



# Drishti Himachal Pradesh-2030

## Sustainable Development Goals





## Message

I am delighted to share the Himachal Pradesh's Agenda for Sustainable Development - 2030 which is guided by the United Nations Sustainable Development Goals (SDGs). The Sustainable Development Goals, officially known as "Transforming our world: The 2030 Agenda for Sustainable Development", are an intergovernmental set of 17 aspirational goals with 169 targets that were adopted in September 2015 by the United Nations General Assembly and the same has been signed and adopted by the Government of India.

In light of the Agenda for Sustainable Development – 2030, which aims at leaving no one behind in sharing the benefits of development, the State Government is also pursuing inclusive growth with the motto of "Sabka Saath-Sabka Vikas". The State government is committed to attain synergy between faster and inclusive economic growth, social cohesion and environmental sustainability in Himachal Pradesh to facilitate overall prosperity and a better quality of life for people of the State.

Review of the development goals and the targets suggests that the State has already achieved some of the targets under various goals. The Government of Himachal Pradesh would strive to achieve most of the remaining targets much before 2030 - the set time line for achieving the Sustainable Development Goals.

This document has been prepared after holding repeated consultations with the stakeholder departments and also with the national and international experts and hence, it is not a onetime documentation. I, therefore, look forward to receiving suggestions and feedback from diverse stakeholders including academia, civil society, business associations, media, panchayats and local bodies etc. on this initiative. It is my sincere appeal to the citizens that this document may be treated as their own document and not merely as a Government document. I appeal to people from all walks of life to come together and join hands to share the responsibility of working towards making this Himalayan state in India stand apart in advancing inclusive growth and sustainable development.

**(Jai Ram Thakur)**

Chief Minister  
Himachal Pradesh





## Foreword

Government of Himachal Pradesh has prepared this important document enumerating State's vision for achieving the Sustainable Development Goals (SDGs) at a faster pace and in efficient manner. The Vision document aims to provide the roadmap for achieving the various goals and targets in a sustained manner that balances the three dimensions of sustainable development - social, economic and ecological development.

The Government will ensure robust policy that integrates strategies and action plans to meet challenges across all sectors, including delivery of services to the expectations of the people of the State, water resource management, resilient urban infrastructure, adaptation to climate change, eco-tourism, sustainable growth of industries and more.

The documentation exercise had been participatory that involved series of meetings and periodic interaction between the working groups. I congratulate the Administrative Secretaries heading various working groups who have worked hard and have provided valuable suggestions and regular guidance in preparing the document.

I am thankful of UN in India and National Foundation for India (NFI) for the technical support provided in developing the vision document. I would like to mention my appreciation for Dr. Shrikant Baldi, Additional Chief Secretary cum Principal Secretary to Chief Minister, Sh. Anil Kumar Khachi, Additional Chief Secretary, Finance & Planning, and Dr. Basu Sood, Adviser, Planning, who have been instrumental in conceptualization and development of this document.

The State has achieved considerably good outcomes in social sector, energy, and access to rural infrastructure. Our previous achievements provide confidence and enhance abilities for successful achievement of the Agenda for Sustainable Development-2030.

(B K Agarwal)  
Chief Secretary  
Himachal Pradesh



## Foreword

At the cusp of the new phase of development, it is my privilege to present the State's "*Drishti Himachal Pradesh-2030: Sustainable Development Goals*".

The purpose of this vision document is to provide a road map for transformational development of the State. Delivering the Agenda for Sustainable Development Goals -2030 will require building partnership with the private sector, civil society, institutions, knowledge communities, panchayats, local bodies, domain experts and citizens of the State. The urgency is to accelerate the pace of this engagement.

The documentation has been extensively participatory and a learning exercise. The whole documentation process has provided us an opportunity for in-depth review of our own schemes and programmes under implementation. It was observed that several steps viz. better convergence at various levels, restructuring of some of the existing schemes and some new interventions would be required for faster and time bound achievement of goals and targets.

I would like to acknowledge the hard work of the working groups and thank all the Administrative Secretaries and Heads of the Nodal Departments for their cooperation and guidance provided to the officers and team of the Planning Department involved in preparation of this document. I would like to thank the National Foundation for India and the UN in India for their support. I also take this opportunity to place on record my appreciation to the officers of the Planning Department and Sh. Karunakar, Lead Consultant (SDGs) for putting in their sincerest efforts in finalization of this document.

I dedicate this vision document to all the stakeholders, including the government departments, who have been at the forefront for testing innovations, adopting new models of development, and feeding the learning into better service delivery. The programmes and schemes are already there in the field; what we need is to renew our commitment in the light of the Agenda for Sustainable Development-2030.

(Anil Kumar Khachi)

Additional Chief Secretary (Finance & Planning)  
Government of Himachal Pradesh



## Preface

The Government of Himachal Pradesh has considered the Sustainable Development Goals framework as an opportunity for achieving more inclusive development in the State. The SDGs framework has served as guiding idea for development of the *"Drishti Himachal Pradesh-2030: Sustainable Development Goals"*.

The vision document is an outcome of intense participatory work done by the nodal departments. The departments have done 360-degree review of the ongoing programmes, identified gaps, challenges and then set up the timeline for achieving the goals and targets. It is a matter of great satisfaction that a large number of the targets relevant for State have been proposed to be achieved by 2022 and the rest will also be achieved before 2030. 'Leaving no one behind' has been the theme for developing the vision. The overall focus of the document is identification of implementing strategies which ensure inclusiveness in the service delivery system built into it.

The document comprises of detailed chapters on 16 Sustainable Development Goals. Goal number 14 which pertains to sustainable use of oceans, seas and marine resources has not been included in the document, as Himachal Pradesh is a land locked state. Executive summary, in the beginning of the document, provides an idea about the development strategies recommended for achieving various goals.

I must mention my deep sense of appreciation for remarkable strides made by the Nodal Departments and the officers of other departments for arranging information and the inputs which helped in giving a final shape to the document. I acknowledge the support provided by the National Foundation for India (NFI) and the UN Resident Coordinator's Office, New Delhi, for developing this document. I am thankful to Sh. Sumit Bose, Technical Adviser-SDGs, NFI, and former Union Finance Secretary; Sh. Satyabrata Chakrabarti, Technical Consultant-SDGs, NFI, and former Deputy Director General, Central Statistical Office, MoSPI, Gol; and, the team from National Foundation of India, New Delhi, comprising of Sh. Amitabh Behar and Ms. Radhika Mathur for providing direction to this endeavour. I also acknowledge the support provided by Ms. Meenakshi Kathel, Programme Coordination Specialist, UN Resident Coordinators' Office, New Delhi, in giving final shape to the document.

I would also like to acknowledge the support of the officials of the Planning Department and particularly of Sh. Karunakar, Lead Consultant (SDGs) and Ms. Pooja Sharma, Consultant (SDGs) for coordinating with the departments and other stakeholders.

I am hopeful that this document will serve as roadmap for achieving faster and more inclusive growth of the State on sustainable basis.



(Dr. Basu Sood)

Adviser (Planning)  
Government of Himachal Pradesh

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End hunger, achieve food security and  
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End poverty in all its forms  
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Ensuring healthy lives and promoting  
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Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels



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Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

## List of abbreviation

AAY	Antyodaya Anna Yojana	DIET	District Institute for Education and Training
ACB	Anti-Corruption Bureau	DIR	Domestic Incident Report
ACS	Acute Coronary Syndrome	DLHS	District Level Household and Facility Survey
ADB	Asian Development Bank	DOT	Directly Observed Therapy
AFD	Agence Française de Développement (French Development Agency)	DRM	Disaster Risk Management
AGs	Adolescent Girls	DRR	Disaster Risk Reduction
AHP	Affordable Housing in Partnership	DST	Drug Sensitivity Test
AHTU	Anti Human Trafficking Units	DU	Dwelling Unit
AIC	Agriculture Insurance Company of India	EAP	Externally Aided Project
AMI	Advanced Metering Infrastructure	ECBC	Energy Efficiency Building Code
AMRUT	Atal Mission for Rejuvenation and Urban Transformation	ECCE	Early Childhood Care and Education
ANC	Antenatal Care	EDP	Entrepreneurship Development Programme
APL	Above Poverty Line	EESL	Energy Efficiency Service Limited
ARSH	Adolescent, reproductive, sexual health	EHV	Extra-high-voltage
ART	Antiretroviral therapy	EMP	Environment Master Plan
ASHA	Accredited Social Health Activist	EOU	Export Oriented Unit
ASI	Archaeological Survey of India	EWS	Economically Weaker Sections
ASIDE	Assistance to States for Infrastructure Development of Exports and Allied Activities	FAR	Floor Area Ratio
AWW	Anganwadi Worker	FCA	Forest Conservation Act
BBBP	Beti Bachao, Beti Padhao	FCTC	Framework Convention on Tobacco Control
BBMB	Bhakra Beas Management Board	FDC	Fixed-Dose Combination
BBNDA	Baddi Barotiwala Nalagarh Development Authority	FDI	Foreign Direct Investment
BHAY	Beti Hai Anmol Yojana	FFS	Farmers' Field Schools
BICAT	Basin wise Integrated Catchment Area Treatment	FHW	Female Health Worker
BPL	Below Poverty Line	FIGs	Farmers into Interest Groups
CADWM	Command Area Development and Water Management Programme	FPOs	Farmer Producer Organizations
CAMPA	Compensatory Afforestation Fund Management and Planning Authority	FRA	Forest Rights Act
CAT	Catchment Area Treatment	FSI	Floor Space Index
CBCS	Choice Based Credit System	FSI	Forest Survey of India
CCA	Climate Change Adaptation	FSSAI	Food Safety and Standards Authority of India
CCA	Culturable Command Area	GBPI	Institute G.B. Pant National Institute of Himalayan
CCDU	Communications and Capacity Development Unit	HESD	Environment & Sustainable Development
CCTNS	Crime and Criminal Tracking Network and Systems	GER	Gross Enrolment Ratio
CCVA	Climate Change Vulnerability Assessment	GHGs	Green House Gases
CDBR	Cold Desert Biosphere Reserve	GHNP	Great Himalayan National Park
CEA	Central Electricity Authority	GIS	Geographic Information System
CEIA	Cumulative Environment Impact Assessment	GoHP	Government of Himachal Pradesh
CETPs	Common Effluent Treatment Plants	GSDP	Gross State Domestic Product
CHC	Community Health Centre	GVA	Gross Value Added
CHCDS	Comprehensive Handloom Cluster Development Scheme	GW	Gigawatt
CID	Crime Investigation Department	HACCP	Hazard Analysis and Critical Control Point
CPHEEO	Central Public Health and Environmental Engineering Organisation	HHs	House-holds
CPR	Couple Protection Rate	HIMUDA	Himachal Pradesh Housing and Urban Development Authority
CSIR	Council of Scientific and Industrial Research	HIV	Human Immunodeficiency Virus
CSR	Corporate Social Responsibility	HMIS	Health Management Information system
CSS	Central Sponsored Scheme	HPBSMDA	Himachal Pradesh Bus Stands Management & Development Authority
CVD	Cardiovascular Disease	HPERC	Himachal Pradesh Electricity Regulatory Commission
CWSN	Children with Special Needs	HPFD	Himachal Pradesh Forest Department
DAY- NULM	Deen Dayal Antyodaya Yojana – National Urban Livelihood Mission	HPIDB	Himachal Pradesh Infrastructure Development Board
DBT	Direct Benefit Transfer	HPKCCC	Himachal Pradesh Knowledge Cell on Climate Change
DDP	Designated Delivery Points	HPKVIB	Himachal Pradesh Khadi and Village Industries Board
DDU-GKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana	HPKVN	Himachal Pradesh Kaushal Vikas Nigam
DDUGJY	Deen Dayal Upadhyaya Gram Jyoti Yojana	HPPCL	Himachal Pradesh Power Corporation Limited
DEST	Department of Environment Science & Technology	HPPTCL	Himachal Pradesh Power Transmission Corporation Limited
DHS	Directorate of Health Services	HPPWD	Himachal Pradesh Public Works Department
		HPSCSC	Himachal Pradesh Civil Supplies Corporation
		HPSEBL	Himachal Pradesh State Electricity Board Limited
		HPWDC	Himachal Pradesh Women Development Corporation



HRTC	Himachal Road Transport Corporation	MSMSY	Mata Shabri Mahila Sashaktikaran Yojana
HVRA	Hazard Vulnerability and Risk Assessments	MSW	Municipal Solid Waste
IAP	Industrial Awareness Programme	MTAMSY	Mother Teresa Asahay Matri Samba Yojana
ICDS	Integrated Child Development Scheme	MW	Mega Watt
ICT	Information and Communication Technology	NABARD	National Bank for Agriculture & Rural Development
ICTC	Integrated Counselling and Testing Centre	NACO	National Aids Control Organization
IDSP	Integrated Disease Surveillance Program	NAP	National Afforestation Project
IEC	Information Education Communication	NAS	National Achievement Survey
IEDSS	Inclusive Education for Disabled at Secondary Stage	NBCC	New-Born Care Corners
IGMC	Indira Gandhi Medical College	NBSU	New-Born Stabilization Units
IGMSY	Indira Gandhi Matritva Sahyog Yojana	NCDs	Non Communicable Diseases
IHCAP	Indian Himalayas Climate Adaptation Programme	NCRB	National Crime Records Bureau
ILO	International Labour Organization	NDPS	Narcotic Drugs and Psychotropic Substances
IMR	Infant Mortality Rate	NEERI	National Environmental Engineering Research Institute
IPC	Interpersonal Communication	NER	Net Enrolment Ratio
IPC	Indian Penal Code	NERS	National Emergency Response System
IPDS	Integrated Power Development Scheme	NFHS	National Family Health Survey
IPH	Irrigation and Public Health	NFSM	National Food Security Mission
IPHS	Indian Public Health Standard	NGO	Non Government Organization
IRDP	Integrated Rural Development Programme	NH	National Highway
IREDA	Indian Renewable Energy Development Agency	NHM	National Health Mission
IUCN	International Union for Conservation of Nature	NIC	National Information Centre
IWRM	Integrated Water Resources Management	NIH	National Institute of Hydrology
JICA	Japan International Cooperation Agency	NISE	National Institute of Solar Energy
JNNURM	Jawaharlal Nehru National Urban Renewal Mission	NIT	National Institute of Technology
JSSK	Janani Shishu Suraksha Karyakram	NMAET	National Mission on Agricultural Extension and Technology
JSY	Janani Suraksha Yojana	NMR	Neonatal Mortality Rate
KfW	Kreditanstalt für Wiederaufbau Entwicklungsbank (KfW Development Bank)	NMSA	National Mission for Sustainable Agriculture
KGBV	Kasturba Gandhi Balika Vidyalaya	NMSHE	National Mission for Sustaining the Himalayan Ecosystem
KL/d	Kiloliters Per Day	NOC	No Objection Certificate
KSVY	Kishori Samagra Vikas Yojana	NP-NSPE	National Programme of Nutritional Support to Primary Education
KSY	Kishori Shakti Yojana	NR	Non-Residential
LADF	Local Area Development Fund	NRLM	National Rural Livelihood Mission
LCD-TV	Liquid-crystal-display televisions	NRS	Non-Residential supply
LED	Light Emitting Diode	NSQF	National Skill Qualification Framework
LFPR	Labour Force Participation Rate	NSSO	National Sample Survey Organization
LPCD	Litres per capita per day	NTCP	National Tobacco Control Program
LPG	Liquid Petroleum Gas	NTPC	National Thermal Power Corporation
MCH	Maternal and Child Health	NUEPA	National University of Educational Planning and Administration
MCTS	Mother and Child Tracking System	NUUM	National Urban Livelihood Mission
MDGs	Millennium Development Goals	NVBDCP	National Vector Borne Disease Control Programme
MDM	Mid Day Meal	NWCP	National Wetland Conservation Programme
MFF	Multitranch Financing Facilities	OAPS	Old-Age Pension Scheme
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	OBC	Other Backward Class
MKB	Mahila Kalyan Board	ODF	Open Defecation Free
MMBUY	Mukhyamantri Bal Udhak Yojna Mumbai	OMS	Outage Management System
MMKSY	Mukhyamantri Khet Sanrakshan Yojana	ORS	Oral Rehydration Solution
MMKY	Mukhyamantri Kanyadan Yojana	OSC	One Stop Centre
MMR	Maternal Mortality Ratio	OSH	Occupational Safety and Health
MNRE	Ministry of New and Renewable Energy	PAN	Protected Area Network
MOFPI	Ministry of Food Processing Industries	PCB	Pollution Control Board
MoHUA	Ministry of Housing and Urban Affairs	PGCIL	Power Grid Corporation of India Limited
MoHUPA	Ministry of Housing and Urban Poverty Alleviation	PH	Physically Handicapped
MOSPI	Ministry of Statistics and Program Implementation	PHC	Primary Health Centre
MPCE	Monthly Per Capita Consumption Expenditure	PKSY	Dr. Y. S. Parmar Kisan Swarazgar Yojana
MPP	Multipurpose Projects	PUHIV	People living with HIV
MRP	Mixed Reference Period	PLM	Peak Load Management
MSME	Micro, Small and Medium Enterprises		

