# SIKKIM THE LAND OF PEACE AND TRANQUILITY





# CONTENTS

Executive Summary......3 Advantage State.....4 North East Region Vision 2020.....5 Sikkim – An Introduction..... 6 Budget......15 Infrastructure Status......16 Business Opportunities.....31 Doing Business in Sikkim......48

State Acts & Policies......51





# **EXECUTIVE SUMMARY**

Strong floriculture sector

Sikkim is home to around 5,000 species of flowering plants, 515 rare orchids, 60 primula species and 36 rhododendron species. This makes it one of the leading states in the Northeast region in terms of production and supply of cut flowers to mainland consumer markets.

Strong potential of medicinal plants industry

 Of the 6,000 medicinal plants in India, over 424 plants (including the famous Artemisia vulgaris that is used as an antiseptic) are grown in Sikkim. Moreover, it is all set to be recognised and certified by the Government of India under National Medicinal Plant Board (NMPB) proposed under the 12th Five Year Plan.

Second-largest producer of cardamom • The state is considered as a huge cardamom epicentre of the world, producing around 80% of large cardamom in the country. Additionally, India is the world leader of the crop, producing over 50% of the global yield.

Presence of world's third highest peak

· Sikkim has mighty snow-capped peaks including the Kanchenjunga, the world's third highest peak, which attracts a large number of tourists from across the globe.

Agrarian economy

- · The state's economy is largely agrarian, based on the terraced farming of rice and the cultivation of crops such as maize, millet, wheat, barley, oranges, tea and cardamom.
- · Sikkim produces more cardamom than any other Indian state, and is home to the largest cultivated area of cardamom

Source: Ministry of Agriculture, Government of India TechSci Research



## **ADVANTAGE: SIKKIM**

### 2015-16

Installed hydro power generation capacity: 414.48 MW

# High economic growth and improving infrastructure

- Sikkim's GSDP grew at a compound annual growth rate (CAGR) of 19.44% between 2004-05 and 2015-16.
- Large production of cardamom and flowers has opened up immense possibilities for the state economy.
- Rail and air connectivity as well as optical-fibre networks are being developed in the state.

Advantage Sikkim

# Rich labour pool

- · Sikkim has a high literacy rate of around 81.42%.
- The state has a skilled and educated labour force.
- · With the establishment of Sikkim Manipal University and the Sikkim University, the quality and quantity of employable graduates in the state has steadily improved.
- Skilled labour contributes in the modernization of the state through the development of services sector.

### Conducive agro-climatic conditions

- Sikkim has favourable agro-climatic conditions, which support agriculture, horticulture and forestry; there is potential for development in related areas
- As per the state budget 2016-17, Sikkim got certified as the first fully organic state in India by the Central Ministry of Agriculture and Farmers' Welfare as well as other recognized agencies of the country.

### Potential

Estimated hydropower potential: 8,000 MW

# Policy and institutional support

- The state follows the North East Industrial Investment Promotion Policy, 2007, which provides several incentives and concessions for investment.
- Institutional support is provided through various central and state government agencies viz., North East Council, Ministry of Development of North Eastern Region and Commerce and Industries Department.

Source: Central Electricity Authority, GSDP: Gross State Domestic Product;





# NORTH EAST REGION VISION 2020

- Improving standard of living of people in the region to meet the national standard by 2020
- Improving the quality and creating state-of-art hospitals and educational institutions
- State government has set a target to grow GSDP by 9.5% and per capita GSDP by 8.3% over the period 2007-20.

Industry

- Encouraging public investment in infrastructure to attract private investment.
- Creating a centre for trade and commerce through improving relations with neighbouring countries.
- **Encouraging HYV crops** through better use of organic manure, fertilisers and pesticides.
- Preventing soil erosion by controlling floods.
- Promoting cultivation of horticulture crops.

Quality of life of people

Promoting investments

Agriculture

Infrastructure

Growth rate in GSDP 1

Tourism

Governance Vision

2020

Focusing and developing services that would promote tourism and create employment opportunities in the states.

- Better governance and ensuring peace and harmony through maximising self governance and increased people participation.
- Development of agroprocessing and sericulture industries.
- Increase in investment in manufacturing units depending upon the availability of resources in the region.

Source: NER Vision 2020 HYV: High Yielding Variety <sup>1</sup> GSDP is at fixed costs at 2006-07 prices

Facilitating easy movement of goods and people by investing in road, rail, inland water and air transportation.





# SIKKIM FACT FILE



- Sikkim is surrounded by vast stretches of Tibetan Plateaus in the north, the Chumbi Valley of Tibet and the Kingdom of Bhutan in the east, the Kingdom of Nepal in the west and Darjeeling district of West Bengal in the south
- Sikkim has four districts East Sikkim, West Sikkim, North Sikkim and South Sikkim. The district capitals are Gangtok, Gyalshing, Mangan and Namchi respectively

Nepali, Bhutia, Lepcha, Limboo, Magar, Rai, Gurung, Sherpa, Tamang, Newari and Sunuwar (Mukhia) are the commonly spoken languages. Hindi and English are also widely spoken. Sikkim has 10 mountain peaks, 84 glaciers, 315 glacial lakes (including the Tsomgo, Gurudongmar and Khecheopalri), five hot springs, and eight mountain passes - making it an ideal tourist location. The Teesta and the Rangeet are the two major rivers with nearly hundred tributaries.

Parameters	Sikkim
Capital	Gangtok
Geographical area (sq km)	7,096
Administrative districts (No)	4
Population density (persons per sq km)	86
Total population (million)	0.61
Male population (million)	0.32
Female population (million)	0.29
Sex ratio (females per 1,000 males)	890
Literacy rate (%)	81.42

Source: Sikkim State Portal, Census 2011





# SIKKIM IN FIGURES ... (1/2)

Parameter	Sikkim	All states Source	
Economy	2015-16	2015-16	
GSDP as a percentage of all states' GSDP	0.10	100.0	TechSci Estimates based on "Advanced Estimates" provided by Directorate of Economics and Statistics of Sikkim
GSDP growth rate (%)	20.66	8.64	TechSci Estimates based on "Advanced Estimates" provided by Directorate of Economics and Statistics of Sikkim
Per capita GSDP (US\$ )	4,512.6	1546	TechSci Estimates based on "Advanced Estimates" provided by Directorate of Economics and Statistics of Sikkim
Physical Infrastructure			
Installed power capacity (MW)	414.48	303,118.21	Central Electricity Authority, as of June 2016
Wireless subscribers (No)	49,683,646 <sup>1</sup>	1,033,157,014	Telecom Regulatory Authority of India, as of May 2016
Internet subscribers (No)	12,800,000 <sup>1</sup>	334,340,000	Telecom Regulatory Authority of India, as of January 2016
National Highway length (km)	309.0	100,087.08	NHAI & Roads and Building Department
Social Indicators			
Literacy rate (%)	81.42	73.0	Census 2011
Birth rate (per 1,000 population)	17.6	21.6	SRS Bulletin

<sup>1</sup>including West Bengal, Andaman & Nicobar



# SIKKIM IN FIGURES ... (2/2)

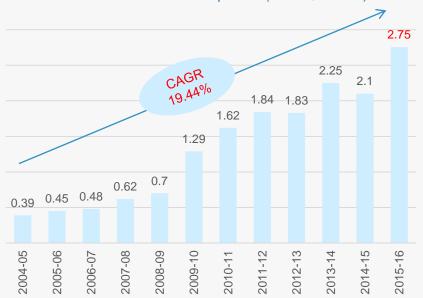
Parameter	Sikkim	All states	Source
Investment			
FDI equity inflows (US\$ billion)	3.93 <sup>1</sup>	288.51	Department of Industrial Policy & Promotion, From April 2000 to March 2016
Industrial Infrastructure			
Completed and Operational PPP projects (no)	17 <sup>2</sup>	1,246	Ministry of Finance, Government of India, July 2016

PPP: Public-Private Partnership <sup>1</sup>Including West Bengal and Andaman & Nicobar Islands <sup>2</sup>Projects Under Construction



## ECONOMIC SNAPSHOT – GSDP

### GSDP of Sikkim at current prices (in US\$ billion)



- At current prices, Sikkim's gross state domestic product (GSDP) was US\$ 2.75 billion in 2015-16.
- GSDP expanded at a CAGR of 19.44% between 2004-05 and 2015-16.

