sites 473 Entry fee to and other expenses at religious sites 10. Sports and other recreational services 471 Cinema, theatre, amusements, etc. 9. Cultural and medical related services 481 Medical accessories 11. Health and medical related services 482 Medical accessories 483 Other health related services 483 12. Readymade garments 451 Clothing and garments 13. Processed food 452 Processed food 14. Alcohol and tobacco products 453 Tobacco products 15. Travel related consumer goods 455 Travel related consumer goods 16. Footwear 456 Footwear 17. Soaps, cosmetics and glycerine 457 Toiletries 18. Gems and jewellery 458 Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.	6. Air passenger transport services	444	Air
services/supporting and auxiliary transport activities447Miscellaneous9. Cultural and religious services472Entry fee to and other expenses at religious sites473Entry fee to and other expenses at cultural sites10. Sports and other recreational services471Cinema, theatre, amusements, etc.474Sporting activities11. Health and medical related services481Medicine482Medical accessories483Other health related services483Other health related services483Clothing and garments12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Tobacco products456Alcohol450Others16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.	7. Transport equipment rental services	445	Transport equipment rental
transport activities447Miscellaneous9. Cultural and religious services472Entry fee to and other expenses at religious sites10. Sports and other recreational services473Entry fee to and other expenses at cultural sites10. Sports and other recreational services471Cinema, theatre, amusements, etc.11. Health and medical related services481Medicine482Medical accessories483Other health related services483Other health related services483Other health related services483Clothing and garments13. Processed food45214. Alcohol and tobacco products453454Alcohol15. Travel related consumer goods455456Footwear16. Footwear45617. Soaps, cosmetics and glycerine458458Gems and jewellery18. Gems and jewellery458459Books, journals, magazines,459Books, journals, magazines, stationery, etc.		446	Travel agency services/tour operators
religious sites10. Sports and other recreational services473Entry fee to and other expenses at cultural sites10. Sports and other recreational services471Cinema, theatre, amusements, etc.11. Health and medical related services481Medicine482Medical accessories483Other health related services483Other health related services483Other health related services48448312. Readymade garments45113. Processed food45214. Alcohol and tobacco products453454Alcohol15. Travel related consumer goods45516. Footwear45617. Soaps, cosmetics and glycerine45718. Gems and jewellery4589. Books, journals, magazines,4598. Sourdis, journals, magazines, stationery, etc.		447	Miscellaneous
In the constraint of the constra	9. Cultural and religious services	472	
services474Sporting activities11. Health and medical related services481Medicine482Medical accessories483Other health related services483Other health related services483Clothing and garments12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Tobacco products454Alcohol15. Travel related consumer goods15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.		473	
474Sporting activities11. Health and medical related services481Medicine482Medical accessories483Other health related services483Other health related services484483Other health related services484483Other health related services484483Other health related services484483Other health related services484451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Tobacco products454Alcohol45415. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.		471	Cinema, theatre, amusements, etc.
A.2 Tourism connected products482Medical accessoriesA.2 Tourism connected products483Other health related services12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Tobacco products15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.	services	474	Sporting activities
A.2 Tourism connected products483Other health related servicesA.2 Tourism connected products451Clothing and garments12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Tobacco products451453Tobacco products15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.	11. Health and medical related services	481	Medicine
A.2 Tourism connected productsImage: Mark State		482	Medical accessories
12. Readymade garments451Clothing and garments13. Processed food452Processed food14. Alcohol and tobacco products453Tobacco products454454Alcohol15. Travel related consumer goods455Travel related consumer goods16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.		483	Other health related services
13. Processed food452Processed food14. Alcohol and tobacco products453Tobacco products454Alcohol15. Travel related consumer goods455Travel related consumer goods460Others16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.	A.2 Tourism connected products		
14. Alcohol and tobacco products453Tobacco products14. Alcohol454Alcohol15. Travel related consumer goods455Travel related consumer goods16. Footwear460Others17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.	12. Readymade garments	451	Clothing and garments
454Alcohol15. Travel related consumer goods455Travel related consumer goods16. Footwear460Others16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.	13. Processed food	452	Processed food
15. Travel related consumer goods455Travel related consumer goods15. Travel related consumer goods460Others16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.	14. Alcohol and tobacco products	453	Tobacco products
460 Others 16. Footwear 456 Footwear 17. Soaps, cosmetics and glycerine 457 Toiletries 18. Gems and jewellery 458 Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc. 19. Books, journals, magazines, 459 Books, journals, magazines, stationery, etc.		454	Alcohol
16. Footwear456Footwear17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.	15. Travel related consumer goods	455	Travel related consumer goods
17. Soaps, cosmetics and glycerine457Toiletries18. Gems and jewellery458Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc.19. Books, journals, magazines,459Books, journals, magazines, stationery, etc.		460	Others
18. Gems and jewellery 458 Gems and jewellery, brass/copperware, ivory goods, handicrafts, etc. 19. Books, journals, magazines, 459 Books, journals, magazines, stationery, etc.	16. Footwear	456	Footwear
ivory goods, handicrafts, etc. 19. Books, journals, magazines, 459 Books, journals, magazines, 459	17. Soaps, cosmetics and glycerine	457	Toiletries
	18. Gems and jewellery	458	
		459	Books, journals, magazines, stationery, etc.

Source: NCAER compilation.



It should be noted that while matching the internal tourism consumption data with the supply table, it was found that for some of the tourism products and services, the internal tourism consumption exceeds the total supply of the product. This happens due to inconsistencies in the source data or due to misclassification of activities. Therefore, tourism consumption of these products/services was internally adjusted to ensure that the overall control figure remains the same. The adjusted figures are shown in the last column of TSA Table 1 and similarly in TSA Tables 2 and 3.

TSA Table 1 presents the Total Inbound Tourism Expenditure.

1 SA Table 1: Inbound Tourism Expenditure					(Rs Crore)	
ltem	NRI	PIO	осі	Other Foreigners	Total Inbound Expenditure	Total (Adjusted using SUT information)
A.1 Tourism characteristic products/ services	54,373	1731	8258	1,45,542	2,09,904	1,73,941
1. Accommodation services/Hotels	19,467	598	3534	83,983	1,07,582	41,373
2. Food and beverage serving services/ restaurants	12,275	327	1066	25,888	39,556	73,470
3. Railway passenger transport services	664	2	40	1326	2032	2032
4. Road passenger transport services	7088	539	540	9418	17,585	18,699
5. Water passenger transport services	150	0	95	334	578	614
6. Air passenger transport services	4976	193	261	7898	13,327	14,172
7. Transport equipment rental services	810	10	197	4904	5922	330
8. Travel agencies and other reservation services/ supporting and auxiliary transport activities	743	15	133	3182	4073	4073
9. Cultural and religious services	950	8	911	3527	5396	974
10. Sports and other recreational services	752	4	405	1179	2339	6690
11. Health and medical related services	6499	34	1077	3904	11514	11,514
A.2 Tourism connected products	25,586	299	5895	30,343	62,122	61,390
12. Readymade garments	12,588	176	2181	11,745	26,690	20,364
13. Processed food	1516	28	500	1693	3737	2851
14. Alcohol and tobacco products	1266	18	691	3600	5576	4254
15. Travel related consumer goods	537	7	119	551	1214	14,918
16. Footwear	1503	13	289	1877	3681	2809
17. Soaps, cosmetics and glycerine	463	2	25	346	836	638
18. Gems and jewellery	6961	44	1950	9374	18,330	13,985
19. Books, journals, magazines, stationery, etc.	751	10	142	1156	2059	1571
Total Expenditure	79,959	2030	14,152	1,75,885	2,72,026	2,35,331
Estimated Number of Trips	52,74,274	91,214	2,74,063	78,83,263	1,35,22,814	1,35,22,814
Per-trip Expenditure (Rs.)	1,51,602	2,22,520	5,16,395	2,23,112	2,01,161	1,74,025

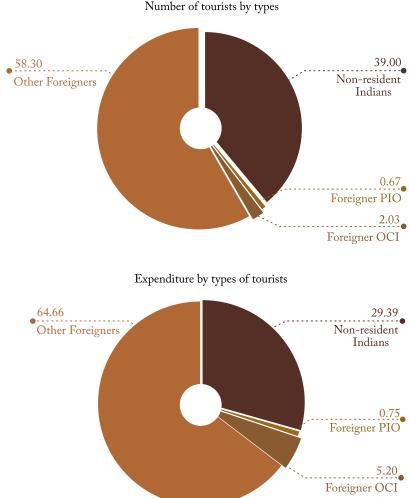
Source: NCAER computation.

TSA Table 1: Inbound Tourism Expenditure

III.1.1 Key Observations

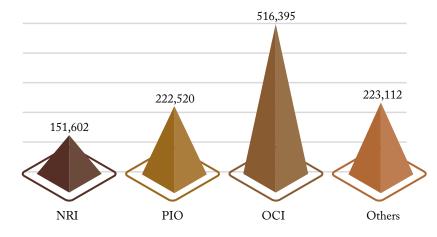
- A total of 13.5 million itnbound tourists visited India during 2015–16. Of these, a majority, comprising 58.3 per cent, were foreign nationals. This was followed by NRIs, constituting 39 per cent of the total tourists. The remaining 2.7 per cent were PIOs and OCIs (Figure III.1).
- A similar pattern is observed in the distribution of expenditure by types of tourists. The share of expenditure incurred by foreign nationals is the highest at 64.7 per cent, followed by that incurred by NRIs, at 29.4 per cent.
- The average unadjusted per-trip expenditure was Rs. 2.01 lakh. The per-trip expenditure was the highest for OCIs, at Rs. 5.16 lakh, followed by Rs. 2.23 lakh for foreign nationals, Rs. 2.22 lakh for PIOs, and the lowest at Rs. 1.51 lakh for NRIs (Figure III.2).
- The percentage distribution of expenditure by items of consumption reveals that NRIs spend the most (32 per cent) on tourism connected products or shopping items (Figure III.3). Among these items, they tend to spend the most on readymade garments, which account for 49 per cent of their total expenditure on tourism connected products (Figure III.4).
- In comparison, PIOs spend the most on passenger transport services (36.7 per cent) with road transport being the most used transport service (Figure III.5). This is followed by expenditure on accommodation services (29.5 per cent). PIOs spend 14.7 per cent of their total expenditure on





Source: NCAER computation using IPS, 2015-16.

Figure III.2: Average per-trip Inbound Tourism Expenditure (Rs.)

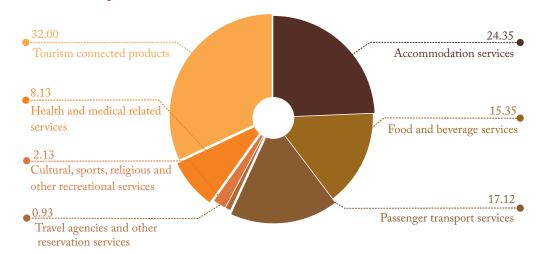




tourism connected products, with readymade garments accounting for 59 per cent of this expenditure on tourism connected products (Figure III.6).

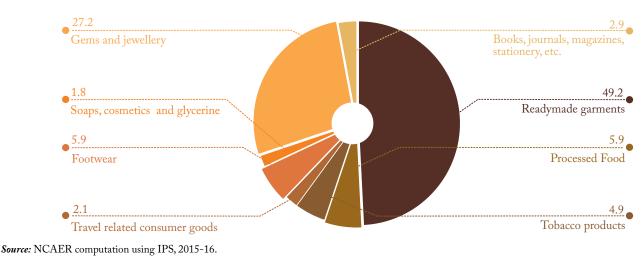
- On the other hand, OCIs spend the most on tourism connected products (41.7 per cent) (Figure III.7), among which the most popular items of expenditure are readymade garments (37 per cent), and gems and jewellery (33.1 per cent) (Figure III.8).
- Other foreign nationals, accounting for the highest share in the total inbound expenditure, spend almost half of their total expenditure on accommodation services (47.7 per cent) (Figure III.9). They spend 17.3 per cent on tourism connected products, among which readymade garments and gems and jewellery are the most bought products, accounting for 38.7 per cent and 30.9 per cent, respectively (Figure III.10).
- On the whole, taking expenditure by all types of tourists together, accommodation services accounts for 39.5 per cent of the total inbound expenditure, followed by tourism connected products at 22.8 per cent (Figure III.11). Within tourism connected products, readymade garments represent the most bought item, accounting for 43 per cent of the total expenditure in this category (Figure III.12).

It may be noted that between second and third TSA, that is, between 2009-10 and 2015-16, number of inbound tourists increased by 24.9 per cent, from 10.83 million to 13.5 million. The inbound tourism expenditure grew by a higher rate of 44 per cent, in nominal terms. From Rs. 1634 billion, the total inbound tourism expenditure increased, in nominal terms, to Rs. 2353 billion. Accordingly the per capita expenditure increased by 15.3 per cent, from Rs. 1.51 lakh to Rs. 1.74 lakh (Figure III.13).



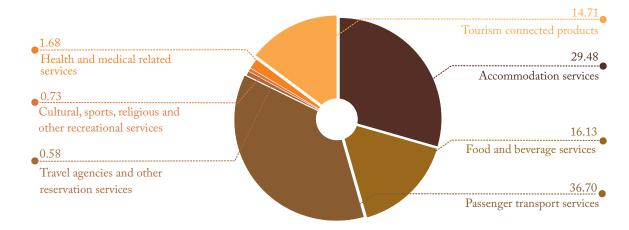
FigureIII.3: Inbound Tourism Expenditure Pattern-NRIs

Source: NCAER computation using IPS, 2015-16.



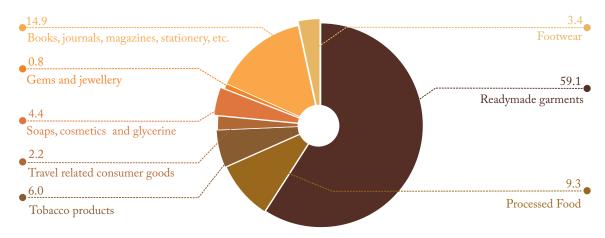
FigureIII.4: Expenditure Pattern of Tourism Connected Products—NRIs



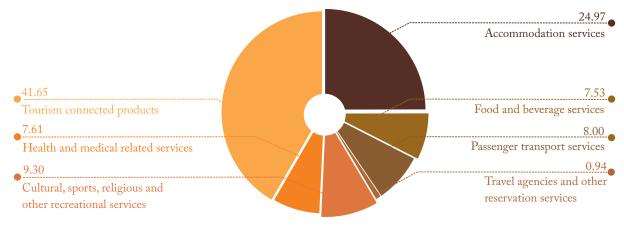


Source: NCAER computation using IPS, 2015-16.



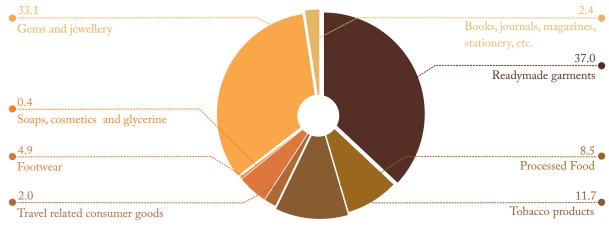






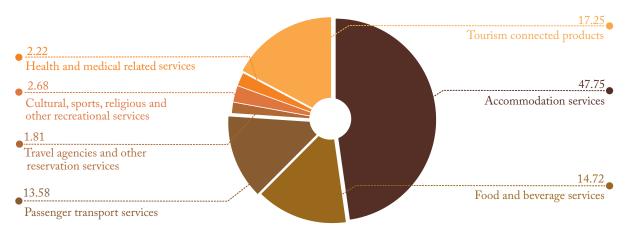
Source: NCAER computation using IPS, 2015-16.





Source: NCAER computation using IPS, 2015-16.





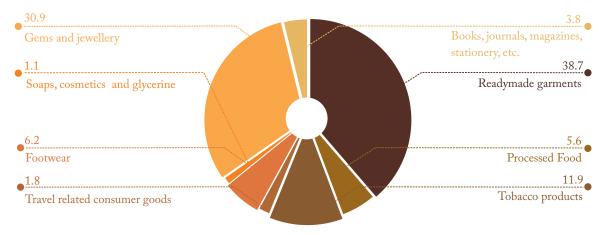
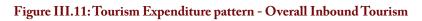
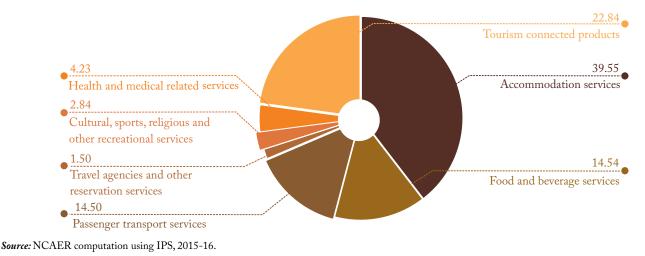


Figure III.10: Expenditure pattern of Tourism Connected Products - Other Foreign Nationals

Source: NCAER computation using IPS, 2015-16.









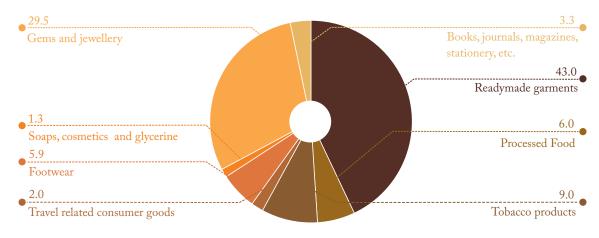
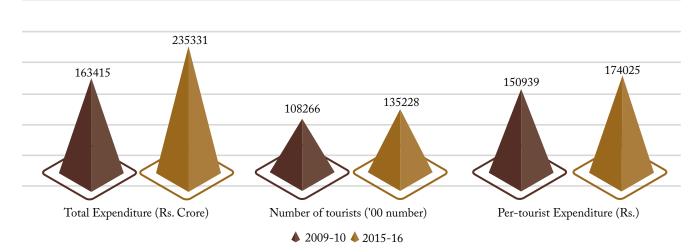


Figure III.13: Inbound Tourism Aggregates (2009–10 and 2015–16)



Source: NCAER computation using IPS, 2015-16.

.....

III.2 Domestic Tourism Expenditure

TSA Table 2 focuses on domestic tourism or tourism activity undertaken by resident visitors in the economy of reference and the expenditure incurred by them on tourism characteristic and tourism connected products and services. A domestic tourism trip refers to the travel of a resident visitor from the place of his/her residence to the final destination and back.

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 travellers, and domestic from inbound visitors. Information can also be obtained from household surveys by interviewing people about trips undertaken in a specified period".

For India's Third TSA for 2015–16, the domestic tourism expenditure has been derived from 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. The mapping of consumption items with the tourism specific product and services is given in Table III.3. The table on domestic tourism expenditure has been prepared according to the standard format of presenting expenditure details for all travel-related items and by all leading purposes

of travel, that is, business, leisure, social, religious, educational, medical, shopping, and others.

Like Inbound Tourism Expenditure, Domestic Tourism Expenditure also includes expenditure incurred on both package and non-package trips. Also included is the expenditure paid or reimbursed by government or other agencies.³TSA Table 2 presents the Total Domestic Tourism Expenditure (see Technical Note for detailed methodology).

III.2.1 Key Observations

 The total number of domestic trips undertaken in India in 2015–16 is estimated to be 1201 million (see Technical Note for methodology to estimate the number of trips

³Please note that the Ministry of Tourism started releasing the number of NRIs visiting India from 2014 onwards. Hence, the total number of tourists for 2009-10 has been estimated/imputed using the proportion of total inbound tourists to number of FTAs in 2015-16. Accordingly, the expenditure has also been imputed using the per-trip expenditure of 2009-10.

Table III.3 : Concordance between TSA Products and DTS Consumption Items

Tourism-specific products	DTS		DTS		
1. Tourism characteristic products Item Code			Item Description		
		4.1	Hotel		
		4.2	Private guest house		
		4.3	Government guest house		
1. Accommodation services/hotels	4.1-4.9	4.4	Dharamshala		
1. Accommodation services/notets	4.1-4.7	4.5	Rented house		
		4.6	Friends and relatives		
		4.9	Others (amount spent on all other types of accommodation except those mentioned above, e.g., carriages/coaches, tents, second/vacation homes, etc.)		
		5.1	In the accommodation unit		
2. Food and beverage serving services/restaurants	5.1–5.2	5.2	Outside accommodation unit and during the journey and transit		
3. Railway passenger transport services	6.1	6.1	Railway passenger transport services		
4. Road passenger transport services	6.2	6.2	Road passenger transport services		
5. Water passenger transport services	6.3	6.3	Water passenger transport services		
6. Air passenger transport services	6.4	6.4	Air passenger transport services		
7. Transport equipment rental services	6.5	6.5	Transport equipment rental services		
		6.6	Travel agency services/tour operators		
8. Travel agencies and other reservation services/supporting and auxiliary transport activities	6.6, 6.9, 9	6.9	Others and supporting services (includes expenditure on other motorised and non-motorised modes of transport not mentioned elsewhere like transport on animals like horse, pony, etc., or by humans likepalki, doli carriages, dandi, and transport by cable car/ropeway, etc.)		
		9	Others (all other expenditure not indicated elsewhere, e.g. payment made to tourist guide, etc.)		
	8.2-8.3	8.2	Entry fee to and other expenses at religious sites		
9. Cultural and religious services		8.3	Entry fee to and other expenses at cultural sites		
	8.1, 8.4 8.1		Cinema, theatre, amusements, etc.		
10. Sports and other recreational services		8.4	Sporting activities		
	8.5	8.5.1	Medicine		
11. Health and medical related services		8.5.2	Medical accessories		
		8.5.3	Other health-related services		
A.2 Tourism connected products					
12. Readymade garments	7.01	7.01	Clothing and garments		
13. Processed food	7.02	7.02	Processed food		
14. Tobacco products	7.03	7.03	Tobacco products		
15. Beverages	7.04	7.04	Alcohol		
16. Travel related consumer goods	7.05, 7.19	7.05	Travel-related consumer goods (like suitcases, trunk, hand bag, other travel goods, spectacles, pen, lock, umbrella, radio, walkman, torch, batteries, etc.; photographic equipment like film, video cassette, CD, tripod etc.; sports items, toys, etc.		
		7.19	Others (all expenses on shopping not mentioned elsewhere e.g., expenditure on items like souvenirs, handicrafts, mementos, etc.)		
17. Footwear	7.06	7.06	Footwear		
18. Soaps, cosmetics and glycerine	7.07	7.07	Toiletries		
19. Gems and jewellery	7.08	7.08	Gems and jewellery		

Source: NCAER concordance.

TSA Table 2: Domestic Tourism Expenditure

ltem	Business	Leisure	Social	Religious	Educational	Medical	Shopping	Other	Total	(Rs. Crore) Total (Adjus-
										ted using SUT infor- mation)
A.1 Tourism charac- teristic products/ services	35,561	32,355	1,81,528	45,723	6071	90,184	387	14,013	4,05,822	4,41,356
1. Accommodation services/hotels	3308	2496	1272	2943	518	3362	35	651	14,587	5610
2. Food and beverage serving services/restaur- ants	4336	4149	21,622	7899	1039	6632	61	1958	47,696	88,588
3. Railway passenger transport services	1148	2523	10,476	3430	546	487	21	466	19,096	19,096
4. Road passenger transport services	5892	9396	1,18,856	26,141	2391	5631	201	4346	1,72,855	1,83,807
5. Water passenger transport services	99	111	475	85	7	62	4	26	869	924
6. Air passenger transport services	19,627	12,072	17,758	1573	1206	1698	39	536	54,508	57,962
7. Transport equipment rental services	751	939	4578	2622	109	2044	13	321	11,377	634
8. Travel agencies and other reservation services/supporting and auxiliary transport activities	104	447	3669	638	50	253	8	177	5345	5345
9. Cultural and religious services	1	21	51	210	1	1	0	1	286	52
10. Sports and other recreational services	3	20	41	3	2	0	0	4	73	209
11. Health and medical related services	291	181	2730	179	203	70,013	4	5528	79,130	79,130
A.2 Tourism connected products	5525	4655	89,141	7740	863	1696	1578	2623	1,13,823	1,11,837
12. Readymade garments	3424	2847	53,363	3694	480	638	1016	1385	66847	51,003
13. Processed Food	536	494	11,490	1639	100	604	19	319	15,200	11,597
14. Alcohol and Tobacco products	432	204	3166	396	29	142	14	189	4573	3489
15. Travel-related consumer goods	106	220	1250	441	23	61	30	38	2168	26,646
16. Footwear	635	535	7835	549	105	120	172	414	10,365	7908
17. Soaps, cosmetics and glycerine	75	52	730	182	19	112	7	48	1225	935
18. Gems and jewellery	266	185	10,060	478	22	9	313	210	11,543	8807
19. Books, journals, magazines, stationery, etc.	51	119	1248	362	85	10	7	20	1902	1452
Total Expenditure	41,086	37,010	2,70,670	53,464	6935	91,879	1965	16,636	5,19,645	5,53,193
Estimated Number of trips	2,45,29,843	2,14,78,545	97,79,65,717	9,25,44,355	1,24,97,503	4,13,14,649	12,09,230	3,04,15,967	12,019,55,810	12,019,55,810
Per-trip Expenditure (Rs.)	16,749	17,231	2768	5777	5549	22,239	16,248	5470	4323	4602

her hit

Ł

Source: NCAER Computation.

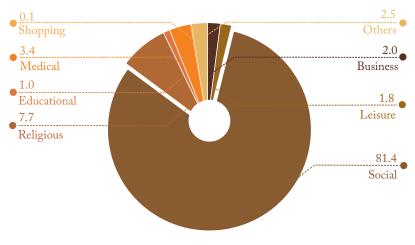
and tourism expenditure). Unlike TSA Table 1, which reports the number of tourists, TSA Table 2 provides the number of trips by purposes of travel. This is because trips, and not tourists, are classified by the purpose of travel as many of the tourists took more than one trip during the reference period.

- The distribution of all domestic trips by purposes of travel reveals that 81.4 per cent of the domestic trips undertaken in India are social trips. Religious trips account for 7.7 per cent of the total trips. The share of all other trips is less than 4 per cent (Figure III.14).
- As regards the expenditure incurred during these trips, 52 per cent of the total expenditure is made on social trips, followed by 17.7 per cent on medical trips. Leisure trips account for only 1.8 per cent of the total trips and account for 7.1 per cent of the total expenditure.
- In case of most of the trips, except medical and shopping trips, the maximum expenditure is incurred on passenger transport services. On an average, the share of this component stands at 50 per cent and is the highest in the case of leisure trips (67.7 per cent) and business trips (67 per cent) (Figure III.15).
- In the case of trips undertaken for health and medical purposes, the maximum expenditure is incurred on health and medical services (76.2 per cent). As regards

shopping trips, the maximum expenditure is incurred on tourism connected products or shopping items.

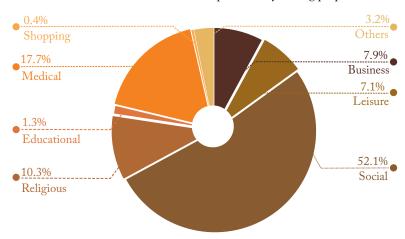
- Among tourism connected products, the maximum expenditure is incurred on readymade garments during trips undertaken for all the purposes.
- The average unadjusted per-trip expenditure incurred on a domestic trip works out to be Rs. 4323. This expenditure is the highest for medical trips (Rs. 22,239), followed by leisure trips (Rs. 17,231), business trips (Rs. 16,749)

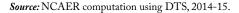
FigureIII.14: Distribution of Domestic Trips and Expenditure



Per cent distribution of number of domestic trips by purposes

Per cent distribution of domestic expenditure by leading purposes







and shopping trips (Rs. 16,248). The lowest per-trip expenditure is seen in the case of social trips (Rs. 2768)(Figure III.16).

Between the second and third TSAs, that is, between 2009–10 and 2015–16, the number of domestic tourists (imputed for 2015–16, as given in the Technical Note) increased by 28.0 per cent, from 938.8 million to 1201.9 million. The domestic tourism expenditure, in nominal terms, grew at a higher rate of 40.8 per cent from Rs. 3930 billion, to Rs. 5532 billion. The per capita expenditure increased by 9.9 per cent, from Rs. 4186 to Rs. 4602 (Figure III.17).