PM	Particulate matter
PMAY-HFA	Pradhan Mantri Awas Yojana - Housing For All (Urban)
PMAY-R	Pradhan Mantri Awas Yojana (Rural)
PMEGP	Pradhan Mantri Employment Generation Programme
PMFBY	Pradhan Mantri Fasal Bima Yojana
PMJDY	Pradhan Mantri Jan Dhan Yojana
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
PMMY	Pradhan Mantri Mudra Yojana
POCSO	Protection of Children from Sexual Offences
PPP	Public-Private Partnership
PQ	Power Quality
PRECIS	Providing Regional Climates for Impact Studies
PRIs	Panchayati Raj Institutions
PSBs	Public Sector Banks
PSMP	Power System Master Plan
QRTs	Quick Reaction Teams
R-APDRP	Restructured Accelerated Power Development and Reforms Programme
RADMS	Road Accident Database Management System
RAP	Rural Artisan Programme
RAY	Rajiv Awas Yojana
RBSK	Rashtriya Bal Suraksha Karyakram rbsk
REBT	Rural Engineering Based Training
REDD+	Reducing Emissions from Deforestation and Degradation
RFD	Results Framework Documents
RGMIS	Rajiv Gandhi Micro-Irrigation Scheme
RGSEAG	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls
RIDF	Rural Infrastructure Development Fund
RIP	Rural Industries Programme
RKVY	Rashtriya Krishi Vikas Yojana
RMNHCH-A	Reproductive, Maternal, Newborn, Child and Adolescent Health
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RRBs	Regional Rural Banks
RSBY	Rashtriya Swasthya Bima Yojana
RTI	Right to Information
RUSA	Rashtriya Uchchatar Shiksha Abhiyan
SAGY	Sansad Adarsh Gram Yojana
SAPCC	State Action Plan on Climate Change
SBA	Skilled Birth Attendants
SBM	Swachh Bharat Mission
SC	Scheduled Caste
SCADA	Supervisory Control and Data Acquisition
SCDP	State Catalytic Development Programme
SCERT	State Council of Educational Research and Training
SCM	Smart City Mission
SCP	Sustainable Consumption and Production
SDC	Swiss Agency for Development and Cooperation
SDGs	Sustainable Development Goals
SDMA	State Disaster Management Authority
SDP	State Domestic Product

SECI	Solar Energy Corporation of India
SEOC	State Emergency Operation Centre
SFDRR	Sendai Framework for Disaster Risk Reduction
SH	State Highway
SHCS	Soil Health Card Scheme
SHG	Self Help Group
SKO	Superior kerosene oil
SLBC	State Level Bankers' Committee
SLWM	Solid Liquid Waste Management
SMAE	Sub-Mission on Agricultural Extension
SMFP	State Mission on Food Processing
SMPP	Sub-Mission on Plant Protection
SMSP	Sub-Mission on Seeds and Planting Material
SNCU	Sick Newborn Care Units
SOC	Serious Organized Crime
SOER	State of the Environment Report
SOP	Standard Operating Procedure
SPV	Special Purpose Vehicle
SRS	Sample Registration System
SSA	Sarva Shiksha Abhiyan
ST	Scheduled Tribe
STI	Sexually Transmitted Infections
STP	Sewerage Treatment Plant
STS	Senior Treatment Supervisors
SV	State Vigilance
SWM	Solid Waste
SWMP	Solid Waste Management Plan
TDPS	Targeted Public Distribution System
TDR	Transferable Development Rights
TFR	Total Fertility Rate
TOF	Trees Outside Forests
TSDF	Treatment, Storage and Disposal facility
UDISE	Unified District Information System for Education
UHC	Universal Health Care
UIP	Universal Immunization Program
UJALA	Unnat Jyoti by Affordable LEDs for All
ULB	Urban Local Body
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UPS	Usual Principal Status
URDPFI	Urban and Regional Development Plans Formulation and Implementation
VHSNC	Village Health and Sanitation & Nutrition Committees
VMUY	Vishesh Mahila Uthhan Yojana
VWSC	Village Water and Sanitation Committee
WBCIS	Weather Based Crop Insurance Scheme
WHO	World Health Organization
WIHG	Wadia Institute of Himalayan Geology
WII	Wildlife Institute of India
ZLD	Zero Liquid Discharge



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# TOWARDS A BRIGHTER TOMORROW

HIMACHAL PRADESH: VISION 2030 & SDGs





### An introduction to the State and its development

Situated in the north of India, Himachal Pradesh shares boundaries with Tibet in the east; Haryana and Punjab in the west and south-west; Uttarakhand and Punjab in the south and Jammu & Kashmir to the north. The geographical area of the State has altitudes ranging from 350 metres to 6,500 metres above mean sea level. The mountain ranges of Zaskar, Great Himalayas and Pir Panjal stand tall over Chamba, Lahaul and Spiti, Kullu and Kinnaur districts; the Dhauladhar range overlooks the Kangra valley. Four perennial rivers, the Sutlej, the Ravi, the Chandra Bhaga and the Beas cut deep gorges in the mountains before entering the southern plains, while the Yamuna flows along the border with Uttarakhand.

The small hillstate of Himachal Pradesh has diverse topographical and geo-climatic conditions, from the relatively densely populated plains of the southern districts to the perpetually snow covered mountains and cold deserts of the northern districts.

The cropping pattern varies with the climatic conditions. Areas with severe cold conditions grow a single crop in the year. In the mountainous terrain, the provision of irrigation facilities is limited (as a consequence of high economic and





























financial costs of construction and maintenance of lift irrigation schemes); agricultural operations are largely dependent on rainfall.

Himachal Pradesh, with an area of 25,839 square kilometres, was a centrally administered territory in 1948. It became a full-fledged State of the Union of India on 25 January 1971. Today, it has an area of over 55,673 square kilometres, organized in 12 districts, 78 development blocks and 3,432 gram panchayats. Only 11 percent of its population resides in urban areas, organized in two municipal corporations and 55 other urban local bodies.

### Growth with inclusiveness

Himachal Pradesh has registered a growth rate, either higher than or close to the national growth rate, and has made significant achievements in the social sectors and on the environmental front. The challenge is to maintain this pace of development and to ensure the sustainability of the growth process. The State will need to adopt a range of schemes and programmes to achieve the Sustainable Development Goals (SDGs), and measure and monitor the progress.

Table E.1 - Socio Economic indicators- Himachal Pradesh

<b>Population (crores)</b>  0.68  121.01	<b>Decennial growth rate</b>  12.93  17.64	<b>Population density</b> per sq. km  123  368	<b>Rural population</b> (as % of total)  89.97  68.84
<b>Literacy rate</b>  82.80  73.0	<b>Male literacy rate</b>  89.53  80.90	<b>Female literacy rate</b>  75.93  64.60	<b>Sex ratio</b> (females per 1000 males)  972  943
<b>Child sex ratio</b> (CSR) (0-6 years)  909  919	<b>Life expectancy</b> (2009-13)  71.0  67.5	<b>Infant Mortality Rate</b> (SRS 2014)  32  39	<b>Crude Birth Rate</b> (SRS 2014)  16.4  21
<b>Crude Death Rate</b> (SRS 2014)  6.7  6.7	 Himachal Pradesh  All India Source: Census 2011		

EXECUTIVE SUMMARY

Table E.1 shows that Himachal has performed better than the country as a whole, on most of the socio-economic indicators. Sustained efforts are required to capitalize on the achievements that have been made and to reach new targets. Among the concerns is the extremely low sex ratio in the age group of 0-6 years; the Child Sex Ratio (CSR) is lower than the national average. The State Government has initiated interventions that will directly or indirectly help in countering the preference for a male child. These initiatives have started yielding results, as is evident from the observed increase in the sex ratio in some districts.

Relatively higher allocations to the social sectors and to infrastructure development are contributory factors in

achieving higher growth rates, as is public investment in agriculture and allied activities. The levels of environmental sustainability achieved in Himachal Pradesh has been recognized in India and abroad. The State Government is in a position to sell carbon credits earned through implementing schemes and programmes supported with clean technologies.

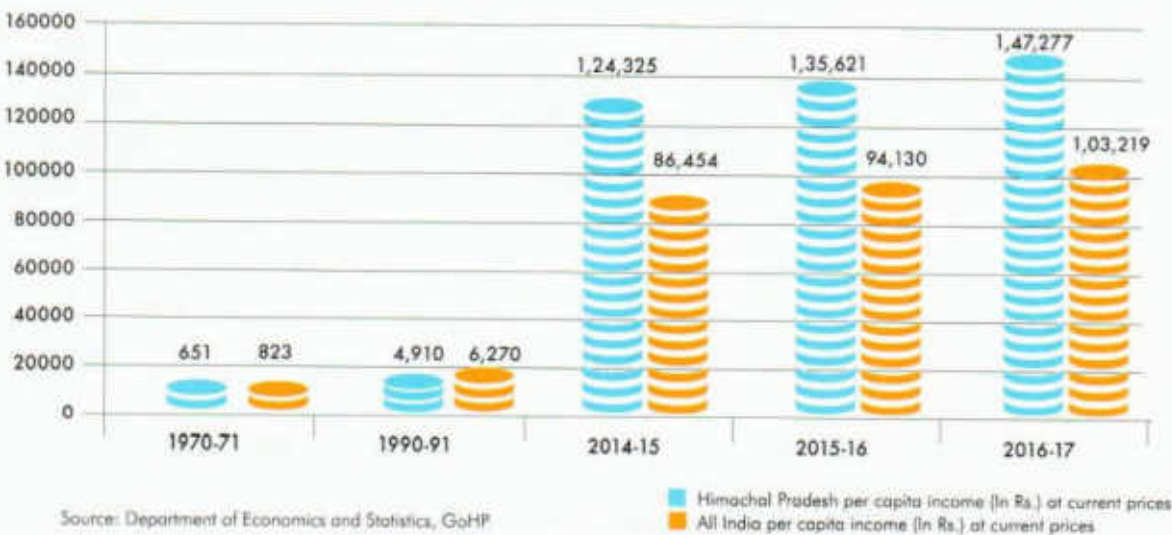
Per capita income has increased manifold since 1971, when it was lower than the national per capita income. Today, Himachal has considerably higher per capita income as compared to the national average.

Figure E.1 - Rate of growth of GDP, Himachal and All India, (2000-01 to 2015-16)



Source: Department of Economics & Statistics, Government of Himachal Pradesh

Figure E.2 - Per capita income, Himachal and All-India, 1970-71, 1990-91, 2014-15 and 2015-16



Source: Department of Economics and Statistics, GoHP

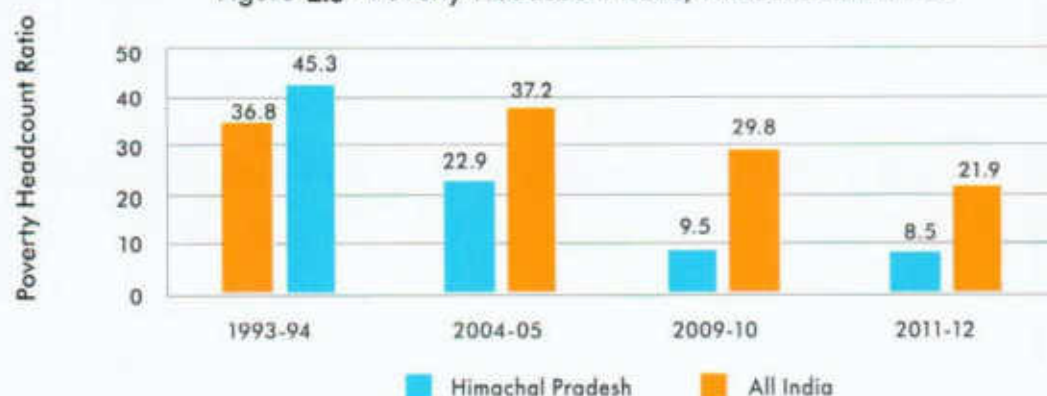


Institutional reforms and successful implementation of land reforms are contributing factors to reducing poverty in the State. Between 1993-94 and 2011-12, there has been a four-fold decline in poverty incidence in Himachal Pradesh.

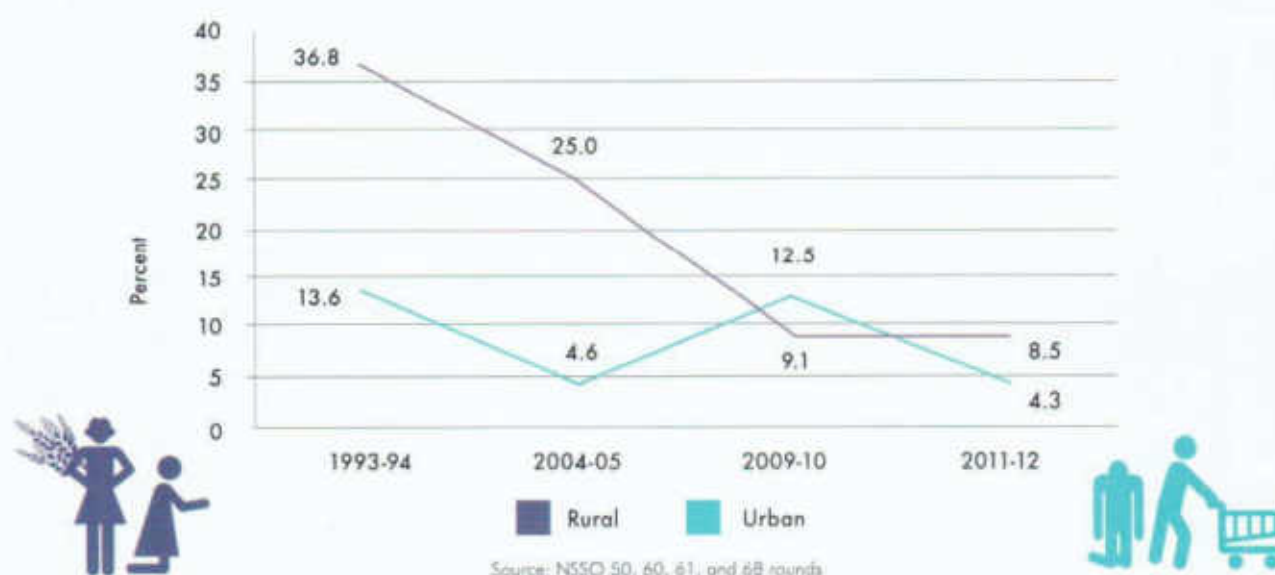
The decline in poverty has been recorded in urban as well as in rural areas and across all social groups.

Figures E.3 & E.4 show how the poverty has declined over the years with benefits to all sections of society.

**Figure E.3 - Poverty Headcount Ratio, Himachal and India**



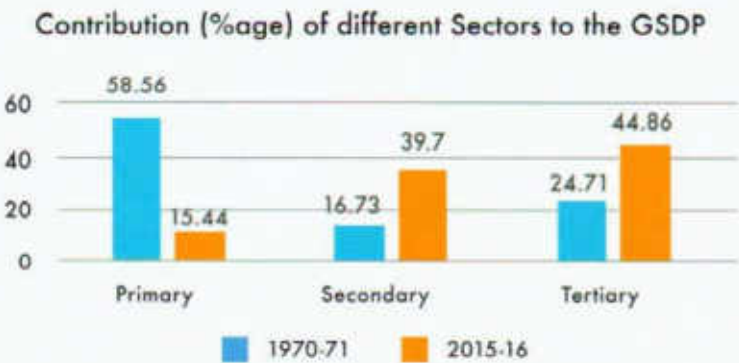
**Figure E.4 - Poverty trends in Himachal Pradesh- 1993-94 to 2011-12**



Agriculture is characterized by low productivity and the presence of disguised unemployment. The small average farm size makes technical interventions difficult especially mechanization. Steep slopes make irrigation expensive; lifting water to higher altitudes entails high fixed capital costs, as well as energy charges. These factors make agricultural activities rain dependent. Around two thirds of

the workers in the State are dependent on agriculture for their livelihood. Considering that only 14 per cent of the total Gross State Domestic Product (GSDP) of the State is attributable to agriculture and allied activities, the contribution per worker in agriculture to the GSDP is low, in fact one of the lowest in the country.