### GSDP per capita of Sikkim at current prices (US\$)



- The state's per capita GSDP was US\$ 4,512.6 in 2015-16 as compared to US\$ 685.5 during 2004-05.
- Per capita GSDP increased at a CAGR of 18.69% between 2004-05 and 2015-16.

Source: TechSci Estimates based on "Advanced Estimates" provided by Directorate of Economics and Statistics of Sikkim, Government of Sikkim GSDP\* - Geometric mean of YoY calculation from 2004-05 to 2014-15 Per Capita GSDP<sup>^</sup> - calculated using GSDP million USD / Population in million



# **ECONOMIC SNAPSHOT – NSDP**

### NSDP of Sikkim at current prices (in US\$ billion)



- At current prices, Sikkim's net state domestic product (NSDP) was US\$ 2.33 billion during 2015-16.
- NSDP of the state expanded at a CAGR of 19.11% between 2004-05 and 2015-16.

### NSDP per capita of Sikkim at current prices (US\$)



- Sikkim's per capita NSDP was US\$ 3,817.9 in 2015-16 as compared to US\$ 595.6 during 2004-05.
- Per capita NSDP of Sikkim increased at CAGR of 18.40% between 2004-05 and 2015-16.

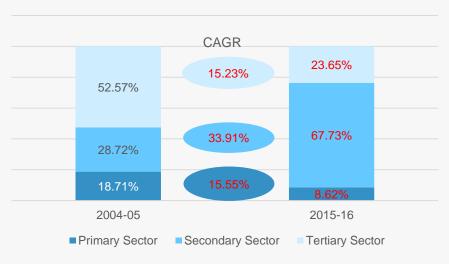
Source: TechSci Estimates based on "Advanced Estimates" provided by Directorate of Economics and Statistics of Sikkim, Government of Sikkim NSDP# - calculated using per capita NSDP x Population in million per capita NSDP& - Geometric mean of YoY calculation from 2004-05 to 2014-15



# ECONOMIC SNAPSHOT – PERCENTAGE DISTRIBUTION OF GSDP

- There has been a drastic shift in the sectoral contribution from primary and tertiary to the secondary sector. The overall performance of the economy of the state during 2015-16 was encouraging.
- At a CAGR of 33.91%, the secondary sector witnessed the fastest growth among the three sectors during 2004-05 to 2015-16. It was driven by manufacturing, construction and electricity, gas & water supply.
- In 2015-16, the secondary sector contributed 67.73% to the state's GSDP at current prices. It was followed by the tertiary sector at 23.65% and primary sector at 8.62%.
- The tertiary sector grew at a CAGR of 15.23% between 2004-05 and 2015-16. The growth has been driven by trade, hotels, real estate, finance, insurance, transport, communications and other services.
- The primary sector grew at a CAGR of 15.55% between 2004-05 and 2015-16.

### Percentage distribution of GSDP



Source: TechSci Estimates based on "Advanced Estimates" provided by Directorate of Economics and Statistics of Sikkim, Government of Sikkim

Sector-wise %share of GSDP<sup>µ</sup> -Geometric mean of YoY calculation from 2004-05 to 2014-15



# ECONOMIC SNAPSHOT – AGRICULTURAL PRODUCTION.. (1/2)

- The agriculture sector contributed around 9.86% to Sikkim's GSDP in 2014-15. Agriculture provides livelihood to more than 64% of the people of Sikkim, either directly or indirectly. Sikkim is the top producer of large cardamom, contributing over 80% to India's total production. In January 2016, Sikkim is announced as first fully organic state of India. In order to achieve the set aim, "The Sikkim Agriculture-Horticulture Input and Livestock Feed Regulatory Act" was formed in 2014. The Sikkim AGRISNET is an internet-based agriculture information centre to promote scientific agricultural methods and convert research into practice in the agricultural sector. Production of total fruits and vegetables in the state during 2015-16 stood at 19.7 thousand metric tonnes and 134.4 thousand metric tonnes, respectively. In addition, production of onions in the state stood at 1.7 thousand metric tonnes, during the same period.
- As per the budget speech 2016-17, the state government is targeting to launch new agricultural schemes for making farming more profitable in the state and allowing the youth to determine agriculture as a budding source of livelihood. Implementation of such schemes is expected to result in increase in the area utilization for the cultivation and production of various crops. The state government is also laying emphasis on improving organic farming in the state. As of 2015-16, the state had a total area of 76,392 hectares under organic cultivation. Further, during 2015-16, the state government also recognised the existing MPCS in order to promote and enhance organic farming in the state. As a result of these initiatives, the state got certified as first fully organic state in India, by the Central Ministry of Agriculture and Farmers' Welfare as well as other recognized agencies of the country. Moreover, during 2016-17, allocation of US\$ 57.21 million was made for the development of the agriculture & allied services sector.

Crop	Production – 2015-16 ('000 tones)
Fruits	19.7
Vegetables	134.4
Flowers	16.5
Spices	60.8 <sup>1</sup>

Sector	Allocation (2016-17 (US\$ million)	
Crop husbandry	22.92	
Soil & water conservation	5.37	
Animal husbandry	6.05	
Dairy development	0.15	
Fisheries	0.87	

Sector	Allocation (2016-17) (US\$ million)
Forestry & wild life	11.35
Plantations	1.02
Food, storage & warehousing	3.05
Cooperation	2.13
Other agricultural programmes	4.31





# ECONOMIC SNAPSHOT – AGRICULTURAL PRODUCTION.. (2/2)

Funds allocated on the schemes implemented by Department of Agriculture & Cooperation (2014-15) (2015-16)			
Schemes	(US\$ million) (2014-15)	(US\$ million) (2015-16)	
Rashtriya Krishi Vikas Yojana (RKVY) including (BGREI)	3.15	0.71	
National Food Security Mission (NFSM)	44.67	0.00	
Pramap-argat Krishi Vikas Yojana (PMKVY)	N.A.	0.78	
National Mission on Oilseeds and Oil Palm (NMOOP)	0.11	0.00	
Soil Health Management (SHM) under NMSA	N.A.	0.01	
Horticulture Mission for North East Himalayan States (HMNE&HS) under MIDH	8.13	5.72	
On Farm Water Management (OFWM) under NMSA	0.71	N.A.	
Support to State Extension Programmes for Extension Reforms (ATMA) under NMAET	0.34	0.68	
Sub Mission on Agricultural Mechanization under NMAET	N.A.	0.22	
National Bamboo Mission (NBM) under MIDH	0.5	0.5	
Rainfied Area Development (RAD) under NMSA	0.76	0.5	
Soil Health Card (SHC) under NMSA	N.A.	0.02	
Pradhan Mantri Krishi Sinchai Yojanaa (PMKSY) [ For Micro Irrigation]	N.A.	0.71	

Source: Department of Agriculture & Cooperation

N.A.: Not Available

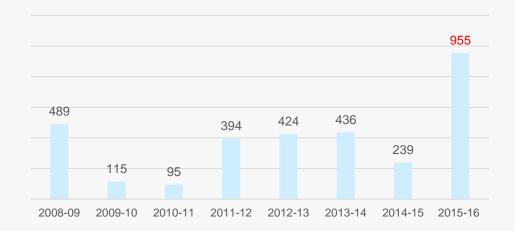




# **ECONOMIC SNAPSHOT – INVESTMENTS**

- FDI inflows<sup>1</sup> into the state during April 2000 to March 2016 reached to US\$ 3.93 billion.
- A major part of these investments was directed towards power generation
- There are 27 completed electricity projects in the state. The central government has invested heavily in the hydro electric power generation projects in Sikkim
- Himagiri Hydro Energy Pvt Ltd. started the initial construction work of their new project namely; 300 MW Panan hydro power project. The construction of the dam of the project would take place across the river Rangyongchu situated at the foot of Lingya village in North Sikkim. This project is expected to be commissioned by May 2018.