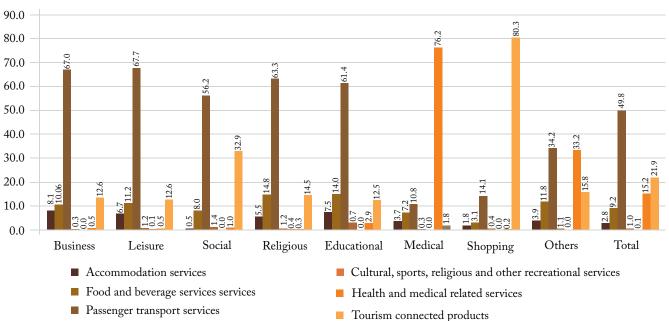
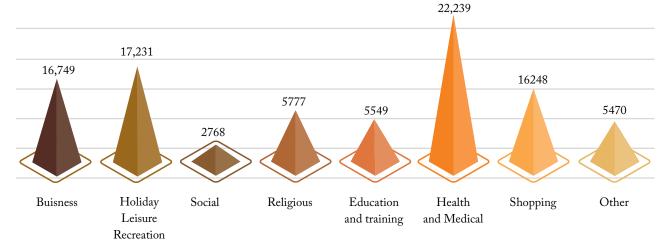


Figure III.15: Domestic Tourism Expenditure Pattern (% distribution by items)

Source: NCAER computation using DTS, 2014-15.

Figure III.16: Average per-trip Domestic Tourism Expenditure (Rs.)

Travel agencies and other reservation services



Source: NCAER computation using DTS, 2014-15.

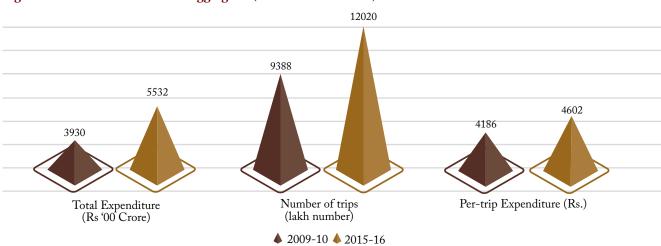


Figure III.17: Domestic Tourism Aggregates (2009-10 and 2015-16)

Source: NCAER computation using 2ndTSA and 3rdTSA.

III.3 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.

The TSA: RMF recommends the use of one of the following methods, or a combination of these, to determine the flows of outbound visitors:

- Use of an entry or departure card;
- A specific survey at the border; or
- Observing travellers from household surveys because they belong to resident households.

In the third case, the information on outbound trips is usually collected at

the same time as that on domestic trips.

For India's Third TSA, data collected by ISI, Kolkata, through the Outbound Tourism Survey was used. This survey captured the expenditure incurred by outbound tourists within India as their pre-trip expenditure, say, on shopping or expenditure incurred on travelling from place of residence to place of exit to another country and back. This expenditure is supposed to be a part of TSA Table 2 but since there is no data available on the recommended TSA Table 3, the outbound tourism expenditure incurred in India (preoutbound trip) is presented in TSA Table 3.

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 India is presented in TSA Table 3.

TSA Table 3 : Outbound Pre-trip Tourism Expenditure

							(Rs. Crore		
ltem	Business	Leisure	Social	Religious	Educational	Medical	Other	Total	Total (Adjusted using SUT information)
A.1 Tourism characteristic products/ser-vices	2620	2487	3889	342	715	354	898	11,306	11735
1. Accommodation services/Hotels	815	401	662	31	238	24	64	2236	860
2. Food and beverage serving services/ Restaurants	518	556	357	44	138	19	414	2047	3802
3. Railway passenger transport services	89	58	47	10	13	0	36	254	254
4. Road passenger transport services	456	560	468	101	150	8	100	1844	1961
5. Water passenger transport services	2	4	3	0	1	0	3	12	13
6. Air passenger transport services	206	379	1167	2	40	1	81	1876	1994
7. Transport equipment rental services	119	65	28	48	58	1	60	378	21
8. Travel agencies and other reservation services/ supporting and auxiliary transport activities	70	18	792	2	7	0	82	971	971
9. Cultural and religious services	18	18	29	7	1	0	1	75	13
10. Sports and other recreational services	22	30	42	13	13	1	4	125	356
11. Health and medical related services	305	398	294	84	57	300	52	1490	1490
A.2 Tourism connected products	2009	2874	2580	434	1392	50	783	10,122	12,840
12. Readymade garments	1052	1428	1343	268	844	20	375	5330	4066
13. Processed food	299	335	215	30	127	3	120	1127	860
14. Alcohol and tobacco products	124	100	337	20	24	2	35	641	489
15. Travel related consumer goods	77	125	75	54	72	9	32	444	5455
16. Footwear	194	231	141	34	146	8	130	885	675
17. Soaps, cosmetics and glycerine	29	41	9	1	10	0	66	156	119
18. Gems and jewellery	152	569	424	23	50	6	18	1242	948
19. Books, journals, magazines, stationery, etc.	83	45	37	4	119	2	7	298	227
Total Expenditure	4630	5362	6469	776	2107	404	1681	21,428	24,575
Estimated Number of Tourists	71,44,707	61,74,364	28,03,446	7,10,321	11,18,648	1,06,500	22,33,649	2,02,91,635	2,02,91,635
Per-tourist Expenditure (Rs.)	6480	8684	23,075	10,924	18,838	37,968	7524	10,560	12,111

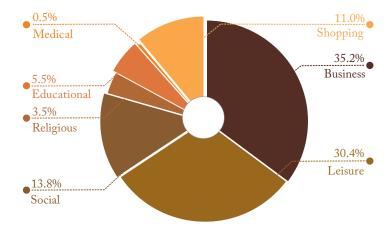
Source: NCAER computation.

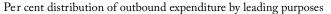
III.3.1 Key Observations

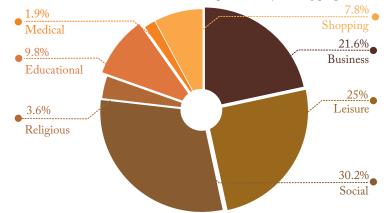
- The total number of outbound trips undertaken in India in 2015–16 is estimated to be 20.3 million. A majority of these trips were undertaken for business (35.2 per cent) or leisure (30.4 per cent) purposes. Another 13.8 per cent of the outbound trips were undertaken for social purposes(Figure III.18).
- In contrast, social trips account for the highest share (30.2 per cent) in the total outbound pre-trip expenditure. This is expected, as the outbound tourists, if travelling for social purposes like visiting friends or relatives, tend to buy gifts for friends/relatives before they leave for the trip. About 47 per cent of the expenditure is incurred by travellers travelling for business (21.6 per cent) or leisure (25.0 per cent) purposes.
- Further, as expected, among the items of expenditure, the maximum expenditure was incurred on tourism connected products or shopping items. On an average, this component accounts for 52.2 per cent of the total expenditure and ranges from 40 per cent in the case of social trips to 66 per cent in the case of educational trips. The pre-trip expenditure incurred is the highest on health and medical services (74 per cent) only in the case of medical-related trips (Figure III.19).
- Among tourism connected products, for all purposes of

Figure III.18: Distribution of Outbound Tourists and Expenditure

Per cent distribution of number of outbound tourists by leading purposes







Source: NCAER computation using IPS, 2015-16.

outbound trips, most of the expenditure is incurred on readymade garments.

 The average unadjusted per-tourist expenditure incurred by outbound tourists before leaving for the final destination, as their pre-trip expenses, stands at Rs 10560. The highest per-tourist expenditure of Rs 37968 is incurred on medical trips, followed by Rs 23,075 on social trips (Figure III.20).



Between the second and third TSAs, that is, between 2009–10 and 2015–16, the number of outbound tourists increased by 87.2 per cent, from 10.8 million to 20.3 million. The total outbound pre-trip tourism expenditure, in nominal terms, grew by a higher rate of 142.2 per cent from Rs. 101.5 billion to Rs. 245.8 billion. The per-trip expenditure rose by 12.8 per cent, from Rs. 9360 to Rs. 10,560 (Figure III.21).

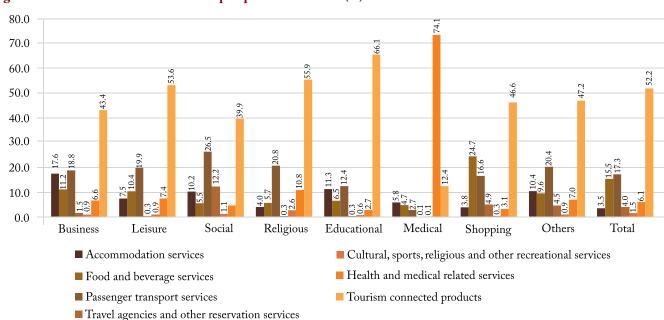
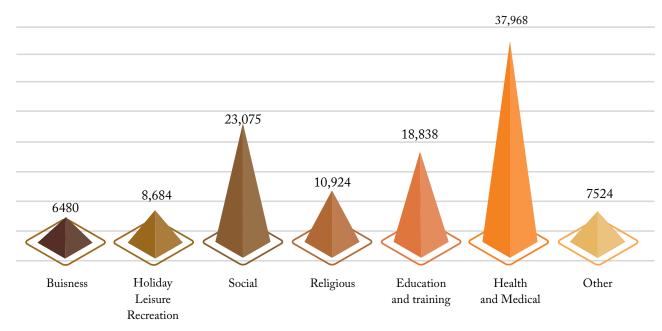


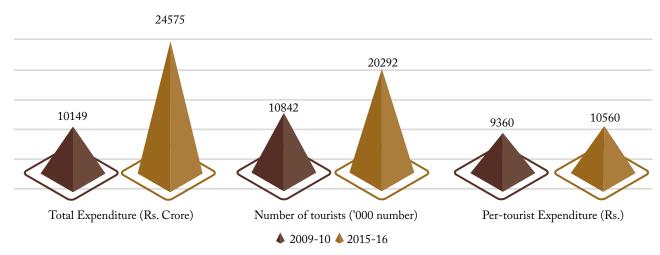
Figure III.19: Outbound Tourism Pre-trip Expenditure Pattern (%)

Source: NCAER computation using IPS, 2015-16.

Figure III.20: Average per-trip Outbound Tourism Expenditure (Rs.)







Source: NCAER computation using 2^{nd} TSA and 3^{rd} TSA.

III.4 Total Inbound Tourism Consumption

TSA Table 4 presents the total internal tourism expenditure and the total internal tourism consumption. The total Internal Tourism Expenditure refers to the expenditure incurred by all tourists within the country of reference. Hence, it is the sum of the Inbound Tourism Expenditure (TSA Table 1), Domestic Tourism Expenditure (TSA Table 2), and Outbound Pretrip Tourism Expenditure (TSA Table 3).⁴ When the components of imputed consumption, recommended in TSA:RMF 2008, are added to the Total Internal Tourism Expenditure, what is obtained is called Total Internal Tourism Consumption.

The recommended components of imputed consumption are as follows:

 Services associated with vacation accommodation on own account: This item includes all the imputed accommodation services related to accommodation units on own account and to all other types of vacation home⁵ ownership, as well as expenditure related to their acquisition that is not capitalised as part of the investment, for instance, charges for time share exchanges.

- Tourism social transfers in kind (except refunds): This item includes the value of the individual non-market services provided by governments and Non-Profit Institutions Serving Households (NPISH) that benefit visitors and exceed the values paid by the visitors themselves, including the costs of museums, performing arts, short-term education, and health services provided short-term in special establishments.
- Other imputed consumption: This item includes all the other imputed items not previously included such as services benefiting visitors for which they do not pay (costs of vacation residences or camps provided by producers for the benefit of their employees, Financial Intermediation Services Indirectly Measured (FISIM) on purchases related to tourism trips, etc.).

For India's TSA, as recommended, the internal tourism expenditure is

⁴Note that the adjusted Inbound, Domestic and Outbound Tourism expenditures are taken into account in TSA Table 4.

⁵A vacation home (sometimes also designated as a holiday home) is a secondary dwelling that is visited by the members of the household mostly for purposes of recreation, vacation, or any other form of leisure.



presented as the sum of inbound, domestic and outbound tourism expenditure in TSA Table 4. In addition, the components of imputed consumption are given in separate rows, to make up the total internal tourism consumption.⁶Since these components are not directly available from any data source, they have been derived using certain plausible assumptions.

- The imputed consumption on services associated with vacation homes on own account is assumed to be equal to 1 per cent of the urban owner occupied dwelling services.⁷
- 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 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 offood (obtained from PFCE, NAS) with the number of days spent at the friends'/relatives' places during all the tourist trips undertaken ina reference year. This amount is estimated to be Rs. 25,215 crore.
- The sum of the total internaltourism expenditure and the imputed tourism consumption gives the total tourism consumption, which is presented in TSA Table 4.

⁶The 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.

⁷The economic activities covered under owneroccupied dwelling services include ownership of dwellings (occupied residential houses) and the imputed value of owner-occupied dwellings.

TSA Table 4: Total Internal Tourism Consumption

Industries	Adjusted Inbound Tourism Consump-	Adjusted Domestic Tourism Consump-	Adjusted Outbound Tourism	(Rs. Crore Adjusted Total Tourism Consumption	
	tion	tion	Consumption		
A 1. Tourism characteristic products	1,73,941	4,41,356	11,735	6,27,032	
1. Accommodation services/hotels	41,373	5610	860	47,843	
2. Food and beverage serving services/restaurants	73,470	88,588	3802	1,65,860	
3. Railway passenger transport services	2032	19,096	254	21,382	
4. Road passen ger transport services	18,699	1,83,807	1961	2,04,467	
5. Water passenger transport services	614	924	13	1551	
6. Air passenger transport services	14,172	57,962	1994	74,127	
7. Transport equipment rental services	330	634	21	985	
8. Travel agencies and other reservation services/ supporting and auxiliary transport activities	4073	5345	971	10,389	
9. Cultural and religious services	974	52	13	1039	
10. Sports and other recreational services	6690	209	356	7255	
11. Health and medical related services	11514	79,130	1490	92134	
A.2 Tourism connected products	61,390	1,11,837	12,840	1,86,067	
12. Readymade garments	20,364	51,003	4066	75,434	
13. Processed Food	2851	11,597	860	15,309	
14. Alcohol and tobacco products	4254	3489	489	8232	
15. Travel related consumer goods	14,918	26,646	5455	47,019	
16. Footwear	2809	7908	675	11,392	
17. Soaps, cosmetics and glycerine	638	935	119	1691	
18. Gems and jewellery	13,985	8807	948	23,740	
19. Books, journals, magazines, stationery, etc.	1571	1452	227	3250	
	2,35,331	5,53,193	24,575	8,13,099	
A.3 Other imputed connected products	0	1,41,280	0	1,41,280	
20. Vacation homes (assumed to be 1% of urban owner- occupied dwelling services, total Rs. 1,69,363 crore)		4248		4248	
21. Social transfers in kind (50% of GFCE of tourism and cultural services)		4177		4177	
22. FISIM (calculated from the share of FISIM in PFCE)		42,924		42,924	
23. Producers' guest houses (0.5% of private corporate sector output)		64,716		64,716	
24. Imputed expenditures of households on food for tourists staying with them		25,215		25,215	
Total (Rs. Crore)	2,35,331	6,94,473	24,575	9,54,379	

Source: NCAER computation.

III.4.1 Key Observations

- The total internal tourism expenditure for 2015–16 is estimated at Rs. 8,13,099 crore. The value of total imputed consumption is Rs. 1,41,280 crore. Together, constituting total internal tourism consumption, the value stands at Rs. 9,54,379 crore.
- Among the tourism products and services, the tourism characteristic products/services form a large part of the total tourism consumption (65.7 per cent), especially in the case of inbound (73.9 per cent) and domestic (63.6 per cent) tourism. On the other hand, in the case of outbound tourism, the share of tourism connected products is slightly higher, at 52.2 per cent, than that of tourism characteristic products/services (TableIII.4).
- The distribution of total tourism expenditure on product and services by types of tourism reveals that 28.9 per cent of the total internal tourism consumption is on account of inbound tourism,

68.0 per cent due to domestic tourism, and the remaining 3.0 per cent due to outbound tourism (Table III.5).

- Notably, 86.5 per cent of the tourism expenditure on accommodation services is incurred by inbound tourists. On the other hand, 89 per cent of the tourism expenditure on railway and road transport services is incurred by domestic tourists.
- Only one-third of the expenditure on tourism connected products is incurred by inbound tourists while domestic tourism accounts for 60 per cent of the expenditure on tourism connected products.

Between 2009–10 and 2015–16, the share of inbound tourism expenditure went up from 19.8 per cent to 28.9 per cent, signifying a gain of 9.1 percentage points. In contrast, the share of domestic tourism expenditure dipped by 10.2 percentage points, with outbound tourism expenditure gaining by 1.0 percentage point (Figure III.22).

Table III.4: Per cent distribution of Internal Tourism Consumption by Products and Services

	Adjusted Inbound Tourism Consumption	Adjusted Domestic Tourism Consumption	Adjusted Outbound Tourism Consumption	Adjusted Total Tourism Consumption			
A 1. Tourism characteristic products	73.9	63.6	47.8	65.7			
1. Accommodation services/Hotels	17.6	0.8	3.5	5.0			
2 Food and beverage serving services/ Restaurants	31.2	12.8	15.5	17.4			
3 Railway passenger transport services	0.9	2.7	1.0	2.2			
4 Road passenger transport services	7.9	26.5	8.0	21.4			
5 Water passenger transport services	0.3	0.1	0.1	0.2			
6 Air passenger transport services	6.0	8.3	8.1	7.8			
7 Transport equipment rental services	0.1	0.1	0.1	0.1			
8 Travel agencies and other reservation services/ Supporting and auxiliary transport activities	1.7	0.8	4.0	1.1			
9 Cultural and religious services	0.4	0.0	0.1	0.1			
10 Sports and other recreational services	2.8	0.0	1.4	0.8			
11 Health and medical related services	4.9	11.4	6.1	9.7			
A.2 Tourism connected products	26.1	16.1	52.2	19.5			
12 Readymade garments	8.7	7.3	16.5	7.9			
13 Processed Food	1.2	1.7	3.5	1.6			
14 Alcohol & Tobacco products	1.8	0.5	2.0	0.9			
15 Travel related consumer goods	6.3	3.8	22.2	4.9			
16 Footwear	1.2	1.1	2.7	1.2			
17 Soaps, cosmetics and glycerine	0.3	0.1	0.5	0.2			
18 Gems and jewellery	5.9	1.3	3.9	2.5			
19 Books, journals, magazines, stationery, etc.	0.7	0.2	0.9	0.3			
A.3 Other imputed connected products		20.3		14.8			
Vacation homes (assumed to be 1% of urban owner occupied dwelling services, total Rs. 1,69,363 crore)		0.6		0.4			
Social transfers in kind (50% of GFCE of tourism and cultural services)		0.6		0.4			
FISIM (calculated from the share of fisim in PFCE)		6.2		4.5			
Producers' guest houses (.5% of private corporate sector output)		9.3		6.8			
Imputed expenditures of households on food for tourists staying with them		3.6		2.6			
Total	100.0	100.0	100.0	100.0			

Source: NCAER computation using TSA Table 4.

Table III.5: Per cent distribution of Internal Tourism Expenditure by Type of Tourism

Industries	Adjusted Inbound Tourism Consumption	Adjusted Domestic Tourism Consumption	Adjusted Outbound Tourism Consumption	Adjusted Total Tourism Consumption	
A 1. Tourism characteristic products	27.7	70.4	1.9	100.0	
1. Accommodation services/Hotels	86.5	11.7	1.8	100.0	
2 Food and beverage serving services/Restaurants	44.3	53.4	2.3	100.0	
3 Railway passenger transport services	9.5	89.3	1.2	100.0	
4 Road passenger transport services	9.1	89.9	1.0	100.0	
5 Water passenger transport services	39.6	59.6	0.8	100.0	
6 Air passenger transport services	19.1	78.2	2.7	100.0	
7 Transport equipment rental services	33.5	64.4	2.1	100.0	
8 Travel agencies and other reservation services/ Supporting and auxiliary transport activities	39.2	51.4	9.3	100.0	
9 Cultural and religious services	93.7	5.0	1.3	100.0	
10 Sports and other recreational services	92.2	2.9	4.9	100.0	
11 Health and medical related services	12.5	85.9	1.6	100.0	
A.2 Tourism connected products	33.0	60.1	6.9	100.0	
12 Readymade garments	27.0	67.6	5.4	100.0	
13 Processed Food	18.6	75.8	5.6	100.0	
14 Alcohol & Tobacco products	51.7	42.4	5.9	100.0	
15 Travel related consumer goods	31.7	56.7	11.6	100.0	
16 Footwear	24.7	69.4	5.9	100.0	
17 Soaps, cosmetics and glycerine	37.7	55.3	7.0	100.0	
18 Gems and jewellery	58.9	37.1	4.0	100.0	
19 Books, journals, magazines, stationery, etc.	48.3	44.7	7.0	100.0	
Total Tourism specific products/services	28.9	68.0	3.0	100.0	

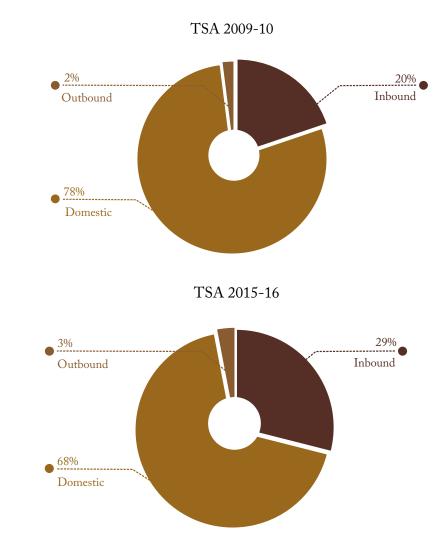
Source: NCAER computation using TSA Table 4.

III.5 Production Account of Tourism Industries

TSA Table 5 presents the production accounts of tourism and other industries in the economy of reference. It conforms formally to the format established in the Systems of National Accounts (SNA) 1993, for production accounts. The main aggregate that is derived from this table is the Gross Value Added of Tourism Industries (GVATI) and if the satellite rows of employment are included, this table also provides details of employment in tourism industries. However, GVATI has a limited role as being a relevant indicator of tourism. Instead, it is the Tourism Direct Gross Value Added (TDGVA) which expresses the GVA on account of tourism.

TSA Table 5 conforms to the SNA format with products shown in rows and columns representing industries. The output broken down by product for each industry is valued at basic prices and occupies a block of rows in the upper part of the table. Then intermediate consumption (also called intermediate inputs) valued at purchasers' prices, if possible, broken down again by products for each industry, is presented in the second block of rows. The difference between these two values is the Gross Value Added (GVA) at basic prices for the industries and is presented in the third block of rows.

Figure III.22: Percentage distribution of Tourism Expenditure by Types (2009-10 and 2015-16)



Source: NCAER computation using 2nd TSA and 3rd TSA.



In columns, the production accounts of the tourism-specific industries are presented and grouped according to the proposed classification. For each industry and for the total economy, the GVA at basic prices, that is the difference between the output at basic prices and intermediate consumption at purchasers' prices, has to be equal to the GVA of the economy as it appears in the national accounts.

For India's TSA, as recommended, the production account of the economy with a focus on tourism industries has been prepared using India's Supply and Use Tables (SUTs) for the year 2015–16.

The SUTs for 2015–16 have been prepared by updating the latest available SUT for India, that is, SUTs 2012–13, which are compiled by the Central Statistical Office (CSO). These SUTs present transactions between 66 industries and 140 products. The "supply" table presents the values of products which are produced as the main products or by-products by each of the 66 industries, while the "use" table presents the values of products which are used as inputs in the production process of each industry.

The SUTs 2012–13 are first updated to SUTs 2015–16 using the information available on disaggregated macroaggregates in the latest NAS for 2017. These updated SUTs are then separately aggregated to 24-sector SUTs, presenting the tourism-specific and tourism non-specific products in rows and industries in columns (refer to the Technical Note for detailed methodology). These matrices constitute the production account of tourism industries and are presented in TSA Table 5.

III.5.1 Key Observations

- The total value of output of the economy (at basic prices) for2015–16 is Rs. 2,55,44,159 crore. The total Goss Value Added is Rs. 1,24,58,642 crore (Table III.6).
- Of the total output, that for the tourism characteristic and tourismconnected industries, taken together, is Rs. 30,15,977 crore or 11.8 per cent of the total.
- Similarly, the GVA accounted by the tourism characteristic and connected industries, taken together, is Rs. 9,44,170 crore. This is referred to as Gross Value Added of Tourism Industries or GVATI. This amounts to 7.6 per cent of the total GVA.

Between 2009–10 and 2015–16, the overall GVA increased from Rs. 61,86,950 crore to Rs. 1,24,58,642 crore, which is a growth of 101.4 per cent in nominal terms. On the other hand, the GVATI increased from Rs. 4,42,922 crore to Rs. 9,44,170 crore, registering a growth of 113.2 per cent in nominal terms (Figure III.23).