Figure E.5 - Percentage contribution of different sectors to GSDP, 1970-71 and 2015-16



Source: Dept. of Economics and Statistics, GoHP

The economy has undergone structural change since 1971, the year when it became a full-fledged State. Then, more than half of the GSDP came from the primary sector; the shares of the secondary and tertiary sectors were 16 and

24 percent, respectively. Over the years, the State has witnessed growth in both the secondary and tertiary sectors. This is encouraging, but low productivity in the agriculture sector is a challenge that needs to be addressed urgently.

Table E.2 - Percentage contribution of different sectors to State Domestic Product at Current Prices

Sr. No.	Sectors	1970-71	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Primary	58.56	25.28	23.15	23.22	20.05	19.02	19.15	17.16	17.10	17.62	15.9	15.44
2.	Secondary	16.73	38.24	39.95	39.77	43.02	42.91	42.19	43.81	42.80	42.28	41.08	39.70
3.	Tertiary	24.71	36.48	36.90	37.01	36.93	38.07	38.66	39.03	40.10	40.10	43.01	44.86

Source: Department of Economics and Statistics, GoHP

The challenges in industrial development include a) the small market size for finished goods and the non-availability of raw materials and intermediates within the State b) high transportation costs and weak market linkages.

Of 43,420 industrial units (as on 31st January 2017) 138 were large and 438 were medium scale units; almost all of them were located along the borders with neighbouring states, with easier access to markets for finished goods and from where raw materials can be procured. It is because of these disadvantages that large-scale industrialization in the interior areas is fraught with difficulties.

The share of industries in the State's GSDP was 5.6 per cent in 1967-68; this increased to 9.4 per cent in 1990-91 and 25.2 per cent in 2015-16. The services sector has registered impressive growth and contributed 44.86 per cent to the State's GSDP in 2015-16. Withdrawal of the special package of industrial incentives by the Government of India, available to industries till 2013, has resulted in the slowing down of industrialization in the State. Local

resource based, small-scale industrial units that can find markets locally may be a possible option for sustaining industrial activity.

Cost disadvantages arising from the fact of hilly terrain have implications for the quality and maintenance of infrastructure. The fragile geology of the relatively young Himalayas and difficult climatic conditions make infrastructure development an expensive activity. The nature, gradient and flow of rivers that flow through the State rule out the possibility of viable water transport. The difficult topography means a high cost is involved in the laying of railway lines; roads have dominantly been the only mode of internal travel and transportation. The road density in the State has increased from 13.7 kilometres (1971) to 61.3 kilometres, per 100 square kilometres, in 2016. The road network is vulnerable to the vagaries of nature and frequent slips and slides of loose strata/earth. Despite the 36,000 kilometres of roads in the State, many villages remain unconnected.



Himachal Pradesh is blessed with a potential of about 27 GW of hydel power, of which 10.5 GW has been harnessed. The process of executing the remaining hydel potential is underway; projects with capacity of 22 GW have been allocated. Almost all villages have been electrified. Per capita consumption of electricity is 1,015.8 Kwh per annum as against the national average of 733.5 Kwh. The execution of the on-going and under construction hydel projects needs to be speeded up to increase revenue earnings and provide more and better-quality power to the economy and the people.

The high mountains and green valleys make Himachal Pradesh a tourist's delight. Providing opportunities for tourism are the snow clad Zaskar and Pir Panjal mountain ranges, overlooking the Lush valleys (leisure tourism), a number of temples (religious tourism), the mountainous terrain and the rivers (adventure sports). Despite this, the tourism sector contributes only 7 per cent to the GSDP and provides employment to only 5.38 per cent of the people. Private investment and the provision of world class infrastructure can attract high spending and long-stay tourists, providing additional employment opportunities to local youth and help in the overall development of the State.

### Human Development in Himachal

Human development indicators have shown considerable improvement. In the early years, the per capita income was

low, amongst the lowest in the country. Later, in the 1990s, the per capita income placed Himachal amongst the middle-ranked States of the country; today Himachal Pradesh has a per capita income that is higher than the national average. The growth of income has also translated into inclusiveness, as most of the human development indicators of Himachal are comparable to the most developed states of the country.

In education, Himachal Pradesh has outperformed neighbouring states and some of the most developed states of the country. The proportion of persons with no education, across all social groups and in the rural areas in Himachal Pradesh has the lowest among states of north India. There is universal access to primary and elementary education, a consequence of the policy of needs based expansion of educational institutions. The education attainment levels of historically excluded groups like SCs and STs have registered remarkable improvement. The percentage of SCs and STs completing high and senior secondary level schooling is more than in many other states. The success in attaining higher female literacy levels is remarkable, although disparities in rural areas need to be addressed. After having achieved a strong network of educational institutions, including private institutions, the focus is now on improving the quality of education being imparted in Government schools.

**Table E.3 - Transition rate from Secondary to Higher Secondary levels: Scheduled Tribes: 2013-14**

	Boys	Girls	Total
Himachal Pradesh	80.17	78.03	79.17
Kerala	76.91	76.92	76.91
Uttarakhand	71.53	77.44	74.55
Haryana	State does not have enrolment in this category		
India	54.61	53.21	53.94

Source: U-DISE 2014-15

**Table E 4 Transition rate from Secondary to Higher Secondary levels: Scheduled Castes: 2013-14**

	Boys	Girls	Total
Himachal Pradesh	69.55	69.56	69.55
Kerala	71.01	77.77	74.29
Uttarakhand	58.76	66.55	62.50
Haryana	65.03	64.18	64.63
India	65.79	66.71	66.22

Source: U-DISE 2014-15

EXECUTIVE SUMMARY

The expansion of health services has witnessed steady progress. The relatively better health indicators in comparison with All India averages is indicative of the efficiency of delivery of health services. Himachal has the lowest infant, child and under five mortality rates amongst the north Indian states. With more than three fourths of its children having been fully immunized, Himachal outperforms India and other northern states. The State has achieved the status of being an 'Open Defecation Free (ODF)' state in rural areas, attributable to the Community Led Total Sanitation Campaign and a shift away from a subsidy oriented approach.

Investment in creating physical infrastructure has played an important part in raising the level of human development. Provision of motorable roads, electricity to almost all households, drinking water supply within or in close proximity are all commendable achievements.

There are regional disparities in development indicators, as brought out by the Himachal Pradesh Human Development Report – 2002. There are the 'High Mountain Horse Shoe' (HMHS) mountainous districts (Chamba, Kinnaur, Kullu, Lahaul & Spiti, Shimla, Sirmaur and Mandi) and the 'Low Hills and Plains' (LHP) districts (Bilaspur, Hamirpur, Kangra, Solan and Una). The LHP districts have been reported to be more developed in comparison with the HMHS districts, in most of the human development indicators. Most food grain production and industrial output comes from the LHP districts. Over the years, the HMHS districts have improved on the indicators yet the development process in these districts is slower due to the difficult terrain and climatic conditions.

Some of the demographic and development indicators have been tabulated in the following table for a comparison of the disparities across districts.

Table E.5 - Demographic and development indicators: Himachal and its districts

S. No.	District	Decennial Population Growth Rate (2001-2011)	Population Density per Sq. Km.	Sex Ratio (Overall)(2011)	Sex Ratio (0-6 Years) (2011)	Literacy Rate (2011) Total	Literacy Rate (2011) Male	Literacy rate (2011) (Female)	Male Work Participation rate (2011)	Female Work Participation rate (2011)	Motorable Road Density (Road length per 100 sq. km.) (as on 31.3.2016)	Households with Electricity (percent)
1	Bilaspur	12.0	327	981	900	84.6	91.2	78.0	54.18	45.82	145.24	99.90
2	Chamba	12.6	80	986	953	72.2	82.6	61.7	54.00	46.00	36.00	98.70
3	Hamirpur	10.2	407	1095	887	88.2	94.4	82.6	49.07	50.93	169.41	99.50
4	Kangra	12.8	263	1012	876	85.7	91.5	80.0	59.80	40.20	104.03	100.00
5	Kinnaur	7.4	13	819	963	80.0	87.3	71.0	60.18	39.82	12.78	99.10
6	Kullu	14.8	80	942	962	79.4	87.4	70.9	55.31	44.69	33.93	99.50
7	Lahaul & Spiti	-5.0	2	903	1033	76.8	85.7	66.8	55.78	44.22	9.00	97.80
8	Mandi	10.9	253	1007	916	81.5	89.6	73.7	51.94	48.06	133.59	99.50
9	Shimla	12.7	159	915	925	83.6	89.6	77.1	60.02	39.98	105.05	99.70
10	Sirmaur	15.5	188	918	928	78.8	85.6	71.4	60.48	39.52	106.80	98.80
11	Solan	15.9	300	880	899	83.7	89.6	77.0	63.60	36.40	150.77	98.80
12	Una	16.3	338	976	875	86.5	91.9	81.1	65.76	34.24	125.13	99.80
13	Himachal Pradesh	12.9	123	972	909	82.8	89.5	75.9	57.41	42.59	61.73	99.50

Source: Census 2011 and Department of Economics & Statistics, GoHP



Table E.6 - Development Indicators: Himachal and its districts

S. No.	District	Households with improved drinking water source (%)	Households with improved sanitation facility (%)	Households using clean fuel for cooking (%)	Households with any usual member covered by a health scheme or health insurance (%)	Institutional births (%)	Children under 5 years who are stunted (height for age) (%)	Children under 5 years who are wasted (weight for height) (%)	Children under 5 years who are under weight (weight for age) (%)	Children age 6-59 months who are anaemic (%)	All women age 15-49 years who are anaemic (%)	Men age 15-49 years who are anaemic (%)
1.	Bilaspur	82.80	70.30	19.10	18.40	82.90	27.20	13.10	23.40	28.30	39.10	10.70
2.	Chamba	89.40	75.70	25.40	36.70	56.90	29.90	15.00	22.50	66.30	51.20	17.00
3.	Hamirpur	96.80	81.00	24.30	12.80	90.90	29.30	12.60	19.40	41.20	35.80	8.40
4.	Kangra	97.80	67.10	34.90	25.60	97.80	25.60	11.30	23.30	47.30	59.70	18.30
5.	Kinnaur	92.70	67.10	66.70	26.20	79.90	18.40	12.40	15.90	83.10	80.50	47.90
6.	Kullu	94.70	65.20	37.80	19.80	70.50	19.00	11.30	11.00	54.90	59.50	16.10
7.	Lahaul & Spiti	97.10	52.50	59.90	21.30	73.30	23.00	20.80	16.10	94.70	83.20	55.90
8.	Mandi	96.00	71.60	23.80	37.20	64.30	26.30	13.10	16.20	37.80	39.70	16.30
9.	Shimla	97.80	74.00	67.20	28.70	77.30	30.30	15.00	24.80	70.00	68.60	30.60
10.	Sirmaur	90.70	69.30	38.20	22.60	77.80	23.50	19.50	25.30	65.10	48.00	14.80
11.	Solan	91.90	69.10	48.40	29.30	75.40	27.60	17.50	29.40	71.80	67.50	27.60
12.	Una	98.50	69.30	32.20	10.70	80.90	22.60	10.70	14.60	56.60	46.90	20.40
13.	Himachal Pradesh	94.90	70.70	36.70	25.80	76.40	26.30	13.70	21.20	53.70	53.50	20.10

Source: NFHS-4



### Challenges that remain

1. The hilly terrain of the State does not allow for large-scale mechanization of farm operations. Agricultural productivity and production needs to be increased so that more people find employment in the sector.
2. Despite a strong public distribution system, there is incidence of malnourishment among children in the age group of 0-5 years, and a high prevalence of anaemia among children and women.
3. The low tax base, as evident from the tax to GSDP ratio, which is around 6 per cent, makes the fiscal condition of Himachal potentially precarious. Historically, Himachal has been dependent on central transfers for meeting its development related and other expenditure. About two thirds of the State's revenue expenditure is on committed liabilities such as salaries, pensions and interest payments, leaving little fiscal space for taking up other developmental activities. Capital expenditure constitutes around 1.0 per cent of the total expenditure of the State. The need is to widen the tax base, improve tax administration, explore additional avenues for mobilizing non-tax revenue and improve the quality of public expenditure.
4. After having achieved almost universal access to health care and educational institutions in the State, the next task is to improve the quality of service delivery in these two sectors. Imparting required skills to teachers and vocationalization in the high and secondary schools will help in improving the quality of education and in making the education system more employment oriented. Similarly, target health indicators to meet the SDGs can only be achieved, if adequate human resources, with appropriate skills, are made available in the interior areas of the State.
5. The low sex ratio, especially in the age cohort of 0-6 years is of concern. Efforts are required to overcome and change the preference for male children and to provide a peaceful and conflict-free society, where girls and women have a sense self-esteem and security.
6. Significant private investment is needed, to supplement the efforts of the Government in tourism, energy, agriculture and allied sectors, infrastructure and manufacturing. These sectors have the potential to act as growth engines, to provide employment opportunities, and can help in mobilizing additional tax and non-tax revenue.



7. Himachal Pradesh has achieved environmental standards comparable to the best in the world. This is corroborated by the fact that the State has been able to sell carbon credits<sup>1</sup> that it has earned. The challenge is to maintain these standards, without creating barriers to the supply of natural resources for the development process.
8. Although about 89 per cent of State's population still lives in rural areas, a slow but gradual process of urbanization is taking place, resulting in increasing pressure on the few urban centres. The imperative is to decongest these centres by developing satellite townships and managing the provision of basic services and amenities.

### Will tomorrow be brighter than today ?

All the SDGs are inter-linked and can be customized to local needs, yet retain their universal character and monitorability. Himachal Pradesh has identified the following areas, which require a focused approach for achieving the SDGs.

#### 1. Rapid growth with employment

Rapid economic growth can generate employment and the resources required to provide social security to the population of Himachal Pradesh. Investment both: public and private, is needed to push the growth rate to 8.5 percent by 2022 and towards double digit growth by 2030. At the same time, the State must ensure that all sections of the population are able to reap the benefits of economic growth. Increasing productivity of farming operations will help in increasing incomes of farmers and that will require more investment in the agriculture sector. Considering the limited resource base in Himachal, partnerships with the private sector and with multilateral and bilateral funding agencies will be of vital importance. Increasing investment will result in the creation of additional employment opportunities. The sectors that have the potential of generating additional employment and of adding to the tax revenue are agriculture, horticulture, energy, tourism and infrastructure besides the services sector. In addition, the high unemployment rate for women, particularly in rural areas is a challenge that needs to be addressed.

By 2030, the employment pattern is expected to change, from the existing large proportion of unskilled wage employment to skilled wage employment and to self-employment. With the assistance of the Asian Development Bank (ADB), an ambitious skill development programme is being implemented which aims to enhance employability

by provide skills, as per the market demand. A comprehensive training need assessment will provide insights and inputs into the structure of the implementation plan.

With this focused approach, the State expects to reduce the poverty ratio to 2 percent from the existing 8 percent by 2022, and eradicate poverty completely by 2030.

#### 2. Ending malnutrition and enhancing agricultural productivity

The incidence of malnutrition is high, although less than at the national level. The proportion of children under the age of five years who are underweight (weight for age) is 21.2 percent. Studies have established that mothers who are underweight, stunted and anaemic, have a greater risk of having underweight babies. The high incidence of anaemia among the women in the age group of 15-49 years (50-54 per cent) needs to be addressed, as it is responsible for the high incidence of malnutrition among children. Other causal factors for undernourishment are quality and quantity of food intake; care for mothers and children and environmental health and health services. It is important to ensure that a full package of all the services reaches every mother and child during the first two years of a child's life. The multidimensional and intergenerational factors responsible for malnutrition need to be addressed simultaneously. The effectiveness and efficiency of implementation mechanisms of schemes like Integrated Child Development Services (ICDS), Integrated Child Protection Scheme (ICPS), Kishori Shakti Yojana, and Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA) and Targeted Public Distribution System (TPDS) should be increased to take care of nutritional requirements of children and mothers.

Extremely low productivity of agriculture is reflected in the fact that, while about 62 percent of people of Himachal are dependent on agriculture for earning their livelihoods, the contribution of agriculture to GSDP is just 10.4 per cent. About 88 percent of the land holdings in the State are either of small or marginal farmers; the average land holding size is just one hectare. This restricts the scope of large scale mechanization of farm operations. The introduction of technological inputs to increase yield per hectare and the diversification of agriculture are two major areas of thrust for enhancing farmers' incomes. Organic farming, protected cultivation and micro-irrigation are other specific interventions.