### FDI Inflow<sup>1</sup> Sikkim (US\$ million)



Source: Department of Industrial Policy and Promotion; Sikkim State Electricity Regulatory Commission (SSERC) <sup>1</sup>Including West Bengal and Andaman & Nicobar Islands



# **ANNUAL BUDGET 2016-17**

### Major sector-wise allocation as per Budget 2016-17

Sector	Annual allocation (US\$ million)
Social services	236.82
General economic services	46.76
Agriculture and allied services	57.21
Transport	22.83
Irrigation and flood control	23.59
Rural development	37.87
Energy	34.23
Special area programme	0.31
General services	227.63
Industry and minerals	9.47
Science, technology and environment	0.85

Source: Finance, Revenue and Expenditure Department, Government of Sikkim, Budget 2016-17



# PHYSICAL INFRASTRUCTURE – ROADS

- As of 2015-16, Sikkim had a total road network of 2,425.45 km. The state is connected to West Bengal and the rest of India through National Highway (NH)-31A. The state Public Works Department (PWD) and the Border Roads Organisation (BRO) maintain the roads. The Sikkim Nationalised Transport (SNT) operates 114 buses (covering 43 routes), 64 trucks and 33 tankers across the state.
- The state government proposed an allocation of US\$ 15.36 million for construction of roads and bridges in the state and US\$ 7.46 million for road transport during 2016-17.
- The state government has proposed a vision for the development of roads and bridges until 2020.
  - To provide safe, comfortable and stable roads, with the capacity to handle high loading.
  - All places of tourist or economic importance to be connected with major district standard roads.
  - All national highways to be four-laned.
  - All state highways to be double-laned.
  - Bus/truck terminus will be constructed at all district headquarters and other major stations
  - 600 km of major district roads to be made intermediate lane and efforts to black topped with permanent bridges.
- During 2015-16 (up to December 2015), work on construction of 1,209.05 km of Rural Connectivity Roads Phase I (new cutting), was finished, out of a total length of 1,415.78 km.

Road type	be Length (km) (2015-16)	
National highways (NH)	309	
State highways	701.09	
District roads	1080.85	
Other District Roads	334.51	

Source: Public Works Roads and Bridges Department Government of Sikkim, mhupa.gov.in Ministry of Road Transport & Highways





# PHYSICAL INFRASTRUCTURE - RAILWAYS AND AIRPORTS

- Indian Railway Construction Company has started the construction of rail connectivity between Sevoke and Rangpo. This rail connectivity is expected to be operational by 2016.
- Total length of rail track between Savor and Rangoon will be 52.7 km
- Rail connectivity between Rangpo-Siliguri is also under construction.
- Construction of much anticipated airport at Pakyong has started adding to Sikkim's infrastructural achievements. Helicopter services are available from Bagdogra (West Bengal) to Gangtok.
- As of July 2015, 75% of development work has been completed at Pakyong airport, and it is expected that the airport would be up and functional completely by September 2017.
- Furthermore, it is expected that the airport construction which includes navigational aids and passenger terminal would be completed by June 2017, and once full operational, the airport would be capable of handling ATR-72 type of aircraft.

Source: North-East Region Rail Infrastructure presentation; Ministry of Railways, Sikkim Times, June 2013, Assorted news articles





### PHYSICAL INFRASTRUCTURE – POWER

- As of June 2016, Sikkim had a total installed power generation capacity of 414.48 MW, of which 167.37 MW was under central utilities, 195.00 MW was under private utilities and 52.11 MW was under state utilities. Of the overall installed power generation capacity of 414.48 MW in the state, thermal power contributed 92.10 MW, while hydropower and renewable power contributed 270.27 MW and 52.11 MW, respectively.
- About 27 hydroelectric power plants (HEPs) are being set up under the public-private partnership (PPP) mode. Sikkim has a peak hydroelectric capacity of 8,000 MW with a firm base of 3,000 MW; providing a huge potential for development. Moreover, the Jorethang Loop Hydro Electric Project with total capacity of 96 MW, initiated its commercial operations during 2015-16 in the state. Moreover, as per the state budget 2016-17, the 96 MW Dikchu HEP as well as 90 MW HEP at Tashiding are expected to be completed by 2017.
- During April-October 2015, the power generation in the state stood at 2,752.68 MU. The state had 425 inhabited villages which got electrified on 31st March, 2015.
- Budget allocation, during 2016-17, for the energy sector is estimated to be US\$ 34.22 million, of which US\$ 34.07 million would be allocated to the power sector and US\$ 0.15 million would be allocated for development of non-conventional sources of energy.

### Installed power capacity (MW)



2008-09 2009-10 2010-11 2011-12 2012-13 2013-14 2014-15 2015-16

Hydro Electric Potential Development Status (in terms of Installed capacity (in MW)) 2014-15		
Total Identified capacity (above 25 MW)	4,248	
Capacity under operation	765.0	
Capacity under construction 2,526.0		
Capacity to be taken up under construction 957.0		

Source: Central Electricity Authority,





# PHYSICAL INFRASTRUCTURE - TELECOM

- The state recorded tele-density<sup>1</sup> of 80.25% in May 2016.
- Vodafone launched its services in Lachung as the first private telecom operator in the region. With this expansion, it has now covered more than 91% of population in Sikkim.
- Virtual Private Network (VPN) and 3G-services are available in the state.
- Forty five common service centres have been constructed across the state. The centres provide an internet-based interface for implementing various government programmes and schemes.
- Postal services are available through India Post and other private courier services.
- As of December 2015, the total number of post offices in the state stood at 209.

Telecom infrastructure (as of May 2016)		
Wireless subscribers <sup>1</sup>	49,683,646	
Wire-line subscribers <sup>1</sup>	359,588	
Internet subscribers <sup>2</sup>	12,800,000 <sup>2</sup>	
BSNL wire-line subscribers <sup>1</sup>	353,699	

Source: Telecom Regulatory Authority of India, <sup>1</sup>Including West Bengal, Andaman & Nicobar, <sup>2</sup>As of January 2016

### Major telecom operators in Sikkim

Bharat Sanchar Nigam Limited (BSNL) **Reliance Communications** Bharti Airtel Tata Teleservices Vodafone Essar IDEA Cellular

Source: Telecom Regulatory Authority of India





# DEVELOPMENT PROJECTS: URBAN INFRASTRUCTURE.. (1/2)

- Under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the rehabilitation of sewerage systems of Gangtok is being undertaken at a cost of US\$ 5.3 million. Water treatment and distribution system upgradation are also being undertaken at a cost of US\$ 15.74 million.
- To extend financial support to the state government and to provide water supply facilities in towns having population less than 20,000, the centrally sponsored Accelerated Urban Water Supply Programme (AUWSP) was launched that has been merged with Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT). Under this, US\$ 8.7 million has been allocated for development of water supply systems and sewerage in Mangan, Namchi, Jorethang, Melli and Rangpo. The Sikkim Water Security & Public Health Engineering Department (WS & PHED) provides water supply to Gangtok, six major notified towns, 41 other urban towns and 92 notified rural marketing centres. Gangtok has a requirement of 30 million litres per day and the WS & PHED has a storage and distribution capacity of 45.5 million litres.
- During 2015-16, the major functions such as solid waste. car/bazaar parking contract, sanitation, trade license, etc. were relocated to urban local bodies. Moreover, during 2016-17, the state government is targeting development of residential colonies to minimise uncontrollable migration across the state.