Image: SA Table 5: Production Account of Tourism and other Industries (Rs. Lak							
Products X Industries	Agriculture and allied	Mining, other manufacturing, construction, electricity, gas and water supply	Trade	Transport freight services	All non-tourism specific services		
	1	2	3	4	5		
1. Agriculture and allied	278851573	0	0	0	0		
2. Mining, other manufacturing, construction, electricity, gas and water supply	5230027	676529624	0	0	369002800		
3. Trade	0	12445237	173925625	0	0		
4.Transport freight services	0	0	0	82414886	0		
5. All non-tourism specific services	0	681757	1788075	0	608694089		
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. Passenger transport services	0	0	0	3238511	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	2780391	0	0	0		
18. Processed Food	0	1175705	0	0	0		
19. Alcohol & Tobacco products	0	45830	0	0	0		
20. Travel related consumer goods	0	1480838	0	0	0		
21. Footwear	0	68679	0	0	0		
22. Soaps, cosmetics and glycerine	0	6438237	0	0	0		
23. Gems and jewellery	0	23093094	0	0	0		
24. Books, journals, magazines, stationery, etc.	0	4933154	0	0	0		
Total	284081600	729672546	175713700	85653397	977696889		

Products X Industries	1. Accommodation services/Hotels	2 Food and beverage serving services/ Restaurants	3 Railway passenger transport services	4 Road passenger transport services	5 Water passenger transport services
	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	5668799	0
5. All non-tourism specific services	0	0	0	0	0
6. Accommodation services/Hotels	4947868	1649289	0	0	0
7. Food and beverage serving services/ Restaurants	174658	30745025	0	0	0
8. Railway passenger transport services	0	0	3060248	0	0
9. Passenger transport services	0	0	0	29146599	0
10. Water passenger transport services	0	0	0	0	2032571
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 glycerine	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	5122526	32394314	3060248	34815398	2032571

Products X Industries	6 Air passenger transport services	7 Transport equipment rental services	8 Travel agencies and other reservation services/ Supporting and auxiliary transport activities	9 Cultural and religious services	10 Sports and other recreational services
	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
3. Railway passenger transport services	0	0	0	0	0
P. Passenger transport services	0	0	0	0	0
0. Water passenger transport services	0	0	0	0	0
1. Air passenger transport services	7880145	0	0	0	0
2. Transport equipment rental services	0	258626	0	0	0
 Travel agencies and other reservation services/ Supporting and auxiliary transport activities 	0	0	1951141	0	0
4. Cultural and religious services	0	0	0	517259	0
5. Sports and other recreational services	0	0	0	0	11301425
6. Health and medical related services	0	0	0	0	0
7. Readymade garments	0	0	0	0	0
8. Processed Food	0	0	0	0	0
9. Alcohol & Tobacco products	0	0	0	0	0
20. Travel related consumer goods	0	0	0	0	0
1. Footwear	0	0	0	0	0
2. Soaps, cosmetics and glycerine	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	7880145	258626	1951141	517259	11301425

TSA Table 5: Production Account of Tourism and other Industries (Contd.)					
Products X Industries	11 Health and medical related services	12 Readymade garments	13 Processed Food	14 Alcohol & Tobacco products	15 Travel related consumer goods
	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	2227663	667176	275706	1807163
3. Trade	0	166095	2112952	324109	205969
4.Transport freight services	0	0	0	0	0
5. All non-tourism specific services	0	725	12895	40532	82139
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. 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	31187700	0	0	0	0
17. Readymade garments	0	12563997	0	0	0
18. Processed Food	0	0	99173695	260520	0
19. Alcohol & Tobacco products	0	0	281505	13719017	0
20. Travel related consumer goods	0	161021	11005	0	2673652
21. Footwear	0	0	0	0	4451026
22. Soaps, cosmetics and glycerine	0	0	324772	217	0
23. Gems and jewellery	0	0	0	0	4584603
24. Books, journals, magazines, stationery, etc.	0	0	0	0	0
Total	31187700	15119500	102584000	14620100	13804551

					(Rs. Lakh)
Products X Industries	16 Footwear	17 Soaps, cosmetics and glycerin	18 Gems and jewellery	19 Books, journals, magazines, stationery etc.	Output of domestic industries at basic prices
	21	22	23	24	
1. Agriculture and allied	0	0	0	0	278851573
2. Mining, other manufacturing, construction, electricity, gas and water supply	2114	6054904	773919	11154576	1073725670
3. Trade	308	132553	62366	92518	189467730
4.Transport freight services	0	0	0	0	88083685
5. All non-tourism specific services	2	4587	90192	4564	611399556
6. Accommodation services/Hotels	0	0	0	0	6597157
7. Food and beverage serving services/ Restaurants	0	0	0	0	30919683
8. Railway passenger transport services	0	0	0	0	3060248
9. Passenger transport services	0	0	0	0	32385110
10. Water passenger transport services	0	0	0	0	2032571
11. Air passenger transport services	0	0	0	0	7880145
12. Transport equipment rental services	0	0	0	0	258626
13. Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	1951141
14. Cultural and religious services	0	0	0	0	517259
15. Sports and other recreational services	0	0	0	0	11301425
16. Health and medical related services	0	0	0	0	31187700
17. Readymade garments	0	0	0	0	15344388
18. Processed Food	0	142670	0	0	100752590
19. Alcohol & Tobacco products	0	5561	0	0	14051913
20. Travel related consumer goods	5444	5907	44352	15037	4397256
21. Footwear	9201	0	0	0	4528906
22. Soaps, cosmetics and glycerine	0	741873	0	0	7505099
23. Gems and jewellery	0	0	5085179	0	32762876
24. Books, journals, magazines, stationery, etc.	0	0	0	520405	5453559
Total	17068	7088055	6056007	11787100	2554415869

li anti anti anti anti anti anti anti ant	ntermediate co	nsumption at purchasers prices	(Rs. Lakh)		
Products X Industries	Agriculture and allied	Mining, other manufacturing, construction, electricity, gas and water supply	Trade	Transport freight services	All non-tourism specific services
1. Agriculture and allied	34061779	31371176	0	907164	15329335
2. Mining, other manufacturing, construction, electricity, gas and water supply	17009318	461508903	27105700	28165960	262527225
3. Trade	0	0	0	0	0
4.Transport freight services	0	0	0	0	0
5. All non-tourism specific services	5016862	11944011	10975922	12657378	105805385
6. Accommodation services/Hotels	27339	131491	581979	162796	1667757
7. Food and beverage serving services/ Restaurants	82609	617184	2731663	764124	7828034
8. Railway passenger transport services	0	275167	41204	9512	386056
9. Passenger transport services	1171213	1948463	2882603	139594	3549228
10. Water passenger transport services	0	0	72560	3144	435685
11. Air passenger transport services	0	821119	375021	141515	4499449
12. Transport equipment rental services	671	96381	12180	5642	131178
13. Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	359806	594185	296632	683939
14. Cultural and religious services	4	8	9	105	1322
15. Sports and other recreational services	43048	87924	66390	59556	360588
16. Health and medical related services	46	1505	0	0	53836
17. Readymade garments	56305	284203	162829	664476	1845718
18. Processed Food	8849652	593236	12323	0	8481687
19. Alcohol & Tobacco products	0	81594	0	0	312121
20. Travel related consumer goods	38312	552530	88711	76189	890323
21. Footwear	0	113668	0	0	18915
22. Soaps, cosmetics and glycerine	0	359736	115552	0	30883
23. Gems and jewellery	0	16535475	0	0	0
24. Books, journals, magazines, stationery, etc.	179580	440926	94469	506327	1397623
Total intermediate consumption	66536740	528124506	45913300	44560114	416236288
Gross value added (at basic prices)	217544860	201548040	129800400	41093282	561460601

Intermediate consumption at purchasers prices (Rs. Lakh)							
Products X Industries	Accommodation services/Hotels	Food and beverage serving services/ Restaurants	Railway passenger transport services	Road passenger transport services	Water passenger transport services		
1. Agriculture and allied	1657851	10484073	0	582098	0		
2. Mining, other manufacturing, construction, electricity, gas and water supply	313561	1982928	762048	12484542	1053518		
3. Trade	0	0	0	0	0		
4.Transport freight services	0	0	0	0	0		
5. All non-tourism specific services	154998	980188	168483	5588938	244663		
6. Accommodation services/Hotels	500	3163	3948	68124	4636		
7. Food and beverage serving services/ Restaurants	2348	14847	18530	319755	21759		
8. Railway passenger transport services	48	306	17	435	42		
9. Passenger transport services	1869	11821	5	148	14		
10. Water passenger transport services	13	82	3	90	8		
11. Air passenger transport services	467	2954	162	4196	407		
12. Transport equipment rental services	21	130	3	3591	21		
13. Travel agencies and other reservation services/ Supporting and auxiliary transport activities	2053	12983	14	17451	1765		
14. Cultural and religious services	5	32	4	17	5		
15. Sports and other recreational services	8699	55008	5899	4077	17970		
16. Health and medical related services	0	0	0	0	0		
17. Readymade garments	3958	25028	32166	160341	42506		
18. Processed Food	1089722	6891285	0	0	0		
19. Alcohol & Tobacco products	102063	645434	0	0	0		
20. Travel related consumer goods	449	2842	3304	24226	3637		
21. Footwear	0	0	0	0	0		
22. Soaps, cosmetics and glycerine	35719	225885	0	0	0		
23. Gems and jewellery	0	0	0	0	0		
24. Books, journals, magazines, stationery, etc.	214	1354	37852	99745	40018		
Total intermediate consumption	3374557	21340343	1032438	19357774	1430969		
Gross value added (at basic prices)	1747969	11053971	2027810	15457624	601601		

.....

	Intermediate	e consumption at pu	urchasers prices (Rs. Lak	h)	
Products X Industries	Air passenger transport services	Transport equipment rental services	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	Cultural and religious services	Sports and other recreational services
1. Agriculture and allied	0	0	0	0	0
2. Mining, other manufacturing, construction, electricity, gas and water supply	3922534	46162	555983	147284	906978
3. Trade	0	0	0	0	0
4.Transport freight services	0	0	0	0	0
5. All non-tourism specific services	1506257	25144	332901	15958	3570917
6. Accommodation services/Hotels	23833	125	4084	501	5677
7. Food and beverage serving services/Restaurants	111868	589	19169	2352	26644
8. Railway passenger transport services	639	0	934	550	14331
9. Passenger transport services	185	2372	14954	1272	119919
10. Water passenger transport services	112	0	320	116	3183
11. Air passenger transport services	6163	2	14348	1029	20014
12. Transport equipment rental services	315	69	0	38	2812
13. Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	2635	28899	1200	25226
14. Cultural and religious services	26	0	6	5	515
15. Sports and other recreational services	17152	1392	2844	467	120968
16. Health and medical related services	0	0	0	0	1479
17. Readymade garments	250776	1406	27600	3572	30391
18. Processed Food	0	0	0	0	0
19. Alcohol & Tobacco products	0	0	0	0	0
20. Travel related consumer goods	21085	635	2446	1924	8748
21. Footwear	0	0	0	0	0
22. Soaps, cosmetics and glycerine	0	0	0	0	0
23. Gems and jewellery	0	0	0	0	0
24. Books, journals, magazines, stationery ,etc.	207266	1383	18806	850	30077
Total intermediate consumption	6068211	81915	1023294	177117	4887879
Gross value added (at basic prices)	1811935	176711	927847	340142	6413546

	Intermedia	te consumption at p	urchasers prices (Rs. Lal	kh)	
Products X Industries	Health and medical related services	Readymade garments	Processed Food	Alcohol & Tobacco products	Travel related consumer goods
1. Agriculture and allied	0	0	81326652	6276423	5107453
2. Mining, other manufacturing, construction, electricity, gas and water supply	10500448	8998218	1517719	877326	1698360
3. Trade	0	0	0	0	0
4.Transport freight services	0	0	0	0	0
5. All non-tourism specific services	1100545	280206	261201	117995	46334
6. Accommodation services/ Hotels	3078	0	0	0	0
7. Food and beverage serving services/Restaurants	14447	0	0	0	0
8. Railway passenger transport services	0	6610	6538	9848	1793
9. Passenger transport services	3633	39086	34951	31774	8069
10. Water passenger transport services	2196	0	0	0	0
11. Air passenger transport services	80280	0	0	0	0
12. Transport equipment rental services	0	2047	1459	89	827
13. Travel agencies and other reservation services/ Supporting and auxiliary transport activities	233	0	0	0	0
14. Cultural and religious services	2	0	0	0	0
15. Sports and other recreational services	16504	0	0	0	0
16. Health and medical related services	101595	0	0	0	0
17. Readymade garments	48147	117118	0	0	3554
18. Processed Food	0	0	3532914	314726	0
19. Alcohol & Tobacco products	0	0	21853	1018192	0
20. Travel related consumer goods	965	689411	1068	182	234665
21. Footwear	0	0	0	0	10885
22. Soaps, cosmetics and glycerine	0	3049	0	0	0
23. Gems and jewellery	0	213	0	0	3720723
24. Books, journals, magazines, stationery, etc.	17027	15397	362	879	258
Total intermediate consumption	11889100	10151355	86704716	8647434	10832921
Gross value added (at basic prices)	19298600	4968145	15879284	5972666	2971630

	Intermed	iate consumption at purc	hasers prices (Rs. Lakh)		
Products X Industries	Footwear	Soaps, cosmetics and glycerin	Gems and jewellery	Books, journals, magazines, stationery etc.	Output of domestic industries at basic prices
1. Agriculture and allied	10541	170233	126	1189572	188474475
2. Mining, other manufacturing, construction, electricity, gas and water supply	941	5224038	1319920	7666907	856296522
3. Trade	0	0	0	0	0
4.Transport freight services	0	0	0	0	0
5. All non-tourism specific services	63	70333	13621	232085	161110389
6. Accommodation services/Hotels	0	0	0	0	2689031
7. Food and beverage serving services/Restaurants	0	0	0	0	12575922
8. Railway passenger transport services	4	864	44	4276	759217
9. Passenger transport services	16	3848	111	16168	9981317
10. Water passenger transport services	0	0	0	0	517511
11. Air passenger transport services	0	0	0	0	5967124
12. Transport equipment rental services	1	337	20	1355	259189
13. Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	2027022
14. Cultural and religious services	0	0	0	0	2066
15. Sports and other recreational services	0	84	0	0	868571
16. Health and medical related services	0	0	0	0	158462
17. Readymade garments	7	0	0	234	3760335
18. Processed Food	0	32223	0	0	29797768
19. Alcohol & Tobacco products	0	3472	0	0	2184730
20. Travel related consumer goods	472	445	6665	3302	2652536
21. Footwear	23	0	0	0	143491
22. Soaps, cosmetics and glycerine	0	39200	0	0	810023
23. Gems and jewellery	0	0	4126975	0	24383386
24. Books, journals, magazines, stationery, etc.	1	790	6	41345	3132553
Total intermediate consumption	12069	5545866	5467488	9155245	1308551640
Gross value added (at basic prices)	4999	1542189	588519	2631855	1245864229

Source: NCAER computation using SUT, CSO, 2012-13.

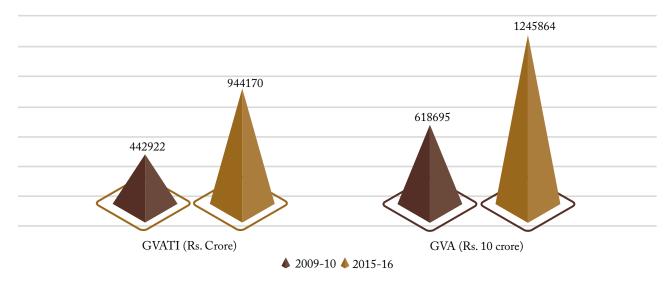
Table III.6: Economic Aggregates of industries

Sl.No.	Industry	Gross Value of Output (Rs. lakh)	GVA (Rs. lakh)	Share in Total GVA (%)
1	Agriculture and allied	284081600	217544860	17.46
2.	Mining, other manufacturing, construction, electricity, gas and water supply	729672546	201548040	16.18
3.	Trade	175713700	129800400	10.42
4.	Transport freight services	85653397	41093282	3.30
5.	All non-tourism specific services	977696889	561460601	45.07
6.	Accommodation services/ Hotels	5122526	1747969	0.14
7.	Food and beverage serving services/Restaurants	32394314	11053971	0.89
8.	Railway passenger transport services	3060248	2027810	0.16
9.	Passenger transport services	34815398	15457624	1.24
10.	Water passenger transport services	2032571	601601	0.05
11.	Air passenger transport services	7880145	1811935	0.15
12.	Transport equipment rental services	258626	176711	0.01
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	1951141	927847	0.07
14.	Cultural and religious services	517259	340142	0.03
15.	Sports and other recreational services	11301425	6413546	0.51
16.	Health and medical related services	31187700	19298600	1.55
17.	Readymade garments	15119500	4968145	0.40
18.	Processed Food	102584000	15879284	1.27
19.	Alcohol & Tobacco products	14620100	5972666	0.48
20.	Travel related consumer goods	13804551	2971630	0.24
21.	Footwear	17068	4999	0.00
22.	Soaps, cosmetics and glycerine	7088055	1542189	0.12
23.	Gems and jewellery	6056007	588519	0.05
24.	Books, journals, magazines, stationery, etc.	11787100	2631855	0.21
	Total all industries	2554415869	1245864229	100.0
	Total Tourism specific industries (Tourism characteristic and Tourism connected)	301597737	94417045	7.6
	Tourism specific industries (as % to Total)	11.8	7.6	

Source: NCAER computation using TSA Table 5.



Figure III.23: Total GVA and GVATI (2009–10 and 2015–16)



Source: NCAER computation using 2nd TSA and 3rd TSA.

III.6 Domestic Supply and Internal Tourism Consumption

TSA Table 6 is the core table of the TSA framework. It is this table wherein the demand side data or total internal tourism consumption (of TSA Table 4) is reconciled with the supply side data or the production account of industries (of TSA Table 5). This table derives its conceptual base from the supply and use tables of the System of National Accounts (SNA), 1993. 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 Industry 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. This provides the basic information that is necessary for the computation of Tourism Direct Gross Value Added (TDGVA) and TourismDirect Gross Domestic Product (TDGDP), and their components. TSA Table 6, together with the associated use table, provides the basis to compile the input-output tables and input-output models that facilitateestimation of the indirect contribution of tourism to the economy.

TSA Table 6: Domestic Supply and Internal Tourism Consumption

1 5 A	Table 6: Domestic Supply an	nd Interna	l'Tourisn	n Consum	ption						(Rs. Lakh)
Sl. No.	Products X Industries	Agriculture allied	e and	Mining, othe manufactur construction electricity, g water suppl	ing, n, jas &	Trade		Transport f services	reight	All non-tour services	ism specific
		Output	Tourism share	Output	Tourism share	Output	Tourism share	Output	Tourism share	Output	Tourism share
1.	Agriculture and allied	278851573	0	0	0	0	0	0	0	0	0
2.	Mining, other manufacturing, construction, electricity, gas and water supply	5230027	0	676529624	0	0	0	0	0	369002800	0
3.	Trade	0	0	12445237	0	173925625	1342376	0	0	0	0
4.	Transport freight services	0	0	0	0	0	0	82414886	0	0	0
5.	All non-tourism specific services	0	0	681757	15037	1788075	39437	0	0	608694089	13425111
6.	Accommodation services/Hotels	0	0	0	0	0	0	0	0	0	0
7.	Food and beverage serving services/Restaurants	0	0	0	0	0	0	0	0	0	0
8.	Railway passenger transport services	0	0	0	0	0	0	0	0	0	0
9.	Passenger transport services	0	0	0	0	0	0	3238511	2028574	0	0
10.	Water passenger transport services	0	0	0	0	0	0	0	0	0	0
11.	Air passenger transport services	0	0	0	0	0	0	0	0	0	0
12.	Transport equipment rental services	0	0	0	0	0	0	0	0	0	0
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0	0	0	0	0
14.	Cultural and religious services	0	0	0	0	0	0	0	0	0	0
15.	Sports and other recreational services	0	0	0	0	0	0	0	0	0	0
16.	Health and medical related services	0	0	0	0	0	0	0	0	0	0
17.	Readymade garments	0	0	2780391	0	0	0	0	0	0	0
18.	Processed Food	0	0	1175705	0	0	0	0	0	0	0
19.	Alcohol & Tobacco products	0	0	45830	0	0	0	0	0	0	0
20.	Travel related consumer goods	0	0	1480838	0	0	0	0	0	0	0
21.	Footwear	0	0	68679	0	0	0	0	0	0	0
22.	Soaps, cosmetics and glycerine	0	0	6438237	0	0	0	0	0	0	0
23.	Gems and jewellery	0	0	23093094	0	0	0	0	0	0	0
24.	Books, journals, magazines, stationery, etc.	0	0	4933154	0	0	0	0	0	0	0
	Total Output at basic prices (Rs Lakh)	284081600	0	729672546	15037	175713700	1381813	85653397	2028574	977696889	13425111
	Intermediate consumption (Rs Lakh)	66536740	0	528124506	10883.204	45913300	361062.26	44560114	1055340.3	416236288	5715491.7
	GVA (Rs. Lakh)	217544860	0	201548040	4153	129800400	1020751	41093282	973233	561460601	7709619

TSA Table 6: Domestic Supply and Internal Tourism Consumption (Contd.)

Sl.No.	Products X Industries	Accommod services/H		Food and b serving ser Restaurant	vices/	Railway pa transport		Road passer transport se		Water pas transport	
		Output	Tourism share	Output	Tourism share	Output	Tourism share	Output	Tourism share	Output	Tourism share
1.	Agriculture and allied	0	0	0	0	0	0	0	0	0	C
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	0	0	0	0	0	0	0	(
3.	Trade	0	0	0	0	0	0	0	0	0	с
4.	Transport freight services	0	0	0	0	0	0	5668799	0	0	(
5.	All non-tourism specific services	0	0	0	0	0	0	0	0	0	(
6.	Accommodation services/Hotels	4947868	3562465	1649289	1187488	0	0	0	0	0	(
7.	Food and beverage serving services/Restaurants	174658	93017	30745025	16373748	0	0	0	0	0	(
8.	Railway passenger transport services	0	0	0	0	3060248	2136195	0	0	0	(
9.	Passenger transport services	0	0	0	0	0	0	29146599	18257164	0	(
10.	Water passenger transport services	0	0	0	0	0	0	0	0	2032571	77230
11.	Air passenger transport services	0	0	0	0	0	0	0	0	0	
12.	Transport equipment rental services	0	0	0	0	0	0	0	0	0	
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0	0	0	0	
14.	Cultural and religious services	0	0	0	0	0	0	0	0	0	
15.	Sports and other recreational services	0	0	0	0	0	0	0	0	0	
16.	Health and medical related services	0	0	0	0	0	O	0	0	0	
17.	Readymade garments	0	0	0	0	0	0	0	0	0	
18.	Processed Food	0	0	0	0	0	0	0	0	0	
19.	Alcohol & Tobacco products	0	0	0	0	0	0	0	0	0	
20.	Travel related consumer goods	0	0	O	0	0	O	0	0	0	
21.	Footwear	0	0	0	0	0	0	0	0	0	
22.	Soaps, cosmetics and glycerine	0	0	0	0	0	0	0	0	0	
23.	Gems and jewellery	0	0	0	0	0	0	0	0	0	
24.	Books, journals, magazines, stationery, etc.	0	0	0	0	0	0	0	0	0	
	Total Output at basic prices (Rs. Lakh)	5122526	3655482	32394314	17561237	3060248	2136195	34815398	18257164	2032571	7723
	Intermediate consumption (Rs. Lakh)	3374557	2408115.1	21340343	11568784	1032438	720689.29	19357774	10151200	1430969	54371.28
	GVA (Rs. Lakh)	1747969	1247367	11053971	5992453	2027810	1415505	15457624	8105964	601601	2285

TSA Table 6: Domestic S	Supply and Internal Tourism	Consumption (Contd.)

Sl.No.	Products X Industries	Air passenger transport services			Transport equipment rental services		encies and ervation Supporting ary activities	Cultural religious	and services	Sports and recreation	l other al services
		Output	Tourism share	Output	Tourism share	Output	Tourism share	Output	Tourism share	Output	Tourism share
1.	Agriculture and allied	0	0	0	0	0	0	0	0	0	0
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	0	0	0	0	0	0	0	0
3.	Trade	0	0	0	0	0	0	0	0	0	0
4.	Transport freight services	0	0	0	0	0	0	0	0	0	0
5.	All non-tourism specific services	0	0	0	0	0	0	0	0	0	0
6.	Accommodation services/Hotels	0	0	0	0	0	0	0	0	0	0
7.	Food and beverage serving services/Restaurants	0	0	0	0	0	0	0	0	0	0
8.	Railway passenger transport services	0	0	0	0	0	0	0	0	0	0
9.	Passenger transport services	0	0	0	0	0	0	0	0	0	0
10.	Water passenger transport services	0	0	0	0	0	0	0	0	0	0
11.	Air passenger transport services	7880145	6390516	0	0	0	0	0	0	0	0
12.	Transport equipment rental services	0	0	258626	98278	0	0	0	0	0	0
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	1951141	1000022	0	0	0	0
14.	Cultural and religious services	0	0	0	0	0	0	517259	103969	0	0
15.	Sports and other recreational services	0	0	0	0	0	0	0	0	11301425	645942
16.	Health and medical related services	0	0	0	0	0	0	0	0	0	0
17.	Readymade garments	0	0	0	0	0	0	0	0	0	0
18.	Processed Food	0	0	0	0	0	0	0	0	0	0
19.	Alcohol & Tobacco products	0	0	0	0	0	0	0	0	0	0
20.	Travel related consumer goods	0	0	0	0	0	0	0	0	0	0
21.	Footwear	0	0	0	0	0	0	0	0	0	0
22.	Soaps, cosmetics and glycerine	0	0	0	0	0	0	0	0	0	0
23.	Gems and jewellery	0	0	0	0	0	0	0	0	0	0
24.	Books, journals, magazines, stationery, etc.	0	0	0	0	0	0	0	0	0	0
	Total Output at basic prices (Rs. Lakh)	7880145	6390516	258626	98278	1951141	1000022	517259	103969	11301425	645942
	Intermediate consumption (Rs. Lakh)	6068211	4921101.7	81 91 5	31127.884	1023294	524471	177117	35601	4887879	279371
	GVA (Rs. Lakh)	1811935	1469414	176711	67150	927847	475551	340142	68369	6413546	366571

TSA Table 6: Domestic Supply and Internal Tourism Consumption (Contd.)

Sl.No.	Products X Industries	Health and related ser		Readymade garments	2	Processed I	Food	Alcohol & products	Tobacco	Travel rela consumer g	
		Output	Tourism share	Output	Tourism share	Output	Tourism share	Output	Tourism share	Output	Tourism share
1.	Agriculture and allied	0	0	0	0	0	0	0	0	0	0
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0	0	2227663	0	667176	0	275706	0	1807163	0
3.	Trade	0	0	166095	0	2112952	0	324109	0	205969	0
4.	Transport freight services	0	0	0	0	0	0	0	0	0	0
5.	All non-tourism specific services	0	0	725	16	12895	284	40532	894	82139	1812
6.	Accommodation services/Hotels	0	0	0	0	0	0	0	0	0	0
7.	Food and beverage serving services/Restaurants	0	0	0	0	0	0	0	0	0	0
8.	Railway passenger transport services	0	0	0	0	0	0	0	0	0	0
9.	Passenger transport services	0	0	0	0	0	0	0	0	0	0
10.	Water passenger transport services	0	0	0	0	0	0	0	0	0	0
11.	Air passenger transport services	0	0	0	0	0	0	0	0	0	0
12.	Transport equipment rental services	0	0	O	0	0	0	0	O	0	0
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	0	0	0	0	0	0	0	0	0	0
14.	Cultural and religious services	0	0	0	0	0	0	0	0	0	0
15.	Sports and other recreational services	0	0	O	0	0	0	0	0	0	0
16.	Health and medical related services	31187700	9226614	O	0	0	0	0	O	0	0
17.	Readymade garments	0	0	12563997	0	0	0	0	0	0	0
18.	Processed Food	0	0	0	0	99173695	0	260520	0	0	0
19.	Alcohol & Tobacco products	0	0	0	0	281505	0	13719017	0	0	0
20.	Travel related consumer goods	0	0	161021	0	11005	0	0	0	2673652	0
21.	Footwear	0	0	0	0	0	0	0	0	4451026	0
22.	Soaps, cosmetics and glycerine	0	0	0	0	324772	0	217	0	0	0
23.	Gems and jewellery	0	0	0	0	0	0	0	0	4584603	0
24.	Books, journals, magazines, stationery, etc.	0	0	O	0	0	0	0	0	0	0
	Total Output at basic prices (Rs. Lakh)	31187700	9226614	15119500	16	102584000	284	14620100	894	13804551	1812
	Intermediate consumption (Rs. Lakh)	11889100	3517288	10151355	11	86704716	240	8647434	529	10832921	1422
	GVA (Rs. Lakh)	19298600	5709325	4968145	5	15879284	44	5972666	365	2971630	390

TSA Table 6: Domestic Supply and Internal Tourism Consumption (Co	ntd.)
---	-------

(Rs. Lakh) Sl.No. **Products X Industries** Footwear Soaps, cosmetics Gems and jewellery Books, journals, **Output of domestic** industries at basic prices and glycerin magazines, stationery etc. Output Tourism Output Tourism Output Tourism Output Tourism Output Tourism share share share share share 1. Agriculture and allied 2. Mining, other manufacturing, construction, electricity, gas and water supply 3. Trade 4. Transport freight services All non-tourism specific services 6. Accommodation services/Hotels 7. Food and beverage serving services/ Restaurants Ω Ο Ο Ο Ο Ω Ο 8. Railway passenger transport services Passenger transport services 10. Water passenger transport services 11. Air passenger transport services 12. Transport equipment rental services 13. Travel agencies and other reservation services/ Supporting and auxiliary transport activities 14. Cultural and religious services 15. Sports and other recreational services Health and medical related services 16. 17. Readymade garments Ω Ο Ο Ο Ο 18. Processed Food Alcohol & Tobacco products 20. Travel related consumer goods Λ Λ 21. Footwear 22. Soaps, cosmetics and glycerine 23. Gems and jewellery 24. Books, journals, magazines, stationery, etc. Total Output at basic prices (Rs. Lakh) Intermediate consumption (Rs. Lakh) GVA (Rs. Lakh) Ω

TSA Table 6: Domestic Supply and Internal Tourism Consumption (Contd.)

il.No.	Products X Industries	Product taxe Subsidies	es less	OUTPUT at Pr price	roducer	Imports		CIF Adjustr	nent	Import after adjustment	cif
		Output	Tourism share	Output	Tourism share	Output	Tourism share	Output	Tourism share	Output	Tourism share
1.	Agriculture and allied	-12967007	0	265884566	0	2076480	0	0	0	2076480	C
2.	Mining, other manufacturing, construction, electricity, gas and water supply	81597381	0	1155323051	0	236937682	0	0	0	236937682	C
3.	Trade	175965	0	189643695	1342376	0	0	0	0	0	0
4.	Transport freight services	1203895	0	89287579	0	2847328	0	-355287	0	2492040	0
5.	All non-tourism specific services	17149518	378243	628549074	13863025	12460288	274819	-444733	-9809	12015555	265010
6.	Accommodation services/ Hotels	47696	34341	6644853	4784294	0	0	0	0	0	0
7.	Food and beverage serving services/Restaurants	223873	119227	31143556	16585992	0	0	0	0	0	0
8.	Railway passenger transport services	2840	1982	3063087	2138177	0	0	0	0	0	0
9.	Passenger transport services	256939	160945	32642050	20446682	0	0	0	0	0	0
10.	Water passenger transport services	333541	12673	2366112	89903	4969307	188814	-3253136	-123607	1716171	65208
11.	Air passenger transport services	111651	90545	7991797	6481061	2299831	1865080	-1150965	-933392	1148865	931689
12.	Transport equipment rental services	563	214	259189	98492	0	0	0	0	0	0
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	75881	38891	2027022	1038913	0	0	0	0	0	0
14.	Cultural and religious services	-415	-83	516844	103886	0	0	0	0	0	0
15.	Sports and other recreational services	1270748	72631	12572173	718573	121141	6924	0	0	121141	6924
16.	Health and medical related services	-44602	-13195	31143098	9213419	0	0	0	0	0	0
17.	Readymade garments	980337	348001	16324725	348001	176246	0	0	0	176246	0
18.	Processed Food	3527814	34383	104280404	34383	8217225	0	0	0	8217225	0
19.	Alcohol & Tobacco products	6102043	205321	20153956	205321	220663	0	0	0	220663	0
20.	Travel related consumer goods	350790	248008	4748046	248008	922934	0	0	0	922934	0
21.	Footwear	227398	43554	4756305	43554	207517	0	0	0	207517	0
22.	Soaps, cosmetics and glycerine	1346896	18834	8851995	18834	558131	0	0	0	558131	0
23.	Gems and jewellery	655166	21439	33418042	21439	37385579	0	0	0	37385579	0
24.	Books, journals, magazines, stationery, etc.	31741	1483	5485300	1483	348037	0	0	0	348037	0
	Total Output at basic prices (Rs. Lakh)	102660650	1817436	2657076518	77825815	309748388	2335638	-5204122	-1066807	304544266	1268831

TSA Table 6: Domestic Supply and Internal Tourism Consumption (Contd.)
--

(Rs. Lakh) **Total Domestic supply** Sl.No. **Products X Industries** Import Duty **Final Import OP at Producer Price Trade and Transport** + Import Margins (at purchasers' prices) Tourism Tourism Output Output Output Tourism Output Tourism Output Tourism Tourism share share share share share Product Ratios (%) Ω Ω Ο 0.00 1. Agriculture and allied 2. Mining, other manufacturing, construction, electricity, gas Λ Λ Λ Λ 0 00 and water supply Ω -1342376 Ο 0.00 3. Trade Ω Ω Ω -91779620 0.00 4. Transport freight services 5. All non-tourism specific Ο 2.21 services Accommodation services/ 72.00 Hotels 7. Food and beverage serving Ω Ω N Ο Ω Ω 53.26 services/Restaurants Railway passenger transport 69.80 services 62.64 9. Passenger transport services 10. Water passenger transport 3.80 services 11. Air passenger transport 81.10 Ο services 12. Transport equipment rental 38.00 services 13. Travel agencies and other reservation services/ 51.25 Supporting and auxiliary transport activities n n 20.10 14. Cultural and religious services 15. Sports and other recreational Ο 5.72 services 16. Health and medical related 29.58 services 35.50 17. Readymade garments 0.97 Processed Food 3.36 19. Alcohol & Tobacco products Ο 70.70 20. Travel related consumer goods 19.15 21. Footwear 1.40 22. Soaps, cosmetics and glycerine Ω 3.27 23. Gems and jewellery 24. Books, journals, magazines, Λ 4.67 stationery, etc. Total Output at basic prices (Rs. 3.20 Lakh)

Source: NCAER computation using TSA Table 4 and TSA Table 5.