#### 3. Improving quality of health and education services

About 70 per cent of the population seeks health services from the Government sector. The demand for good health

<sup>1</sup> As a significant departure from conventional watershed development involving simple soil and water conservation, the Mid-Himalayan Watershed Development Project (MHWDP) converted selected catchments into multifunctional watershed units through comprehensive treatment and generated carbon credits from degraded catchments by adopting protective conservation measures. Tapping into the Kyoto Protocol by generating carbon credits from highly degraded land parcels in 20 per cent of the project area, the project has created an innovative carbon sequestration mechanism for the local population to monetize ecosystem services. Following the first verification that took place by the Kyoto auditors in October 2014, the bio-carbon fund initiated transfer of payment for carbon credits worth INR 1.9 crores (US\$316,000) to the designated bank account of the Forest Department, GoHP.



services is set to increase in the future. The health status of the population is a function of many factors - water and sanitation, socio-economic status, education, agriculture, social and the work environment. In order to provide quality health care and services to the people, efforts by the State Government need to be converged in a focussed manner.

To ensure good care of the mother and child, pregnancies are proposed to be tracked through the Mother and Child Tracking System (MCTS). Achieving universal immunization of children, availability of Oral Rehydration Solution (ORS) and Zinc supplements with ASHA workers and the provision of oral and injectable antibiotics, oxygen support, bronchodilators and treatment of pneumonia up to the sub centre level will be ensured. Considerable reduction in HIV incidence and incidence of Non Communicable Diseases (NCDs) will be the focus of other interventions in the health sector.

Having achieved universalization in primary and secondary levels of education, the emphasis will be on achieving 95 per cent NER at the secondary level and 65 per cent NER in higher education. Achieving gender parity in enrollment in higher education and 100 percent enrollment of children with disabilities will be one of the goals to ensure a more inclusive education system in the State. Efforts will be made to improve proficiency level in terms of nationally defined learning outcomes at all levels of education. All teachers will be covered under training programmes to improve the quality of education. Provision of skill education in all the eligible secondary and senior secondary schools and colleges as per the National Skill Qualification Framework (NSQF) will enhance employability.

#### 4. Elimination of all kinds of inequalities

Keeping in view the pledge of the SDGs of 'leaving no one behind' and as implied in the slogan of 'Sabka Sath, Sabka Vikaas' (together with all, development for all), as per the vision of the National Development Agenda, the State will strive to eliminate all inequalities through the implementation of development schemes and programmes. This is not only restricted to persons belonging to different castes, tribes, minorities, gender but also includes persons belonging to all age groups. Participation of all sections of society will be ensured in the development process to make it more inclusive and sustainable. Their participation in the political process and decision making at all levels of governance will be ensured. Any incidence of discrimination or violence against the vulnerable sections of society will be dealt with severely and strict action taken against the persons responsible. Adequate judicial infrastructure will be provided to ensure quick conviction of the accused persons. The focus will be on coordination amongst the administration, police and judiciary to discourage discrimination or violence against any person. The objective will be to ensure peaceful co-existence of all sections of society in the State.

#### 5. Infrastructure and other basic amenities

To facilitate the free movement of raw materials, produce, products and finished goods, a state-wide goods movement corridor will be built, connecting remote areas as well as national goods movement grids.

The emphasis will be on early completion of hydel power projects, adding to State revenues and the capability to ensure 24x7 power supply with required voltage. Environmental issues will also be taken care of by keeping a check on emissions from vehicular traffic, following technologically advanced standards and promoting the use of star-rated electrical appliances. Provision of a strong infrastructure together with the simplification of bureaucratic procedures for obtaining various clearances, in order to reduce the number of visits of investors to the Government offices, will provide an enabling environment for private investment.

The State Government will strive to provide shelter to the homeless as well as 135 lpcd (litres per day) of water in the urban areas and 70 lpcd of water in the rural areas by 2030. The State Government seeks to achieve 100 percent treatment of liquid and solid waste generated in the urban areas and aims to get rid of all liquid and solid waste generated in gram panchayats, by taking it to nearest urban treatment plant. Aquifer mapping of the entire State will be done with the help of satellite imagery for efficient management of ground water.

#### 6. Sustainable consumption and production patterns

In order to pursue sustainable consumption and production patterns, the State Government will strive to shift policy emphasis in the natural resources sector from, a 'conservation approach' to an 'efficient management approach'. Sustainable practices to harness more energy from renewable sources will also be followed. The focus will be on enhancing forest density, forest cover, watershed development and the efficient use of natural resources. Waste will be managed through re-cycling and re-use. Climate change related adaptations and mitigation actions will be taken after undertaking climate change vulnerability assessments at the village level. Communities will be educated and their participation encouraged in building resilience and adaptive capacity for climate related hazards and natural disasters. Measures to combat climate change will be integrated into the State policies, strategies and planning process.

#### 7. Sustainable urban development

The issues related to urbanization will be taken care of by placing a strong emphasis on the sustainable use of natural systems, natural resources and ecosystem services to ensure sustainable and ecological urban development. Provision of affordable housing for all, clean drinking water and sanitation services will be made available in urban areas, along with transport services which will be planned to cater for future requirements as well.

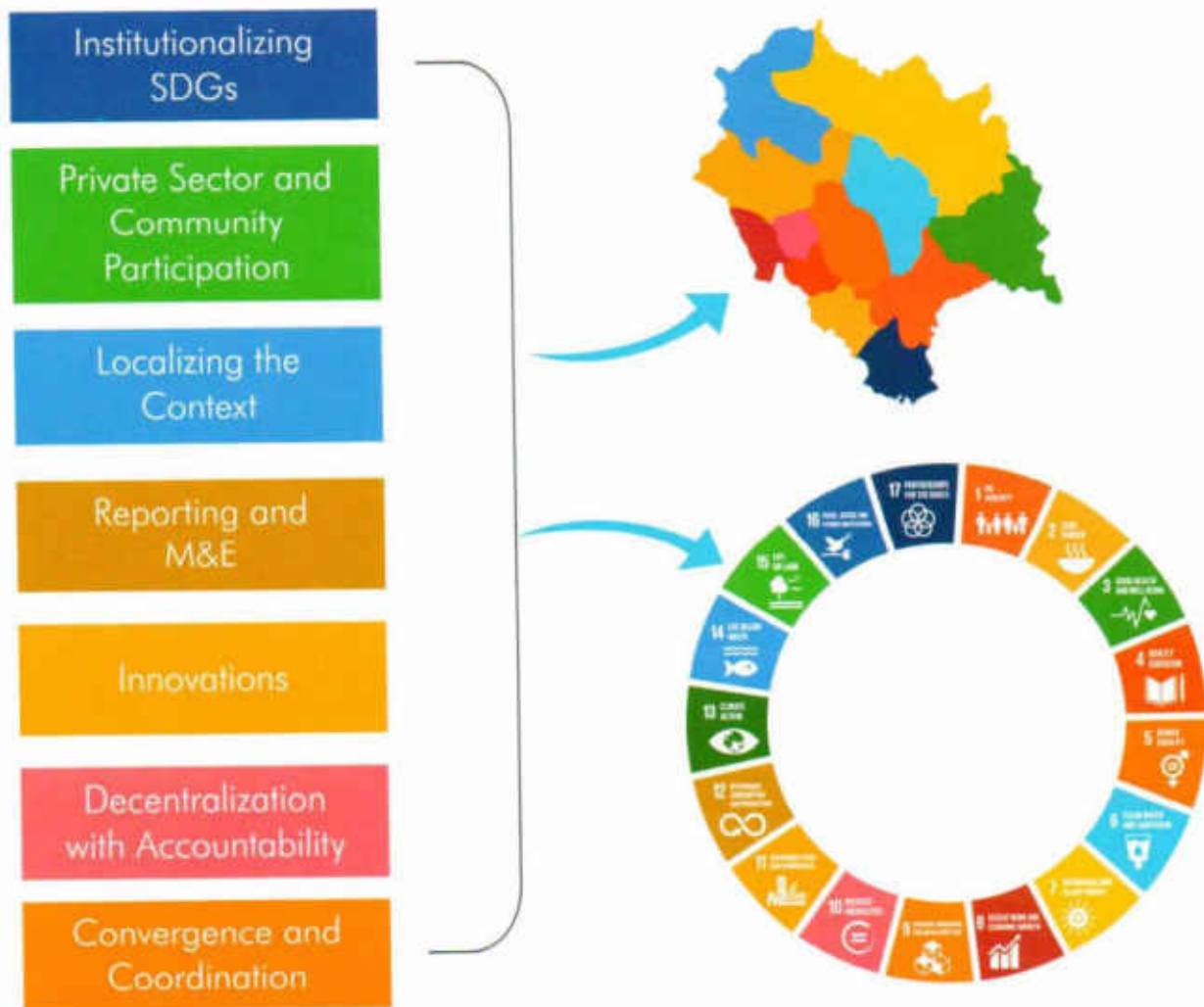
## 2 Strategizing SDGs for 2030

To achieve the SDGs by 2030 or earlier, a change in approach with emphasis on convergence, coordination, governance and technology application to improve governance is imperative. Changes in the development strategy, reorienting it to the changing development needs of the people, largely guided by the economic, social and technological transition occurring at national and global levels need to be made.

The State Government will adopt the following strategies:

1. Institutionalize and integrate the SDGs into the budgetary and planning processes
2. Increase participation of the private sector to accelerate investment, and of communities to align the development strategy with the people's perception of development
3. Orient sustainable development to the local context
4. Establish a robust and reliable reporting and monitoring and evaluation (both concurrent and periodic) mechanism
5. Encourage and promote innovations within and outside the government
6. Decentralize with commensurate accountability
7. Converge and coordinate

## HIMACHAL PRADESH 2030



Strategizing the Sustainable Development Goals: 2030



## In conclusion

Himachal Pradesh is one of the most progressive states in India. It has the distinction of having achieved high standards in the fields of environment management, infrastructure development and in the social sectors. The State will make all efforts to achieve most of the SDGs much before 2030, and all of them by 2030.

## Himachal Pradesh today and tomorrow

S. No.	Indicator	Today	Tomorrow
1.	Annual growth rate of GDP per capita	7.7% (2015-16)	Achieve double digit and sustain
2.	Unemployment rate	10.6% (2015-16)	<3.5%
3.	Workforce participation ratio (WPR) of women	51.9% (Census 2011)	70%
4.	Percentage of Households with a bank account	100%	100%
5.	Agriculture productivity of wheat and rice (yield per hectare)	2 MT	2.8 MT
6.	Cropped area under organic farming	17,000 hectares	30,000 hectares
7.	Percentage of farmers issued Soil Health Card	70%	100%
8.	Per cent population living below the national poverty line	8.1 %	Negligible / nil
9.	Sex ratio	972/1000 (Census 2011)	990/1000
10.	Sex ratio (0-6) years	909 (Census 2011)	919
11.	Percentage of children under 5 years who are stunted	26.3%	Negligible / nil
12.	Percentage of children under 5 years who are wasted	13.7%	Negligible / nil
13.	Percentage of births attended by skilled health personnel	86%	100%
14.	Under-five mortality rate	38	<10
15.	Neonatal mortality rate	25	Between 5-10
16.	Immunization upto 9 months	99.5%	100%
17.	Number of new HIV infections per 1,000 uninfected population	0.12 (2015)	Zero transmission from mother to child
18.	Tuberculosis incidence per 1,00,000 population	209	<20
19.	Net Enrolment Ratio in Primary and Upper Primary education	99.42% 99.44	100% 100%
20.	Pupil / trained teacher ratio by education level	Primary- 12.40 Upper primary- 13.24 Secondary- 18.68 Higher Secondary- 12.19	Primary-12.40 Upper primary- 13.24 Secondary- 18.68 Higher Secondary- 12.19
21.	Toilets for children with special needs	Ele-21.52%, Sec-30.88% Hr. Sec.-35.22	100%
22.	Proportion of seats held by women in the Vidhan Sabha	5.8%	33%
23.	Proportion of seats held by women in local self-government	50.54%	50%
24.	Rate of total cognizable crime relating to human trafficking in the State	0.1 %	Nil

## Himachal Pradesh today and tomorrow

S. No.	Indicator	Today	Tomorrow
25.	Rate of cognizable crimes committed against women	34% (2015)	100% elimination of crimes against women
26.	Rate of cognizable crimes committed against SCs	5.5% (2015)	100% elimination of crimes against SCs (0%)
27.	Percentage of currently married women (15-49 years) who use modern methods of family planning	52%	65%
28.	Percentage of urban population having access to safe drinking water @ 135lpcd (CPHEEO standard) from improved sources	10.39%	100%
29.	Percentage of households with access to a toilet facility (urban and rural)	51.83% Urban 100% Rural	100% Urban 100% Rural
30.	Percentage of households electrified	100%	100%
31.	Proportion of the population who live within 2 kms of an all-season road	72.7%	100%
32.	Percentage of urban population living in slums, informal settlements or inadequate housing	8.9%	1%
33.	Proportion of population covered by a mobile network	112 mobile with 100 persons	100%
34.	Number of broadband subscribers per 10,000 persons	8500	Available to all
35.	Proportion of municipal corporations using waste segregation technology	25%	100%
36.	Forest area as a proportion of total land area	26.4%	30%
37.	Percentage of tree cover outside forest (TOF) in total forest cover	1.36%	2.2%





SDG1

*END POVERTY  
IN ALL ITS FORMS  
EVERYWHERE  
IN THE STATE*





## Vision

The development of capacities and skills of the socially and economically disadvantaged population in the State, so as to enable them to overcome all kinds of deprivations and avail of additionally created opportunities.

## Himachal Today

- The estimated population living below the poverty line is 8.1%
- The State has ensured 100% electrification
- The State has been declared as Open Defecation Free for rural areas
- Only 0.06% of the population is categorised as homeless
- 89.1% of households avail banking services
- There are 114 telephone per 100 population
- 38% of the total State expenditure is being spent on essential services
- 76% with any usual member covered with health insurance.
- 61.43% of the rural population has access to drinking water @ 55 lpcd. Equivalent to the national standard from 'improved sources'
- 10.39% of the urban population has with access to safe drinking water @ 135 lpcd (CPHEEO standard) from 'improved sources'
- 51.43% of the urban population uses safely managed sewerage services
- ICDS has achieved universal coverage for eligible beneficiaries

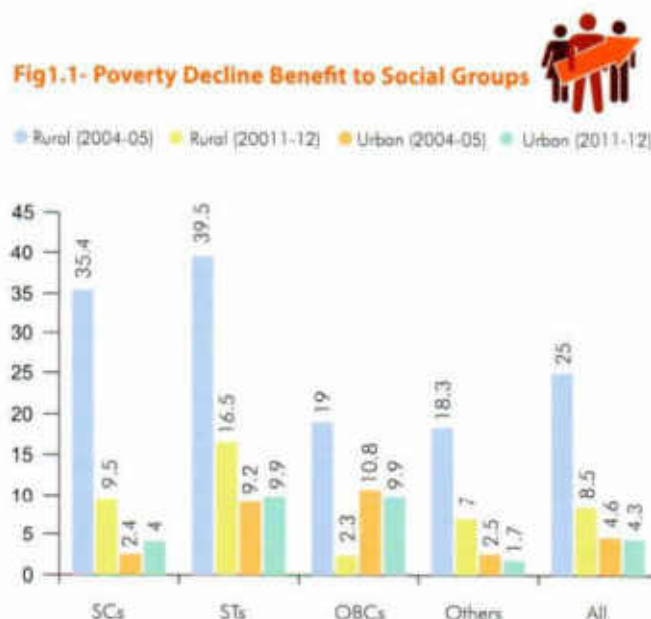
## Focus for tomorrow

- Total elimination of poverty in the State
- Universal access to health insurance for all households
- Universal coverage of all eligible persons under MGNREGA
- All senior citizens to have institutional assistance funded by the government
- 100% of the rural population to have access to drinking water @ 70 LPCD (National standard) from improved sources
- 100% Open Defecation Free (ODF) State with the aim of maintaining the status
- 24x7 power supply for all with required voltage to be ensured
- 100% of the urban population to have access to managed sewerage services
- Public service delivery to meet the expectations of the people
- Universal access to housing with basic amenities
- Universal access for all households to banking services
- Universal access to telephones (mobile/landlines) with improved access to internet services

Sustainable Development Goal 1 aims to end poverty in all its forms everywhere, including economic, social, gender-based and other forms of deprivations related to income, education, nutrition, health, access to water and sanitation and vulnerability to economic shocks.

Himachal Pradesh has achieved remarkable economic growth, especially in the last two decades, outperforming other Indian states in lifting people out of poverty. Between 1993-94 and 2011, rural poverty in Himachal Pradesh declined from 36.8 percent to 8.5 percent - a four-fold decline, while urban poverty declined from 13.6 percent to 4.3 percent during the same period<sup>1</sup>. However, marginal changes were recorded in urban poverty between 2004-05 and 2011-12. Underlying these positive outcomes is Himachal Pradesh's reputation as a society that is stable and inclusive.