In September 2013, Ministry of Development of North Eastern Region (DoNER) launched North East Rural Livelihood Project (NERLP) that would create 0.3 million jobs in Mizoram, Nagaland, Sikkim and Tripura. The US\$ 115.1 million project would be implemented during the 12th Five Year Plan and is financed by the World Bank. It would be implemented in 14 blocks of Sikkim. The project is expected to be completed by 2018.

### Project implementation status by JNNURM

Name of works	Cost (US\$ million)	Progress (As of August 8, 2014)
Rehabilitation of Trunk Sewer along NH starting from Hospital Dara to STP and sewer mains – Gangtok	5.3	Completed
Upgradation and modernisation of raw water trunk mains and water treatment plant for Greater Gangtok	15.74	80% of work completed

Source: JNNURM, Ministry of Urban Development, Government of India Budget 2016-17





# DEVELOPMENT PROJECTS: URBAN INFRASTRUCTURE.. (2/2)

- As per budget 2016-17, the state government is laying emphasis on providing Wi-Fi services across various major towns of the state, during 2016-17. In addition, other mobile technologies such as online payments, inner line permit tracking system, m-Tourism, etc. would also be provided in the state during the same period.
- Moreover, during 2016-17, an announcement was made by the Chief Minister that under "Micro-Cities" concept, development work on 39 small bazaars would be undertaken in a phased manner, during 2016-17.
- The total budget allocation for urban development during 2016-17, is estimated to be US\$ 15.77 million. In addition, US\$ 5.82 million and US\$ 5.27 million would be allocated for the development of water supply & sanitation as well as housing sector, respectively,

Source: Budget 2016-17





# DEVELOPMENT PROJECTS: KEY PUBLIC-PRIVATE PARTNERSHIP PROJECTS ... (1/2)

Project name	Type of PPP	Sector	Project cost (US\$ million)	Stage
Panan Hydro Power project	Not Available	Energy	137.49	Under construction
Kalez Khola HEP power plant	Build-Own-Operate-Transfer (BOOT)	Energy	7.33	Under construction
Hee Khola HEP Power plant	Build-Own-Operate-Transfer (BOOT)	Energy	3.60	Under construction
Dikchu Hydro Power Plant	Build-Own-Operate-Transfer (BOOT)	Energy	79.21	Under construction
Chujachen Hydro Power Plant	Build-Operate-Transfer (BOT)	Energy	68.13	Under construction
Bhasmey Hydro Power Plant	Build-Own-Operate-Transfer (BOOT)	Energy	22.15	Under construction
Bermelee Khola HEP	Build-Own-Operate-Transfer (BOOT)	Energy	3.21	Under construction
Tashiding HEP	Build-Own-Operate-Transfer (BOOT)	Energy	71.18	Under construction
Talem HEP power plant	Build-Own-Operate-Transfer (BOOT)	Energy	104.49	Under construction
Rongnichu Storage Hydro Power Plant	Not Available	Energy	65.38	Under construction

Source: Department of Economic Affairs, Government of India





# DEVELOPMENT PROJECTS: KEY PUBLIC-PRIVATE PARTNERSHIP PROJECTS ... (2/2)

Project name	Type of PPP	Sector	Project cost (US\$ million)	Stage
Rangit-IV Hydro Power Plant	Build-Own-Operate-Transfer (BOOT)	Energy	118.44	Under construction
Rangit - II Power Plant	Build-Own-Operate-Transfer (BOOT)	Energy	41.25	Under construction
Teesta -III hydro power project	Not available	Energy	Not available	Under construction
Teesta -1 Hydro power plant	Build-Own-Operate-Transfer (BOOT)	Energy	Not available	Under construction
Teesta - VI power plant	Build-Own-Operate-Transfer (BOOT)	Energy	Not available	Under construction
Kissim Khola HEP Power plant	Not available	Energy	2.29	Under construction
Taramchu Hydro Power Plant	Build-Own-Operate-Transfer (BOOT)	Energy	24.90	Pre-construction stage

Source: Department of Economic Affairs, Government of India





# SOCIAL INFRASTRUCTURE – EDUCATION

- Sikkim has a literacy rate of 81.42%; the male and female literacy rates were 86.55% and 75.61%, respectively.
- The Sikkim Manipal University (SMU), a partnership between the Government of Sikkim and Manipal Education and Medical Group (MEMG), provides technical, healthcare and science education. It is rated as one of the top universities in the country.
- The state government proposed a budget allocation of US\$ 138.08 million for the education sector during 2016-17. In addition, the proposal of establishing a state university by forming a cluster of different colleges, was also approved by RUSA (Rashtriya Uchhatar Shiksha Abhiyan), in 2015-16.
- During 2015-16, the Government of Sikkim also initiated providing yoga classes across the primary sections of around 763 government schools of the state.
- Sikkim has secured third rank in the category of Elementary Education in the country as per the Educational Development Index (EDI) released by the Ministry of Human Resource Development in 2014. The EDI was measured based on four constituents of Access. Infrastructure, Teachers and Outcome.

- As per the state budget 2016-17, enrolment of students in LKG and UKG classes will be initiated in all government schools of the state during 2016-17. Moreover, for increasing the enrolment of students in schools, the state government has approved provision of friendly classrooms and colourful uniforms to students.
- Distance education is available for students via SMU and Indira Gandhi National Open University (IGNOU).

Literacy rates (%)		
Literacy rate 81.42		
Male literacy	86.55	
Female literacy	75.61	

Educational infrastructure (2015)		
Primary schools	406	
Junior high schools	179	
Secondary & senior secondary schools	182	
Government colleges	18	
Central university	1	
Private university	4	

Source: NEDFI Databank;, Budget 2016-17





# SOCIAL INFRASTRUCTURE - HEALTH.. (1/2)

- Sikkim has an impressive health infrastructure, one of the best in the country. The state has witnessed declining critical health indicators such as disease prevalence, mortality rates, morbidity, etc. over the past years.
- Health tourism is being promoted in the state to utilise its medical infrastructure and boost the economy. The state had 28 primary health centres, 196 sub-centres, two community health centres and five district hospitals as of 2014-15.
- The Department of Health and Family Welfare is instrumental and responsible for implementation of various national programs in the areas of health and family welfare as well as prevention and control of communicable diseases in the state.
- During 2015-16, the state government initiated a new five bedded dialysis unit at STNM Hospital, in order to help the patients suffering with kidney diseases. Moreover, the state also recorded an increase in growth of immunization coverage from 48% in 1998-99 to over 93% during 2015-16.

Health infrastructure (2014-15)		
Primary health sub centres	196	
Primary health centres	28	
Community health centres	2	
District hospitals	5	
Sub district hospitals	1	

Source: Ministry of Health & Family Welfare

Health indicators (2014-15)	
Birth rate (per thousand persons)	17.6
Death rate (per thousand persons) 2.02	
Infant mortality rate (per thousand live births)	26

Source: Central Bureau of Health Intelligence, Government of India, Sample Registration System (SRS) Bulletin



# SOCIAL INFRASTRUCTURE – HEALTH.. (2/2)

- In order to provide proper healthcare facilities in the state through mobilisation and participation, the state government, in 2014 came up with a flagship programme namely; Chief Minister's Annual and Total Health Checkup (CATCH). The programme's first phase covering more than 95% of total population has been completed.
- Another scheme of Mukhya Mantri Jeevan Raksha Khosh was started in the state during 2014-15, by the state government under which financial assistance of US\$ 0.03 million would be provided to the patients. The patients under the BPL category would be granted a financial assistance of US\$ 0.05 million.
- As per budget 2016-17, the state government is constructing a multi-specialty hospital at Sokeythang. Construction work for upgrading the 575 bedded hospital to 1,000 beds, is also under process. With the completion of this hospital, good working conditions would be provided to doctors and better health care services would be extended to the people of the state.
- Budget allocation for health and family welfare sector in the state is estimated to be US\$ 33.83 million during 2016-17.