Supplementary satellite rows are also added to each of the tourism industries to include estimates of employment (in terms of jobs), gross fixed capital formation and net capital stock. These satellite rows facilitate additional analysis of tourism activities vis-à-vis other activities.

III.6.1 Key Observations

- The total internal consumption is estimated at Rs 9,54,379 crore out of the total supply of Rs 2,98,12,419 crore. This amounts to an overall tourism product ratio of 3.2 per cent (Table III.7).
- The highest TPR is for air passenger transport, at 81.1 per cent. This means that of the totalsupply of air passenger transport services, 81.1 per cent is on account of tourism.
- This is followed by accommodation services with a TPR of 72 per cent.
- Other products for which the TPRs are over 50 per cent are travel-related consumer goods (70.7 per cent), railway passenger

transport services (69.8 per cent), land passenger transport services (62.6 per cent), food and beverage serving services (53.3 per cent), and tourism related supporting services (51.2 per cent).

- The Tourism Direct GVA (TDGVA) is estimated at Rs.
 3,46,493 crore, which is 2.78 per cent of the total GVA of the economy of Rs. 1,24,58,642 crore. Hence, tourism contributes
 2.78per cent to the economy's total GVA (Table III.8). This is also the overall TIR.
- Like the TPR, the TIR too is the highest for air passenger transport services, also at 81.1 per cent. The second highest TIR is for the hotel industry, at 71.4 per cent.
- The other industries for which the TIRs are over 50 per cent are railway passenger transport services (69.8 per cent),food and beverage serving services (54.2 per cent), land passenger transport services (52.4 per cent), and tourism related supporting services (51.2 per cent).
- The GDP is the sum of GVA and net taxes. The total GDP of the

Sl.No.	Products/Services	Total supply (Rs. lakh)	Internal tourism consumption (Rs. lakh)	Tourism Product Ratios (%)	Share of product in total output (%)	Share of product in total tourism internal consumption (%)
		1	2	3=2 as % of 1	4=% distt of 1	5=% distt of 2
1.	Agriculture and allied	337201259	0	0.00	11.31	0.00
2.	Mining, other manufacturing, construction, electricity, gas and water supply	1563132358	0	0.00	52.43	0.00
3.	Trade	0	0	0.00	0.00	0.00
4.	Transport freight services	0	0	0.00	0.00	0.00
5.	All non-tourism specific services	640564628	14128035	2.21	21.49	14.80
6.	Accommodation services/Hotels	6644853	4784294	72.00	0.22	5.01
7.	Food and beverage serving services/Restaurants	31143556	16585992	53.26	1.04	17.38
8.	Railway passenger transport services	3063087	2138177	69.80	0.10	2.24
9.	Passenger transport services	32642050	20446682	62.64	1.09	21.42
10.	Water passenger transport services	4082283	155111	3.80	0.14	0.16
11.	Air passenger transport services	9140662	7412750	81.10	0.31	7.77
12.	Transport equipment rental services	259189	98492	38.00	0.01	0.10
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	2027022	1038913	51.25	0.07	1.09
14.	Cultural and religious services	516844	103886	20.10	0.02	0.11
15.	Sports and other recreational services	12693314	725497	5.72	0.43	0.76
16.	Health and medical related services	31143098	9213419	29.58	1.04	9.65
17.	Readymade garments	21250133	7543390	35.50	0.71	7.90
18.	Processed Food	157070871	1530864	0.97	5.27	1.60
19.	Alcohol & Tobacco products	24465907	823225	3.36	0.82	0.86
20.	Travel related consumer goods	6650441	4701862	70.70	0.22	4.93
21.	Footwear	5947951	1139209	19.15	0.20	1.19
22.	Soaps, cosmetics and glycerine	12096224	169145	1.40	0.41	0.18
23.	Gems and jewellery	72548917	2373983	3.27	2.43	2.49
24.	Books, journals, magazines, stationery, etc.	6957249	325008	4.67	0.23	0.34
	Total	2981241898	95437934	3.20	100.00	100.00

Table III. 7: Supply and Consumption of Products/Services and Tourism Product Ratios

Source: NCAER computation using TSA Table 6.

Table III. 8: GVA, TDGVA and Tourism Industry Ratios

Sl.No.		GVA (Rs. lakh)	TDGVA (Rs. lakh)	Tourism Industry Ratios (%)	Share of industry in total GVA (%)	Share of industry in total TDGVA (%)
		1	2	3=2 as % of 1	% distt of 1	% distt of 2
1.	Agriculture and allied	217544860	0	0.00	17.46	0.00
2.	Mining, other manufacturing, construction, electricity, gas and water supply	201548040	4153	0.00	16.18	0.01
3.	Trade	129800400	1020751	0.79	10.42	2.95
4.	Transport freight services	41093282	973233	2.37	3.30	2.81
5.	All non-tourism specific services	561460601	7709619	1.37	45.07	22.25
6.	Accommodation services/Hotels	1747969	1247367	71.36	0.14	3.60
7.	Food and beverage serving services/ Restaurants	11053971	5992453	54.21	0.89	17.29
8.	Railway passenger transport services	2027810	1415505	69.80	0.16	4.09
9.	Passenger transport services	15457624	8105964	52.44	1.24	23.39
10.	Water passenger transport services	601601	22859	3.80	0.05	0.07
11.	Air passenger transport services	1811935	1469414	81.10	0.15	4.24
12.	Transport equipment rental services	176711	67150	38.00	0.01	0.19
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	927847	475551	51.25	0.07	1.37
14.	Cultural and religious services	340142	68369	20.10	0.03	0.20
15.	Sports and other recreational services	6413546	366571	5.72	0.51	1.06
16.	Health and medical related services	19298600	5709325	29.58	1.55	16.48
17.	Readymade garments	4968145	5	0.00	0.40	0.00
18.	Processed Food	15879284	44	0.00	1.27	0.00
19.	Alcohol & Tobacco products	5972666	365	0.01	0.48	0.00
20.	Travel related consumer goods	2971630	390	0.01	0.24	0.00
21.	Footwear	4999	0	0.00	0.00	0.00
22.	Soaps, cosmetics and glycerine	1542189	22	0.00	0.12	0.00
23.	Gems and jewellery	588519	193	0.03	0.05	0.00
24.	Books, journals, magazines, stationery, etc.	2631855	22	0.00	0.21	0.00
	Total	1245864229	34649328	2.78	100.00	100.00

2

 $\it Source:$ NCAER computation using TSA Table 6.

economy is Rs. 1,34,85,249 crore with net taxes of Rs. 10,26,606 crore.

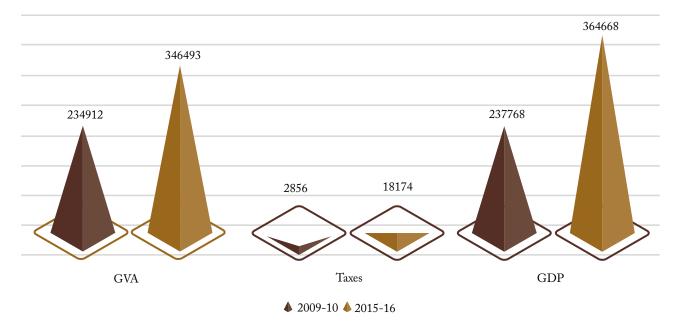
- The direct net taxes on tourism are estimated at Rs. 18,174 crore, translating into a Tourism Direct GDP of Rs. 3,64,668 crore.
- Hence, the Tourism Direct GDP is 2.7 per cent of the total GDP.

Between 2009–10 and 2015–16, the TDGVA increased from Rs. 2,34,912 crore to Rs 3,46,493 crore, which signifies a growth of 47.5 per cent in nominal terms. Further, the TDGDP increased from Rs 2,37,768 crore to Rs

3,64,668 crore, registering a growth of 53.4 per cent in nominal terms (Figure III.24).

The contribution of tourism to the GDP, according to India's Third TSA for 2015–16, is estimated at 2.7 per cent. This is lower than the sector's contribution estimated in India's Second TSA for 2009–10. This is largely due to the lower contribution of the overall services sector to the GDP. From the contribution of 54.7 per cent in 2009–10, the services sector's contribution has moderated to 52.5 per cent in 2015–16.

Figure III.24: Tourism Direct GVA, Taxes and GDP (Rs. crore) (2009-10 and 2015-16)



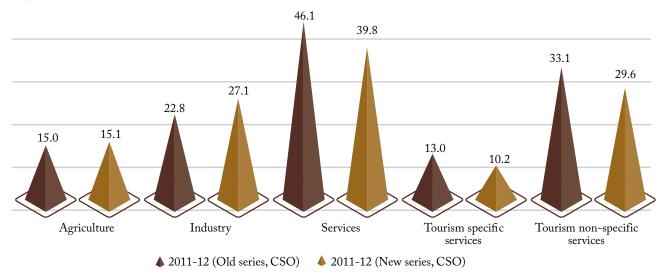
Source: NCAER computation using $2^{nd}\,TSA$ and $3^{rd}\,TSA.$



To a great extent, this is also due to the revision in the GDP base year from 2004–05 (on which the Second TSA was based) to 2011–12 (on which the Third TSA is based). The difference in GVA of the broad economic sectors, which resulted due to the base revision, is evident in the differences seen in the 2011–12 GVA numbers when based on the old series as compared with that based on new series. The overall GVA (at current prices) for 2011–12, based on the old series with the base year 2004–05, stood at Rs. 83,91,691 crore. As compared to this, the overall

GDP (at current prices) for the same year, based on the new series with the base year 2011–12, was revised to Rs. 81,95,546 crore.8 This signifies a reduction to the tune of 2.34 per cent. Among the broad sectors, the GVA of the agriculture sector was revised upwards by 0.43 per cent, that of industry by 18.8 per cent and that of the services sector (which most of the tourism sector is built upon) was revised downwards by as much as 13.7 per cent from Rs. 46,08,227 croreto Rs. 39,76,499 crore (Figure III.25).





Source: NCAER computation using NAS statements.

Within the services sector too, the sectors from which most of the tourism specific sectors are drawn, were revised downwards by a significant 21.8 per cent, as compared to the tourism non specific sectors, which were revised downwards by 10.5 per cent. Their absolute values are presented in Figure III.25.

III.7 Tourism Employment

TSA Table 7 presents the employment situation in tourism industries. 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. Its measurement would require techniques that go beyond the present recommendations. As a result, the recommendations in TSA: RMF 2008 are restricted to employment in tourism characteristic industries.

As recommended, for India's Third TSA for 2015–16, 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 employment is sourced from the Annual Employment Unemployment Survey, conducted in 2015–16 by the Labour Bureau. The survey estimates the total number of jobs in 2015–16 to be 583.8 million.

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

Sl.No.	Sector		Self	employed			Em	ployees		Total
		Male	Female	Transgender	Total	Male	Female	Transgender	Total	
1.	Accommodation services/ Hotels	299008	65400	0	364408	529686	118478	0	648163	1012571
2.	Food and beverage serving services/Restaurants	4420306	753140	5423	5178869	2068977	365371	0	2434348	7613217
3.	Railway passenger transport services	64630	4719	0	69349	972380	54286	0	1026667	1096015
4.	Passenger transport services	5069937	51463	1472	5122872	6697151	199412	6765	6903327	12026200
5.	Water passenger transport services	25630	0	0	25630	106071	9108	235	115413	141043
6.	Air passenger transport services	0	0	0	0	65833	11194	0	77027	77027
7.	Transport equipment rental services	98403	146	0	98549	28607	1125	0	29732	128281
8.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	364631	6840	0	371471	760268	69697	758	830723	1202194
9.	Cultural and religious services	852221	78701	0	930922	440483	86737	0	527220	1458142
10.	Sports and other recreational services	576257	93008	4053	673318	480307	48002	3508	531817	1205136
11.	Health and medical related services	853625	199192	0	1052817	2227416	2271268	2199	4500883	5553700
	Tourism employment – (sum of 1 to 11) (in numbers)	12624647	1252608	10948	13888204	14377178	3234679	13464	17625321	31513525
	Total – all industries (in millions)	211.9	64.8	0.2	276.9	221.6	85.2	0.2	307.0	583.8

Source: NCAER computation using Annual EUS, Labour Bureau, 2015-16.

III.7.1 Key Observations

- Of the total 583.8 million jobs in the economy, 31.51 million jobs are in tourism characteristic industries (TSA Table 7).
- In percentage terms, tourism characteristic industries account for 5.40 per cent of the total employment.
- As recommended, employment in tourism characteristic industries is considered as tourism employment. Hence, the contribution of tourism to total employment stands at 5.40 per cent.
- However, attributing the entire employment in a specific tourism characteristic industry to tourism may not give a realistic estimate. Hence, it is worth estimating the employment accountable to tourism using the TIRs. These ratios may be applied on employment in all the 24 sectors to derive tourism employment.
- Using the TIRs, the tourism employment works out to be 17.32 million. This is 2.97 per cent of the total employment (Table III.9).

Between 2009–10 and 2015–16, the total number of jobs is estimated to have increased from 535.5 million to 583.8 million. The employment in tourism characteristic industries has shown a greater increase. This has led to a higher contribution of tourism employment to the overall employment (Figure III.26).

This contribution was 4.37 per cent in 2009–10, which increased to 5.40 per cent in 2015–16.

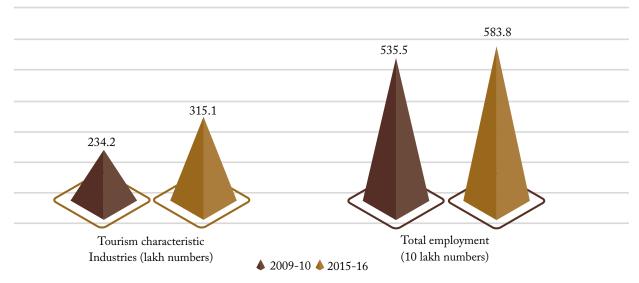
Sl.No.		Total employment (number of jobs)	TIR (%)	Tourism employment (number of jobs)
1.	Agriculture and allied	288572549	0.00	0
2.	Mining, other manufacturing, construction, electricity, gas and water supply	34209948	0.00	705
3.	Trade	55658014	0.79	437695
4.	Transport freight services	8689263	2.37	205792
5.	All non-tourism specific services	146973064	1.37	2018141
6.	Accommodation services/Hotels	1012571	71.36	722580
7.	Food and beverage serving services/ Restaurants	7613217	54.21	4127190
8.	Railway passenger transport services	1096015	69.80	765069
9.	Passenger transport services	12026200	52.44	6306529
10.	Water passenger transport services	141043	3.80	5359
11.	Air passenger transport services	77027	81.10	62466
12.	Transport equipment rental services	128281	38.00	48747
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	1202194	51.25	616162
14.	Cultural and religious services	1458142	20.10	293086
15.	Sports and other recreational services	1205136	5.72	68880
16.	Health and medical related services	5553700	29.58	1643015
17.	Readymade garments	2831350	0.00	3
18.	Processed Food	6333469	0.00	18
19.	Alcohol & Tobacco products	3357952	0.01	205
20.	Travel related consumer goods	1853863	0.01	243
21.	Footwear	306484	0.00	1
22.	Soaps, cosmetics and glycerin	453897	0.00	6
23.	Gems and jewellery	2639889	0.03	867
24.	Books, journals, magazines, stationery etc.	451404	0.00	4
	Total	583844671		17322764

Table III.9: Tourism Employment using TIRs

Source: NCAER computation using TSA Table 7.



Figure III.26: Tourism Employment – Number of jobs (2009-10 and 2015-16)



Source: NCAER computation using 2nd TSA and 3rd TSA.

III.8 Tourism Gross Fixed Capital Formation

Gross fixed capital formation (GFCF) 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 realised by the productive activity of institutional units. The produced assets are broadly divided into tangible (dwellings, other buildings and structures, machinery and equipment, and cultivated assets) and intangible (mineral exploration, software, entertainment, and literary orartistic originals) produced assets.

TSA: RMF 2008 provides a proposed list of GFCF goods related to tourism. The tourism industries acquire these tourism-related capital goods for production of goods and services. These individual capital goods, when aggregated over all the tourism industries, provide data on the tourism GFCF. However, tourismrelated infrastructure is not included in the tourism GFCF due to several conceptual and measurement issues. Therefore, the TSA table on tourism GFCF is not one of the TSA tables that should necessarily be compiled as part of the TSA tables.

The national accounts of the CSO provide GFCF by industries but at a fairly aggregated level (generally at a one-digit NIC level). Further, the break-up of GFCF by different assets as recommended in TSA: RMF is also not available. Therefore, the information on GFCF that is available at the aggregate level in the NAS, 2012, has been used in preparing TSA Table 8. Along with the estimates of GFCF for tourism industries, data has also been provided on net capital stock using the information available in NAS, 2012. This data is useful in the analysis of capital productivity for tourism and other industries.

III.8.1 Key Observations

• In 2015–16, total GFCF of the economy stood at Rs. 40,02,782 crore, of which Rs. 2,94,867 crore is on account of tourism-specific

Sl.No.		GFCF	NCS
1.	Agriculture and allied	322686	3948589
2.	Mining, other manufacturing, construction, electricity, gas and water supply	635565	8595245
3.	Trade	322447	2888064
4.	Transport freight services	129914	1132913
5.	All non-tourism specific services	2297303	23599563
6.	Accommodation services/Hotels	8139	63974
7.	Food and beverage serving services/Restaurants	51471	404564
8.	Railway passenger transport services	16021	127598
9.	Passenger transport services	32956	266014
10.	Water passenger transport services	2471	36296
11.	Air passenger transport services	183	38042
12.	Transport equipment rental services	452	3991
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	1514	21483
14.	Cultural and religious services	871	7681
15.	Sports and other recreational services	16420	144836
16.	Health and medical related services	49408	435816
17.	Readymade garments	16526	219672
18.	Processed Food	52821	702120
19.	Alcohol & Tobacco products	19868	264088
20.	Travel related consumer goods	9885	131394
21.	Footwear	17	221
22.	Soaps, cosmetics and glycerin	5130	68190
23.	Gems and jewellery	1958	26022
24.	Books, journals, magazines, stationery etc.	8755	116370
	Total	4002782	43242745
	Tourism specific industries (6 to 24)	294867	3078372

TSA Table 8: Gross Fixed Capital Formation of Tourism and Other Industries

Source: NCAER computation using NAS 2017.

industries (tourism characteristic and connected taken together). This translates to tourism's contribution of 7.4 per cent to the economy's GFCF (TSA Table 8).

- The total Net Capital Stock was Rs. 4,32,42,745 crore, of which that accounted for by the tourism industries was estimated at Rs. 30,78,372 crore. This is 7.1 per cent of the total.
- Table III.10 presents the output to capital stock ratio. While the overall ratio is 0.59, the corresponding ratio for tourism characteristic industries is higher at 0.84. It is even higher for tourism connected industries (which are all manufacturing industries) at 1.12. This means that tourism industries are less capital-intensive. The table on employment has already shown that these industries are more labour-intensive.

Table III.10: GFCF, NCS and Output to NCS ratio

Sl.No.		Gross Output(Rs. crore)	GFCF (Rs. crore)	NCS (Rs. crore)	Output per unit of NCS
1.	Agriculture and allied	2840816	322686	3948589	0.72
2.	Mining, other manufacturing, construction, electricity, gas and water supply	7296725	635565	8595245	0.85
3.	Trade	1757137	322447	2888064	0.61
4.	Transport freight services	856534	129914	1132913	0.76
5.	All non-tourism specific services	9776969	2297303	23599563	0.41
6.	Accommodation services/Hotels	51225	8139	63974	0.80
7.	Food and beverage serving services/Restaurants	323943	51471	404564	0.80
8.	Railway passenger transport services	30602	16021	127598	0.24
9.	Passenger transport services	348154	32956	266014	1.31
10.	Water passenger transport services	20326	2471	36296	0.56
11.	Air passenger transport services	78801	183	38042	2.07
12.	Transport equipment rental services	2586	452	3991	0.65
13.	Travel agencies and other reservation services/ Supporting and auxiliary transport activities	19511	1514	21483	0.91
14.	Cultural and religious services	5173	871	7681	0.67
15.	Sports and other recreational services	113014	16420	144836	0.78
16.	Health and medical related services	311877	49408	435816	0.72
17.	Readymade garments	151195	16526	219672	0.69
18.	Processed Food	1025840	52821	702120	1.46
19.	Alcohol & Tobacco products	146201	19868	264088	0.55
20.	Travel related consumer goods	138046	9885	131394	1.05
21.	Footwear	171	17	221	0.77
22.	Soaps, cosmetics and glycerine	70881	5130	68190	1.04
23.	Gems and jewellery	60560	1958	26022	2.33
24.	Books, journals, magazines, stationery, etc.	117871	8755	116370	1.01
	Total	25544159	4002782	43242745	0.59
	Tourism characteristic Industries	1305214	179908	1550295	0.84
	Tourism connected industries	1710764	114959	1528077	1.12
	Tourism non-specific industries	22528181	3707915	40164373	0.56

 $\it Source:$ NCAER computation using TSA Table 8.

III.8.2 Employment-Investment Elasticity

As part of the study and its broad objectives, the elasticity of employment has been estimated with respect to investment. This elasticity measures the effect of an increase in investment on employment, which is useful in designing the investment package in order to maximise the employment gains.

The employment-investment elasticity is derived as the percentage change in employment with respect to percentage change in investment. To derive this elasticity for all tourism characteristic and connected industries, a minimum of two-point data are required for both employment and investment or Gross Fixed Capital Formation. The TSA Table 7 provides employment estimates for 2015-16, derived from the Labour Bureau's Annual Employment Unemployment Survey. The previous such survey was done in 2013. Using this survey, the industry-wise employment estimates for 2013 have also been estimated.

GFCF data for 2015-16, as given in TSA Table 8, is at current price. For calculating elasticity, GFCF at constant prices is required. These are obtained for 2013-14 and 2015-16 from the NAS statement on GFCF at constant prices. Table III.11 presents the employment investment elasticity for tourism characteristic industries.

Table III.11: Employment-Investment Elasticity

	Jobs (in numb	per)	GFCF (Rs. Lal price	kh) constant	Employment- Investment elasticity
	2013–14	2015–16	2013–14	2015–16	
Accommodation services/Hotels	524379	1012572	188738	725707	0.3
Food and beverage serving services/ Restaurants	8006720	7613215	1193562	4589293	0.0
Railway passenger transport services	921059	1096015	851802	1383050	0.3
Passenger transport services	11589293	12026200	2045778	3060498	0.1
Water passenger transport services	109997	141043	370575	233915	-0.8
Air passenger transport services	87953	77027	470467	11716	0.1
Transport equipment rental services	136902	128280	32795	40394	-0.3
Travel agencies and other reservation services/ Supporting and auxiliary transport activities	956262	1202193	141323	136758	-8.0
Cultural and religious services	445065	1458142	63125	77753	9.8
Sports and other recreational services	1617028	1205136	1190255	1466073	-1.1
Health and medical related services	5792221	5553702	3581522	4411469	-0.2
Tourism characteristic industries	30186879	31513525	10129942	16136627	0.074
Total in the economy - all industries	570245195	583844680	319492500	351844700	0.236

Source: NCAER computation.



The employment-investment elasticity for Tourism characteristic industries (all taken together) works out to be 0.074. This means that a per cent increase in investment is expected to result in 0.074 per cent increase in employment. A low elasticity confirms the high labour-intensive nature of tourism characteristic industries.

III.9 Tourism Collective Consumption Expenditure

The Government provides services to the community at prices which are not economically significant. The receipts earned by the government from the community on account of providing these services⁹ are, therefore, very small as compared to the overall expenditures involved. The government incurs these additional expenditures from its own resources.10 These government expenditures¹¹ (including the imputed expenditures, mainly on consumption of fixed capital of its fixed assets) in producing these services net of receipts from the sale of goods and services is termed as Government Final Consumption Expenditure (GFCE).

The GFCE is divided into two components—individual and collective on the basis of who is consuming these services – households or the community as a whole. While the individual consumption expenditure part of GFCE becomes part of household actual final consumption, the collective expenditure part of GFCE becomes the collective (or actual) consumption of government. TSA RMF: 2008 seeks to include the estimates of tourism collective consumption. However, considering the difficulties in collecting data on collective expenditures of government related to tourism services, TSA RMF: 2008 places this under an experimental stage.