Inter-group disparities are low, even as traditionally disadvantaged groups such as the Scheduled Castes (SCs) and Scheduled Tribes (STs) make up a sizeable 30 percent of the population, above the national average. 10 percent of the population of the State lives in urban areas, and the absolute number of poor is low at 4.3 percent<sup>2</sup>.



Source: World Bank Group Report, 'Scaling the Heights-Social Inclusion and Sustainable Development in Himachal Pradesh, 2015'

Growth has gone hand in hand with some of India's best human development outcomes. Educational attainment is amongst the highest in the country, several indicators corroborate the impressive nature of the State's performance. The Gross Enrolment Ratio (GER) was

99.80 percent for primary, 104.36 percent for upper primary, 107.08 percent for secondary, and 95.53 percent for higher secondary education, better than the national average. Similarly, the retention rate was 99.92 percent for primary, 93.09 percent for upper primary, and 90.78 percent for secondary education, which is remarkable<sup>3</sup>.

About 63 percent of rural women in Himachal Pradesh reported themselves as being employed. This places Himachal Pradesh second in female labour force participation after Sikkim and significantly above the all India average of 27 percent. As per NFHS-4 data 2015-16, 94.9 percent of households in Himachal Pradesh have access to an improved source of drinking water, comparatively better than the national average of 89.9 percent. In 2016, the State was declared the first Open Defecation Free (ODF) (rural areas) state. Over 70 percent of households have access to improved sanitation facilities, significantly better than the national average of 48.4 percent (NFHS-IV). More than 70 percent people seek health services from the Government sector.

Despite its adverse terrain and scattered settlements, the State achieved 100 percent electrification in 1988. However, electrification is an on-going process and new villages and households are emerging that are being electrified each year. The State has targeted 24x7 power supply with required voltage for all, by 2022. The State and its citizens have demonstrated a strong sense of environmental consciousness; for instance, Himachal Pradesh is the first state in the country to ban the use of plastic bags.

The State has a wide network of public, private and cooperative sector banks. Banks have a wide outreach in rural and remote areas and people from all social groups have good access to banking and other financial services. The network of banks in Himachal Pradesh is spread across 2,023 branches, of which more than 85 percent are in rural areas<sup>4</sup>. Under the Pradhan Mantri Jan Dhan Yojana (PMJDY) 1,033,620 accounts were opened. In fact, a PMJDY account has been opened for almost every eligible person in the State.



**Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets**

**Target 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day, and**

1. World Bank Report 'Scaling the Heights-Social Inclusion and Sustainable Development in Himachal Pradesh, 2015'.

2. World Bank Group Report, 'Scaling the Heights-Social Inclusion and Sustainable Development in Himachal Pradesh, 2015'

3. Flash Statistics, NUEPA, 2015-16

4. Source: UCO Bank; March 2016



**Target 1.2** By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

The State Government is implementing several schemes and programmes aimed at the elimination of poverty. The Pradhan Mantri Awas Yojana (Rural), a Central scheme, is being supplemented with State sponsored schemes - Rajiv Awas Yojana and Mukhya Mantri Awas Yojana. Their performance is measured on the basis of achievement of the targets set under each scheme. On the other hand, there are certain schemes focused on employment generation, such as MGNREGA and National Rural Livelihood Mission that are demand driven. These schemes support the enhancement of income of deprived sections and marginalized people and help bring down the level of poverty.

Poverty is multi-dimensional and has many facets from poor health, malnutrition, and lack of access to social protection benefits, basic services and education. The State is committed to implement the National Food Security Act, 2013 and is executing schemes to meet its objectives. The Targeted Public Distribution System (TPDS) has the objective of ensuring availability of food grains to all. Under the Antyodaya Anna Yojana (AAY) the poorest of the poor families from the BPL list have been identified and are being benefitted. The scale of issue per family as per GoI norms i.e. 35 kilogrammes (kgs) of food grains per family each month has been split into 20 kgs of wheat and 15 kgs of rice. The retail issue price per kg is Rs. 2/- for wheat and Rs. 3/- for rice. The State has been digitizing ration cards and will complete the task soon.

Agriculture has been the main occupation of the people. Almost 90 percent of the people live in rural areas and a large proportion of the workforce is engaged in agriculture and allied activities. The scope for increasing area for cultivation is limited; therefore, the priority is to increase food grain productivity. Keeping in view the agro-climatic conditions of the State, the thrust has been on diversification towards high value crops like vegetables and fruit. The JICA funded Himachal Pradesh Crop Diversification Promotion project promotes expansion and crop diversification to increase incomes of small and marginal farmers. It will create employment opportunities for rural youth and farm women through agri-business, agro-processing, marketing and micro-enterprise. Other identified interventions are organic farming, protected cultivation, micro-irrigation and the creation of need-based infrastructure. They are expected to fulfil the objectives of high productivity and quality and safeguard against adverse weather. Assistance available is in the form of subsidy; in some components it is as high as 85 percent of the cost of the proposed project.

As per Census 2011 data, 8 percent of households in the urban areas of Himachal either do not have a toilet or have an insanitary toilet. The resources available under the Swachh Bharat Mission (Urban) are being utilized for the

construction of household, community and public toilets and for solid waste management. The Deen Dayal Antyodaya Yojana – National Urban Livelihood Mission (DAY-NULM) aims at the reduction of poverty and vulnerability of the urban poor, through social mobilization and institutional development; capacity building and training, employment through skill training and employment/placement; self employment; shelters for urban homeless and support to urban street vendors.

Dharamshala has been selected to be developed under the Smart City Mission of the Government of India. A Special Purpose Vehicle has been entrusted with the responsibility of executing the project at a cost of Rs. 2, 224 crores. Resources available under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) are being utilized for providing basic amenities like sewerage, water supply, urban transport, storm-water drainage and green spaces and parks in Shimla and Kullu towns.

The State Government has established the Himachal Pradesh Kaushal Vikas Nigam (HPKVN) in 2015, as a specialized umbrella agency to converge skill development activities. The HPKVN will expand vocational education at the secondary level, promote self-employment in rural areas, improve employability for the urban poor, modernize courses, expand infrastructure and provide career counselling. HPKVN identified areas for skill development includes horticulture, including apple farming, tourism, pharmaceuticals, healthcare, transport and logistics and financial services.

An Asian Development Bank (ADB) funded skill development project (2016-17 to 2021-22) is being implemented in all districts. Under this project, vocational education will be expanded at the secondary level, 10 Industrial Training Institutes developed as centres of excellence, employment exchanges upgraded into centres for career counselling and vocational guidance, and 12 community colleges established across 20 skill sectors.

**Target 1.3** Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

There are several pro-poor schemes being implemented by the State. The health insurance scheme, the Rashtriya Swasthya Bima Yojana (RSBY), ensures access to health services and minimizes out of pocket (OOP) expenditure of low-income households. The Himachal Pradesh Universal Health Protection Scheme provides universal health insurance coverage in the State, covering all persons not covered under RSBY or a Government sponsored re-imbursement scheme. The State Government is topping-up from its own resources the critical care cover being provided under the RSBY.

The Old-Age Pension (OAPS), Widow Pension, Mid-day Meal and scholarship schemes (for SCs/ STs/ minorities,





girls, and differently-abled people) support the more vulnerable sections of the population. Recognizing the need for care for aged persons, Old Age Homes are also being established. Most social protection and welfare schemes have been brought under the Direct Benefit Transfer (DBT) mode, in consonance with the Government's objective of full DBT coverage of such transfers.

**Target 1.4** By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.

The coverage of households with access to an improved source of drinking water is better than the national average; funds from the National Rural Drinking Water Programme are being supplemented with resources from the State. The rural areas of the State have already been declared ODF. The availability of improved sanitation facilities in households is high in comparison with the national average.

The vast hydel power potential existing in the State and considerable exploitation thereof (10.5 GW stands exploited out of the available potential of 27 GW) and a robust transmission and distribution system have been responsible for universal coverage of the State's villages in the provision of electricity at the household level.

As per Census 2011 data, there are only 4,097 persons (807 households) in the State identified as homeless. The Rajiv Awas Yojana and Mukhya Mantri Awas Yojana are State schemes, being implemented to ensure that by 2022 no one in the State remains homeless. The arrangement for implementation of these schemes is the same as that of the Pradhan Mantri Grameen Awas Yojana. The housing crisis in urban areas is being tackled with the help of slum re-development and affordable and beneficiary-led housing schemes.

In order to increase the availability of finance, the State has actively increased the penetration of banking infrastructure in the interior areas. This has resulted in about 89 percent of the households availing banking services.

**Target 1.5** By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters, and

**Target 1.a** Ensure significant mobilization of resources from a variety of sources, including through enhanced development, cooperation, in order to provide adequate and predictable means for developing countries, to implement programmes and policies to end poverty in all its dimensions

The State's Revenue Department is the nodal department for managing and planning the mitigation of risk arising from natural disasters. The Department works closely with



other departments and the district administration in assessing the exposure and vulnerability of the population to climate-related extreme events and natural disasters, and in making disaster management plans. The State level Disaster Management Authority has issued manuals and guidelines and most agencies are ready with their disaster management plans, which have been prepared on the basis of the risk and vulnerability assessment of the area and the population.

Himachal Pradesh's stress on the social sectors and the high allocations for them has enabled the State to do well in attaining a number of socio-economic goals. About 38 percent of the expenditure of the Government is spent on social sectors services (health, education and social protection).

These schemes and programmes suggest that a number of initiatives have been taken by the State Government to improve the living conditions of the people and better their lives. Poverty elimination and development have been the main focus of the Government. All schemes have contributed in their own way to reduce poverty, since poverty is multi-dimensional and a holistic approach is needed for eliminating poverty.

## Challenges in achieving the targets

**Target 1.1** By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day, and

**Target 1.2** By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.

Looking at the human development indicators and the size of the poor and vulnerable population, ending of poverty in all forms may not appear to be a major challenge for the State. However, achieving last mile success requires concerted effort. The State Government has a target to reduce the percentage of population living below the poverty line from the existing 8.1 percent to 2 percent by 2022. With the on-going initiatives it is expected that the percentage of population living below the poverty line will reduce to insignificant levels much before 2030. The challenge lies in the identification of the remaining poor and bringing them above the poverty line.

The target is to reduce the dependence on unskilled wage employment by creating sustainable and durable assets in rural areas. The challenges are twofold; the relatively low wage rates that makes working under the schemes less attractive and the absence of linkages with asset generation that has not enabled reduction of dependency on unskilled wage employment.



**Target 1.3** Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.

Additional efforts and resources are needed to expand and strengthen the social security net, and to monitor effectively the progress and ensure that there is no leakage or duplication.

**Target 1.4** By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.

The task is to sustain the achieved ODF status. With time and classification changes, the ODF status of a village may change; it is important to keep track of such changes and act promptly.

Financial illiteracy and limited access to financial resources are factors that may come in the way of achieving universal coverage of the population with bank accounts. Inculcating a savings habit and encouraging households to make financial transactions through the banking system are important.

As far as possible, houses for the homeless need to be built, using energy efficient technology, innovative architecture and local materials.

**Target 1.5** By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters; and

**Target 1.a** Ensure significant mobilization of resources from a variety of sources, including through enhanced development, cooperation, in order to provide adequate and predictable means for developing countries, to implement programmes and policies to end poverty in all its dimensions.

The target is to ensure equal access for the entire population to information and technology resources by 2030. Adverse geographical and climatic conditions appear to be potential deterrents in achieving this goal.

The difficult terrain of the hill State makes for high incidences of death and casualties due to accidents and disasters. Development of basic infrastructure, energy efficient warning systems and disaster management education are additional challenges.



## Strategies for success

The existing schemes do not require any major restructuring except prioritization and focus towards the vulnerable sections of the society, who are more prone to poverty and have fewer sources of income. The State Government aims to increase the efficiency and effectiveness of existing schemes such as MGNREGA and Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) by identification of the sector for skill development and skill gaps amongst the poor and vulnerable to improve their employability. In addition, the State Government will implement new targeted approaches to employment generation (particularly for the poor and vulnerable) through capacity building and creating opportunities for self employment, the latter supported by incentives, subsidies and access to affordable formal credit. The State needs to focus in urban areas, where the unemployment rate, particularly amongst women, is high compared to the all India figures. The State is spending 1.56 percent of its total budget on employment generation programmes, which is 0.48 percent of its Gross State Domestic Product<sup>5</sup>. The State spending on employment generation programmes needs to be enhanced.

A targeted approach to poverty reduction will require systematic identification and tracking of poor households. The State Government will determine a basket of benefits, entitlements and services to be given to the poor. These will primarily ensure livelihood opportunities, access to health, education and other basic services. Some schemes could be envisaged with the participation of corporate and private players - either through public-private partnerships or the corporate social responsibility (CSR) route for improving efficiency and value addition by bringing advanced technologies, new approaches and marketing techniques.

Concurrent monitoring, evaluation and impact assessment of schemes and programmes is imperative for which, the State will engage independent experts and institutions. Community participation will be sought and ensured for areas such as employment generation, asset creation and basic amenities.

There is a need to bring a change in the strategy to focus on the poorest of the poor, so as to end poverty in all its forms. To identify the real beneficiaries, good-quality data disaggregated by income, gender, age, SC/ST, disability, geographic location-wise will be collected and further the pro-poor programmes / schemes will be monitored based on this data.

The targets of Goal-1 involve socio-economic, behavioural and political factors, as well as the development of organic linkages of all departments, communities. Leadership is required at different levels for an effective poverty

eradication strategy. The current schemes of the State Government are implemented by different departments and tend to operate in silos, lacking collaboration and synergy.

The Government aims to develop a common matrix, on a common technology platform, for departments to converge plans and activities and improve delivery and outcomes. It would provide real time updates on scheme utilization by beneficiaries and facilitate coordination and reduce duplication. This initiative will put information on scheme utilization in the public domain, which along with the Aadhar-enabled direct benefit transfers and a robust citizen's database would enhance transparency and accountability. It will also make target groups aware of the available entitlements and promote understanding of the processes involved in accessing these benefits.

These will primarily ensure livelihood opportunities, basic services, health, education and other services. Certain schemes could be envisaged with the participation of corporate and private players - either through public-private partnerships or the corporate social responsibility (CSR) route- to improve efficiencies and value-add by bringing in advanced technologies, productions and marketing techniques.

The agricultural sector will find synergies with the growth of food and agro-processing industries promoted through a variety of mechanisms. For example, the Government of Himachal will provide training to small farmers in post-harvest management, develop suitable infrastructure and subsidize their use by small farmers. The State Government will work towards developing market linkages between farm producers, manufacturers, exports and other participants in the agricultural market through the use of modern technologies such e-platforms like e-market.

All public investment contributes directly or indirectly in removing different kinds of deprivations from various sections of the society. The need is to discover effective convergence between various programmes and implement them in such a way that all of them yield results in the direction of eliminating poverty in all its forms.