Source: Central Bureau of Health Intelligence, Government of India, State Budget 2016-17





# **CULTURAL INFRASTRUCTURE**

- There are three ethnic communities in Sikkim: Lepcha, Bhutia, Tibetan and Nepali. Buddhism and Hinduism are the two main religions followed in the state. It has nearly 200 monasteries, of which the most well known Buddhist circuits are the Pemayangste, Tashiding, Rumtek, Enchey, Phensang, Ralong, Phodang and Tolung.
- Important festivals in the state are Bumchu, Dasain, Losar, Losoong, Maghe Sankranti, Namsoong, Pang-Labhsol, Saga Dawa, Sakewa, Sonam Lochar, Tamu Lochar, Tendong Lho Rum Faat, Tihar, Lhabab Duechen, Drupka Teshi and Trungkar Teschu.
- Sikkim has the steepest rise in altitude over the shortest distance; its temperature varies from tropical and temperate in the southern districts to alpine and tundra in the northern peaks.
- The state is richly endowed with rare and exotic flora and fauna, which includes 4,500 different flowering plants, 550 types of orchids, 36 varieties of rhodendrons, 28 bamboo species, over 144 mammals, 552 species of birds and 600 different butterflies – making it a nature lover's paradise.
- The total budget allocation for art & culture as well as sports & youth services sectors in the state is estimated to be US\$ 1.44 and 1.91 million, during 2016-17, respectively.

### Major parks and monastery in Sikkim

Name	Place
Central Park	Namchi
Maney Chokerling Monastery	Ravang
Library cum Museum	Namchi
Pemayangtse Monastery	Pelling
Enchey Monastery	Gangtok
Phodong Monastery	Gangtok
Rumtek Monastery	Rumtek
Himalayan Zoological Park	Gangtok

Source: State Portal of Sikkim, Government of Sikkim, Urban Development and Housing Department, South Division, Namchi







# INDUSTRIAL INFRASTRUCTURE

- Brewing, distilling, tanning and watchmaking are the main industries located in the southern regions of Sikkim.
- A small mining industry exists in the state, extracting minerals such as copper, dolomite, talc, graphite, quartzite, coal, zinc and lead.
- Sikkim has identified Rangpo-Gangtok, Melli-Jorethang, Jorethang-Rishi and Ranipool-Gangtok as industrial corridors with provision for giving land to investors on a lease basis.
- Sikkim is a leading north-eastern state in hydroelectric power development with 28 different projects identified under PPP mode.
- The units that are engaged in the manufacturing sector are mainly dealing with pharmaceuticals, chemicals, liquors, foam mattresses, food products, iron rods, etc.
- Sikkim has identified agro-based industries, horticulture and floriculture, minor forest-based industries, animal husbandry and dairy products, tourism-related industries, IT including knowledge-based industries, precision oriented high value-low volume products, hydro-power, tea, education and hospitality as thrust sectors.
- The Information Technology (IT) Department, Government of Sikkim is in the process of setting up a state-of-the-art IT Park and National Institute of Electronics and Information Technology (NIELIT) at Pakyong.



# **SMART CITIES and AMRUT**

The central government announced plans to develop Namchi as one of the 98 smart cities in India.

Smart cities in Sikkim		
City	Population	Literacy rate
Namchi	12,190	88.10%

- From the state of Sikkim, Gangtok has been included under AMRUT (Atal Mission for Rejuvenation and Urban Transformation).
- As per the state budget 2016-17, work on service level improvement plan under AMRUT is expected to be submitted to the Central Ministry during 2016-17.



Source: TechSci Research

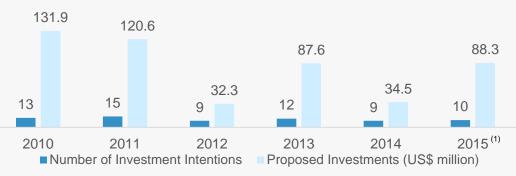


## **KEY INDUSTRIES**

- The Commerce and Industries Department of Sikkim is involved in promoting trade and industry in Sikkim. The Sikkim Industrial Development & Investment Corporation Limited (SIDICO) is the state-level institution engaged in promoting, financing and developing the tiny and Small Scale Industries (SSI) sector in the state.
- Ecotourism, handicrafts and handlooms, silk reeling and processing, precision engineering, electronics, IT, medicinal plants, floriculture, tea, spices, honey and biotechnology are key areas identified by Sikkim. Being a potentially eco-fragile location, the people of Sikkim support the promotion of pollution-free industries. Sikkim has large opportunities for tourism, hospitality, horticulture, floriculture, organic farming and infrastructure development due to a rich resource base and enormous untapped potential.
- The allocated budget for the industry and minerals sector in Sikkim is estimated to be US\$ 9.46 million during 2016-17. Out of this total allocation, villages and small industries would be allocated US\$ 5.97 million and large industries would be allocated US\$ 2.75 million. The remaining would be allocated to nonferrous mining and metallurgical industries.

Key industries in Sikkim		
Tourism Hydroelectric power		
Agriculture	Tea	
Floriculture	Large cardamom	
Agro-processing	Minerals	
Handlooms and handicrafts	Sericulture	
Horticulture	Electronics	
Pharmaceuticals		

### Investment intentions in terms of IEMs filed, LOIs/DILs issued in Sikkim



Source: Department of Industrial Policy & Promotion, Government of India <sup>1</sup>As of September 2015 IEMs - Industrial Entrepreneur Memoranda

LOIs - Letters of Intent. DILs - Direct Industrial Licences





# KEY INDUSTRIES – FLORICULTURE

- Sikkim's geographical and environmental conditions are guite conducive for development of floriculture at a higher altitude. The state is also considered to be the Kingdom of flowers and is an innovator in cultivating Gladiolus.
- Sikkim is the natural home to more than 600 different types of orchids, over 100 primulas and rhododendrons. A number of cut flowers and bulbs are supplied by the farmers to areas in Delhi, Kolkata, Kalimpong, Uttaranchal and Bihar.
- The existing industry is at a nascent stage and has the potential to be developed and promoted towards an export-oriented business. The Sikkim government has announced a technical collaboration with floriculturists from the Netherlands and Thailand to develop the state's potential in floriculture and market cut flowers from the state globally.
- Sikkim's most important commercial flowers are Cymbidium Orchids, Gladiolus, Carnation, Gerbera, Asiatic and oriental Lilies, and Anthurium, among others, that can be grown for domestic and export markets.
- During 2014-15 floriculture exports from the state stood at US\$ 62.52 thousand.
- A sum of US\$ 5.36 million has been sanctioned by the Ministry of Agriculture & Farmers Welfare for implementation of Horticulture Mission for North East and Himalayan States (HMNEH) under MIDH programme in the state of Sikkim, during 2016-17.
- During 2015-16, production of cut flowers and loose flowers in the state was recorded to be 1.90 thousand metric tonnes and 16.50 thousand metric tonnes, respectively.

Source: Indian Horticulture Database 2014-National Horticulture Board





# KEY INDUSTRIES - MEDICINAL PLANTS AND BAMBOO.. (1/2)

- Sikkim houses 11 oak varieties, 28 bamboo varieties, 16 conifer species, 362 types of ferns and ferns allies, 9 tree ferns, and over 424 medicinal plants and herbs
- The agro-climatic conditions in the state support a wide variety of exotic flora and fauna that have utility in the medicine sector.
- Around 22 different medicinal and aromatic plants are cultivated under contract farming for the National Medicinal Plants Board.
- The state has identified medicinal plants and bamboo as among the priority sectors for investment.
- With the enhanced focus on rural connectivity under MGNREGA, the Government of India is targeting to provide an average wage of 70 days and employment to 65,000 households. Out of this investment, a sizeable part will be utilized in Bamboo and Medicinal Plants (Amla) plantations, construction of water tanks, Chief Minister's Rural Housing Mission and horticulture plantations.

Sikkim has 28 varieties of bamboo, offering potential for developing the handicrafts, construction, medicine, packaging and food processing industries.