In TSA Table 9, the data on government expenditures as available with the CSO has been presented in a two-way classification of economic and purpose categories. From the available details in the budget documents, it is difficult to categorise government expenditures according to individual and collective consumption categories. The CSO categorises all the consumption expenditures for this purpose under individual consumption. The NASprovides general government expenditures according to economic and purpose classifications. One of the purpose classifications under the Classification of Functions of Government (COFOG) is "cultural, recreational and religious affairs services", which falls under the criterion of being tourism characteristic. This information has been used to prepare the TSA Table 9.

⁹Either free or at prices which are not economically significant.

¹⁰Raised through taxation, investment, transfers and borrowings.

¹¹Compensation of employees and purchase of goods and services.

Sl.No.		Recreation, culture & religion	
1	Current expenditure	30302	
1.1	GFCE	8353	
1.1.1	Compensation of Employees	4243	
1.1.2	Net purchase of commodities and services	4110	
1.2	Subsidy	13517	
1.3	Current Transfers	8431	
2	Capital Expenditure	6347	
2.1	GCF	4972	
2.1.1	GFCF	4972	
2.1.2	CIS	0	
2.2	Capital Transfer	1375	
3	Net Investment in Stock	473	
4	Loans and Advances	7	
	Total expenditure	37128	

TSA Table 9: Tourism Consumption Expenditure by Government (Rs. crore)

III.9.1 Key Observations

- Government Final Consumption Expenditure on Recreation, culture and religion in 2015-16 is Rs. 8353 crore.
- Of this, the share of compensation of employees is 50.8 per cent.
- This is lower than the share of compensation of employees in the total GFC, which stands at 83.7 per cent.
- Of the total GFCE, share of expenditure on recreation, culture and religion is just 0.8 per cent (Table III.12).
- Of the total Gross Capital Formation, its share is 1.2 per cent.

Source: NAS 2017.

Table III. 12: Government Final Consumption Expenditure by Economic and Purpose Classification

	GFCE	of	Share of	%	GCF	%		GFCE	
	(Rs. crore)	which CoE (Rs. crore)	CoE in GFCE	distribution of GFCE	(Rs. crore)	distribution of GCF	Individual Consumption Expenditure (Rs. crore)	Collective consumption expenditure (Rs. crore)	Total (Rs. crore)
General public services	129369	102644	79.3	11.9	47130	11.1	0	129369	129369
Defence	236710	185848	78.5	21.7	87098	20.5	0	236710	236710
Public order and safety	185554	173871	93.7	17.0	15466	3.6	0	185554	185554
Economic affairs	64776	66470	102.6	5.9	153243	36.2	0	64777	64777
Environment protection	482	209	43.4	0.0	81	0.0	0	482	482
Housing and community amenities	27927	19953	71.4	2.6	46196	10.9	0	27927	27927
Health	99579	78374	78.7	9.1	14196	3.3	83360	16219	99579
Recreation, culture and religion	8353	4243	50.8	0.8	4972	1.2	8353	0	8353
Education	273296	256034	93.7	25.1	33726	8.0	259511	13785	273296
Social protection	64412	24926	38.7	5.9	21758	5.1	56063	8349	64412
Total	1090459	912572	83.7	100.0	423867	100.0	407287	683172	1090459

Source: NAS 2017.

III.10 Tourism Non-Monetary Indicators

TSA Table 10 presents a few quantitative indicators that are important for the interpretation of the monetary information presented. The indicators include the number of trips by forms of tourism, classes of visitors and duration of the stay, physical indicators regarding the types of accommodation, modes of transport used by non-resident visitors travelling to the economic territory of the country of reference, and the number and size of the establishments belonging to tourism industries. However, the set of non-monetary indicators may vary from country to country depending on the availability of data.

For India, TSA Table 10 comprises the set of Tables 10.1 to 10.10, as delineated below.

TSA Table 10.1: Inbound Tourism in India

Year	FTAs in India (in million)	Percentage (%) change over previous year	NRIs arrival in India (in million)	Percentage (%) change over previ- ous year	International Tourist Arriv- als in India (in million)	Percentage (%) change over previ- ous year
1981	1.28	2				
1991	1.68	-1.7				
2001	2.53	-4.2				
2002	2.38	-6				
2003	2.73	14.3				
2004	3.46	26.8				
2005	3.92	13.3				
2006	4.45	13.5				
2007	5.08	14.3				
2008	5.28	4				
2009	5.17	-2.2				
2010	5.78	11.8				
2011	6.31	9.2				
2012	6.58	4.3				
2013	6.97	5.9				
2014	7.68	10.2	5.43		13.11	
2015	8.03	4.5	5.26	-3.15	13.29	1.4
2016	8.8	9.7	5.77	9.7	14.57	9.7
2017 (P) (Jan- Nov)	10.18	15.6				

Source: India Tourism Statistics, 2017.

TSA Table 10.2: FTAs in India from different regions of the world, 2014–2016

Region/Country	Number of arrivals		Р	Percentage Share			% Growth	
	2014	2015	2016	2014	2015	2016	2015/14	2016/15
South Asia	1694857	1946207	2194555	22.07	24.25	24.93	14.8	12.8
Western Europe	1860580	1880203	2029412	24.23	23.42	23.05	1.1	7.9
North America	1387468	1494930	1614178	18.07	18.62	18.33	7.7	8
South East Asia	685805	700298	746069	8.93	8.72	8.47	2.1	6.5
East Asia	546792	555770	617563	7.12	6.92	7.01	1.6	11.1
West Asia	413678	417616	451842	5.39	5.2	5.13	1	8.2
Eastern Europe	422278	331051	406002	5.5	4.12	4.61	-21.6	22.6
Australasia	286294	312101	348908	3.73	3.89	3.96	9	11.8
Africa	280754	293569	302164	3.66	3.66	3.43	4.6	2.9
Central and South America	69926	70831	78730	0.91	0.88	0.89	1.3	11.2
Not Classified elsewhere	30667	24557	14988	0.39	0.32	0.19	-19.9	-39
Grand Total	7679099	8027133	8804411	100	100	100	4.5	9.7

Source: India Tourism Statistics, 2017.

Month	Foreign Tourist Arrivals			Growth rate in FTAs		Percentage Share	
	2015	2016	2017(P)	2016/15	2017/16	2016	2017
January	790854	844533	983413	6.8	16.4	9.6	9.7
February	761007	848782	956337	11.5	12.7	9.6	9.4
March	729154	809107	904888	11.0	11.8	9.2	8.9
April	541551	592004	740275	9.3	25.0	6.7	7.3
May	509869	527466	630438	3.5	19.5	6.0	6.2
June	512341	546972	669989	6.8	22.5	6.2	6.6
July	628323	733834	788377	16.8	7.4	8.3	7.7
August	599478	652111	724067	8.8	11.0	7.4	7.1
September	542600	608177	722567	12.1	18.8	6.9	7.1
October	683286	741770	875838	8.6	18.1	8.4	8.6
November	815947	878280	1004826	7.6	14.4	10.0	9.9
December	912723	1021375	1176233	11.9	15.2	11.7	11.6
Total	8027133	8804411	10177248	9.7	13.6	100	100

TSA Table 10.3: Month-wise number & percentage share of FTAs in India during 2015–2017

Source: India Tourism Statistics, 2017.

TSA Table 10.4: FTAs in India according to Mode of Travel, 2001–2016

Year	Arrivals	% distribution by mo	% distribution by mode of travel				
		Air	Sea	Land			
2001	2537282	87.1	0.9	12.0			
2002	2384364	81.9	0.6	17.5			
2003	2726214	83.1	0.5	16.4			
2004	3457477	85.6	0.5	13.9			
2005	3918610	86.5	0.4	13.1			
2006	4447167	87.1	0.6	12.3			
2007	5081504	88.4	0.6	11.0			
2008	5282603	89.1	0.7	10.2			
2009	5167699	89.8	1.0	9.2			
2010	5775692	91.8	0.7	7.5			
2011	6309222	92.0	0.8	7.2			
2012	6577745	91.7	0.7	7.6			
2013	6967601	91.0	0.5	8.5			
2014	7679099	86.1	0.4	13.5			
2015	8027133	84.5	0.7	14.8			
2016	8804411	84.1	0.9	15.0			

TSA Table 10.5: Number Of Indian Nationals Departure from India, 1991 to 2016

Year	No. of Indian Nationals departure from India	Percentage change over the previous year
1991	1942707	-14.8
1992	2161301	11.3
1993	2733304	26.5
1994	2734830	0.1
1995	3056360	11.8
1996	3463783	13.3
1997	3725820	7.6
1998	3810908	2.3
1999	4114820	8
2000	4415513	7.3
2001	4564477	3.4
2002	4940244	8.2
2003	5350896	8.3
2004	6212809	16.1
2005	7184501	15.6
2006	8339614	16.1
2007	9783232	17.3
2008	10867999	11.1
2009	11066072	1.8
2010	12988001	17.4
2011	13994002	7.7
2012	14924755	6.7
2013	16626316	11.4
2014	18332319	10.3
2015	20376307	11.1
2016	21871995	7.3

Source: India Tourism Statistics, 2017.

Source: India Tourism Statistics, 2017.

TSA Table 10.6: Domestic & foreign tourist visits to States/UTs, 1991–2016

	Tourist Visits		Annual Gro	wth Rate
Year	Domestic	Foreign	Domestic	Foreign
1991	66670303	3146652		
1992	81455861	3095160	22.20%	-1.60%
1993	105811696	3541727	29.90%	14.40%
1994	127118655	4030216	20.10%	13.80%
1995	136643600	4641279	7.50%	15.20%
1996	140119672	5030342	2.50%	8.40%
1997	159877208	5500419	14.10%	9.30%
1998	168196000	5539704	5.20%	-0.70%
1999	190671034	5832015	13.40%	5.30%
2000	220106911	5893542	15.40%	1.10%
2001	236469599	5436261	7.40%	-7.80%
2002	269598028	5157518	14.00%	-5.10%
2003	309038335	6708479	14.60%	30.10%
2004	366267522	8360278	18.50%	24.60%
2005	392044495	9949671	7.00%	19.00%
2006	462439634	11747937	18.00%	18.10%
2007	526700493	13267612	13.90%	12.90%
2008	563034107	14380633	6.90%	8.40%
2009	668800482	14372300	18.80%	-0.10%
2010	747703380	17910178	11.80%	24.60%
2011	864532718	19497126	15.60%	8.90%
2012	1045047536	18263074	20.90%	-6.30%
2013	1142529465	19951026	9.30%	9.20%
2014	1282801629	22334031	12.92%	13.12%
2015	1431973794	23326163	11.60%	4.40%
2016	1613551505	24707732	12.68%	5.92%

TSA Table 10.7: Number of Approved Hotels and Availability of Hotel Rooms in the Country, as on 31st December, 2016

Sl.No.	Category of Hotels	No. of Hotels	No. of Rooms
1.	One Star	12	398
2.	Two Star	53	1190
3.	Three Star	428	17604
4.	Four Star	210	9892
5.	Five Star	136	16214
6.	Five Star Deluxe	146	31037
7.	Apartment Hotels	0	0
8.	Time Share	0	0
9.	Heritage Hotels	40	1258
10.	Bed & Breakfast Establishment	316	1596
11.	Guest House	118	696
	Total	1459	79879

Source: India Tourism Statistics, 2017.

Source: India Tourism Statistics, 2017.

Composition	Category	5-Star Delux	5-Star	4-Star	3-Star	2-Star	1-Star	Heritage	Others	All India Average
Number of Responses		62	68	137	460	238	80	47	194	1286
No. of Managers	Male	49.6	29	15.2	7.1	3.3	2.4	4.7	2.9	9.5
	Female	12.7	4.9	2.2	0.9	0.6	0.3	0.3	0.4	1.6
No. of Supervisors	Male	56.9	48.4	22	10	5.5	2.9	7.6	3.8	13.3
	Female	11.2	7.3	3.1	1.4	0.9	0.6	0.7	0.6	2.1
No. of Staff	Male	216.7	165	95.2	58	35.3	22.2	44.9	27	63.7
	Female	30.8	19.2	11.3	7.4	4.2	2.8	2.6	3.9	8
Total No. of Employees		377.9	273.8	149	84.8	49.8	31.1	61	38.5	98.1
Avg. Employees/ Room		2.1	1.9	1.7	1.6	1.3	1.2	1.8	1.4	1.6

TSA Table 10.8: Average Number of Total Employees per Hotel (Permanent / Contract/Full Time/Part Time), by Category of Hotels, 2015–16

Source: India Tourism Statistics, 2017.

TSA Table 10.9: Hotel Guests by Category of Hotels, 2015-16

Composition	5-Star Delux	5-Star	4-Star	3-Star	2-Star	1-Star	Heritage	Others	All India Average
Number of Responses	67	70	133	406	202	60	49	125	1113
Domestic Guest (%)	54.5	64.6	73.4	80.1	83.9	82.6	60	79.6	76.9
Foreign Guests (%)	45.5	35.4	26.7	19.9	16.1	17.4	40	20.4	23.1
Total	100	100	100	100	100	100	100	100	100
Total Business Guests (%)	59.5	65.2	62.3	62.3	57.6	54.5	33.1	59.5	59.2
Total lesure Guest (%)	40.5	34.8	37.7	37.7	42.4	45.5	66.9	40.5	40.9
Total	100	100	100	100	100	100	100	100	100
Average Stay of Foreign Guests (Days)	3.4	4.4	3.6	3.8	3.2	3.1	1.9	4.3	3.5
AverageStay of Domestic Guests (Days)	2	2.6	0.6	3.2	2.8	2.5	2	3.7	2.8
Average Stay of Business Guests (Days)	2.1	2.4	2.4	3.6	2.6	2	1.9	3.6	2.9
Average Stay of leisure Guests (Days)	2.3	2.1	2.2	2.4	2.5	2	2.2	2.6	2.3
Repeat Guests (%)	33.3	32.6	45.6	23	50.5	49.7	30.9	51.3	45.3

Source: India Tourism Statistics, 2017.

TSA Table 10.10: State/UT Wise Number of Recognized Travel Service Provider in the country during 2016, as on 31st December, 2016

Sl.No.	State	Adventure Tour Operator	Domestic Tour Operator	Inbound Tour Operator	Tourist Transport Operator	Travel Agent/ Agencies	Total
1.	Andhra Pradesh	0	0	0	1	1	2
2.	Andaman & Nicobar	0	0	1	0	0	1
3.	Assam	0	1	5	0	1	7
4.	Bihar	0	2	4	0	0	6
5.	Chandigarh	0	0	1	0	2	3
6.	Delhi	19	42	217	55	40	373
7.	Goa	0	1	8	0	0	9
8.	Gujarat	0	1	2	0	5	8
9.	Haryana	3	8	38	0	10	59
10.	Himachal Pradesh	1	2	0	0	0	3
11.	Jammu & Kashmir	2	1	3	0	1	7
12.	Jharkhand	0	1	0	0	1	2
13.	Karnataka	1	5	9	5	7	27
14.	Kerala	0	5	25	5	10	45
15.	Madhya Pradesh	0	0	1	0	2	3
16.	Maharashtra	3	8	24	6	38	79
17.	Manipur	0	0	6	0	0	6
18.	Odisha	0	1	8	1	0	10
19.	Puducherry	0	0	1	1	0	2
20.	Punjab	0	0	0	1	5	6
21.	Rajasthan	0	1	17	1	1	20
22.	Sikkim	0	0	1	0	0	1
23.	Tamil Nadu	2	8	16	8	29	63
24.	Telengana	0	3	2	0	4	9
25.	Uttar Pradesh	0	3	22	1	7	33
26.	Uttarakhand	3	0	1	0	0	4
27.	West Bengal	3	12	8	4	8	35
	Grand Total	37	105	420	89	172	823

Source: India Tourism Statistics, 2017.

Indirect Contribution of IV

Any economic activity in a region has both direct and indirect economic benefits. The indirect benefits arise due to the inter-linkages of production sectors. Tourism is also one such activity. While the TSA captures the direct benefits of tourism to the economy, the Input–Output tables and the Input–Output models are used to derive the indirect benefits. The contribution of the tourism sector to the economy's GDP and employment is hence a combination of the direct and indirect contribution of tourism.

The TSA: RMF 2008 details the methodology for estimating the direct contribution of tourism to the economy through the preparation of TSA. However, it does not discuss any methodology to estimate the indirect contribution though it encourages countries to develop a methodology for this.

The indirect benefits of tourism result when the money spent by the tourists in an area is re-circulated and respent 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.

The TSA: RMF 2008 points out, "Tourism Satellite Account is mainly descriptive in nature and does not include any measurement of the indirect and induced effects of tourist consumption on the economic system as a whole. This means that the impact of tourism on the economy is not fully reflected in the Tourism Satellite Account tables and must therefore be measured and analysed using other means. This can be done for instance using input-output or computable general equilibrium models based on the Tourism Satellite Account or other modelling instruments which allow for comprehensive tourism impact analysis".

This chapter presents the indirect benefits of the tourism sectors. The total contribution of tourism to the GVA, GDP and employment is derived by supplementing these indirect benefits with the direct benefits presented in Chapter III. 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 the model is a consistent IO Table, which is prepared from the Supply and Use Tables (SUT) of an economy. The SUT for



The IO tables help in quantifying the inter-linkages of the tourism industry with other industries of the economy through the Leontief Inverse matrix. India, available for 2012–13, have been updated for 2015–16 for the Third TSA. Also, the original SUT of 140 industries and 66 products has been aggregated to 24 tourism industries and products, comprising tourism characteristic industries (and products); tourism connected industries (and products); and tourism non-specific industries (and products).

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 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.

This results into an additional row and column in the SUT, depicting "tourism" as a separate industry and product, while the original tourism characteristic and connected industries and products are now a net of the tourism component. This results in the SUT of 25 industries and products, which is then converted into an IO table.

The transformation of the SUT into the IO table can result in either a "product by product" matrix or an "industry by industry" matrix. These are compiled and used for different purposes. While the former is preferred for deriving the output and GVA multipliers, the latter is preferred for generating the employment multipliers.

Methodologically, the "product-by product" IO tables are compiled by post-multiplying the use matrix and value added matrix with the transpose of the input coefficient matrix, which presents the input requirement of products as a share of the industry output for each industry in the supply table.

The "industry-by-industry" IO tables are derived by pre-multiplying the use matrix and final use matrix with the transpose of the output coefficient matrix. This matrix presents the use of each product in an industry as a share of its total supply.

These IO tables help in quantifying the inter-linkages of the tourism industry with other industries of the economy through 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 and can be interpreted as the cumulative increase in the output of the economy, which is induced by one additional unit of the final demand of a certain sector. The higher the multipliers, the larger are the effects on the input-output system of the economy.

The GVA multiplier is the ratio of the GVA linkage coefficient to the GVA

direct coefficient. The direct coefficient is the GVA to the output ratio and the GVA linkage coefficient is obtained by multiplying the row vector of the GVA direct coefficient with the inverse matrix.

Similarly, 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.1 Tourism Multipliers

The tourism output multiplier, derived from the "product by product" matrix, is 1.8350. The tourism GVA multiplier, derived from the same matrix, is 1.9236. The tourism employment multiplier, derived from the "industry by industry" matrix, is 2.2931. (Table IV.1) This means that with a unit increase in final demand in the tourism sector, its own output increases by 1 unit, to meet this demand. Additionally, 0.8350 units of output is generated in the entire economy due to the interlinkages of the tourism sector with the other sectors of the economy. The total output thus generated is 1.8350 units.

Similarly, a unit increase in the GVA leads to an increase of 1.9236 units in the total GVA of the economy. Also, a unit increase in the number of jobs in the tourism sector results in the generation of a total of 2.2931 jobs in the economy.

Table IV.1 compares these multipliers with those obtained in the Second TSA in order to compare changes in the linkages of the tourism sector with other sectors of the economy. Table IV.1 shows that the linkages of the tourism sector with other sectors are becoming stronger. Hence, as compared to 2009–10, an increase in tourism activity now triggers faster and greater activity among the other sectors. However, there is a slight decrease in the employment multiplier.

Table IV.1: Values of Multipliers (2009–10 and 2015–16)

Multiplier	2nd TSA – 2009–10	3rd TSA – 2015–16
Output Multiplier	1.8252	1.8350
GVA Multiplier	1.8518	1.9236
Employment Multiplier	2.3256	2.2931

Source: NCAER computations.



Summary of Findings

The direct share of the TDGVA in the total GVA of the economy is estimated at 2.78 per cent for 2015–16. The GVA multiplier is 1.9236. Hence, the total (direct as well as indirect) share of the TDGVA comes out to be 5.35 per cent. Similarly, the direct share of the TDGDP in the total GDP is estimated at 2.70 per cent while the total share is estimated at 5.20 per cent. The direct share of tourism employment to the total employment is estimated at 5.40 per cent. The employment multiplier comes out to be 2.2931, which takes up the total share of tourism employment to 12.38 per cent.

V.1 Estimated Number of Trips

- The total estimated number of inbound tourists to India during 2015–16 stood at 13.52 million. Of these, 58.3 per cent are foreign nationals, 39 per cent are NRIs, and the remaining 2.7 per cent are PIOs and OCIs. The number of inbound tourists registered a growth of 24.9 per cent between the second TSA (2009–10) and the third TSA (2015–16).
- The imputed number of domestic trips was estimated at 1201.96 million in 2015–16. Of these, as many as 81.4 per cent were social trips. Another 7.7 per cent were religious trips. Leisure trips accounted for just 1.8 per cent of the total trips. Between the second and third TSAs, the number of domestic trips increased by 28.0 per cent.
- A total of 20.29 million outbound tourists travelled abroad during 2015–16. Of these, a majority

travelled for business and leisure, accounting for 35.2 per cent and 30.4 per cent of the total tourists, respectively, whereas 13.8 per cent travelled for social purposes.

- The number of outbound tourists grew by 87.2 per cent between the second and third TSAs.
- Table V.1 summarises the above results.

V.2 Total Internal Tourism Consumption

- The internal tourism consumption comprises inbound, domestic, and outbound tourism expenditure, as also the imputed tourism consumption.
- The total internal tourism consumption for 2015–16 is estimated at Rs. 9,54,379 crore. Of this, the maximum, that is, 58.0 per cent, is accounted for by domestic tourism, followed by inbound tourism, at 24.7 per cent. The share of domestic tourism expenditure declined between 2009–10 and

Table V.1: Estimated Number of Tourists/Trips (in million numbers)

	Second TSA	Third TSA	Growth (%)
Total Inbound Tourists	10.83	13.52	24.9
Total Domestic Trips	938.79	1201.96	28.0
Total Outbound Tourists	10.84	20.29	87.2



2015–16 while that of inbound went up during the corresponding period. The shares of outbound expenditure and imputed consumption also increased (Table V.2).

In growth terms, the imputed tourism consumption registered the maximum growth of 160.2 per cent, followed by outbound tourism expenditure, at 142.2 per cent. The domestic tourism expenditure grew at a slower rate of 40.8 per cent, resulting in a 53.7 per cent growth in the total internal tourism consumption between the second and third TSAs (Table V.2). and 53.4 per cent, respectively, between 2009–10 and 2015–16.

- The share of the TDGVA to the total GVA is estimated at 2.78 per cent. The corresponding figure was 3.80 per cent in 2009–10 (the second TSA).
- Similarly, there is a moderation in contribution of the TDGDP to the GDP at 2.70 per cent as compared to 3.68 per cent in 2009-10.
- As discussed earlier in Chapter 4, this moderation is, to some extent, owing to the adoption of the revised GDP methodology in preparing the new series of base 2011–12. Besides, while an impressive growth was observed

	Second TSA		Third TSA		Growth (%)
	Rs. Crore	Share in the Total (%)	Rs. Crore	Share in the Total (%)	
Total Inbound Tourism Expenditure	1,63,415 ¹	26.3	2,35,331	24.7	44.0
Total Domestic Tourism Expenditure	3,92,961	63.3	5,53,193	58.0	40.8
Total Outbound Tourism Expenditure	10,149	1.6	24,575	2.6	142.2
Imputed Tourism Consumption	54,300	8.7	1,41,280	14.8	160.2
Total Internal Tourism Consumption	6,20,825	100.0	9,54,379	100.0	53.7

Table V.2: Total Internal Tourism Consumption (2009–10 and 2015–16)

V.3 Gross Value Added

- The total GVA of the economy stood at Rs. 1,24,58,642 crore in 2015–16 while the GDP amounted to Rs. 1,34,85,249 crore. In nominal terms, the GVA and GDP grew by 101.4 per cent and 108.8 per cent, respectively, over the corresponding figures in 2009–10 (Table V.3).
- The TDGVA is estimated at Rs. 3,46,493 crore and the GDP stood at Rs. 3,64,668 crore, obtained by adding the net taxes. In nominal terms, the TDGVA and the TDGDP grew by 47.5 per cent

in all the tourism parameters, the economy as a whole grew at a much faster pace than the tourismrelated sectors.

The tourism GVA multiplier, obtained from the IO model, is 1.9236, which is higher than the multiplier of 2009–10. This shows that the tourism sector's linkages with the other sectors of the economy have become stronger. Hence, any increase in tourism activity triggered faster and greater activities in other sectors of the economy in 2015–16 than it used to trigger in 2009–10. With a multiplier of 1.9236, the direct and indirect contribution of tourism to GVA was estimated at 5.35 per cent in 2015–16. The contribution to GDP was estimated at 5.20 per cent.

V.4 Employment in the Tourism Industries

- The total employment, presented as the number of jobs, in the economy was estimated at 583.8 million in 2015–16, which is 9.0 per cent higher than the corresponding figure in 2009–10 (Table V.4).
- The number of jobs in the tourism characteristic industries, which are highly labour-intensive in nature, grew by 34.6 per cent during the same period.
- The direct share of tourism to the total employment, defined by the number of jobs in the tourism characteristic industries, stood at 5.40 per cent in 2015–16, which is 4.37 per cent higher than the corresponding figure in 2009–10.
- The employment multiplier is 2.2931. The direct and indirect share of tourism employment to the total employment is obtained by multiplying the direct share with the employment multiplier. This translates into a total share of 12.38 per cent for total employment.

V.5 Cross-country Comparison

The following table presents the crosscountry comparison of share of tourism in GDP and employment as per the latest available data:

Table V.3: TDGVA and TDGDP (2009–10 and 2015–16)

	Second TSA	Third TSA	Growth (%)
Total (Rs. crore)			
GVA	61,86,950	1,24,58,642	101.4
Net taxes	2,70,401	10,26,606	279.7
GDP	64,57,351	1,34,85,249	108.8
Tourism Direct (Rs. crore)			
GVA	2,34,912	3,46,493	47.5
Net taxes	2856	18,174	536.3
GDP	2,37,768	3,64,668	53.4
Direct contribution of tourism (%) to:			
GVA	3.80	2.78	
Net taxes	1.06	1.77	
GDP	3.68	2.70	
GVA multiplier	1.8518	1.9236	
Direct + indirect contribution of tourism (%) to:			
GVA	7.03	5.35	
GDP	6.82	5.20	

Table V.4: Employment–Number of Jobs (2009–10 and 2015–16)

Sl.No.		Second TSA	Third TSA	Growth (%)
1.	Tourism characteristic industries (in million)	23.4	31.5	34.6
2.	Total employment (in million)	535.5	583.8	9.0
3.	Direct share of tourism, percent (3=1/2*100)	4.37	5.40	
4.	Employment multiplier	2.3256	2.2931	
5.	Direct and indirect share of tourism, percent (4*3)	10.17	12.38	
6.	Direct and indirect tourism employment (1*4) (in million)	54.47	72.26	32.7

Table V.5: Cross-country Comparison of Share of Tourism in GDP and Employment

Country	Year	Share in GDP	Share in Employment	
Australia	2016-17	3.2	4.9	
Canada	2012	2.0	3.8	
India*	2015-2016	5.2	12.4	
Indonesia	2012	3.9	8.4	
New Zealand	2017	10.5	14.5	
South Africa	2016	2.9	4.4	
Czexh Republic	2016	2.9	4.44	

Source: TSAs of different countries.