## Indicators statement for monitoring the progress

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicators	State Indicators				
1.1	By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	1.1.1 Proportion of population living below the national poverty line	Proportion of population living below the national poverty line	8%	2%	Complete end of poverty in the State	National Poverty Line Survey
		1.1.2 Poverty Gap Ratio	Poverty Gap Ratio	UN is requested to indicate data source and how to calculate poverty gap ratio CHECK			
1.2	By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	National indicator not yet developed					
1.3	Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	1.3.1 Percentage of households with any usual member covered by a health insurance	Percentage of households with any usual member covered by a health insurance	76% with any usual member covered by a health insurance	100% households will be covered	Universal coverage and to maintained	RSBY/DHS
		1.3.2 No. of beneficiaries under ICDS	No. of beneficiaries under ICDS	Up to 6 years children and pregnant and lactating women (455289 + 102830 = 5,58,119)	8,14 lakh beneficiaries (children and pregnant and lactating women) will be covered	Universal coverage	ICDS / and other surveys / studies
		1.3.3 Proportion of population (out of eligible population) receiving social protection benefits under MGNREGA	Proportion of population (out of eligible population) receiving social protection benefits under MGNREGA	Being worked out		Universal coverage	
		1.3.4 No. of SHGs (Self Help Groups) formed and provided bank credit linkage	No. of SHGs formed and provided bank credit linkage	17,413 SHGs have been formed and Rs. 1,455.95 crores of bank credit made available	20,000 SHGs will be formed and Rs. 1750 crores bank credit will be arranged	All willing and needy will be covered and bank credit will be arranged accordingly	RDD
		1.3.5 Proportion of population (of eligible population) receiving social protection benefits under maternity benefits	Proportion of population (of eligible population) receiving social protection benefits under maternity benefits	Pregnant women 1,02,830	Universal coverage	Universal coverage	ICDS website
		1.3.6 Number of senior citizens provided institutional assistance through old age homes/ day care centres funded by government	Number of senior citizens provided institutional assistance through old age homes/ day care centres funded by government	Half of the old age population	All old age population	All old age population	NA
1.4	By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and	1.4.1 Proportion of population (rural) living in households with access to safe drinking water & sanitation	Proportion of population (rural) living in households with access to safe drinking water & sanitation	61.43% rural population has access to drinking water @ 70 lpcd. Equivalent to (national standard) from improved sources	100% of rural population will have access to drinking water @ 70 lpcd (national standard) from improved sources	100% and the same will be maintained	I&PH Department
				The State has been declared ODF in 2016	ODF status will be maintained	ODF status will be maintained	RDD

## Indicators statement for monitoring the progress

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicators	State Indicators				
1.4	control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	1.4.2 Proportion of population (urban) living in households with access to safe drinking water & sanitation	Proportion of population (urban) living in households with access to safe drinking water & sanitation	% of urban population with access to safe drinking water @ 135 lpcd (CPHEEO standard) from "improved sources"  51.43% of urban population using safely managed sewerage services	30% of urban population will have access @ 135 lpcd (CPHEEO standard)  90% of urban population will have access to managed sewerage services	100% of urban population will have access @ 135 lpcd (CPHEEO standard)  100% of urban population will have access to managed sewerage services	IPH & NFHS and other surveys/-studies
		1.4.3 Proportion of population living in households with access to electricity	Proportion of population living in households with access to electricity	State has achieved 100% electrification	The status will be maintained and 24x7 power with required voltage for all will be ensured	The status will be maintained	MPP/other surveys/-studies
		1.4.4 Proportion of homeless population to total population	Proportion of homeless population to total population	The State has only 0.06% homeless population (Census 2011), which was 0.14% in 2001	100% population will have access to housing with basic services	100% population will have access to housing with basic services	RDD/UD other surveys/-studies
		1.4.5 Proportion of population having bank accounts	Proportion of population with bank accounts	100% households availing banking services in the State	100% households linked with banks and the status will be maintained	100% households linked with banks and the status will be maintained	SLBC / IF
		1.4.6 Number of mobiles/telephones as percentage of total population	Number of mobiles/telephones as percentage of total population	100% population has access to telephone (mobile & landlines)	100% of population will have access to telephone (mobile & landlines) with improved access to internet	100% population has access to telephone (mobile & landlines) with improved access to internet	India Census 2011
1.5	By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	1.5.1 Number of deaths, missing persons and persons affected by disasters per 100,000 population	Number of deaths, missing persons and persons affected by disasters per 100,000 population	Current estimates suggest that 151 deaths, missing persons and persons affected by disasters per 100,000 population	Minimizing the casualties, preferably no casualties	Minimizing the casualties, preferably no casualties	Disaster Management Cell / Revenue Department
		1.5.2 Proportion of States that adopt and implement local disaster and risk reduction strategies in line with national disaster risk reduction strategies	Proportion of States that adopt and implement local disaster and risk reduction strategies in line with national disaster risk reduction strategies	The State has adopted and implemented local disaster and risk reduction strategies in line with national disaster risk reduction strategies			
1.a	Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions	1.a.1 Proportion of domestically generated resources allocated by the government directly to poverty reduction programmes					
		1.a.2 Proportion of total government spending on essential services (education, health and social protection)	Proportion of total government spending on essential services (education, health and social protection)	38 % is being spent on essential services out of total spending	The current level of spending will be maintained with focus to improved service quality	The current level of spending will be maintained with focus to improved service quality	E & S Dept.
		1.b.1 Proportion of budget earmarked under pro-poor gender specific budgeting					





SDG2

END HUNGER, ACHIEVE  
FOOD SECURITY AND  
IMPROVED NUTRITION  
AND PROMOTE  
SUSTAINABLE AGRICULTURE







## Vision

To eliminate all manifestations of malnutrition by adopting robust, resilient and sustainable agricultural practices that make farmers more economically prosperous and socially empowered.

## Himachal Today

- Food grain productivity is at 2MT/ hectare
- Vegetable productivity is 21 MT/hectare
- Area under organic farming is 17,000 hectares
- Area under protected cultivation is 15 lakh sq. metres
- Area under micro-irrigation is 23,000 hectares
- Fruits production is at 9 lakh MT
- Processing capacity of fruit/vegetable crops is 60,000 MT
- Milk production is 1328.174 thousand tonnes
- Egg production is 958.989 lakh eggs
- Fish production is 12,500 tonnes

## Focus for tomorrow

- Food and nutritional security for all
- Total elimination of stunting and wasting
- Total elimination of anaemia among pregnant women (15-49 years) and children (6-59 months)
- Increasing the agricultural productivity of food grains to 2.8MT/ha; vegetables to 27MT/ha; and fruits to 25 MT/ha.
- 30,000 ha. area will be brought under Organic Farming
- 23 lakh Sq. m. area to be brought under protected cultivation (crop resilient agriculture)
- 100 percent of the total Mandis will be enrolled in e-Market and the status would be maintained



Sustainable Development Goal 2 seeks to end hunger and all forms of malnutrition, particularly in the poor and vulnerable populations, doubling the agricultural and allied sector productivity and income, 'particularly' of small-scale food producers, women, indigenous peoples, pastoralists and fishers. This includes equal access to land, other productive resources and inputs, knowledge, financial services and opportunities for value addition and non-farm employment.

The incidence of absolute hunger is negligible in Himachal Pradesh. However, considerable malnutrition among women and children still persists despite the stable economic growth, sufficient food grains, vegetables and fruit production. Although much lower in comparison with many states, 21.2 percent children under 5 years of age in Himachal are still underweight. The prevalence of anaemia among children (6 to 59 months) and women (both pregnant and not pregnant between 15 to 49 years) is between 50 to 54 percent (NFHS-4), which is a matter of concern. The problem of malnutrition is multidimensional and inter-generational; a complex and inter-related set of factors determines the nutritional status of a certain population. Therefore, a full package of services will be ensured for every mother and child during the first two years of life.

The State is committed to provide food security to all its citizens. It is ensured that a food grain is accessible at reasonable prices, especially to the weaker and vulnerable sections of the society. In order to implement key objectives of the Food Security Act 2013, the State has been strengthening the Public Distribution System. The existing ration cards are being replaced with Smart Ration Cards and soon the State will have 100 percent digital Public Distribution System in place. There is a mechanism in place to periodically review the basket of commodities distributed under TDPS.

Topography of the State doesn't encourage large scale mechanization of farm operations, thus low productivity in agriculture and allied sector has been a matter of concern. The State Government has prioritised strengthening agriculture and allied sectors through various measures in irrigation, crop insurance, improved varieties of seeds and protection of the crops from wild animals. However, new ways of improving activities in the agricultural and allied sectors are required, not only to enhance productivity but also to secure decent employment for a greater number of people. The State aims to achieve the targets under Goal 2 before 2030.



## Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

### 1. Eliminating malnutrition in children and women

The figure for children under 5 years of age, who are underweight (weight for age) in Himachal Pradesh is 21.2 percent compared to 35.7 percent in the country, as a whole.

The risk of having a small baby is high for mothers who are underweight, stunted and anaemic. In particular, iron deficiency is a major nutritional problem for women. The prevalence of anaemia among children (6 to 59 months) and women (both pregnant and not pregnant between 15-49 years) in the State is between 50 to 54 percent, which is on the high side (NFHS-4).

The problem of malnutrition is multidimensional and inter-generational; a complex and inter-related set of factors determines the nutritional status of a population. The three well established causal factors for under-nourishment are food intake, care for children and women, and environmental health and health services. Other factors include income, gender, education, geographical location, culture and governance. A full package of services must reach every mother and child during the first two years of life.

This problem cannot be addressed by a single intervention. A multi-sectoral nutritional approach can effectively address maternal and child malnutrition. Relevant schemes and programmes implemented by departments must be brought together and implemented with common objectives and integrated processes. The National Nutrition Mission (2013) has suggested three components on which efforts are required to eliminate malnutrition among women and children. These are:-

- **Nutrition centric planning:** Under this, the emphasis is on planning, operationalization, management and monitoring of integrated nutrition interventions at the district, block and local levels. There is a need to establish baseline information from existing sources and prepare an action plan.
- **Nutrition centric/sensitive sectoral Interventions:** This focuses on specific roles and responsibilities of departments and implementing agencies for executing an integrated approach to tackle the problem of malnourishment, since both direct and indirect interventions are required.
- **Nutrition centric/ sensitive gap filling support:** Identified gaps must be filled with the help of baseline information, and existing interventions and resources. Additional support for unfulfilled gaps could be obtained by utilizing flexi-funds available under Centrally Sponsored Schemes.



At present, Himachal Pradesh is implementing the following schemes:-

### • Integrated Child Development Services (ICDS) Scheme

The department provides nutrition to pregnant women, lactating mothers and adolescent girls and to children between the ages of six months to six years. Pre-school education is provided to the children in the age group of three to six years. The objectives are to:

- Improve the nutritional status of children and women
- Improve the physical, social and psychological development of children
- Reduce the infant mortality rate (IMR)

The services being provided to Pregnant/ lactating women and children are provided a range of services = nutrition and health education, immunization, supplementary nutrition, health check-ups, pre-school education and referral.



### • Integrated Child Protection Scheme (ICPS)

The objective of the scheme is to ensure the protection of rights of children and provide associated services to children in need of care and protection, including free education, food and health care.

### • Kishori Shakti Yojana

A fully Centrally Sponsored Scheme, it is operational in 46 ICDS projects of eight districts - Shimla, Sirmour, Kinnaur, Mandi, Bilaspur, Una, Hamirpur and Lahaul-Spiti. It aims to improve health and nutritional status and upgrade the home-based vocational skills status of adolescent girls.

### • Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA)

SABLA was introduced as a Centrally Sponsored Scheme for adolescent girls (AGs). The funding pattern of the scheme is 90:10, sharing between the Centre and the State Government. It was introduced in 2010-11 in four districts (Solan, Kullu, Kangra and Chamba) and has replaced the Kishori Shakti Yojana. The Scheme covers AGs in the age group of 11-18 years, with its focus on out of school AGs, who are provided life skill education and vocational training, along with Iron-Folic Acid (IFA) supplementation.

### • Indira Gandhi Matritva Sahyog Yojana (IGMSY)

Indira Gandhi Matritva Sahyog Yojana (IGMSY) is a Centrally Sponsored Scheme implemented since 2010-11 on a pilot basis in Hamirpur district. The ICDS platform and anganwadi centres are focal points for the delivery of services to pregnant and lactating women; Rs. 6000/- is

provided as a cash incentive in three phases to pregnant and lactating women.

The Government of Himachal Pradesh has developed programmes that aim at improving family health and welfare.

## 2. Nutrition and safe and adequate food for all

### • Targeted Public Distribution System (TPDS)

The Targeted Public Distribution System (TPDS) functions through a network of 117 wholesale godowns of the Himachal Pradesh Civil Supplies Corporation (HPCSC) and over 4,900 retail fair price shops (FPS). Of these, 3202 are in the Cooperative Sector, 16 are operated by panchayats, 76 by HPCSC, 1601 by individuals and 9 by mahila mandals. The ration card is the unit for the delivery system; there are 18,26,112 ration cards, covering 77,38,673 people.

The scheme-wise bifurcation is as follows:

Above Poverty Line (APL)

11,40,152



Physically Handicapped (PH) 2,36,770



Anna Yojana (AAN) 479



Poverty Line Below Poverty Line (BPL)  
2,58,081



Antodaya Anna Yojana (AAY) 1,90,630

The State is committed to implementing the National Food Security Act, (NFSA) 2013 and to meet its objectives. It has undertaken an initiative to digitize the TPDS by replacing in phases existing ration cards with Smart Ration Cards. The retail sale of essential commodities is being undertaken with the use of Point of Sale (PoS) machines; some retail outlets have begun to use PoS machines. There is a mechanism in place to periodically review the basket of commodities distributed under TPDS. The State has taken a lead to designate women as the head of the family in ration cards.

#### • Antodaya Anna Yojna (AAY)

The poorest of the poor from the BPL list have been placed under the AAY. The scale of issue per family as per Government of India norms is 35 kgs of foodgrains per family per month, which includes 20 kgs of wheat and 15 kgs of rice per family. The retail issue price is Rs. 2/- for wheat and Rs. 3/- for rice.

As per the NFSA, 2013, every person belonging to a priority household is entitled to receive each month and at five kgs of foodgrains per person, at subsidized rates.

The State has bifurcated this into 3kgs of wheat and 2 kgs of rice, per person. (The retail issue price is Rs. 2/- for wheat and Rs. 3/- for rice.) The State is providing additional food grains in addition to NFSA to all the BPL families @ 5.25 per kg of wheat and @ 6.85 per kg of rice to meet the scale of 35 kgs per family per month. For distribution under TPDS, a ration card is issued in the name of the head of the family, under the provisions of the HP Specified Articles (Regulation of Distribution) Order, 2003.

For the distribution of TPDS food grains, fair price shops are allocated on the recommendations of concerned Panchayat/Zila Parishad, with preference given to ex-servicemen, members of mahila mandals, handicapped and educated unemployed persons.

#### • Above Poverty Line (APL)

The scale of APL wheat flour (atta) and rice is changed every month, depending upon the availability of stocks with the H.P. State Civil Supplies Corporation with effect from July, 2014. These scales are uniformly applicable throughout the State, except in tribal areas of (Lahaul & Spiti, Kinnaur, Pangi, Bharmour) where 20 kgs of wheat atta and 15 kgs of rice are distributed monthly to APL card holders with effect from September, 2014.

#### • Sugar

The Government of India has fixed a quota of 4698 MT sugar for the State per month for distribution under the PDS to ration card holders. At present, the State is purchasing sugar for PDS from the open market through e-tenders. The scale of sugar is fixed at 600 grammes per person per month. The retail issue price is Rs. 19.50 for APL families and Rs. 13.50 for non-APL families.

#### • Superior kerosene oil







Superior kerosene oil (SKO) was being allocated to the State by the GoI, at the rate of 5411 kl. per month, up to March, 2008. This has reduced over time and at present the allocation of kerosene oil is 1162 kl. per month.

#### • The national programme of nutritional support to primary education (NP-NSPE)

Known as the Mid-Day-Meal Scheme, it was launched on 15th August, 1995 with the objectives of boosting universalization of elementary education by increasing enrolment, retention and attendance and impacting on the nutritional status of children studying in classes I-VIII.

Under the Sarva Shiksha Abhiyan (SSA) un-cooked food grains wheat /rice (3 kgs per month, per student), was being distributed to the children of classes I to V, with 80 percent attendance, for 10 academic months of the year, in Government primary schools and EGS centres, till May 2003. The hot cooked meal programme was launched in the State in a phased manner, initially, from May 2003 covering schools in tribal areas, and extended to primary schools in non-tribal areas as well from September 2004. From July 2008, the scheme was extended to the upper primary stage.

Table 2.1 Targeted beneficiaries

Primary Stages	
 No. of Institutions 10,768	 No. of Students 3,12,877
Upper Primary Stages	
 No. of Institutions 4,618	 No. of Students 2,29,559
Total Stages	
 No. of Institutions 15,386	 No. of Students 5,42,436



### 3. Increase in productivity of agriculture and allied sectors

Almost 90 percent of the population lives in rural areas; agriculture and allied activities provide direct employment to about 62 percent of all workers. About 10.4 percent of the GSDP comes from these sectors. Of the State's geographical area of 55,67 lakh hectares, operational holdings cover about 9.55 lakh hectares and are operated by 9.61 lakh farmers. The average holding size is about one hectare. About 88 percent of the holdings belong to small and marginal farmers. Semi medium / medium farmers own 11.7 percent of the land and only 0.3 percent of holdings belong to large farmers.

The scope for increasing the area under cultivation is limited; the priority of the State Government is to increase food grain productivity. Given the agro-climatic conditions the emphasis is on diversification towards high value crops like vegetables and on fruit cultivation. It is expected that the present productivity of vegetables (21 MT per hectare) will increase to 27 MT per hectare by 2030. At present, 69 percent of the workforce is engaged in agriculture; and this is expected to reduce to about 60 percent by 2030. Key interventions, expected to gain momentum are in organic agriculture, protected cultivation and micro-irrigation; non-farm activities like mushroom cultivation and honey production are also being promoted.