### Important medicinal plants and their use

Name of the plant	Medicinal value
Nardostachys grandiflora (Jatamasi)	Tonic, antispasmodic, diuretic, laxative
Aconites	Rheumatism and fever
Artemisia vulgaris	Antiseptic
Piper longum	Anti-venom and anti- asthmatic value
Picrorhiza kurrooa	Effective against malaria

Source: Department of Ayurveda and the Ministry of Health and Family Welfare, Government of India





# KEY INDUSTRIES - MEDICINAL PLANTS AND BAMBOO.. (2/2)

National Mission of Medicinal Plants, National Medicinal Plants Board and National AYUSH Mission are few of the centrally sponsored schemes under which the state was allocated funds.

### Funds allocated and received under various schemes

National Mission Of Medicinal Plants (NMMP) (centrally sponsored scheme)			
Year	Funds allocated (US\$ thousand)	Funds released (US\$ thousand)	
2014-15	130	130	
2015-16	-	46.94	

National Medicinal Plants Board (NMPB) (centrally sponsored scheme)			
Year	Funds allocated (US\$ thousand)	Funds released (US\$ thousand)	
2014-15	1,010	1,010	
2015-16	-	462.21	

National AYUSH Mission (centrally sponsored scheme)		
Year	Funds allocated (US\$ million)	Funds released (US\$ million)
2014-15	0.18	0.11
2015-16	0.41	0.07

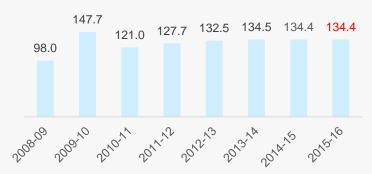




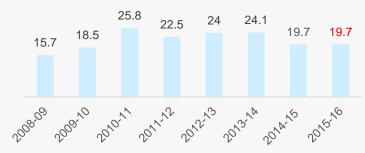
# KEY INDUSTRIES – AGRICULTURE, HORTICULTURE AND FOOD PROCESSING

- Agriculture is vital to the progress of Sikkim as more than 64% of the population depends on it for their livelihoods. The Sikkim AGRISNET is an internet-based agriculture information centre to promote scientific agricultural methods and convert research into practice in the agricultural sector.
- Sikkim has a suitable climate for agricultural and horticultural products. It supports multiple crops; viz., rice, wheat, maize, millet, barley, urad, pea, soya bean, mustard and large cardamom. The surveyed arable land in Sikkim is 109,000 ha, of which only 9.5% is used; this provides a vast untapped potential for development. The state government is also laying emphasis on improving organic farming in the state. During 2015-16, the state government recognised the existing MPCS in the state to promote and enhance organic farming in the state. As a result of these initiatives, the state was certified as the first fully organic state in India, by the Central Ministry of Agriculture and Farmers' Welfare as well as other recognized agencies of the country.
- A ginger processing unit has been set up at Birdang in west Sikkim for processing and value addition of organic ginger for marketing. Production of vegetables and fruits in Sikkim increased at a CAGR of 4.62% and 3.3%, respectively, between 2008-09 and 2015-16.
- There are large areas of fallow land available, having the potential to be converted into productive farms for cash crops. Egg production in the state stood at 57.53 lakh units in 2014-15 and 101.57 lakh units in 2015-16. Meat production in the state was recorded at 5.84 thousand tonnes in 2015-16. Milk production in the state increased from 49.99 thousand Source: Indian Horticulture Database 2014-National Horticulture Board, tonnes in 2014-15 to 66.74 thousand tonnes in 2015-16.

### Production of vegetables (in '000 MT)



### Production of fruits (in '000 MT)



TechSci Research, MT: Metric Tonnes





# KEY INDUSTRIES – HYDROPOWER ... (1/2)

- It is estimated that Sikkim has a peak potential capacity of 8,000 MW and a steady 3,000 MW of hydroelectric power. About 28 hydropower projects are being set up in the state under the public-private partnership (PPP) mode.
- According to the latest list of the Central Electricity Authority (CEA), Sikkim has 21 live hydropower projects with a total installed capacity of 270.27 MW.
- The Teesta and Rangeet are the two major rivers with nearly a hundred tributaries. The Teesta descends from an elevation of about 3,600 m to about 300 m over a distance of 175 km. It can be harnessed for power generation in six stages.
- The Jorethang Loop Hydro Electric Project with total capacity of 96 MW, commenced its commercial operation during 2015-16.
- Teesta Stage- III project with capacity of 1,200 MW power is expected to be completed by March 2017. Moreover, the 96 MW Dikchu HEP as well as 90 MW HEP at Tashiding are also expected to be completed by 2017, as per the state budget 2016-17.
- The Power Grid Corporation of India is working over a new scheme to boost power transmission and distribution system in Sikkim, as per the provisions of state budget 2016-17.
- Furthermore, the Government of Sikkim is targeting to deliver the uninterrupted supply of power across various connected as well as unconnected households under the umbrella of "24X7 Power for All" plan, in the next few years.





# KEY INDUSTRIES – HYDROPOWER ... (2/2)

- The waterfalls of Sikkim that fall from high altitudes and are perennial in nature are conducive for setting up hydroelectric power plants. For replacing the streetlights with LED bulbs, the state government is working on a scheme so as to improve the quality and minimise cost through energy saving.
- NHPC is setting up a hydro-electric power plant (including two operating projects) in Sikkim, with a generation capacity of 5,295 MW. A total of 11 hydro electric power projects with a capacity of 2,455 MW (of which the private sector contributed 1,935 MW) have been identified for benefits during the 12th Five Year Plan in the state.

Hydroelectric power projects under construction		
Developer	Installed capacity (MW)	
Teesta Urja Ltd	1,200	
Lanco	500	
Dans Energy	96	
Gati Infrastructures <sup>1</sup>	150	
Shiga Energy	97	
Sneha Kinetic Energy	96	
Sikkim Hydro Ventures Ltd.	66	

Prospective hydroelectric power projects		
Developer	Installed capacity (MW)	
Himalayan Green Energy	280	
Him Urja Pvt Ltd	330	
NHPC	520	
Himagiri Hydro	300	
Gati Infrastructure	71	
Lachung Power Pvt Ltd	99	
TT Energy	70	

Source: Hydro Development Plan for 12th Five Year Plan;

Central Electricity Authority; Livemint, September 2011; Projects Monitor; <sup>1</sup>Includes 2 projects Sada-Mangder HEP& Bhasmey HEP, NHPC: National Hydroelectric Power Corporation, TechSci Research





# SIKKIV THE LAND OF PEACE AND TRANQUILITY



## KEY INDUSTRIES – TOURISM ... (1/2)

- Tourism in Sikkim has emerged as the new profession of the Sikkimese people with its vast natural potential. Promotion of village tourism, homestay, cultural tourism, trekking tourism, ecotourism, wellness tourism, flori-tourism and adventure tourism has given fillip to the tourism trade in the state where a large of number of people are engaged under different employment opportunities.
- The government is aiming at developing a number of tourist infrastructures in the state so as to provide the tourists with village tourism, nature tourism, culture tourism, etc.
- Sikkim has the perfect blend of natural wealth and topography, which ranges from tropical to temperate to alpine. The state is richly endowed with thick forests, flora and fauna, lakes, glaciers and mountain peaks, which makes it a tourist paradise.
- Creation of tourist complexes, ecotourism, adventure tourism, ethnic-culture tourism, health farms, hotels, convention centres, tourist travel services, etc., are various avenues for investment in the tourism sector.
- Cho-Lhamu lake situated in Sikkim is the highest lake in the country and sixth highest in the world. It is expected that recognition of this lake will boost tourism in the state.
- The state has mighty scenic snow-capped peaks including Kanchenjunga, the world's third highest peak that attracts a large number of tourists from across the globe.
- The number of home stays in the state has increased over the past years as they are becoming more and more popular. There are a total of 719 home stays and 19 rural tourism facilitation centres, which have been constructed by the tourism department in the state.
- During 2016-17, an allocation of US\$ 2.56 million was proposed by the Government of Sikkim for development of tourism sector in the state.