Appendix Technical Note

TN.1 Inbound Tourism Expenditure

- The estimated non-package expenditure by items and by types of international tourists were derived from the unit level data.
- During canvassing of the respondents among the tourists, the expenditure incurred onpackage trips was collected as a consolidated amount, but the tourists were also asked whether the package included expenditure on any or a combination of the following components:
 - » Travel and transport;
 - » Food;
 - » Accommodation;
 - » Local sight-seeing; and
 - » Others.
 - The data revealed that the responses included various combinations of these components. The expenditure incurred on each component was imputed using the structure observed in the corresponding combination of the non-package components. These imputed values of the componentwisepackage expenditure were added to the corresponding expenditure values of the nonpackage components.

- The respondents were also asked whether the expenses incurred on the trip were reimbursed or paid bythe government or other agencies; and in case the expenditure was reimbursed or paid, if the paid amount was:
 - » known, then this amount was also added to the inbound tourism expenditure, distributing it across items of expenditure in the same proportion as found so far;
 - » not known, then the unknown paid amount was imputed using the per-tourist per-day known paid amount.
- The reimbursed amount was also added to the expenditure.

TN.2 Domestic Tourism Expenditure

- The estimated non-package expenditure by items and by purposes of travel were derived from the unit level data of the Domestic Tourism Survey (DTS) with 2014–15 as the reference period.
- Since the reference period for the Third TSA 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 2014-15.¹

¹Refer to India Tourism Statistics, 2017.



- Here, it is important to note that the DTS collected the particulars of trips, completed by the households during the last 365 days, only from those households which undertook trips for any of the following leading purposes:
 - » Health and medical;
 - Holiday, leisure and recreation; and
 - » Shopping.
- Similarly, the survey collected the particulars of trips, completed by the households during the last 30 days, only from those households that who undertook trips for the rest of the leading purposes, namely:
 - » Business;
 - » Social;
 - » Pilgrimage and religious;
 - » Education and training; and
 - » Others.
- Hence, the survey provides the estimated number of trips and the estimated tourism expenditure for two different reference periods-the last 365 days and the last 30 days. While the NSS does not provide any estimate or methodology to estimate the total number of trips for a uniform reference period, we have estimated the same for the purpose of arriving at the TSA. For this, we have derived the purpose-wise ratio of the number of trips with a 30-day reference period to the number of trips with a 365-days reference period, using data from the DTS 2008-09. We have applied this purpose-wise ratio on the corresponding purpose-wise number of trips with a 30-day reference period, obtained from the DTS 2014-15.

- While canvassing the respondents among the tourists, the expenditure incurred on package trips was collected as a consolidated amount, but the tourists were also asked whether the package included expenditure on any or a combination of the following components:
 - » Transport;
 - » Accommodation;
 - » Meals/food; and
 - » Sightseeing and entertainment.
 - The data revealed that the responses included various combinations of these components. The expenditure incurred on each component was imputed using the structure observed in the corresponding combination of the non-package components. These imputed values of the componentwise package expenditure were added to the corresponding expenditure values of the non package components.
- The respondents were also asked whether the expenses incurred on the trip were reimbursed or paid by government or other agencies. In case the expenditure was reimbursed or paid, if the paid amount was:
 - known, then this amount was also added to the domestic tourism expenditure, distributing it across items of expenditure in the same proportion as found so far;
 - not known, then the unknown paid amount was imputed using the per-tourist per-day known paid amount.
- The reimbursed amount was also added to the expenditure

- However, it is observed that the primary household surveys tend to under-estimate the value of consumption expenditure. This observation comes from the notable under-estimation of the value of consumption expenditure (both at the aggregate level and for each item) that is derived from the NSSO's large sample survey on "Consumption Expenditure" when compared with the Private Final Consumption Expenditure (PFCE) as reported in the CSO's National Accounts of Statistics (NAS). The reason behind such under-estimation could be the inability to recall the expenses and in some cases, reluctance to report the actual expenses.
- This under-estimation of the DTS value of the expenditure is corrected by applying the adjustment factor on the value of expenditure of each item. The adjustment factor for each item is obtained by taking the ratio of the PFCE expenditure and NSSO expenditure. Since the SUT provides the PFCE at a moredisaggregated level, the SUT is used to derive these adjustment factors. These adjustment factors for the tourism-specific goods and services are given in Table T.1.
- An adjustment factor of 1.48 in the case of "food and beverage serving services" would mean that there is an under-reporting in NSS expenditure value to the extent that the NAS value of the expenditure incurred on this service is 1.48 times of that reported in the NSSO survey. Hence, for each item, the value of the expenditure obtained through the DTS is multiplied by the corresponding adjustment factor.

- Since the reference period of DTS is 2014–15 whereas the TSA has been prepared for 2015–16, the expenditure has been extrapolated for 2015–16 in the following two steps:
 - » The estimated per-trip expenditure obtained in2014– 15 is applied on the estimated number of trips in 2015–16 to arrive at the estimated expenditure for 2015–16. The purpose-wise number of trips for 2015–16 is estimated using the growth observed in the number of domestic visits, as given in the India Tourism Statistics, Ministry of Tourism.
 - » However, the inflationary

Table T.1: 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 auxiliary transport activities	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



changes in the values of products and services have also been taken into account and the expenditure data for 2014–15 have been inflated for 2015–16 using the PFCE deflators.

- The domestic expenditure incurred by tourists on trips of more than 180 days have also been added to the total domestic tourism expenditure, estimated for 2015– 16.
- The estimated domestic tourism expenditure for 2015–16 has been obtained as described in the above steps.

TN.3 Outbound Tourism Expenditure

- The estimated non-package expenditure by items and by purposes of travel were derived from the unit level data.
- During canvassing of the tourist respondents, the expenditure incurred on the package trip was collected as a consolidated amount, but the tourists were also asked whether the package included expenditure on any or a combination of the following components:
 - » Travel and transport;
 - » Food;
 - » Accommodation;
 - » Local sight-seeing; and
 - » Others.
- The data revealed that the responses included various combinations of these components. The expenditure incurred on each component was imputed using the structure observed in the corresponding combination

of the non-package components. These imputed values of the componentwise package expenditure were added to the corresponding expenditure values of the nonpackage components.

TN.4 Production Account of Tourism Industries

- TSA Table 5 required working on CSO's latest available SUT for 2012–13. This table had to be updated for 2015–16, after aggregating the matrix for 140 products and 66 industries to the matrix for the tourism-specific 24 products and 24 industries.
- The SUT for 2012–13 presents transactions between 66 industries and 140 products. The "supply" table presents the values of products produced as main products or by-products by each of the 66 industries, while the "use" table presents the values of products used as inputs in the production process of each industry.
- However, some of the tourism specific products and services have not been identified separately, even among the 140 products given in rows, and 66 industries given in columns. Hence, in the first stage, the 140 rows have beenfurther expanded to include the unidentified tourism products and services. This results in the matrix with 152 rows.
- Similarly, the 66-industry columns have been expanded to 80-industry columns. Hence, the dimension of the resultant matrix is 152 products X 80 industries, which has been arrived at by splitting the relevant rows and columns to

determine the tourism-specific products and industries. This splitting or disaggregation scheme, along with the data used to arrive at the ratios to split the industries and products, is given in Table T.2.

• The splitting of industries and products required splitting the industries (columns) first and splitting the products (rows) in the second stage, in both the supply and use tables. Consistency between the supply and use tables for the split industries was ensured.

The 152 industries x 80 products matrix was aggregated to 24 industries and 24 products covering tourism characteristic, tourism connected and tourism non-specific industries/products.

Product Number	Description	Split into	Data Source Used			
64.	Leather and leather	Leather consumer goods	Share in output using the manufacturing industries data of the NSS 73rd Round			
	products	Leather products - others	survey on non-agricultural unincorporated enterprises			
70.	Plastic products	Plastic consumer goods	Share in output using the manufacturing industries data of the NSS 73rd Rou			
		Plastic products - others	survey on non-agricultural unincorporated enterprises			
112.	Miscellaneous	Travel-related goods	Share in output using the manufacturing industries data of the NSS 73rd Round			
	manufacturing	Other manufacturing	survey on non-agricultural unincorporated enterprises			
119.	Hotels and restaurants	Hotels	Share in output using the NSS 73rd Round survey on non-agricultural unincorporated enterprises			
		Restaurants				
120.	Railway transport	Railway passenger services	Share in output using the NAS Statement on Railway Transport			
	services	Railway freight services				
121.	Land transport	Land passenger services	Share in output using the NSS 73rd Round survey on non-agricultural			
	including via pipeline	Land freight services	unincorporated enterprises			
122.	Water transport	Water passenger services	Share in output using NSS 73rd round survey on non-agricultural			
		Water freight services	unincorporated enterprises			
123.	Air transport	Air passenger services	Share as in water transport			
		Air freight services				
124.	Supporting and auxiliary transport	Transport incidental services -passengers	Share in output using the NSS 73rd Round survey on non-agricultural unincorporated enterprises			
	activities	Transport incidental services -freight				
131.	Renting of machinery	Renting of transport equipment	Share in output using the NSS 73rd Round survey on non-agricultural			
	and equipment	Renting of machinery and equipment (other than transport equipment)	unincorporated enterprises			
139.	Other community,	Cultural and religious services	Share in output using the NSS 73rd Round survey on non-agricultural			
	social and personal services	Other community and social services	unincorporated enterprises			
140.	Other services	Sports, museum and culture services	Share in output using the NSS 73rd Round survey on non-agricultural			
		other part of other services	unincorporated enterprises			

Table T.2: SUT Products Disaggregated for New Industries

•



TN.5 Employment in Tourism Industries

- The employment data have been obtained from the Annual Employment-UnemploymentSurvey of 2015–16, conducted by the Labour Bureau (LB). The data presents the employment by industries at the three-digit level of NIC-2008 classification.
- However, this data canvassed persons aged 15 years and above. Further, 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 number of jobs cannot be determined.
- 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.

Appendix

A.1: Concordance between the SUT 140 Products and New Extended SUT 152 Products

Sl.No.	SUT 140	Sl.No.	SUT 152
1.	Paddy	1.	Paddy
2.	Wheat	2.	Wheat
3.	Coarse cereals	3.	Coarse cereals
4.	Gram	4.	Gram
5.	Arhar	5.	Arhar
6.	Other pulses	6.	Other pulses
7.	Groundnut	7.	Groundnut
8.	Rapeseed and mustard	8.	Rapeseed and mustard
9.	Other oil seeds	9.	Other oil seeds
10.	Kapas	10.	Kapas
11.	Jute, hemp and mesta	11	Jute, hemp and mesta
12.	Sugarcane	12.	Sugarcane
13.	Coconut	13.	Coconut
14.	Tobacco	14.	Tobacco
15.	Теа	15	Теа
16.	Coffee	16.	Coffee
17.	Rubber	17.	Rubber
18.	Fruits	18.	Fruits
19.	Vegetables	19.	Vegetables
20.	Other food crops	20.	Other food crops
21.	Milk	21.	Milk
22.	Wool	22.	Wool
23.	Egg and poultry	23.	Egg and poultry
24.	Other livestock products	24.	Other livestock products
25.	Industry wood	25.	Industry wood
26.	Firewood	26.	Firewood
27.	Other forestry products	27.	Other forestry products
28.	Inland fish	28.	Inland fish

(Contd.)

Π

n.

Sl.No.	SUT 140	Sl.No.	SUT 152
29.	Marine fish	29.	Marine fish
30.	Coal and lignite	30.	Coal and lignite
31.	Natural gas	31.	Natural gas
32.	Crude petroleum	32.	Crude petroleum
33.	Iron ore	33.	Iron ore
34.	Manganese ore	34.	Manganese ore
35.	Bauxite	35.	Bauxite
36.	Copper ore	36.	Copper ore
37.	Other metallic minerals	37.	Other metallic minerals
38.	Limestone	38.	Limestone
39.	Mica	39.	Mica
40.	Other non-metallic minerals	40.	Other non-metallic minerals
41.	Processed poultry meat and poultry meat products	41.	Processed poultry meat and poultry meat products
42.	Processed other meat and meat products	42.	Processed other meat and meat products
43.	Processed fish and fish products	43.	Processed fish and fish products
44.	Processed fruits and processed vegetables	44.	Processed fruits and Wprocessed vegetables
45.	Dairy products	45.	Dairy products
46.	Edible oils and fats	46.	Edible oils and fats
47.	Grain mill products, starch and starch products	47.	Grain mill products, starch and starch products
48.	Sugar	48.	Sugar
49.	Bread and bakery products	49.	Bread and bakery products
50.	Miscellaneous food products	50.	Miscellaneous food products
51.	Alcoholic beverages	51.	Alcoholic beverages
52.	Non-alcoholic beverages	52.	Non-alcoholic beverages
53.	Tea processed	53.	Tea processed
54.	Coffee processed	54.	Coffee processed
55.	Tobacco products	55.	Tobacco products
56.	Cotton yarn and cotton textiles	56.	Cotton yarn and cotton textiles
57.	Synthetic yarn and synthetic textiles	57.	Synthetic yarn and synthetic textiles
58.	Wool yarn and woollen textiles	58.	Wool yarn and woollen textiles
59.	Silk yarn and silk textiles	59.	Silk yarn and silk textiles
60.	Carpet weaving	60.	Carpet weaving
61.	Readymade garments	61.	Readymade garments
62.	Miscellaneous textile products	62.	Miscellaneous textile products
63.	Leather footwear	63.	Leather footwear
64.	Leather and leather products except footwear	64.	Leather consumer goods
		65.	Leather products - others
65.	Wood and wood products except furniture	66.	Wood and wood products except furniture
66.	Paper, paper products and newsprint	67.	Paper, paper products and newsprint

Sl.No.	SUT 140	Sl.No.	SUT 152
67.	Publishing, printing and allied activities	68.	Publishing, printing and allied activities
68.	Furniture and fixtures	69.	Furniture and fixtures
69.	Rubber products	70.	Rubber products
70.	Plastic products	71.	Plastic consumer goods
		72.	Plastic products - others
71.	Petroleum products	73.	Petroleum products
72.	Coal tar products	74.	Coal tar products
73.	Inorganic chemicals	75.	Inorganic chemicals
74.	Organic chemicals	76.	Organic chemicals
75.	Fertilisers	77.	Fertilisers
76.	Pesticides	78.	Pesticides
77.	Paints, varnishes and lacquers	79.	Paints, varnishes and lacquers
78.	Drugs and medicine	80.	Drugs and medicine
79.	Soaps, cosmetics and glycerine	81.	Soaps, cosmetics and glycerine
80.	Synthetic fibres, resin	82.	Synthetic fibres, resin
81.	Other chemicals and chemical products	83.	Other chemicals and chemical products
82.	Cement	84.	Cement
83.	Non-metallic mineral products	85.	Non-metallic mineral products
84.	Iron and steel ferro alloys	86.	Iron and steel ferro alloys
85.	Iron and steel casting and forging	87.	Iron and steel casting and forging
86.	Iron and steel foundries	88.	Iron and steel foundries
87.	Non-ferrous basic metals (including alloys)	89.	Non-ferrous basic metals (including alloys)
88.	Hand tools, hardware	90.	Hand tools, hardware
89.	Miscellaneous metal products	91.	Miscellaneous metal products
90.	Tractors and other agricultural implements	92.	Tractors and other agricultural implements
91.	Industrial machinery for food and textile industry	93.	Industrial machinery for food and textile industry
92.	Industrial machinery (except food and textile)	94.	Industrial machinery (except food and textile)
93.	Machine tools	95.	Machine tools
94.	Other non-electrical machinery	96.	Other non-electrical machinery
95.	Electrical industrial machinery	97.	Electrical industrial machinery
96.	Electrical cables, wires	98.	Electrical cables, wires
97.	Batteries	99.	Batteries
98.	Electrical appliances	100.	Electrical appliances
99.	Communication equipment	101.	Communication equipment
100.	Other electrical machinery	102.	Other electrical machinery
101.	Electronic equipment including TV	103.	Electronic equipment including TV
102.	Medical precision, optical instruments	104.	Medical precision, optical instruments
103.	Watches and clocks	105.	Watches and clocks

.

Sl.No.	SUT 140	Sl.No.	SUT 152
104.	Ships and boats	106.	Ships and boats
105.	Rail equipment	107.	Rail equipment
106.	Motor vehicles	108.	Motor vehicles
107.	Motor cycles and scooters	109.	Motor cycles and scooters
108.	Bicycles, cycle-rickshaw	110.	Bicycles, cycle-rickshaw
109.	Aircrafts and spacecraft	111.	Aircrafts and spacecraft
110.	Other transport equipment	112.	Other transport equipment
111.	Gems and jewellery	113.	Gems and jewellery
112.	Miscellaneous manufacturing	114.	Travel-related goods
		115.	Other manufacturing
113.	Construction and construction services	116.	Construction and construction services
114.	Electricity	117.	Electricity
115.	Gas	118.	Gas
116.	Water Supply	119.	Water Supply
117.	Trade	120.	Trade
118.	Repair andmaintenance of motor vehicles	121.	Repair andmaintenance of motor vehicles
119.	Hotels andrestaurants	122.	Hotels
		123.	Restaurants
120.	Railway transport	124.	Railway passenger
		125.	Railway freight
121.	Land transport	126.	Land passenger
		127.	Land freight
122.	Air transport	128.	Air passenger services
		129.	Air freight services
123.	Water transport	130.	Water passenger services
		131.	Water freight services
124.	Supportive and auxiliary transport activities	132.	Supportive and auxiliary passenger
		133.	Supportive and auxiliary freight
125.	Storage and warehousing	134.	Storage and warehousing
126.	Communication services	135.	Communication services
127.	Financial services	136.	Financial services
128.	Insurance services	137.	Insurance services
129.	Ownership of dwellings	138.	Ownership of dwellings
130.	Real estate services	139.	Real estate services
131.	Renting of machinery and equipment	140.	Renting of MVs
		141.	Renting of other machinery
132.	Research and development services	142.	Research and development services
133.	Legal services	143.	Legal services

Sl.No.	SUT 140	Sl.No.	SUT 152
134.	Other business services	144.	Other business services
135.	Computer-related services	145.	Computer-related services
136.	Public administration and defence	146.	Public administration and defence
137.	Education services	147.	Education services
138.	Human health and social care services	148.	Human health and social care services
139.	Community, social and personal services	149.	Religious services
		150.	Other community and social services
140.	Recreation, entertainment and radio and TV	151.	Sports, museum and culture services
	broadcasting and other services	152.	Other part of other services

A.2: Concordance between 152 Products and 24 Products

Ł

Sl.No.	SUT 25	Aggregation of SUT 152 Products
1.	Agriculture and allied	1-29
2.	Mining, other manufacturing, construction, electricity, gas and water supply	30-40, 56-60, 62, 65-67, 69- 70, 72-80, 82-112, 115-119
3.	Trade	120
4.	Transport freight services	125, 127, 129, 131, 133
5.	All non-tourism specific services	121, 134-139, 141-147, 150, 152
6.	Accommodation services/hotels	122
7.	Food and beverage serving services/restaurants	123
8.	Railway passenger transport services	124
9.	Road passenger transport services	126
10.	Water passenger transport services	130
11.	Air passenger transport services	128
12.	Transport equipment rental services	140
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	132
14.	Cultural and religious services	149
15.	Sports and other recreational services	151
16.	Health and medical related services	148
17.	Readymade garments	61
18.	Processed food	41-50, 53, 54
19.	Alcohol &tobacco products	51-52, 55
20.	Travel related consumer goods	64, 71, 114
21.	Footwear	63
22.	Soaps, cosmetics and glycerin	81
23.	Gems and jewellery	113
24.	Books, journals, magazines, stationery etc.	68

A. 3: Leontief Inverse M	latrix - Product X Product
--------------------------	----------------------------

Sl.No.	Product X Product	Agriculture and Allied	Mining, Other Manufacturing, Construction, Electricity, Gas and Water Supply	Trade	Transport Freight Services	All Non- tourism Specific Services
		1	2	3	4	5
1.	Agriculture and allied	1.1324	0.0642	0.0304	0.0416	0.0410
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0.0981	1.5976	0.2459	0.4312	0.3510
3.	Trade	0.0393	0.0746	1.0322	0.0546	0.0464
4.	Transport freight services	0.0183	0.0347	0.0150	1.0254	0.0216
5.	All non-tourism specific services	0.0319	0.0931	0.0825	0.1839	1.1394
6.	Accommodation services/hotels	0.0001	0.0004	0.0010	0.0008	0.0007
7.	Food and beverage serving services/restaurants	0.0008	0.0035	0.0077	0.0060	0.0052
8.	Railway passenger transport services	0.0000	0.0002	0.0001	0.0001	0.0002
9.	Road passenger transport services	0.0021	0.0024	0.0063	0.0017	0.0023
10.	Water passenger transport services	0.0000	0.0002	0.0002	0.0001	0.0003
11.	Air passenger transport services	0.0001	0.0007	0.0005	0.0006	0.0010
12.	Transport equipment rental services	0.0000	0.0001	0.0001	0.0001	0.0001
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	0.0001	0.0006	0.0016	0.0018	0.0006
14.	Cultural and religious services	0.0000	0.0000	0.0000	0.0000	0.0000
15.	Sports and other recreational services	0.0002	0.0004	0.0004	0.0008	0.0005
16.	Health and medical related services	0.0000	0.0000	0.0000	0.0000	0.0001
17.	Readymade garments	0.0003	0.0010	0.0008	0.0040	0.0013
18.	Processed food	0.0236	0.0070	0.0041	0.0067	0.0099
19.	Alcohol &tobacco products	0.0001	0.0003	0.0003	0.0004	0.0004
20.	Travel related consumer goods	0.0001	0.0003	0.0002	0.0003	0.0003
21.	Footwear	0.0000	0.0001	0.0000	0.0000	0.0000
22.	Soaps, cosmetics and glycerine	0.0000	0.0004	0.0005	0.0002	0.0002
23.	Gems and jewellery	0.0008	0.0116	0.0029	0.0034	0.0028
24.	Books, journals, magazines, stationery, etc.	0.0008	0.0015	0.0009	0.0050	0.0017
25.	Tourism	0.0064	0.0177	0.0276	0.0241	0.0216
Output N	Multiplier	1.3556	1.9129	1.4613	1.7930	1.6486
GVA link	age coefficient	0.9675	0.7939	0.9131	0.8491	0.8775
GVA mu	ltiplier	1.2634	2.0923	1.3092	1.7789	1.5323

A. 3: Leontief Inverse Matrix - Product X Product (Contd.)

Sl.No.	Product X Product	Accommodation Services/Hotels	Food and Beverage Serving Services/ Restaurants	Railway Passenger Transport Services	Road Passenger Transport Services	Water Passenger Transport Services
		6	7	8	9	10
1.	Agriculture and allied	0.2330	0.2683	0.1042	0.0888	0.0394
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0.2964	0.2724	0.3449	0.4124	0.6408
3.	Trade	0.0947	0.1022	0.0641	0.0655	0.0778
4.	Transport freight services	0.0441	0.0475	0.0298	0.0305	0.0362
5.	All non-tourism specific services	0.1133	0.1046	0.1190	0.1685	0.1734
6.	Accommodation services/hotels	1.0005	0.0004	0.0006	0.0007	0.0009
7.	Food and beverage serving services/ restaurants	0.0037	1.0033	0.0043	0.0054	0.0073
8.	Railway passenger transport services	0.0001	0.0001	1.0001	0.0001	0.0001
9.	Road passenger transport services	0.0018	0.0018	0.0015	1.0015	0.0016
10.	Water passenger transport services	0.0001	0.0001	0.0001	0.0001	1.0001
11.	Air passenger transport services	0.0004	0.0004	0.0004	0.0005	0.0005
12.	Transport equipment rental services	0.0001	0.0001	0.0001	0.0001	0.0001
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	0.0006	0.0006	0.0005	0.0007	0.0008
14.	Cultural and religious services	0.0000	0.0000	0.0000	0.0000	0.0000
15.	Sports and other recreational services	0.0012	0.0013	0.0013	0.0007	0.0075
16.	Health and medical related services	0.0002	0.0002	0.0002	0.0002	0.0000
17.	Readymade garments	0.0023	0.0020	0.0036	0.0030	0.0101
18.	Processed food	0.0788	0.0919	0.0323	0.0238	0.0068
19.	Alcohol & tobacco products	0.0061	0.0071	0.0024	0.0017	0.0004
20.	Travel related consumer goods	0.0002	0.0002	0.0003	0.0003	0.0006
21.	Footwear	0.0000	0.0000	0.0000	0.0000	0.0000
22.	Soaps, cosmetics and glycerin	0.0023	0.0027	0.0010	0.0007	0.0003
23.	Gems and jewellery	0.0024	0.0022	0.0027	0.0032	0.0051
24.	Books, journals, magazines, stationery etc.	0.0027	0.0023	0.0055	0.0035	0.0152
25.	Tourism	0.0171	0.0163	0.0181	0.0204	0.0300
Output N	ſultiplier	1.9022	1.9283	1.7371	1.8323	2.0550
GVA link	age coefficient	0.8901	0.8971	0.8779	0.8551	0.7786
GVA mu	ltiplier	2.1288	2.2235	1.6938	1.8872	2.5777

A. 3: Leontief Inverse Matrix - I	Product X Product (Contd.)
-----------------------------------	---------------------	---------

Sl.No.	Product X Product	Air Passenger Transport Services	Transport Equipment Rental Services	Supporting and Auxiliary Transport Activities	Cultural and Religious Services	Sports and Other Recreational Services
		11	12	13	14	15
1.	Agriculture and allied	0.1224	0.0640	0.0863	0.0427	0.0269
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0.4157	0.2906	0.3814	0.3444	0.2171
3.	Trade	0.0766	0.0476	0.0632	0.0468	0.0298
4.	Transport freight services	0.0356	0.0221	0.0294	0.0218	0.0139
5.	All non-tourism specific services	0.1569	0.1276	0.1724	0.0730	0.3368
6.	Accommodation services/hotels	0.0007	0.0004	0.0007	0.0004	0.0004
7.	Food and beverage serving services/ restaurants	0.0054	0.0031	0.0055	0.0035	0.0031
8.	Railway passenger transport services	0.0001	0.0001	0.0002	0.0003	0.0004
9.	Road passenger transport services	0.0017	0.0032	0.0028	0.0017	0.0047
10.	Water passenger transport services	0.0001	0.0001	0.0001	0.0001	0.0002
11.	Air passenger transport services	1.0005	0.0003	0.0010	0.0005	0.0006
12.	Transport equipment rental services	0.0001	1.0002	0.0001	0.0001	0.0002
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	0.0006	0.0033	1.0039	0.0012	0.0013
14.	Cultural and religious services	0.0000	0.0000	0.0000	1.0000	0.0000
15.	Sports and other recreational services	0.0013	0.0033	0.0013	0.0009	1.0088
16.	Health and medical related services	0.0003	0.0001	0.0002	0.0001	0.0001
17.	Readymade garments	0.0054	0.0029	0.0050	0.0034	0.0019
18.	Processed food	0.0378	0.0189	0.0256	0.0111	0.0067
19.	Alcohol & tobacco products	0.0028	0.0014	0.0019	0.0008	0.0004
20.	Travel related consumer goods	0.0004	0.0005	0.0004	0.0007	0.0003
21.	Footwear	0.0000	0.0000	0.0000	0.0000	0.0000
22.	Soaps, cosmetics and glycerine	0.0011	0.0006	0.0008	0.0004	0.0002
23.	Gems and jewellery	0.0033	0.0023	0.0031	0.0027	0.0018
24.	Books, journals, magazines, stationery, etc.	0.0069	0.0042	0.0058	0.0021	0.0027
25.	Tourism	0.0232	0.0215	0.0302	0.0185	0.0272
Output M	ultiplier	1.8991	1.6184	1.8213	1.5774	1.6857
GVA linka	age coefficient	0.8519	0.8957	0.8627	0.8822	0.9095
GVA mult	tiplier	2.0621	1.5006	1.8534	1.4297	1.6209