To achieve the targets, the Government of Himachal Pradesh is implementing the following schemes/programmes in the agriculture and allied sectors:

#### • Soil Health Card scheme

The Prime Minister of India launched the 'Soil health cards scheme' on 19th February, 2015 to address the nutrient deficiencies, strengthen soil testing labs, and provide for capacity building and linkages with ICAR/SAU. The scheme will provide diagnostics for soil health and design taluka/block level recommendations for fertilizer usage in the targeted districts. It will develop and promote soil test-based nutrient management and build capacities of the staff and progressive farmers. So far, 6.22 lakh Soil Health Cards have been distributed against the target of 8.65 lakh. The remaining cards will be distributed by the end of March 2018.



#### • National Food Security Mission (NFSM)

The National Food Security Mission is a centrally sponsored scheme, launched in 2007.

The objectives of the mission are to:

- increase the production of wheat, maize and pulses in identified districts through area expansion and productivity enhancement, in a sustainable manner
- restoring soil fertility and productivity at the individual farm level
- creation employment opportunities and
- enhancing farm level economy i.e. farm profits, to restore confidence among farmers

#### • Rashtriya Krishi Vikas Yojna (RKVY)

RKVY aims to achieve four percent annual growth in the agriculture sector by ensuring a holistic development of agriculture and allied sectors; it is under implementation in the State since 2007. The main objectives of this scheme are to:

- incentivize states to increase public investment in agriculture and allied sectors
- provide flexibility and autonomy to States in the planning and executing agriculture and allied sector schemes
- ensure the preparation of agriculture plans for the districts and the States based on agro-climatic conditions, availability of technology and natural resources
- ensure that the local needs/ crops/ priorities are better reflected in the agricultural plans of the States
- achieve the goal of reducing the yield gaps in important crops
- maximize returns to the farmers in agriculture and allied sectors.

#### • National Mission on Agricultural Extension and Technology (NMAET)

The National Mission on Agricultural Extension and Technology (NMAET) has the following aims:

- restructure and strengthen agricultural extension to enable delivery of appropriate technology and improved agronomic practices to the farmers
- provide a judicious mix of extensive physical outreach



- utilise interactive methods of information dissemination, and use ICT to popularise modern and appropriate technologies
- support capacity building and institution strengthening
- ensure availability of quality seeds, plant protection encourage the aggregation of farmers into Interest Groups (IGs) and to form Farmer Producer Organizations (FPOs).

#### • **Pradhan Mantri Fasal Bima Yojna (PMFBY)**

A centrally supported crop insurance scheme, the Pradhan Mantri Fasal Bima Yojna (PMFBY) has been implemented from the kharif season, 2016. It covers wheat, barley, maize, paddy, potato and ginger and is mandatory for loanee farmers and optional for non-loanee farmers. It provides comprehensive risk insurance against yield losses - drought, hailstorm, floods and pests, and disease. The objectives of PMFBY are to:

- to provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests and diseases.
- encourage farmers to adopt progressive farming practices, high value in-puts and higher technology in agriculture.
- help stabilize farm incomes, particularly in disaster years.

#### • **National Mission for Sustainable Agriculture (NMSA)**

The National Mission for Sustainable Agriculture (NMSA) seeks to enhance agricultural productivity especially in rain fed areas focusing on integrated farming, water use efficiency, soil health management and synergizing resource conservation. The objectives of NMSA are to:

- make agriculture more productive, sustainable, remunerative and climate resilient by promoting location specific integrated/composite farming systems
- conserve natural resources through appropriate soil and moisture conservation measures
- adopt comprehensive soil health management practices based on soil fertility maps, soil test based application of macro and micro nutrients, and judicious use of fertilizers
- optimize utilization of water resources through efficient water management to expand coverage for achieving 'more crop per drop'.

#### • **Pradhan Mantri Krishi Sinchai Yojana (PMKSY)**

The Pradhan Mantri Krishi Sinchai Yojana (PMKSY) focuses on increasing productivity, especially through micro-irrigation projects (Har Khet Ko Pani) and end-to-end irrigation solutions. The PMKSY seeks to achieve convergence of investments in irrigation at the field level, expand cultivable area under assured irrigation, improve on farm water use efficiency, enhance adoption of precision-irrigation and other water-saving technologies.

#### • **Dr. Y. S. Parmar Kisan Swarojgar Yojna**

The Dr. Y. S. Parmar Kisan Swarojgar Yojna (poly house and micro irrigation inside the poly house) of the State Government is addressing the issue of creation of need based infrastructure to fulfil objectives of high productivity, quality, safeguard against adverse weather and efficient input use.

#### • **Rajiv Gandhi Micro-Irrigation Scheme**

The Rajiv Gandhi Micro-Irrigation Scheme will bring 8,500 hectares of area under drip/ sprinkler irrigation systems, benefitting 14,000 farmers, over the period 2015-16 to 2018-19.

#### • **Mukhya Mantri Khet Sanrakshan Yojna**

The Government of Himachal Pradesh has introduced the Mukhya Mantri Khet Sanrakshan Yojna. It will provide farmers 60 percent assistance for electrified fencing of farms, to deter wild animals from entering.

#### • **Himachal Pradesh Crop Diversification Promotion Project (HICAP)**

An externally aided project, this is under implementation from 2011-12 in Kangra, Mandi, Hamirpur, Bilaspur and Una districts. The objective is to support livelihood improvement and promote sustainable crop diversification by the development and rehabilitation of minor irrigation facilities, farm access roads, and improvement of extension services including promotion of vegetable cultivation. This would increase incomes of small and marginal farmers and provide gainful employment opportunities for rural youth and women, through agri-business, agro-processing, marketing and adoption of micro-enterprises.





### • *Mission for Integrated Development of Horticulture*

Intended for the holistic development of horticulture, it covers components of production, including protected cultivation, creation of water sources and post-harvest management, area expansion, mechanization and bee keeping.

### • *H.P. Horticulture Development Project*

To address key technological gaps and deficiencies in the horticulture sector, the project provides support to small farmers and agro-entrepreneurs to increase the productivity, quality and market access of horticultural commodities.

### • *National Livestock Mission*

A Government of India initiative for the sustainable growth and development of the livestock sector in a holistic manner, it covers components for improvement of livestock productivity. The mission will help in increasing meat production and commercial broiler farming and provide opportunities for self employment to farmers.

### • *Blue Revolution Mission*

This supports the integrated development and management of fisheries, tapping the full production potential and enhancing productivity, substantially from aquaculture. Key components are construction/renovation of fish ponds, trout units, and carp and trout hatcheries.

### 3. *Convergence between direct and indirect interventions*

The challenge is to achieve convergence and coherence in policy, planning and action of nutrition related interventions, across schemes and programmes. This could break the inter-generational cycle of under nutrition by targeting children less than two years of age, through convergent strategy and action. All programmes need to be aligned to this multi-sectoral approach and the roles and responsibilities of executing agencies and departments. It will be useful to conduct a survey to assess the dietary habits of the local population and evaluate their needs keeping in view the requirements necessitated by specific climatic conditions.

### 4. *Increase in productivity in agriculture and allied sectors*

Constraining productivity increases are the small and scattered nature of land holdings, the dependence on rain fed agriculture, occurrence of natural calamities, increasing population of stray/wild animals and the monkey menace.

Post harvest losses, low value addition of agricultural/horticultural produce and the lack of an efficient marketing system are factors that affect farm incomes.

### 5. *Sustainable and climate resilient agriculture, ecosystems and genetic diversity*

The State is witnessing elements and signs of climate change; ensuring sustainable agriculture and resilient agriculture practices to increase production and productivity are major concerns. In this context, there is a need to make available quality planting material and maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals, through diversified seed and plant banks at different levels. The focus and quality of research needs be addressed and enhanced.

## 2 *Strategy for success*

To achieve the targeted activities of the SDG-2, the Government will implement programmes/schemes in close coordination with stakeholders for which working groups have been constituted. The participation of PRIs, NGOs, FPOs, the private sector, KVKs and ICAR institutes will be ensured. If necessary ongoing schemes/programmes will be rationalised or new schemes/interventions for the promotion of organic farming and integrated post harvest management practices will be introduced.



## **Challenges in achieving the targets**

### 1. *Eliminating malnutrition in children and women*

The risk of having a small baby is higher for mothers who are underweight, stunted and anaemic. Iron deficiency, in particular, is a major nutritional problem for women. As per NFHS-4 data, the prevalence of anaemia among children (6 to 59 months) and women (both pregnant and not pregnant, 15-49 years) in the State is between 50 percent to 54 percent, which is on the high side.

### 2. *Nutrition and safe and adequate food for all*

The State is committed to implement the National Food Security Act, 2013. A major issue is of the duplication in ration cards. A drive to digitize ration cards and implement TDPS is underway to address this issue.



## 1. Eliminating malnutrition in children and women

To reduce the prevalent rate of stunting and wasting of children under-5 and to reduce the percentage of anaemic children in the age group of 6-59 months, several schemes are being implemented. The State has introduced pneumococcal (19.1 percent mortality) and rubella (disabilities) vaccines as a part of the Universal Immunization Program (UIP). Oral rehydration solution (ORS) and zinc will be available to ASHA workers to manage diarrhoea. The provision of oral and injectable antibiotics, oxygen support, bronchodilators and treatment of pneumonia till the sub-centre level will be ensured. In addition, 100 percent Home Based Newborn Care (HBNC) will be provided by ASHA workers. Capacity building and infrastructure development will be key focus areas as per the Reproductive, Maternal, Neonatal, Child Health and Adolescent care (RMNCH+A) strategy.

The surveillance and monitoring of UIP universal immunization program (UIP) will be strengthened, with the participation of all stakeholders. Capacity building of frontline workers and field functionaries will be done.

## 2. Nutrition and safe and adequate food for all

The TPDS has a network of wholesale godowns of the HPSCSC. Duplication in the issuance of ration cards is being addressed. Considering the incidence of malnutrition among women and children, the food basket being distributed under TPDS will be evaluated and modified.

## 3. Increase in productivity in agriculture and allied sectors

The priority of the Government will be to bring more area under irrigation. To increase water use efficiency, micro irrigation systems like drip and sprinkler irrigation systems will be promoted. These will be supplemented with efforts to increase utilization of already created command areas. The Mukhyamantri Khet Sarankshan Yojana will be implemented in the coming years to tackle the problem of wild animals, stray cattle and the monkey menace. The strategy to double farmers' income will be productivity enhancement, diversification of farm

activities towards high value cash crops and enterprises, irrigation (including micro-irrigation), better price realization through competitive markets, value chains and improved backward and forward linkages. Reforms in the APMC Act are being contemplated, as are electronic trading and linking with the National Agricultural Market, research and development and technology up-gradation.

In the context of livestock products, the emphasis will be on genetic up-gradation of livestock, prevention and control of animal diseases, increase in meat production and development of poultry. The productivity in the fisheries sector will be enhanced by the introduction of quick growing fish varieties, and balanced feed and fertilizer application. On-farm processing and value addition in the fisheries sector will be promoted; four value addition-cum-processing units are being set up in different parts of the State. In addition, a trout canning unit is proposed to be set up at Patlikuhl, in Kullu District.

## 4. Sustainable and climate resilient agriculture, ecosystems and genetic diversity

The Government will issue Soil Health Cards to farmers/farming families who have not received them so far, by the end of March, 2018 for judicious use of fertilizers. Organic farming which is eco-friendly will be promoted in a big way. Safe and quality food will be made available to consumers.

To overcome the impact of weather vagaries and climate change, efforts will be made to create awareness amongst farmers for adoption of Pradhan Mantri Fasal Bima Yojana and the weather-based Crop Insurance Scheme. Flagship schemes including the National Mission for Sustainable Agriculture and the Rashtriya Krishi Vikas Yojana will be implemented on a project mode. To maintain the genetic diversity of seed, cultivated plants and domesticated animals, research institutions, certification agencies and the private sector will be involved. Efforts will be made to involve national and international funding agencies to increase investment in agriculture and allied sectors. Adoption of elite planting material and climate resilient production technologies will be promoted through the World Bank funded H.P. Horticulture Development Project. For efficient marketing and better price realization, mandis (markets and sub market yards) will be linked with e-NAM.





## Indicators statement for monitoring the progress

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicators	State Indicators				
2.1	By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.	Prevalence of undernourishment	<ul style="list-style-type: none"> <li>Total children age 6-23 months receiving an adequate diet</li> <li>All women age 15-49 years who are anaemic (%)</li> </ul>	10.9%	40%	100%	NFHS-4
		Children under 5 who are underweight	Children under 5 years who are underweight (weight-for-age)	21.2 %	12.72%	Total elimination	NFHS-4
		Proportion of population (marginalized and vulnerable) with access to food grains at subsidized prices	Proportion of population (marginalized and vulnerable) with access to food grains at subsidized prices	100% marginalized and vulnerable population is being catered to under TPDS Ration cards 18,26,112 of which: APL 11,40,152 AAY 1,90,630 BPL 2,58,081 AAN 479 PH 2,36,770 Female headed (out of total) 17,19,024	This status will be maintained	This status will be maintained	Food and Civil Supplies Department
2.2	By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under-5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.	Prevalence of stunting under 5 years of age	Children under 5 years of age who are stunted (%)	26.3% children under 5 years of age who are stunted	Stunting will be reduced to 15.78%	Total elimination	NFHS-4
		Prevalence of wasting age under 5 years of age	Children under 5 years who are wasted (%)	13.7% children under 5 years are wasted	Reduced to 8.22%	Total elimination	NFHS-4
		Percentage of women whose Body Mass Index (BMI) is below normal (BMI < 18.5 kg/m <sup>2</sup> )	Percentage of women whose BMI is below normal (BMI < 18.5 kg/m <sup>2</sup> )	16.2% of women in State whose BMI is below normal	Reduced to 9.72%	Total elimination	NFHS-4
		Percentage of pregnant women age 15-49 years who are anaemic (<11.0 g/dl) (%)	Percentage of pregnant women age 15-49 years who are anaemic (<11.0 g/dl) (%)	50.2% pregnant women age 15-49 years are anaemic in the State	Reduced to 30.12%	Total elimination	NFHS-4
		Percentage of children age 6-59 months who are anaemic (<11.0g/dl) (%)	Percentage of children age 6-59 months who are anaemic (<11.0g/dl) (%)	53.7% children age 6-59 months are anaemic in the State	Reduced to 32.22%	Total elimination	NFHS-4
2.3	By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fisher folk, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	Agriculture productivity of wheat and rice yield per hectare	Agriculture productivity of food grain and vegetables	<ul style="list-style-type: none"> <li>Food grains: 2 MT/ha.</li> <li>Vegetables: 21 MT/ha.</li> </ul>	2.4 MT/ha. 24 MT/ha.	2.8 MT/ha. 27 MT/ha.	Agriculture Department
			Adoption of latest techniques in horticulture to increase productivity	Fruit productivity: 5 MT/ha.	15 MT/ha.	25 MT/ha.	Horticulture Department
			Percentage of water losses in irrigation sector	35% water losses in irrigation sector	Reduced to 25%	Reduced to 15%	IPH Department
		Gross Value Added in agriculture per worker	Reduce workforce in agriculture	67 %	64 %	60 %	Economics and Statistics Department
		Ratio of institutional credit to agriculture to the agriculture output					

## Indicators statement for monitoring the progress

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicators	State Indicators				
2.4	By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality	Proportion of degraded agricultural land to net sown area					
		Percentage of farmers issued Soil Health Cards	Percentage of farmers issued Soil Health Cards	70% farmers have been issued Soil Health Cards	100%	100% and the same status will be maintained	Agriculture Department
		Percentage of gross cropped area under organic farming	Area under organic farming	Currently 17,000 ha. area is under organic farming	22,000 ha.	30,000 ha.	Agriculture Department
			Area under protected cultivation (crop resilient agriculture)	Currently 15 lakh sq. m. area is under protected cultivation	18 lakh sq m.	23 lakh sq m.	Agriculture Department
2.5	By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed	No. of accessions conserved in the base collection (>180 C) at National Gene bank		Information / data not available			
		Conservation of germplasm (in number)		Information / data not available			
		Conservation of fish genetic resource (in number)		Information / data not available			
2.a	Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries	Percentage share of expenditure in R and D in agriculture to GDP in agriculture	Percentage share of expenditure (Plan) in R and D in agriculture to GDP in agriculture	Currently 2% share of expenditure (Plan) is incurred in R and D	The current level of expenditure will be maintained with an objective of improving the quality of research	The current level of expenditure will be maintained with an objective of improving the quality of research	Finance/ Planning Department
		Proportion of public investment in agriculture to GDP in agriculture	Proportion of public investment (Plan) in agriculture to GDP in agriculture	7.13 %	To reduce it to 6.75% by ensuring enhancement in agricultural productivity	6.50% by ensuring enhancement in agricultural productivity	Finance/ Planning Department
2.b	Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development round The indicator is being developed	The indicator is being developed	The indicator is being developed				
2.c	Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility	Percentage of agriculture mandis enrolled in e-markets	Percentage of agriculture mandis enrolled in e-markets	Out of 58 mandis, 19 mandis have been enrolled in e-markets	70 %	100%, all the mandis will be enrolled and the status would be maintained	Agriculture department



SDG3

*ENSURING HEALTHY LIVES  
AND PROMOTE  
WELL-BEING FOR ALL AT  
ALL AGES*



## Vision

Ensure accessible, affordable and quality health care to all, especially the vulnerable sections of the State and providing universal health coverage.