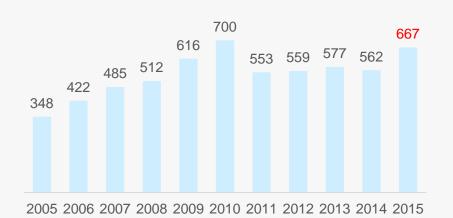




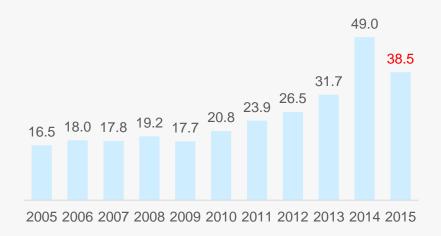
## KEY INDUSTRIES – TOURISM ... (2/2)

- An extraordinary increase in the number of tourists in the state has been witnessed over the past few years owing to the efforts that the state government is making for promoting tourism in the state.
- Sikkim is setting up a fossil park in Mamley (south Sikkim), where rare one billion-year-old Stromatolite fossils occur. GSI plans to set up a geological museum in Sikkim, displaying fossils, rock samples, etc., from various parts of India. This would attract palaeontology enthusiasts across the world.

### Domestic tourists arrival in Sikkim (in '000)



### Foreign tourists arrivals in Sikkim (in '000)



Source: Ministry of Tourism- Government of India, Sikkim Tourism, Government of Sikkim





## **KEY INDUSTRIES – IT**

- Sikkim's IT policy aims to increase the use of IT in the industrial and government sectors. With a high literacy rate, affordable cost, strong English-speaking population, improved telecommunications connectivity and favourable climate, Sikkim is well poised to serve the IT industry. 40 Community Information Centers (CIC) have been set up across the remotest of regions in the Sikkim to bring Information Technology to the grass root level of people
- The IT policy provides several incentives and concessions for investments in the IT sector. The Government of Sikkim has placed information technology high on its agenda. The budget allocation for information and broadcasting is expected to be US\$ 1.50 million during 2016-17.
- The Department of Information Technology has been set up for preparing extensive projects; particularly aiming at e-governance, promoting IT enabled services such as medical transcription, telemedicine and computerised braille. The Department of Information Technology, Government of Sikkim is in the process of setting up a state of the art IT park and National Institute of Electronics and Information Technology (NIELIT) at Pakyong. The IT Park will have state-of-the-art facilities that will offer a plug and play environment and cater to the specific needs of the information technology and business process outsourcing (BPO) segments.
- The Department of Information Technology proposed the use of optical mark reader (OMR) technology for any examination conducted for employment in the state. This proposal has been approved by the North East Council (NEC). This would fasten the process of recruitments in the state. The state government is using IT tools for the disabled people in Sikkim, thus, making them more productive and providing them opportunities to earn livelihood.
- As per the state budget 2016-17, the Government of Sikkim is targeting to attract more investments across the IT and ITeS sectors during 2016-17, in order to make the state an IT hotspot. Moreover, the state government has also proposed to set up a video conferencing facility up to BDO Level in the state.

Source: Sikkim State Portal





### KEY INDUSTRIES – SERICULTURE

- Mulberry, muga, eri, oak-tussar and silk are cultivated in Sikkim.
- The Sericulture Directorate is responsible for development of sericulture in Sikkim. The Directorate is maintaining three sericulture farms, one each in east, south and west district.
- Forest Department has two sericulture farms, one at Rorathang (east Sikkim) and the other at Mamring and Namthang (south district).
- The sericulture potentiality of Sikkim state has been explored jointly by the State Department and Central Silk Board, through launching a flagship programme titled Catalytic Development Programme.
- Over the years with consorted efforts from the both ends (state and central governments), considerable success have been achieved by the state sericulture industry in generating employment.
- Raw silk production in the state increased from 0.20 metric tonnes in 2013-14 to 6.0 metric tonnes in 2015-16.

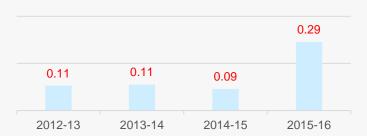




### KEY INDUSTRIES – HANDLOOM AND HANDICRAFTS

- Carpet weaving, blanket making, handloom, cane and bamboo, thangka painting, lepcha hat-making and angora shawl-weaving are the various handlooms and handicraft activities practised in Sikkim.
- The industry has a great potential to generate income and employment in the state. In order to give a boost to the sector, the Government of Sikkim has been making several efforts, which include providing training to upgrade the quality and designs of the products; bringing expertise and professionals for their marketing and supply, etc.
- Handicrafts Handlooms, Directorate and Government of Sikkim, promotes and preserves the rich arts and crafts of the state.

### Financial assistance to the handloom weavers (in US\$ million)



Funds released under handicraft schemes (2015-16) (US\$ thousand)		
Design and Technological Up-gradation	14.51	
Human Resource Development Scheme	27.33	
Total	41.84	

Funds released under National Handloom Development Programme (2015-16) – US\$ thousand		
Handloom Marketing Assistance (HMA)	3.05	
Integrated Handloom Development Scheme (IHDS)	20.0 <sup>1</sup>	

Source: Ministry of Micro, Small and Medium Enterprises, Government of India; Ministry of Textiles, (1)2014-15







### **KEY INDUSTRIES – TEA**

- Tea grown in the Temi region of south Sikkim is famous by its brand name Temi Tea. The tea has its unique flavour and about 100 metric tonnes of tea is produced annually.
- Temi Tea Estate was established in the year 1974 over an estimated area of 440 acres. The garden employs about 400 regular and seasonal workers. The tea produced is exported as well as sold in local and national markets.
- Temi Tea Estate offers assistance to small-scale growers and producers by providing quality planting materials. It also produces some of the best clone planting materials, which are distributed among small tea growers' cooperatives in the state.
- During the harvesting season, Temi Tea Estate produces 100,000 kilograms of saleable tea.
- Under the assistance of Temi Tea Board, tea growers societies like Sang-Martam Tea Growers' Cooperative Society have started flourishing, which will further increase the production.
- Efforts are underway to source direct buyers in foreign markets for Sikkim's tea and the field is open for investors interested in increasing Sikkim's tea production capabilities.
- Major buyers of Temi Tea are Germany, the UK, the US and Japan. Moreover, the state is trying to diversify the product range (including redesigning of more attractive packets for value addition) due to growing demand for green teas.
- As per the state budget 2016-17, the Government of Sikkim is in the process of listing the geographical indication for Temi Tea on the account of changing climatic conditions being witnessed in the state.

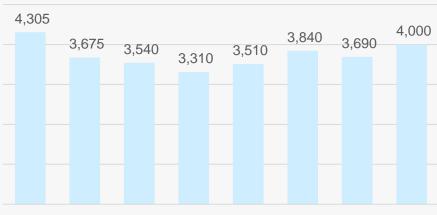




### KEY INDUSTRIES – LARGE CARDAMOM

- The state is considered as a large cardamom epicentre of the world and produces more cardamom than any other Indian state.
- India contributes 50% to total large cardamom production in the world. Sikkim is the largest producer of cardamom in India, and accounts for more than 90% of total production in the country.
- The crop produced in the state is mainly exported to Saudi Arabia, Pakistan, Singapore and the Middle East, and is the preferred choice among these nations due to its distinctive aroma and colour.
- The Spices Board has proposed to replant 5,000 hectares and rejuvenate 2,500 hectares of large cardamom in Sikkim during the 12th Five Year Plan.
- The demand for large cardamom in the export market is bound to increase steadily. Internal consumption of cardamom is also increasing day-by-day.
- As per state budget 2016-17, the Government of Sikkim has initiated work on establishment of a state-of-art biotechnology laboratory, where the molecular level work on disease control for large cardamom is being carried out.