A. 3: Leontief Inverse Matrix - Product X Product (Contd.)

Sl.No.	Product X Product	Health and Medical Related Services	Readymade Garments	Processed Food	Alcohol &Tobacco Products	Travel related Consumer Goods
		16	17	18	19	20
1.	Agriculture and allied	0.0548	0.0431	0.7551	0.4415	0.2559
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0.3834	0.7033	0.1450	0.1479	0.4495
3.	Trade	0.0535	0.0828	0.1528	0.1032	0.0947
4.	Transport freight services	0.0249	0.0385	0.0711	0.0480	0.0441
5.	All non-tourism specific services	0.0852	0.0699	0.0456	0.0392	0.0522
6.	Accommodation services/hotels	0.0003	0.0003	0.0002	0.0002	0.0003
7.	Food and beverage serving services/restaurants	0.0024	0.0022	0.0018	0.0013	0.0019
8.	Railway passenger transport services	0.0001	0.0002	0.0001	0.0002	0.0001
9.	Road passenger transport services	0.0011	0.0024	0.0024	0.0023	0.0021
10.	Water passenger transport services	0.0001	0.0001	0.0000	0.0000	0.0001
11.	Air passenger transport services	0.0006	0.0004	0.0002	0.0001	0.0003
12.	Transport equipment rental services	0.0001	0.0002	0.0000	0.0000	0.0001
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	0.0004	0.0004	0.0004	0.0003	0.0004
14.	Cultural and religious services	0.0000	0.0000	0.0000	0.0000	0.0000
15.	Sports and other recreational services	0.0007	0.0003	0.0002	0.0002	0.0002
16.	Health and medical related services	1.0017	0.0000	0.0000	0.0000	0.0000
17.	Readymade garments	0.0016	1.0036	0.0005	0.0004	0.0008
18.	Processed food	0.0150	0.0048	1.0385	0.0247	0.0080
19.	Alcohol & tobacco products	0.0011	0.0003	0.0003	1.0391	0.0002
20.	Travel related consumer goods	0.0002	0.0075	0.0001	0.0001	1.0026
21.	Footwear	0.0000	0.0001	0.0000	0.0000	0.0004
22.	Soaps, cosmetics and glycerine	0.0005	0.0004	0.0001	0.0001	0.0003
23.	Gems and jewellery	0.0029	0.0079	0.0014	0.0013	0.0874
24.	Books, journals, magazines, stationery, etc.	0.0017	0.0016	0.0009	0.0007	0.0010
25.	Tourism	0.0130	0.0393	0.0099	0.0109	0.0247
Output M	ultiplier	1.6452	2.0095	2.2268	1.8620	2.0273
GVA linka	age coefficient	0.8700	0.7618	0.9706	0.9419	0.7594
GVA mult	iplier	1.5247	2.3874	6.1842	2.3375	3.1806

Sl.No.	Product X Product	Footwear	Soaps, Cosmetics and Glycerin	Gems and Jewellery	Books, Journals, Magazines, Stationery etc.	Tourism
		21	22	23	24	25
1.	Agriculture and allied	0.3677	0.1024	0.1113	0.0789	0.1375
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0.2838	0.7174	0.6241	0.7348	0.3815
3.	Trade	0.0985	0.0932	0.0870	0.0906	0.0743
4.	Transport freight services	0.0458	0.0434	0.0405	0.0421	0.0346
5.	All non-tourism specific services	0.0422	0.0679	0.0609	0.0696	0.1237
6.	Accommodation services/hotels	0.0002	0.0003	0.0003	0.0003	0.0005
7.	Food and beverage serving services/restaurants	0.0016	0.0025	0.0023	0.0026	0.0041
8.	Railway passenger transport services	0.0001	0.0002	0.0002	0.0002	0.0001
9.	Road passenger transport services	0.0019	0.0025	0.0023	0.0025	0.0018
10.	Water passenger transport services	0.0000	0.0001	0.0001	0.0001	0.0001
11.	Air passenger transport services	0.0002	0.0005	0.0005	0.0005	0.0005
12.	Transport equipment rental services	0.0001	0.0001	0.0001	0.0002	0.0001
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	0.0003	0.0006	0.0006	0.0006	0.0006
14.	Cultural and religious services	0.0000	0.0000	0.0000	0.0000	0.0000
15.	Sports and other recreational services	0.0002	0.0003	0.0003	0.0003	0.0009
16.	Health and medical related services	0.0000	0.0000	0.0000	0.0000	0.0003
17.	Readymade garments	0.0006	0.0008	0.0007	0.0008	0.0024
18.	Processed food	0.0096	0.0069	0.0056	0.0053	0.0357
19.	Alcohol & tobacco products	0.0002	0.0003	0.0002	0.0003	0.0028
20.	Travel related consumer goods	0.0034	0.0003	0.0008	0.0003	0.0008
21.	Footwear	1.0005	0.0001	0.0002	0.0001	0.0001
22.	Soaps, cosmetics and glycerine	0.0002	1.0008	0.0004	0.0005	0.0011
23.	Gems and jewellery	0.1271	0.0145	1.0796	0.0151	0.0084
24.	Books, journals, magazines, stationery, etc.	0.0008	0.0013	0.0012	1.0016	0.0028
25.	Tourism	0.0284	0.0151	0.0199	0.0154	1.0204
Output Mu	ltiplier	2.0135	2.0716	2.0389	2.0627	1.8350
GVA linkag	je coefficient	0.7686	0.7559	0.7096	0.7491	0.8603
GVA multi		3.5521	2.8506	2.9575	2.7626	1.9236

A. 3: Leontief Inverse Matrix - Product X Product (Contd.)

R KI

Sl.No.	Industry X Industry	Agriculture and Allied	Mining, Other Manu, Construction, Electricity, Gas and Water Supply	Trade	Transport Freight Services	All Non-Tourism specific Services
		1	2	3	4	5
1.	Agriculture and allied	1.1329	0.0774	0.0172	0.0376	0.0413
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0.0663	1.4815	0.1379	0.2865	0.2291
3.	Trade	0.0359	0.0817	1.0239	0.0490	0.0423
4.	Transport freight services	0.0171	0.0386	0.0123	1.0233	0.0203
5.	All non-tourism specific services	0.0656	0.3185	0.1577	0.3340	1.2594
6.	Accommodation services/hotels	0.0001	0.0003	0.0006	0.0005	0.0004
7.	Food and beverage serving services/ restaurants	0.0010	0.0027	0.0065	0.0051	0.0045
8.	Railway passenger transport services	0.0001	0.0002	0.0002	0.0002	0.0002
9.	Road passenger transport services	0.0021	0.0039	0.0061	0.0039	0.0038
10.	Water passenger transport services	0.0000	0.0001	0.0003	0.0001	0.0003
11.	Air passenger transport services	0.0001	0.0003	0.0005	0.0005	0.0005
12.	Transport equipment rental services	0.0000	0.0001	0.0001	0.0001	0.0001
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	0.0001	0.0004	0.0010	0.0011	0.0004
14.	Cultural and religious services	0.0000	0.0000	0.0000	0.0000	0.0000
15.	Sports and other recreational services	0.0002	0.0004	0.0006	0.0009	0.0006
16.	Health and medical related services	0.0005	0.0012	0.0022	0.0018	0.0017
17.	Readymade garments	0.0008	0.0031	0.0026	0.0056	0.0030
18.	Processed food	0.0238	0.0068	0.0040	0.0055	0.0103
19.	Alcohol & tobacco products	0.0002	0.0007	0.0005	0.0006	0.0007
20.	Travel related consumer goods	0.0006	0.0045	0.0017	0.0023	0.0020
21.	Footwear	0.0000	0.0000	0.0000	0.0000	0.0000
22.	Soaps, cosmetics and glycerine	0.0006	0.0043	0.0013	0.0025	0.0020
23.	Gems and jewellery	0.0002	0.0031	0.0005	0.0009	0.0008
24.	Books, journals, magazines, stationery, etc.	0.0011	0.0078	0.0023	0.0050	0.0038
25.	Tourism	0.0062	0.0170	0.0233	0.0216	0.0188
Employ	yment linkage coefficient	1.208	0.2477	0.3743	0.2568	0.3821
Employ	yment multiplier	1.1673	7.7749	1.2844	2.666	1.5762

Sl.No.	Industry X Industry	Accommodation Services/Hotels	Food and Beverage Serving Services/ Restaurants	Railway Passenger Transport Services	Road Passenger Transport Services	Water Passenger Transport Services
		6	7	8	9	10
1.	Agriculture and allied	0.4195	0.4195	0.0187	0.0444	0.0385
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0.1242	0.1242	0.2127	0.3052	0.4373
3.	Trade	0.1222	0.1222	0.0348	0.0526	0.0715
4.	Transport freight services	0.0574	0.0574	0.0165	0.0249	0.0339
5.	All non-tourism specific services	0.1264	0.1264	0.1880	0.3589	0.3974
6.	Accommodation services/hotels	1.0002	0.0002	0.0003	0.0004	0.0006
7.	Food and beverage serving services/ restaurants	0.0021	1.0021	0.0033	0.0049	0.0063
8.	Railway passenger transport services	0.0001	0.0001	1.0001	0.0002	0.0003
9.	Road passenger transport services	0.0040	0.0040	0.0024	1.0034	0.0048
10.	Water passenger transport services	0.0001	0.0001	0.0001	0.0001	1.0001
11.	Air passenger transport services	0.0002	0.0002	0.0003	0.0004	0.0005
12.	Transport equipment rental services	0.0000	0.0000	0.0000	0.0001	0.0001
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	0.0003	0.0003	0.0002	0.0004	0.0006
14.	Cultural and religious services	0.0000	0.0000	0.0000	0.0000	0.0000
15.	Sports and other recreational services	0.0016	0.0016	0.0018	0.0004	0.0075
16.	Health and medical related services	0.0010	0.0010	0.0011	0.0016	0.0023
17.	Readymade garments	0.0018	0.0018	0.0058	0.0043	0.0116
18.	Processed food	0.1473	0.1473	0.0033	0.0057	0.0068
19.	Alcohol & tobacco products	0.0120	0.0120	0.0004	0.0006	0.0008
20.	Travel related consumer goods	0.0012	0.0012	0.0017	0.0023	0.0034
21.	Footwear	0.0000	0.0000	0.0000	0.0000	0.0000
22.	Soaps, cosmetics and glycerine	0.0017	0.0017	0.0018	0.0027	0.0038
23.	Gems and jewellery	0.0004	0.0004	0.0007	0.0010	0.0014
24.	Books, journals, magazines, stationery, etc.	0.0019	0.0019	0.0042	0.0052	0.0083
25.	Tourism	0.0136	0.0136	0.0127	0.0197	0.0260
Employ	ment linkage coefficient	0.6875	0.7717	0.4516	0.6463	0.2643
Employ	ment multiplier	4.379	3.1993	1.261	1.3673	3.8087

Sl.No.	Industry X Industry	Air Passenger Transport Services	Transport Equipment Rental Services	Supporting and Auxiliary Transport Activities	Cultural and Religious Services	Sports and Other Recreational Services
		11	12	13	14	15
1.	Agriculture and allied	0.0424	0.0175	0.0299	0.0195	0.0209
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0.4501	0.1663	0.2720	0.2226	0.1388
3.	Trade	0.0749	0.0281	0.0465	0.0362	0.0256
4.	Transport freight services	0.0357	0.0139	0.0227	0.0174	0.0126
5.	All non-tourism specific services	0.4747	0.2085	0.3512	0.1746	0.4176
6.	Accommodation services/hotels	0.0007	0.0003	0.0007	0.0003	0.0004
7.	Food and beverage serving services/ restaurants	0.0081	0.0032	0.0069	0.0032	0.0040
8.	Railway passenger transport services	0.0003	0.0002	0.0004	0.0002	0.0003
9.	Road passenger transport services	0.0058	0.0045	0.0066	0.0031	0.0052
10.	Water passenger transport services	0.0002	0.0001	0.0002	0.0002	0.0002
11.	Air passenger transport services	1.0007	0.0004	0.0009	0.0004	0.0005
12.	Transport equipment rental services	0.0001	1.0001	0.0001	0.0001	0.0001
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	0.0004	0.0026	1.0038	0.0007	0.0008
14.	Cultural and religious services	0.0000	0.0000	0.0000	1.0000	0.0001
15.	Sports and other recreational services	0.0023	0.0046	0.0017	0.0010	1.0089
16.	Health and medical related services	0.0030	0.0017	0.0031	0.0014	0.0022
17.	Readymade garments	0.0163	0.0041	0.0090	0.0046	0.0034
18.	Processed food	0.0080	0.0036	0.0063	0.0034	0.0051
19.	Alcohol & tobacco products	0.0009	0.0004	0.0007	0.0004	0.0005
20.	Travel related consumer goods	0.0039	0.0019	0.0029	0.0021	0.0018
21.	Footwear	0.0000	0.0000	0.0000	0.0000	0.0000
22.	Soaps, cosmetics and glycerine	0.0038	0.0014	0.0024	0.0020	0.0012
23.	Gems and jewellery	0.0015	0.0006	0.0010	0.0007	0.0005
24.	Books, journals, magazines, stationery, etc.	0.0089	0.0030	0.0050	0.0037	0.0025
25.	Tourism	0.0315	0.0187	0.0331	0.0147	0.0232
Employ	ment linkage coefficient	0.2329	0.5934	0.7795	2.9122	0.2573
Employ	ment multiplier	23.8221	1.1963	1.2651	1.0331	2.413

Sl.No.	Industry X Industry	Health and Medical Related Services	Readymade Garments	Processed Food	Alcohol & Tobacco Products	Travel Related Consumer Goods
		16	17	18	19	20
1.	Agriculture and allied	0.0202	0.0397	0.7657	0.4370	0.3732
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0.2548	0.4560	0.0992	0.1011	0.2754
3.	Trade	0.0405	0.0743	0.1402	0.0932	0.0899
4.	Transport freight services	0.0191	0.0358	0.0658	0.0439	0.0427
5.	All non-tourism specific services	0.1979	0.3118	0.0924	0.0894	0.1393
6.	Accommodation services/hotels	0.0002	0.0006	0.0002	0.0002	0.0004
7.	Food and beverage serving services/ restaurants	0.0016	0.0051	0.0018	0.0016	0.0034
8.	Railway passenger transport services	0.0001	0.0004	0.0001	0.0002	0.0002
9.	Road passenger transport services	0.0020	0.0066	0.0042	0.0035	0.0050
10.	Water passenger transport services	0.0001	0.0001	0.0001	0.0000	0.0001
11.	Air passenger transport services	0.0003	0.0007	0.0002	0.0002	0.0004
12.	Transport equipment rental services	0.0000	0.0001	0.0000	0.0000	0.0001
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	0.0002	0.0004	0.0002	0.0002	0.0003
14.	Cultural and religious services	0.0000	0.0000	0.0000	0.0000	0.0000
15.	Sports and other recreational services	0.0006	0.0005	0.0003	0.0002	0.0004
16.	Health and medical related services	1.0024	0.0033	0.0007	0.0008	0.0021
17.	Readymade garments	0.0023	1.0077	0.0014	0.0013	0.0028
18.	Processed food	0.0032	0.0065	1.0403	0.0263	0.0112
19.	Alcohol & tobacco products	0.0004	0.0008	0.0007	1.0394	0.0006
20.	Travel related consumer goods	0.0016	0.0091	0.0010	0.0010	1.0222
21.	Footwear	0.0000	0.0000	0.0000	0.0000	0.0000
22.	Soaps, cosmetics and glycerine	0.0023	0.0041	0.0009	0.0010	0.0017
23.	Gems and jewellery	0.0008	0.0017	0.0004	0.0004	0.0204
24.	Books, journals, magazines, stationery, etc.	0.0042	0.0075	0.0016	0.0016	0.0030
25.	Tourism	0.0107	0.0265	0.0127	0.0110	0.0180
Employ	ment linkage coefficient	0.2767	0.4704	0.9387	0.7739	1.9411
Employ	ment multiplier	1.5538	1.6443	14.788	3.1297	1.3492

Ł

Sl.No.	Industry X Industry	Footwear	Soaps, Cosmetics and Glycerine	Gems and Jewellery	Books, Journals, Magazines, Stationery etc.	Tourism
		21	22	23	24	25
1.	Agriculture and allied	0.5901	0.0649	0.0492	0.1309	0.1436
2.	Mining, other manufacturing, construction, electricity, gas and water supply	0.1155	0.5445	0.5142	0.4906	0.2392
3.	Trade	0.1101	0.0902	0.0595	0.0919	0.0692
4.	Transport freight services	0.0521	0.0425	0.0285	0.0433	0.0327
5.	All non-tourism specific services	0.1000	0.3531	0.1957	0.3321	0.2575
6.	Accommodation services/hotels	0.0004	0.0002	0.0004	0.0002	0.0004
7.	Food and beverage serving services/restaurants	0.0032	0.0023	0.0036	0.0023	0.0039
8.	Railway passenger transport services	0.0002	0.0001	0.0003	0.0002	0.0002
9.	Road passenger transport services	0.0054	0.0035	0.0046	0.0037	0.0038
10.	Water passenger transport services	0.0001	0.0001	0.0001	0.0001	0.0001
11.	Air passenger transport services	0.0004	0.0002	0.0005	0.0003	0.0004
12.	Transport equipment rental services	0.0001	0.0001	0.0001	0.0001	0.0001
13.	Travel agencies and other reservation services/ supporting and auxiliary transport activities	0.0003	0.0003	0.0003	0.0003	0.0004
14.	Cultural and religious services	0.0000	0.0000	0.0000	0.0000	0.0000
15.	Sports and other recreational services	0.0004	0.0003	0.0004	0.0003	0.0011
16.	Health and medical related services	0.0020	0.0009	0.0023	0.0010	0.0017
17.	Readymade garments	0.0026	0.0030	0.0030	0.0029	0.0043
18.	Processed food	0.0153	0.0094	0.0050	0.0075	0.0458
19.	Alcohol & tobacco products	0.0006	0.0009	0.0006	0.0006	0.0038
20.	Travel related consumer goods	0.0057	0.0030	0.0475	0.0028	0.0019
21.	Footwear	1.0000	0.0000	0.0000	0.0000	0.0000
22.	Soaps, cosmetics and glycerine	0.0010	1.0052	0.0026	0.0044	0.0023
23.	Gems and jewellery	0.0006	0.0016	1.0506	0.0015	0.0008
24.	Books, journals, magazines, stationery, etc.	0.0019	0.0089	0.0047	1.0082	0.0041
25.	Tourism	0.0178	0.0159	0.0184	0.0160	1.0178
Employ	ment linkage coefficient	0.7775	0.2749	0.3002	0.3621	0.4567
Employ	ment multiplier	9.2886	4.4827	3.6044	4.1707	2.2931

A.5: Percentage Distribution of Trips with Leading Purposes Holidaying, Leisure and Recreation, Health and Medical and Shopping by States of Destination

State	Andaman& Nicobar Islands	Andhra Pradesh	Arunachal Pradesh	Assam	Bihar
Andaman & Nicobar Islands	73.6	2.4	0.0	0.0	0.1
Andhra Pradesh	0.0	91.6	0.0	0.0	0.0
Arunachal Pradesh	0.0	0.3	61.2	28.1	2.7
Assam	0.0	0.1	0.1	86.7	0.4
Bihar	0.0	0.1	0.0	0.0	88.4
Chandigarh	0.0	0.0	0.0	0.0	0.0
Chhattisgarh	0.0	0.8	0.0	0.0	0.7
Dadra & Nagar Haveli	0.0	0.0	0.0	0.0	0.0
Daman & Diu	0.0	0.0	0.0	0.0	0.0
Delhi	0.4	0.1	0.0	0.4	15.4
Goa	0.0	0.4	0.0	0.0	0.0
Gujarat	0.0	0.6	0.0	0.0	0.1
Haryana	0.3	0.1	0.0	0.0	2.4
Himachal Pradesh	0.0	0.0	0.0	0.0	0.2
Jammu & Kashmir	0.0	0.0	0.0	0.0	0.1
Jharkhand	0.0	0.5	0.0	0.0	5.5
Karnataka	0.0	3.1	0.1	0.0	0.0
Kerala	0.0	0.3	0.0	0.0	0.0
Lakshadweep	0.0	0.0	0.0	0.0	0.0
Madhya Pradesh	0.0	0.5	0.0	0.0	0.1
Maharashtra	0.0	1.4	0.1	0.0	0.2
Manipur	0.0	0.0	0.0	6.9	0.0
Meghalaya	0.0	0.0	0.0	12.2	0.6
Mizoram	0.0	0.0	0.1	4.5	0.3
Nagaland	0.0	0.0	0.0	9.1	0.0
Odisha	0.0	2.0	0.0	0.0	0.7
Puducherry	0.0	0.7	0.0	0.7	4.0
Punjab	0.1	0.0	0.0	0.0	1.9
Rajasthan	0.3	0.0	0.0	0.0	0.8
Sikkim	0.0	0.0	0.0	0.1	2.0
Tamil Nadu	0.0	0.5	0.0	0.0	0.0
Telangana	0.0	92.5	0.0	0.1	0.4
Tripura	0.0	0.7	0.1	12.8	0.1
Uttar Pradesh	0.0	0.1	0.0	0.0	0.3
Uttarakhand	0.0	0.2	0.0	0.0	0.1
West Bengal	0.1	1.0	0.0	0.3	1.3
Total	0.1	6.3	0.1	1.2	6.4

A.5: Percentage Distribution of Trips with Leading Purposes Holidaying, Leisure and Recreation, Health and Medical and Shopping by States of Destination (Contd.)

State	Chandigarh	Chhattisgarh	Dadra & Nagar Haveli	Daman & Diu	Delhi
Andaman & Nicobar Islands	0.0	0.0	0.0	0.0	0.5
Andhra Pradesh	0.0	0.0	0.0	0.0	0.2
Arunachal Pradesh	0.0	0.0	0.0	0.0	0.4
Assam	0.0	0.0	0.0	0.0	1.3
Bihar	0.0	0.0	0.0	0.0	2.6
Chandigarh	2.7	0.0	0.0	0.0	1.9
Chhattisgarh	0.0	80.2	0.0	0.0	0.6
Dadra & Nagar Haveli	0.0	0.0	67.4	0.0	0.1
Daman & Diu	0.0	0.0	0.2	31.3	1.4
Delhi	0.5	0.3	0.0	0.0	5.6
Goa	0.0	0.0	0.0	0.0	0.6
Gujarat	0.0	0.0	0.0	0.5	0.4
Haryana	3.1	0.1	0.0	0.0	4.0
Himachal Pradesh	6.5	0.0	0.0	0.0	1.5
Jammu & Kashmir	0.9	0.0	0.0	0.0	2.9
Jharkhand	0.0	0.2	0.0	0.0	1.0
Karnataka	0.0	0.0	0.0	0.0	0.2
Kerala	0.0	0.0	0.0	0.0	0.6
Lakshadweep	0.0	0.0	0.0	0.0	0.2
Madhya Pradesh	0.0	0.2	0.0	0.0	0.8
Maharashtra	0.0	0.1	0.0	0.1	0.5
Manipur	0.0	0.0	0.0	0.0	1.6
Meghalaya	0.0	0.0	0.0	0.0	0.5
Mizoram	0.0	0.0	0.0	0.0	0.5
Nagaland	0.0	0.0	0.0	0.0	0.3
Odisha	0.0	0.6	0.1	0.0	0.3
Puducherry	0.0	0.0	0.0	0.0	0.0
Punjab	2.4	0.1	0.0	0.0	1.6
Rajasthan	0.0	0.0	0.0	0.0	0.9
Sikkim	0.0	0.0	0.0	0.0	3.0
Tamil Nadu	0.0	0.0	0.0	0.0	0.4
Telangana	0.0	0.0	0.0	0.0	0.2
Tripura	0.0	0.0	0.0	0.0	0.1
Uttar Pradesh	0.4	0.0	0.0	0.0	4.7
Uttarakhand	0.1	0.0	0.0	0.0	3.2
West Bengal	0.0	0.0	0.0	0.0	0.4
Total	0.3	1.1	0.0	0.1	1.4

A.5: Percentage Distribution of Trips with Leading Purposes Holidaying, Leisure and Recreation, Health and Medical and Shopping by States of Destination (Contd.)

State	Goa	Gujarat	Haryana	Himachal Pradesh	Jammu & Kashmir
Andaman & Nicobar Islands	0.0	0.0	0.0	0.0	0.4
Andhra Pradesh	0.1	0.0	0.0	0.1	0.2
Arunachal Pradesh	0.0	0.0	0.1	0.3	0.3
Assam	0.5	0.1	0.0	0.5	0.1
Bihar	0.0	0.3	0.0	0.0	0.8
Chandigarh	3.8	0.6	0.8	36.0	10.8
Chhattisgarh	0.4	0.7	0.0	0.3	0.7
Dadra & Nagar Haveli	0.0	12.6	0.0	0.0	0.2
Daman & Diu	1.4	35.5	0.0	0.0	0.0
Delhi	0.9	0.2	3.8	5.8	5.2
Goa	71.5	0.5	0.0	0.0	2.1
Gujarat	1.0	77.8	0.1	0.5	0.3
Haryana	0.3	0.3	61.5	3.4	1.0
Himachal Pradesh	0.0	0.2	0.2	76.3	1.5
Jammu & Kashmir	0.0	0.1	0.0	1.6	87.1
Jharkhand	0.1	0.1	0.0	0.0	0.8
Karnataka	2.1	0.1	0.0	0.4	0.0
Kerala	1.1	0.0	0.0	0.2	0.1
Lakshadweep	0.0	0.0	0.0	0.0	0.0
Madhya Pradesh	0.1	2.2	0.2	0.3	1.2
Maharashtra	1.6	1.1	0.1	0.4	0.8
Manipur	0.0	0.0	0.0	0.0	0.7
Meghalaya	0.9	0.0	0.0	0.0	0.0
Mizoram	0.0	0.0	0.0	0.0	0.0
Nagaland	0.0	0.0	0.0	0.0	0.1
Odisha	0.0	0.0	0.0	0.0	0.1
Puducherry	0.0	0.0	0.0	0.0	0.0
Punjab	0.2	0.1	2.2	6.7	1.3
Rajasthan	0.1	7.5	0.7	0.4	0.4
Sikkim	0.0	0.0	0.1	1.3	0.4
Tamil Nadu	0.2	0.0	0.0	0.1	0.2
Telangana	0.2	0.1	0.0	0.2	0.0
Tripura	0.0	0.1	0.0	0.0	0.0
Uttar Pradesh	0.3	0.3	1.0	0.5	1.9
Uttarakhand	0.6	0.0	0.3	0.3	1.0
West Bengal	0.1	0.2	0.0	0.3	2.3
Total	0.6	4.7	1.6	1.2	2.0

A.5: Percentage Distribution of Trips with Leading Purposes Holidaying, Leisure and Recreation, Health and Medical and Shopping by States of Destination (Contd.)