### Production of cardamom (tonnes)



2007-08 2008-09 2009-10 2010-11 2011-12 2012-13 2013-14 2014-15

Source: Ministry of Agriculture, Spices Board



### **KEY INDUSTRIES – MINERALS AND MINING**

- Sikkim is endowed with substantial deposits of minerals of economic importance which when properly explored and exploited will give a boost to the economy of the states. A major portion of the state is covered with forests. Most of the mineral deposits are located mainly in forest areas.
- Sikkim has significant, untapped natural resource reserves of coal, limestone, marble, quartzite, graphite, fire clay, feldspar, silica sand, granite and brick earth.
- Contour mapping and survey of minerals is being carried out by the Department of Mines, Minerals and Geology, of the Government of Sikkim.
- Occurrences of high grade quartzite with over 90% silica have been found in parts of east, west & south Sikkim.
- Graphite in the state occurs over parts of west and north districts. Workable occurrences are located at Chitre-Dariely & Dentam-Uttarey areas of west Sikkim. The graphite is made up of 40-60% fixed carbon.
- Sikkim has extensive deposits with bands of dolomite limestone in Rangit valley Tectonic Window.
- The state is endowed with sizeable deposits of marble around Tsungthang, Tsongo and Tolong.
- Coal deposits in the form of small pockets have been found in parts of south and west Sikkim. As per the state budget 2016-17, for non-ferrous mining as well as metallurgical industries, a total allocation of US\$ 732.63 thousand has been made by the state government.





## KEY INDUSTRIES - PHARMACEUTICALS ... (1/2)

- Pharmaceutical is an emerging industry in Sikkim due to tax incentives offered by the state government as well as low manufacturing and labour costs.
- Sikkim is home to 14 major pharma companies, which have significant investments in the state. These include Cipla, Sun Pharma, Zydus Cadila, Alembic, IPCA, Alkem Lab, Intas Pharma, Torrent Pharma and Unichem.
- The North-East Industrial and Investment Promotion Policy, 2007 and the pollution free atmosphere are highly beneficial for pharma investments in Sikkim. Some of the policy incentives are:
  - 100% excise duty exemption on finished products.
  - 100% income tax exemption.
  - 30% capital investment subsidy on investments in plant and machinery.
- The state attracted pharmaceutical investments of US\$ 414.73 million till 2014-15.
- As of November 2015, Mankind Pharma announced its plans to setup pharmaceuticals & food formulations manufacturing unit in Sikkim.
- Under the Budget Scheme 2016-17, the state government is in the process of establishing a Pharma Training Centre at ITI, Rangpo complex.

Source: Sikkim Human Development Report 2014, TechSci Research, News articles





## KEY INDUSTRIES - PHARMACEUTICALS ... (2/2)

### Cipla



- Cipla is one of the world's largest generic pharmaceutical companies with presence in over 170 countries. It exports raw materials, intermediates, prescription drugs, over the counter (OTC) and veterinary products, among others.
- During 2015-16, the company recorded total income of US\$ 2.08 billion.

### **Sun Pharmaceutical** industries limited



- India-based Sun Pharmaceutical Industries Limited is a global pharmaceutical company headquartered in Mumbai, Maharashtra. It manufactures and sells pharmaceutical formulations and Active Pharmaceutical Ingredients (APIs) mainly in India and the US.
- The company offers formulations in the rapeutic areas such as cardiology, psychiatry, neurology, gastroenterology and diabetology. There are 13,000 employees in the company.
- Sun Pharmaceutical industries Ltd recorded total income of US\$ 4.23 billion during 2015-16.

### **Zydus Cadila**



- India-based Cadila Healthcare is a pharmaceutical company headquartered in Ahmedabad, Gujarat. It is the fifth largest pharmaceutical company in India and is a significant manufacturer of generic drugs. The company has a workforce of 13,181 employees worldwide.
- · Cadila Healthcare has global operations in four continents spread across the US, Europe, Japan, Brazil, South Africa and 25 other emerging markets. The company generated total income of US\$ 1.10 billion during 2015-16



## **KEY APPROVALS REQUIRED**

List of approvals and clearances required	Department	
Incorporation of company	Registrar of Companies	
Registration, Industrial Entrepreneurs Memorandum, industrial licences	Commerce and Industries Department	
Permission for land use		
Allotment of land		
Site environmental approval	Sikkim Pollution Control Board	
No-objection Certificate and consent under Water and Pollution Control Act		
Registration under States Sales Tax Act and Central and State Excise Act	Excise Department, Sales Tax Department,	
Commercial taxes	Commercial Taxes Division, Finance, Revenue & Expenditure Department	
Sanction of power		
Power feasibility	Energy and Power Department	
Power connection		
Approval for construction activity and building plan	Building & Housing Department, Public Works Department	
Water and sewerage clearance	Water Security & Public Health Engineering	
Water connection	Department	



## **CONTACT LIST**

Agency	Contact information
Commerce and Industries Department	Government of Sikkim Gangtok-737101, Sikkim Phone: 91-3592-202 670 Website: sikkimindustries.gov.in E-mail: industriesdept@yahoo.co.in
Energy and Power Department	Energy & Power Department Gangtok, Sikkim Website: www.sikkimpower.org E-mail: pbsubba@sikkimpower.org
Sikkim Industrial Development & Investment Corporation Limited (SIDICO)	Bhanu Path, Gangtok-737103, Sikkim Phone: 91-3592-202287, 202637, 209622, Fax: 91-3592-202287 Website: www.sidico.org E-mail: mdsidico@rediffmail.com
Directorate of Handloom and Handicrafts	Director, D.H.H, Gangtok East Sikkim Phone: 91-3592-203 126/202 926



## COST OF DOING BUSINESS IN SIKKIM

Cost parameter	Cost estimate	Source
Hotel costs	US\$ 30-150 per room per night	Industry sources
Office space rent (2,000 sq ft)	US\$ 500-2,500 per month	Industry sources
Residential space rent (2,000 sq ft)	US\$ 100-500 per month	Industry sources
Labour cost (minimum wages per day)	Unskilled: US\$ 1.8 Skilled: US\$ 2.8	Ministry of Labour and Employment, Government of India



## STATE ACTS & POLICIES ... (1/2)

### Sikkim Tourism Policy 2015

### **Objectives**

- To create a plan for the development of human resources in the tourism sector.
- Providing a quality experience to tourists by enhancing the infrastructure and transport facilities in the state.
- To promote tourism in the state of Sikkim by creating a marketing cell within the Tourism Department.

Read more

### Sikkim Ecotourism Policy 2011

### **Objectives**

- To establish Sikkim as an ultimate and unique ecotourism destination, offering memorable and high quality learning experiences to visitors to contribute to poverty alleviation and promote nature conservation.
- To promote ecotourism in a sustainable manner based on the Global Sustainable Tourism Criteria.

Read more



## STATE ACTS & POLICIES ... (2/2)

### North East Industrial and Investment Promotion Policy (NEIIPP) 2007

Objective

To promote the Northeast as an attractive investment destination through several concessions and incentives.

Read more

### IT Policy of Sikkim 2006

**Objectives** 

- To employ IT to provide better governance and generate employment.
- To improve productivity in government departments through computerisation.

Read more

### Sikkim Policy on Organic Farming 2010

**Objectives** 

- To make the state's farming more respectable, sustainable as well as remunerative.
- To extend the conserved traditional agricultural knowledge in the state.
- To minimize the use of agrochemicals as well as other hazardous materials in various agrobased plants. Read more





## **EXCHANGE RATES**

### Exchange rates (Fiscal Year)

Year	INR equivalent of one US\$
2004-05	44.81
2005-06	44.14
2006-07	45.14
2007-08	40.27
2008-09	46.14
2009-10	47.42
2010-11	45.62
2011-12	46.88
2012-13	54.31
2013-14	60.28
2014-15	60.28
2015-16	65.46

Source: Reserve Bank of India





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