State	Jharkhand	Karnataka	Kerala	Lakshadweep	Madhya Pradesh
Andaman & Nicobar Islands	0.0	0.6	3.8	0.0	0.0
Andhra Pradesh	0.0	2.6	0.2	0.0	0.0
Arunachal Pradesh	0.2	1.2	0.0	0.0	0.0
Assam	0.0	0.9	0.0	0.0	0.0
Bihar	2.0	0.1	0.0	0.0	0.1
Chandigarh	0.0	0.7	0.0	0.0	0.0
Chhattisgarh	1.2	0.1	0.1	0.0	2.1
Dadra & Nagar Haveli	0.0	1.4	0.0	0.0	0.0
Daman & Diu	0.0	0.0	0.0	0.0	1.6
Delhi	0.8	0.2	1.4	0.0	2.1
Goa	0.0	10.1	0.8	0.0	0.0
Gujarat	0.0	0.2	0.9	0.0	0.2
Haryana	0.0	0.3	0.2	0.0	0.4
Himachal Pradesh	0.0	0.1	0.0	0.0	0.1
Jammu & Kashmir	0.0	0.0	0.0	0.0	0.1
Jharkhand	79.6	0.7	0.0	0.0	0.1
Karnataka	0.0	80.9	4.2	0.0	0.0
Kerala	0.0	4.4	86.2	0.0	0.1
Lakshadweep	0.0	0.6	66.0	32.2	0.0
Madhya Pradesh	0.0	0.1	0.0	0.0	79.5
Maharashtra	0.1	1.4	0.6	0.0	0.3
Manipur	0.0	0.2	0.0	0.0	0.0
Meghalaya	0.0	0.2	0.1	0.0	0.0
Mizoram	0.0	0.0	0.0	0.0	0.0
Nagaland	0.0	0.0	0.0	0.0	0.0
Odisha	1.1	0.2	0.0	0.0	0.0
Puducherry	0.0	1.5	2.7	0.0	0.0
Punjab	0.2	0.0	0.1	0.0	0.2
Rajasthan	0.0	0.0	0.1	0.0	1.1
Sikkim	0.4	1.1	1.1	0.0	0.0
Tamil Nadu	0.0	2.2	3.5	0.0	0.1
Telangana	0.0	1.2	0.8	0.0	0.1
Tripura	0.0	0.3	0.1	0.0	0.0
Uttar Pradesh	0.0	0.1	0.0	0.1	1.4
Uttarakhand	0.0	0.0	0.1	0.0	0.3
West Bengal	0.7	1.0	0.2	0.0	0.1
Total	2.3	4.9	5.3	0.0	4.5

State	Maharashtra	Manipur	Meghalaya	Mizoram	Nagaland
Andaman & Nicobar Islands	0.9	0.0	0.0	0.0	0.0
Andhra Pradesh	0.1	0.0	0.0	0.0	0.0
Arunachal Pradesh	0.0	0.1	0.7	0.0	0.2
Assam	0.3	0.0	1.3	0.0	0.1
Bihar	0.2	0.0	0.0	0.0	0.0
Chandigarh	2.9	0.2	0.0	0.0	0.0
Chhattisgarh	1.3	0.0	0.0	0.0	0.0
Dadra & Nagar Haveli	14.3	0.0	0.0	0.0	0.0
Daman & Diu	20.3	0.0	0.0	0.0	0.0
Delhi	3.0	0.0	0.1	0.0	0.0
Goa	12.6	0.0	0.0	0.0	0.0
Gujarat	4.7	0.0	0.0	0.0	0.0
Haryana	0.8	0.0	0.0	0.0	0.1
Himachal Pradesh	0.2	0.0	0.0	0.0	0.0
Jammu & Kashmir	0.2	0.0	0.0	0.0	0.0
Jharkhand	0.5	0.0	0.0	0.0	0.0
Karnataka	5.7	0.0	0.0	0.0	0.0
Kerala	0.3	0.0	0.0	0.0	0.0
Lakshadweep	0.0	0.0	0.0	0.0	0.0
Madhya Pradesh	6.3	0.0	0.0	0.0	0.0
Maharashtra	84.9	0.1	0.0	0.0	0.0
Manipur	0.1	89.5	0.1	0.0	0.5
Meghalaya	1.1	0.3	80.7	0.3	0.0
Mizoram	0.2	0.2	2.7	90.4	0.0
Nagaland	0.1	1.1	2.0	0.0	86.2
Odisha	0.1	0.0	0.0	0.0	0.0
Puducherry	0.2	0.0	0.0	0.0	0.0
Punjab	1.0	0.0	0.0	0.0	0.0
Rajasthan	0.4	0.0	0.0	0.0	0.0
Sikkim	0.5	0.0	0.0	0.0	0.0
Tamil Nadu	0.2	0.0	0.0	0.0	0.0
Telangana	1.9	0.0	0.0	0.0	0.0
Tripura	0.0	0.4	0.1	0.0	0.0
Uttar Pradesh	1.3	0.0	0.0	0.0	0.0
Uttarakhand	0.1	0.0	0.0	0.0	0.0
West Bengal	0.8	0.0	0.1	0.0	0.0
Total	12.4	0.2	0.3	0.1	0.1

State	Odisha	Puducherry	Punjab	Rajasthan	Sikkim
Andaman & Nicobar Islands	0.0	0.0	0.0	0.0	0.0
Andhra Pradesh	0.1	0.0	0.0	0.1	0.0
Arunachal Pradesh	0.1	0.0	0.0	0.3	0.3
Assam	1.1	0.0	0.0	0.4	1.0
Bihar	0.0	0.0	0.0	0.1	0.0
Chandigarh	0.0	0.0	15.7	0.6	0.6
Chhattisgarh	6.4	0.6	0.0	0.2	0.0
Dadra & Nagar Haveli	0.0	0.0	0.0	4.0	0.0
Daman & Diu	0.0	0.0	0.0	6.1	0.0
Delhi	0.1	0.0	3.7	12.8	0.2
Goa	0.3	0.0	0.1	0.1	0.0
Gujarat	0.1	0.0	0.3	8.6	0.1
Haryana	0.1	0.0	2.6	5.8	0.0
Himachal Pradesh	0.0	0.0	9.5	2.4	0.0
Jammu & Kashmir	0.0	0.0	5.3	0.1	0.0
Jharkhand	2.1	0.0	0.3	0.6	0.0
Karnataka	0.2	0.0	0.1	0.2	0.0
Kerala	0.1	0.0	0.0	0.0	0.1
Lakshadweep	0.0	0.0	0.0	0.0	0.0
Madhya Pradesh	0.1	0.0	0.4	3.2	0.1
Maharashtra	0.1	0.1	0.1	2.6	0.1
Manipur	0.0	0.0	0.0	0.0	0.0
Meghalaya	0.0	0.0	0.0	0.1	0.1
Mizoram	0.0	0.0	0.0	0.0	0.1
Nagaland	0.0	0.0	0.0	0.0	0.0
Odisha	92.5	0.0	0.0	0.1	0.0
Puducherry	4.3	27.1	0.0	0.0	0.0
Punjab	0.2	0.0	73.9	2.1	0.0
Rajasthan	0.0	0.0	0.3	84.4	0.0
Sikkim	1.1	0.0	0.0	2.4	58.5
Tamil Nadu	0.0	1.7	0.0	0.0	0.0
Telangana	0.2	0.0	0.0	0.1	0.0
Tripura	0.0	0.0	0.1	0.3	0.0
Uttar Pradesh	0.3	0.0	0.3	0.8	0.0
Uttarakhand	0.1	0.0	0.3	0.6	0.0
West Bengal	6.4	0.0	0.2	0.7	1.1
Total	6.2	0.2	2.5	6.0	0.2

State	Tamil Nadu	Tripura	Uttar Pradesh	Uttarakhand	West Bengal	Total
Andaman & Nicobar Islands	15.7	0.0	0.3	0.0	1.9	100.0
Andhra Pradesh	4.7	0.0	0.1	0.0	0.0	100.0
Arunachal Pradesh	0.9	0.1	0.7	0.2	1.3	100.0
Assam	2.7	0.0	0.2	0.0	2.1	100.0
Bihar	0.1	0.0	3.6	0.0	1.3	100.0
Chandigarh	0.0	0.0	8.6	13.3	0.7	100.0
Chhattisgarh	0.0	0.0	1.8	0.3	1.3	100.0
Dadra & Nagar Haveli	0.0	0.0	0.0	0.0	0.0	100.0
Daman & Diu	0.0	0.0	2.1	0.0	0.0	100.0
Delhi	0.3	0.0	28.4	7.9	0.2	100.0
Goa	1.0	0.0	0.0	0.0	0.0	100.0
Gujarat	0.1	0.0	3.0	0.4	0.0	100.0
Haryana	0.0	0.0	9.1	3.5	0.6	100.0
Himachal Pradesh	0.0	0.0	0.6	0.7	0.0	100.0
Jammu & Kashmir	0.0	0.0	1.0	0.4	0.0	100.0
Jharkhand	1.0	0.0	0.5	0.1	6.2	100.0
Karnataka	2.4	0.0	0.1	0.1	0.0	100.0
Kerala	6.5	0.0	0.0	0.1	0.0	100.0
Lakshadweep	0.3	0.0	0.7	0.0	0.0	100.0
Madhya Pradesh	0.6	0.0	3.4	0.5	0.2	100.0
Maharashtra	0.8	0.0	1.3	0.1	0.8	100.0
Manipur	0.0	0.0	0.0	0.0	0.4	100.0
Meghalaya	0.1	0.0	0.4	0.0	2.4	100.0
Mizoram	0.1	0.0	0.0	0.0	1.0	100.0
Nagaland	0.0	0.0	0.3	0.0	0.7	100.0
Odisha	0.0	0.0	0.5	0.0	1.3	100.0
Puducherry	58.8	0.0	0.0	0.0	0.0	100.0
Punjab	0.1	0.0	4.0	1.5	0.0	100.0
Rajasthan	0.1	0.0	1.5	0.3	0.6	100.0
Sikkim	0.0	0.4	0.3	0.0	27.1	100.0
Tamil Nadu	90.8	0.0	0.0	0.0	0.1	100.0
Telangana	1.2	0.0	0.4	0.2	0.1	100.0
Tripura	1.7	79.7	0.0	0.0	3.4	100.0
Uttar Pradesh	0.1	0.0	83.5	2.3	0.2	100.0
Uttarakhand	0.0	0.0	9.8	82.5	0.5	100.0
West Bengal	2.6	0.0	1.5	0.6	78.1	100.0
Total	7.9	0.3	11.8	1.4	6.5	100.0

State	Andaman& Nicobar Islands	Andhra Pradesh	Arunachal Pradesh	Assam	Bihar
Andaman & Nicobar Islands	89.8	1.9	0.1	0.0	0.3
Andhra Pradesh	0.0	94.7	0.0	0.0	0.0
Arunachal Pradesh	0.0	0.0	75.8	19.7	1.2
Assam	0.0	0.0	0.1	98.3	0.3
Bihar	0.0	0.0	0.0	0.0	96.4
Chandigarh	0.0	0.0	0.0	0.0	5.8
Chhattisgarh	0.0	0.2	0.0	0.0	0.1
Dadra & Nagar Haveli	0.0	0.0	0.0	0.0	0.5
Daman & Diu	0.0	0.0	0.0	0.0	0.0
Delhi	0.0	0.6	0.0	0.0	2.2
Goa	0.0	1.1	0.0	0.0	1.1
Gujarat	0.0	0.0	0.0	0.0	0.0
Haryana	0.0	0.0	0.0	0.0	0.9
Himachal Pradesh	0.0	0.0	0.0	0.0	0.2
Jammu & Kashmir	0.0	0.0	0.0	0.0	0.0
Jharkhand	0.0	0.0	0.0	0.0	3.9
Karnataka	0.0	3.2	0.0	0.0	0.0
Kerala	0.0	0.2	0.0	0.0	0.0
Lakshadweep	0.0	0.0	0.0	0.0	0.0
Madhya Pradesh	0.0	0.2	0.0	0.0	0.0
Maharashtra	0.0	1.1	0.0	0.0	0.2
Manipur	0.0	0.0	0.0	2.1	0.0
Meghalaya	0.0	0.0	0.0	11.2	0.3
Mizoram	0.0	0.0	0.0	1.2	0.1
Nagaland	0.0	0.0	0.0	4.4	0.3
Odisha	0.0	0.8	0.0	0.0	0.1
Puducherry	0.0	6.4	0.0	0.0	0.0
Punjab	0.0	0.0	0.0	0.0	0.6
Rajasthan	0.0	0.0	0.0	0.0	0.1
Sikkim	0.0	0.0	0.0	0.7	0.6
Tamil Nadu	0.0	4.5	0.0	0.0	0.0
Telangana	0.0	98.0	0.0	0.0	0.1
Tripura	0.0	0.0	0.0	0.3	0.0
Uttar Pradesh	0.0	0.0	0.0	0.0	0.4
Uttarakhand	0.0	0.0	0.0	0.0	0.1
West Bengal	0.0	0.0	0.0	0.1	1.4
Total	0.0	10.4	0.1	1.7	6.8

(Contd.)

State	Chandigarh	Chhattisgarh	Dadra& Nagar Haveli	Daman & Diu	Delhi
Andaman & Nicobar Islands	0.0	0.0	0.0	0.0	0.4
Andhra Pradesh	0.0	0.2	0.0	0.0	0.0
Arunachal Pradesh	0.0	0.0	0.0	0.0	0.3
Assam	0.0	0.0	0.0	0.0	0.0
Bihar	0.0	0.0	0.0	0.0	0.5
Chandigarh	0.5	0.0	0.0	0.0	4.7
Chhattisgarh	0.0	95.2	0.0	0.0	0.0
Dadra & Nagar Haveli	0.0	0.0	58.1	0.0	0.0
Daman & Diu	0.0	0.0	0.0	27.6	0.0
Delhi	0.9	0.1	0.0	0.0	44.5
Goa	0.0	0.0	0.0	0.0	0.4
Gujarat	0.1	0.0	0.1	0.0	0.1
Haryana	0.2	0.0	0.0	0.0	1.8
Himachal Pradesh	1.1	0.0	0.0	0.0	0.6
Jammu & Kashmir	0.1	0.0	0.0	0.0	0.2
Jharkhand	0.0	0.3	0.0	0.0	0.0
Karnataka	0.0	0.0	0.0	0.0	0.5
Kerala	0.0	0.0	0.0	0.0	0.2
Lakshadweep	0.0	0.0	0.0	0.0	0.2
Madhya Pradesh	0.0	0.1	0.0	0.0	0.2
Maharashtra	0.0	0.4	0.0	0.0	0.3
Manipur	0.0	0.0	0.0	0.0	0.4
Meghalaya	0.0	0.0	0.0	0.0	0.1
Mizoram	0.0	0.0	0.0	0.0	0.2
Nagaland	0.0	0.0	0.0	0.0	1.0
Odisha	0.0	1.2	0.0	0.0	0.1
Puducherry	0.0	1.7	0.0	0.0	0.0
Punjab	1.3	0.0	0.0	0.0	1.9
Rajasthan	0.0	0.0	0.0	0.0	0.3
Sikkim	0.0	0.0	0.0	0.0	0.7
Tamil Nadu	0.0	0.0	0.0	0.0	0.0
Telangana	0.0	0.0	0.0	0.0	0.0
Tripura	0.0	0.0	0.0	0.0	0.0
Uttar Pradesh	0.2	0.0	0.0	0.0	2.1
Uttarakhand	0.1	0.0	0.0	0.0	1.8
West Bengal	0.0	0.0	0.0	0.0	0.2
Total	0.1	1.8	0.0	0.0	1.0

State	Goa	Gujarat	Haryana	Himachal Pradesh	Jammu & Kashmir
Andaman & Nicobar Islands	0.0	0.0	0.0	0.0	0.4
Andhra Pradesh	0.0	0.0	0.0	0.1	0.9
Arunachal Pradesh	0.0	0.0	0.0	0.0	0.2
Assam	0.0	0.1	0.0	0.0	0.0
Bihar	0.0	0.0	0.0	0.0	0.4
Chandigarh	0.0	0.0	17.6	26.2	0.1
Chhattisgarh	0.1	0.0	0.0	0.0	1.0
Dadra & Nagar Haveli	0.0	19.7	0.0	0.0	0.0
Daman & Diu	0.9	27.2	0.0	0.0	0.0
Delhi	0.2	0.7	4.0	1.6	4.7
Goa	47.6	0.4	0.0	0.0	0.0
Gujarat	0.0	92.1	0.1	0.0	0.0
Haryana	0.0	0.2	80.7	0.3	1.1
Himachal Pradesh	0.0	0.0	0.7	91.1	0.2
Jammu & Kashmir	0.0	0.0	0.2	0.2	98.1
Jharkhand	0.0	0.0	0.0	0.1	0.7
Karnataka	0.2	0.0	0.0	0.0	0.0
Kerala	0.0	0.0	0.0	0.1	0.1
Lakshadweep	0.0	0.0	0.0	0.0	0.0
Madhya Pradesh	0.0	0.2	0.0	0.5	0.4
Maharashtra	0.2	1.7	0.0	0.0	0.3
Manipur	0.0	0.0	0.0	0.0	0.4
Meghalaya	0.0	0.0	0.0	0.0	0.0
Mizoram	0.0	0.0	0.0	0.0	0.0
Nagaland	0.0	0.0	0.0	0.0	0.1
Odisha	0.0	0.0	0.0	0.0	0.1
Puducherry	0.0	0.1	0.1	0.0	0.0
Punjab	0.0	0.1	4.5	4.8	2.5
Rajasthan	0.0	1.2	1.0	0.0	0.1
Sikkim	0.0	0.0	0.0	0.0	0.3
Tamil Nadu	0.0	0.0	0.0	0.0	0.0
Telangana	0.0	0.0	0.0	0.0	0.3
Tripura	0.0	0.0	0.0	0.0	0.1
Uttar Pradesh	0.0	0.1	0.8	0.2	1.0
Uttarakhand	0.0	0.0	0.1	0.2	0.8
West Bengal	0.0	0.0	0.0	0.0	0.8
Total	0.1	4.2	2.3	1.0	1.8

(Contd.)

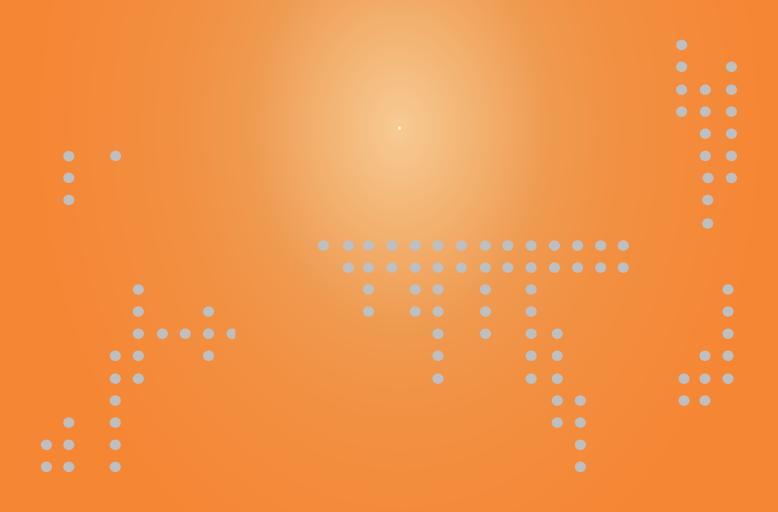
State	Jharkhand	Karnataka	Kerala	Lakshadweep	Madhya Pradesh
Andaman & Nicobar Islands	0.3	0.4	1.7	0.0	0.0
Andhra Pradesh	0.0	2.3	0.1	0.0	0.0
Arunachal Pradesh	0.0	0.3	0.4	0.0	0.0
Assam	0.0	0.0	0.0	0.0	0.0
Bihar	0.9	0.0	0.0	0.0	0.0
Chandigarh	0.0	0.0	0.0	0.0	0.0
Chhattisgarh	0.3	0.0	0.0	0.0	0.3
Dadra & Nagar Haveli	0.0	0.0	0.0	0.0	3.1
Daman & Diu	0.0	8.3	0.0	0.0	3.4
Delhi	0.8	0.2	0.0	0.0	0.0
Goa	0.0	14.1	1.7	0.0	0.0
Gujarat	0.0	0.2	0.0	0.0	0.2
Haryana	0.0	0.1	0.0	0.0	0.2
Himachal Pradesh	0.0	0.0	0.0	0.0	0.0
Jammu & Kashmir	0.0	0.0	0.0	0.0	0.0
Jharkhand	89.3	0.0	0.0	0.0	0.1
Karnataka	0.0	90.1	0.2	0.0	0.0
Kerala	0.0	2.0	91.7	0.0	0.0
Lakshadweep	0.0	0.0	24.9	74.8	0.0
Madhya Pradesh	0.1	0.0	0.0	0.0	93.1
Maharashtra	0.1	1.3	0.1	0.0	2.3
Manipur	0.1	0.0	0.0	0.0	0.0
Meghalaya	0.0	0.4	0.0	0.0	0.0
Mizoram	0.0	0.0	0.0	0.0	0.0
Nagaland	0.0	0.0	0.0	0.0	0.0
Odisha	0.1	0.0	0.1	0.0	0.0
Puducherry	0.0	1.1	4.6	0.1	0.0
Punjab	0.0	0.0	0.0	0.0	0.0
Rajasthan	0.0	0.0	0.0	0.0	1.0
Sikkim	0.0	0.2	0.0	0.0	0.0
Tamil Nadu	0.0	1.8	2.4	0.0	0.0
Telangana	0.0	0.5	0.0	0.0	0.0
Tripura	0.0	0.0	0.0	0.0	0.0
Uttar Pradesh	0.9	0.0	0.0	0.0	0.8
Uttarakhand	0.0	0.0	0.0	0.0	0.0
West Bengal	1.0	0.0	0.0	0.0	0.0
Total	2.4	6.3	4.2	0.0	6.1

State	Maharashtra	Manipur	Meghalaya	Mizoram	Nagaland
Andaman & Nicobar Islands	0.3	0.0	0.0	0.0	0.0
Andhra Pradesh	0.2	0.0	0.0	0.0	0.0
Arunachal Pradesh	0.1	0.1	0.4	0.0	0.1
Assam	0.0	0.0	0.3	0.0	0.1
Bihar	0.1	0.0	0.0	0.0	0.0
Chandigarh	0.3	0.0	0.0	0.0	0.0
Chhattisgarh	0.4	0.0	0.0	0.0	0.0
Dadra & Nagar Haveli	16.3	0.0	0.0	0.0	0.0
Daman & Diu	13.5	0.0	0.0	0.0	0.0
Delhi	0.2	0.0	0.0	0.2	0.0
Goa	29.4	0.0	0.0	0.0	0.0
Gujarat	1.5	0.0	0.0	0.0	0.0
Haryana	0.4	0.0	0.0	0.2	0.0
Himachal Pradesh	0.0	0.0	0.0	0.0	0.0
Jammu & Kashmir	0.0	0.0	0.0	0.0	0.0
Jharkhand	0.0	0.0	0.0	0.0	0.0
Karnataka	3.2	0.0	0.0	0.0	0.0
Kerala	0.3	0.0	0.0	0.0	0.0
Lakshadweep	0.0	0.0	0.0	0.0	0.0
Madhya Pradesh	1.8	0.0	0.0	0.0	0.0
Maharashtra	88.7	0.1	0.0	0.0	0.0
Manipur	0.0	95.7	0.1	0.3	0.2
Meghalaya	0.0	0.1	86.8	0.0	0.0
Mizoram	0.0	0.0	0.0	98.3	0.0
Nagaland	0.0	0.2	0.9	0.0	92.5
Odisha	0.0	0.0	0.0	0.0	0.0
Puducherry	0.1	0.0	0.0	0.0	0.0
Punjab	1.1	0.0	0.0	0.0	0.0
Rajasthan	0.2	0.0	0.0	0.0	0.0
Sikkim	1.1	0.0	0.0	0.0	0.0
Tamil Nadu	0.2	0.0	0.0	0.0	0.0
Telangana	0.7	0.0	0.0	0.0	0.0
Tripura	0.0	0.0	0.0	0.0	0.0
Uttar Pradesh	0.1	0.0	0.0	0.0	0.0
Uttarakhand	0.0	0.0	0.0	0.0	0.0
West Bengal	0.1	0.0	0.0	0.0	0.0
Total	8.1	0.1	0.1	0.1	0.1

(Contd.)

State	Odisha	Puducherry	Punjab	Rajasthan	Sikkim
Andaman & Nicobar Islands	0.0	0.0	0.0	0.0	0.0
Andhra Pradesh	0.3	0.0	0.0	0.1	0.0
Arunachal Pradesh	0.0	0.0	0.0	0.0	0.0
Assam	0.1	0.0	0.0	0.0	0.0
Bihar	0.0	0.0	0.1	0.0	0.0
Chandigarh	0.0	0.0	17.5	0.8	0.0
Chhattisgarh	1.9	0.0	0.2	0.0	0.0
Dadra & Nagar Haveli	0.0	0.0	0.0	0.0	0.0
Daman & Diu	0.6	0.0	0.0	5.9	0.0
Delhi	0.0	0.0	4.8	5.3	0.0
Goa	0.5	0.0	0.0	2.4	0.0
Gujarat	0.0	0.0	0.0	4.0	0.0
Haryana	0.0	0.0	3.6	4.4	0.0
Himachal Pradesh	0.0	0.0	3.7	0.0	0.0
Jammu & Kashmir	0.0	0.0	0.9	0.0	0.0
Jharkhand	0.6	0.0	0.1	0.1	0.0
Karnataka	0.0	0.0	0.0	0.1	0.0
Kerala	0.0	0.0	0.0	0.0	0.0
Lakshadweep	0.0	0.0	0.0	0.0	0.0
Madhya Pradesh	0.0	0.0	0.0	1.5	0.0
Maharashtra	0.0	0.0	0.0	0.7	0.0
Manipur	0.1	0.0	0.0	0.0	0.0
Meghalaya	0.0	0.0	0.0	0.0	0.0
Mizoram	0.0	0.0	0.0	0.0	0.0
Nagaland	0.0	0.0	0.0	0.0	0.0
Odisha	96.8	0.0	0.0	0.0	0.0
Puducherry	0.0	25.3	0.0	0.0	0.0
Punjab	0.0	0.0	77.9	0.9	0.0
Rajasthan	0.0	0.0	0.3	93.3	0.0
Sikkim	0.0	0.0	0.0	0.0	80.2
Tamil Nadu	0.0	0.6	0.0	0.0	0.0
Telangana	0.1	0.0	0.0	0.0	0.0
Tripura	0.0	0.0	0.0	0.0	0.0
Uttar Pradesh	0.0	0.0	0.2	1.3	0.0
Uttarakhand	0.1	0.0	0.3	0.0	0.0
West Bengal	0.7	0.0	0.1	0.1	0.0
Total	4.2	0.1	1.8	6.6	0.0

State	Tamil Nadu	Tripura	Uttar Pradesh	Uttarakhand	West Bengal	Total
Andaman & Nicobar Islands	2.2	0.0	0.4	0.0	1.9	100.0
Andhra Pradesh	0.8	0.0	0.2	0.0	0.0	100.0
Arunachal Pradesh	0.1	0.3	0.5	0.0	0.5	100.0
Assam	0.0	0.3	0.1	0.0	0.1	100.0
Bihar	0.0	0.0	0.8	0.0	0.6	100.0
Chandigarh	2.5	0.0	20.4	2.6	1.0	100.0
Chhattisgarh	0.1	0.0	0.2	0.0	0.1	100.0
Dadra & Nagar Haveli	0.0	0.0	2.2	0.0	0.0	100.0
Daman & Diu	0.0	0.0	12.6	0.0	0.0	100.0
Delhi	0.6	0.0	25.3	2.8	0.5	100.0
Goa	1.2	0.0	0.1	0.0	0.0	100.0
Gujarat	0.0	0.0	0.6	0.8	0.0	100.0
Haryana	0.0	0.0	4.9	0.9	0.1	100.0
Himachal Pradesh	0.0	0.0	0.7	1.7	0.0	100.0
Jammu & Kashmir	0.0	0.0	0.0	0.1	0.0	100.0
Jharkhand	0.0	0.0	0.2	0.0	4.6	100.0
Karnataka	2.1	0.0	0.0	0.0	0.2	100.0
Kerala	5.3	0.0	0.1	0.0	0.0	100.0
Lakshadweep	0.1	0.0	0.0	0.0	0.0	100.0
Madhya Pradesh	0.0	0.0	1.6	0.1	0.0	100.0
Maharashtra	0.3	0.0	2.0	0.1	0.1	100.0
Manipur	0.0	0.0	0.0	0.2	0.4	100.0
Meghalaya	0.0	0.2	0.1	0.0	0.7	100.0
Mizoram	0.0	0.2	0.0	0.0	0.0	100.0
Nagaland	0.0	0.0	0.0	0.0	0.5	100.0
Odisha	0.0	0.0	0.0	0.0	0.6	100.0
Puducherry	60.4	0.0	0.0	0.0	0.0	100.0
Punjab	0.0	0.0	3.9	0.6	0.0	100.0
Rajasthan	0.0	0.0	1.9	0.4	0.2	100.0
Sikkim	0.3	0.0	0.1	0.0	15.8	100.0
Tamil Nadu	90.4	0.0	0.1	0.0	0.0	100.0
Telangana	0.1	0.0	0.1	0.0	0.0	100.0
Tripura	0.0	99.4	0.0	0.0	0.2	100.0
Uttar Pradesh	0.0	0.0	90.6	1.2	0.0	100.0
Uttarakhand	0.0	0.0	6.6	90.0	0.0	100.0
West Bengal	0.1	0.1	0.1	0.1	94.9	100.0
Total	6.9	0.3	12.8	1.0	7.6	100.0





NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH

NCAER India Centre, 11 Indraprastha Estate, New Delhi 110002, India. **Tel:** +91 11 2337 9861-3 **Fax:** +91 11 2337 0164 **Email:** info@ncaer.org www.ncaer.org