## Himachal Today

- Highest per capita government health spending
- Rashtriya Swasthya Beema Yojana extended to cover more categories and state funding to cover critical health care
- Universal coverage under health insurance
- Fleet of 198 functional and 12 back up ambulances under free 108 Emergency Management Services. Handled 9,40,958 emergency cases from December 2010 to July 2017
- Institutional deliveries in the State is 84.21%
- Full Antenatal Check-up is 83%
- The Under-5 MR is 42, NMR is 25 and IMR is 28
- The Total Fertility Rate is 1.7
- 13 Sick Newborn Care Units (SNCU), 49 New Born Stabilizing Units (NBSU), and 120 Newborn Care Corners (NBCC) are functional
- Four more Government Medical colleges in Chamba, Hamirpur, Mandi and Sirmaur in addition to two existing medical Colleges have been operationalised

## Focus for tomorrow

- 100% coverage under the Health Insurance Scheme
- 100% institutional deliveries
- 100% immunization
- Reduction in maternal deaths in the absolute numbers to <25
- Reduction in Infant Mortality Rate to <10
- Reduce TB incidence and bring it down to <20/lakh
- Reduction in NCDs mortality by 1/3
- Reduction in unmet need is <5%
- Zero transmission of HIV from mother to child
- Dedicated trauma care services up to PHC level
- Reduction in tobacco use among aged 15 years and older from current level (22%) to <5%
- Fully functional AIIMS in district Bilaspur



Himachal Pradesh has emerged as a model for social sector services in the country as more than 70 percent of the people seek health services from the government sector, which is rare in India. As the orientation of development strategy across the globe has changed from Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs), Himachal is geared to lead, by setting milestones in the health sector. SDG 3 pertains to health related issues, with the broad mandate of 'ensuring healthy lives and promote well being for all, at all ages'.

The demand for good health is likely to increase unconditionally, irrespective of the development in the future; due to multiple factors (for example the increase in the mean age /longevity of life will increase the burden of Non Communicable Diseases (NCDs)). What needs recognition is that improving health cannot be the mandate of the health department alone, because there are a number of determinants of health, like water and sanitation, socio-economic status, education, agriculture, social/working environment, etc. In order to achieve good health, all efforts need to be made in a concerted/collective approach. Himachal has already achieved most of the targets that many states in India have

concern, however, and it is hoped that the State will be able to address the emerging issues adequately.

### Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

**Target 3.1** By 2030, reduce the maternal mortality ratio (MMR)<sup>1</sup> to less than 70 per 100,000 live births

The MMR in India was 130 per 100,000 live births in 2016. It is not possible to calculate MMR in Himachal Pradesh due to the low denominator (<1 lakh births per year), therefore the reported 63 maternal deaths is an absolute number for 2015-16. As per available estimates, the State has already achieved the national target of 70. Institutional deliveries are at 86 percent and about 15 percent of all the home deliveries are attended by Skilled Birth Attendants (SBAs). The State has 87 Designated Delivery Points (DDP) out of a total of 707 Health Institutes. Apart from this, the State has 198 ambulances under the

Figure 3.1 Projections of MMR in India and HP



Source: Department of health & Family Welfare, GoHP

to achieve by 2030, as part of the mandate of SDGs and the State needs to establish itself as a model, so that others can follow its lead.

It is proposed that health be the centre of all policies in the country/state. Some of the indicators have been simplified to make them realistic and achievable and a detailed plan of action has been proposed to achieve immediate/short term and long-term goals. There are some areas of

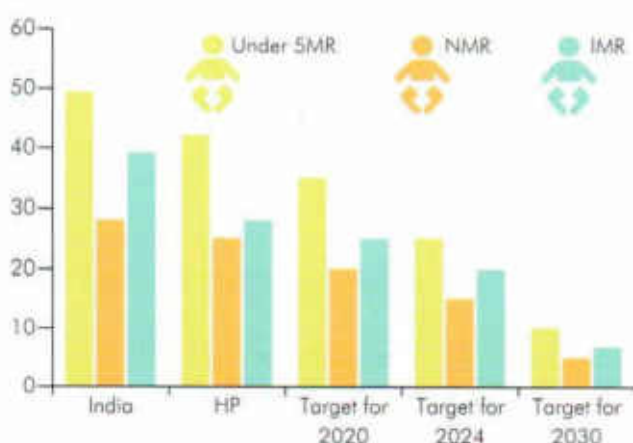
National Ambulance Services (NAS-108) scheme, which contribute to ensuring safe deliveries. The full Antenatal Check-up (ANC) is availed of by 83 percent of the pregnant women. It is proposed that by 2020, maternal deaths (in absolute number) should reduce to <50, to <40 by 2024, and to less than 25 by 2030. The State aims to ensure that by 2020, institutional births go up to 90 percent and up to 100 percent by 2024.

<sup>1</sup> MMR in Himachal Pradesh cannot be calculated because there are less than 1 lakh births per year; hence, maternal deaths have been reflected in absolute numbers.

**Target 3.2** By 2030, end preventable deaths of newborns and children under 5 years of age, aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

The Under 5 Mortality Rate in India is 49, the Neonatal Mortality Rate (NMR) is 28, and the IMR is 39. In Himachal Pradesh, the rates are 42, 25, and 28, respectively<sup>2</sup>. Currently, the State has 13 Sick Newborn Care Units (SNCU), 49 New Born Stabilizing Units (NBSU), and 120 Newborn Care Corners (NBCC). A plan has been initiated for diarrhoea and pneumonia management, including the management of malnutrition. It is targeted to reduce the Under 5 Mortality from the existing level to 35 by 2020 and bring it down to <10 by 2030. There will be a reduction in the NMR from the existing level to 20 by 2020 and further down to 5-10 by 2030. The State has proposed to reduce IMR from the existing level to 25 by 2020, and to bring it down to 5-10 by 2030.

**Figure 3.2 Projections of Under 5MR, NMR & IMR**

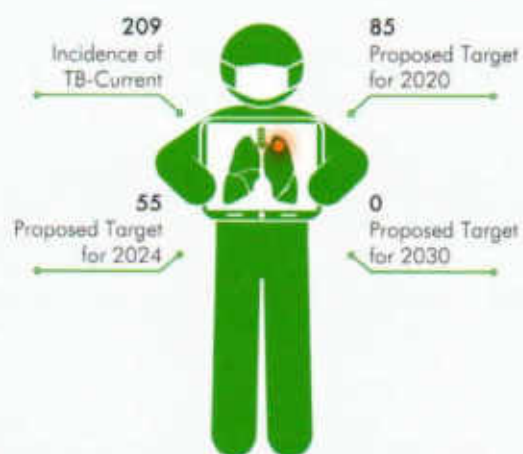


**Target 3.3** By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

As of 2015, HIV prevalence rate in Himachal Pradesh is 0.12 percent as compared to 0.26 percent nationally. The incidence of TB cases in India and Himachal Pradesh are 217 and 209 (2016), respectively. The number of deaths due to malaria has declined remarkably and the annual parasite rate (API) (the number of positive slides per 1,000) in India and Himachal Pradesh are 0.85/1000 and <0.1/1000, respectively. However, the latest survey conducted in 2016-17 in district Lahaul & Spiti by the Indira Gandhi Medical College (IGMC) shows a high prevalence (23 percent) of Hepatitis-B, which is alarming. More data and analytical studies are required to confirm these findings.

The Government of Himachal Pradesh, along with sustaining HIV prevention activities, aims to increase coverage under antiretroviral therapy (ART) to 90 percent by 2020 and zero transmission of HIV from mother to child by 2024. The State also plans to reduce TB incidences to <85/lakh by 2020 and <55/lakh by 2024, and bring it down further to <20/lakh by 2030. In 2017, the State Government successfully administered the Hepatitis-B vaccine to all the people, in all age groups, in the Lahaul & Spiti district. In order to sustain the anti-malarial effort, zero transmission of API by 2020 will also be ensured.

**Figure 3.3 Incidence of TB and proposed targets, HP**



Source: TB India 2017 Report a measure taken to maintain health and prevent the spread of disease)

**Target 3.4** to reduce the premature mortality due to Non-communicable diseases (NCDs) by one third, by 2030, through prevention and treatment and promote mental health and well-being

India is a country plagued by NCDs. As per the WHO Report 2015, NCDs account for 72 percent of total mortality. The prevalence of cardio vascular disease (CVD) is 26 percent, diabetes is 2 percent, respiratory disease is 13 percent and cancer is 7 percent. There is no State specific data for NCDs, hence national estimates are relied upon.

The State Government has proposed to implement a comprehensive NCD prevention and control programme in Himachal Pradesh by 2020, as per GOI guidelines. For this purpose, an electronic health card has also been recently introduced (on 2nd August 2017). The health card will capture real time data and ensure effective monitoring of NCDs, risk factors, and related disease burden, which in turn will help in the implementation of specific interventions and resource allocation.



The State aims to reduce the prevalence of NCD risk factors by half, by 2025. Currently tobacco use is 40.5 percent among males, and 39.7 percent are alcohol users (NFHS-4). By adopting a comprehensive strategy, proportional reduction in NCD mortality by half, can also be achieved by 2030.

### Target 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

The trends of substance abuse are increasing in India and Himachal Pradesh. India has a prevalence of 13.1 percent in the < 20 year age group, and Himachal Pradesh has a prevalence of about 20-25 percent (IGMC). Prevalence of alcohol use is 29.2 percent in India (for men in the age group of 15 – 49 years) and 39.7 percent (for men in the age group of 15-49 years) in Himachal Pradesh (NFHS-4).

It is proposed that the State will ensure the availability of de-addiction facilities up to the CHC level by 2020, up to PHC level by 2024, and shall ensure quality de-addiction services at all levels. There are plans to operationalize a road map with the Excise and Police Departments and NGOs, to minimize the use of harmful alcohol by 2024. Effective awareness/enforcement of the existing regulations to minimize drug abuse, in collaboration with the key stakeholders will also be ensured.

### Target 3.6 By 2020, half the number of deaths and injuries from road traffic accidents

The mortality and morbidity due to injuries especially road accidents is increasing in India and in Himachal as well. As per the WHO report 2015, injuries contribute to 12 percent of the total mortality in the country. According to national data there are about 400 deaths per day, in India, and there are about 1,000 deaths per year (approximately 3-4 deaths per day) in Himachal Pradesh, due to injuries.

In light of this, the State aims to ensure dedicated trauma care services up to the CHC level by 2020, up to PHC level by 2024, and quality services in all trauma centres by 2030.

### Target 3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs

The Total Fertility Rate (TFR) in Himachal Pradesh is 1.7 (SRS-2016) and the total unmet need for contraception is 15.7 percent among currently married women in the age

group of 15-49 years. The prevalence of adolescent pregnancies in India is 10 percent (WHO) while in Himachal Pradesh it is only 2.6 percent (NFHS-4).

The State has a TFR, which is below replacement level, but there is a need to reduce the unmet need for family planning to 10 percent by 2020, and further to <5 percent by 2025. The three-year gap between the births of two children (to improve maternal health and reduce sibling rivalry) is proposed to be achieved. The State will adopt the most suitable method, depending on the demand for the same. It is planned to strengthen the existing ARSH (adolescent, reproductive, sexual health) clinics by 2020 and to expand the clinics to the PHC level by 2024. Optimum utilization of the clinics with quality services by 2030 is also one of the targets.

### Target 3.8 Achieve universal health coverage (UHC), including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

Full immunization (up to 9 months) is 99.5 percent in Himachal Pradesh and the entire population of the State is being covered under the universal health protection scheme (launched on 2.8.17). In India, as a whole, only 20 percent of the population is covered under any health protection scheme. Currently, Rashtriya Bal Suraksha Karyakram (RBSK), JSSK Janani Sishu Suraksha Karyakram (JSSK), (Rashtriya Swasthya Bima Yojna (RSBY) and Mukhya Mantri State Health Care Scheme, are being implemented in the State.

It is targeted to achieve 100 percent immunization by 2020 and the same will be retained till 2030. The entire population of the State will be covered under the universal health protection scheme. Population based screening, including for cervical cancer and of all NCDs will be rolled out, with real time monitoring by 2018.

### Target 3.9 By 2030, substantially reduce the number of deaths and illness from hazardous chemical and air, water and soil pollution and contamination

Currently, no specific data is available on mortality and illness attributed to hazardous chemical, air, soil, water pollution and contamination. However, a study suggests that, air pollution is the second leading risk factor for Disability-adjusted Life Years (DALYs)<sup>4</sup> in India. This risk factor encompasses both, outdoor air pollution from a variety of sources as well as household air pollution that mainly results from burning solid fuels in the home for cooking and heat.

<sup>4</sup> The disability-adjusted life year (DALY) is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death. It was developed in the 1990s as a way of comparing the overall health and life expectancy of different countries.

Outdoor air pollution caused 6.4 percent of India's total DALYs in 2016, while household air pollution caused 4.8 percent. Combined, they make a substantial contribution to India's burden of cardiovascular diseases, and chronic respiratory diseases. As far as DALYs rate, attributed to ambient and household air pollution in Himachal Pradesh is concerned, it was 1500-1749 and 750-999 per 1,00,000 population<sup>5</sup>. Due to the paucity of data on mortality due to the pollution and hazardous contamination, a target cannot be fixed. So, the State has planned to conduct a survey/study to collect the data and then fix the targets accordingly.

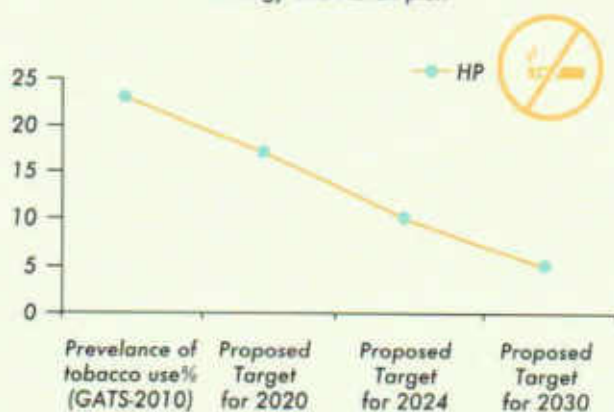
### 3.a Strengthen the implementation of the WHO Framework Convention on Tobacco Control in all countries, as appropriate

Tobacco use is one of the most preventable causes of deaths, globally. The prevalence of tobacco use (aged 15 years and older) in India is 38 percent and in Himachal Pradesh, it is 22 percent (GATS-2010). The plan is to bring down tobacco use among those aged 15 years and older from the current level of 22 percent to 17 percent by 2020, and further to 10 percent by 2024, and finally to reduce it to <5 percent by 2030.

### 3.b To support the research and development of vaccines and medicines for communicable and non-communicable diseases

Currently, the National Health Mission (NHM) is funding small research projects, which are mainly operational research. Recently, Acute Coronary Syndrome (ACS) registry, Hepatitis B, and Immunization studies have been undertaken in the State. It is proposed to study the output and outcomes under SDG 3, every three years.

Figure 3.4 Current Tobacco use & proposed targets  
Strategy and Action plan



Source: Global Adult Tobacco Survey - 2010

### 3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce (Health + Ayurveda)

The health worker (HW) density and distribution is 1 HW/10,000 people, and 1 ASHA/1,000 people in India and, the corresponding figures for Himachal Pradesh are 1 HW/3,379 and 1 ASHA/800 population. They are being trained in the latest skills and techniques. Himachal Pradesh has been the highest health care spending state in India and currently the per capita government health spending is Rs 2,016. The human resource requirements will be increased as per the Indian Public Health Standard (IPHS) norms. In addition, their skills will be scaled up. The State will be focussing on comprehensive primary health care to reduce the disease burden. As per GoI recommendations, the State is in the process of upgrading all 2,068 Sub Health Centres as Health and Wellness Centres by 2025, so as to provide ambulatory primary health care.

### 3.d Strengthen the capacity for early warning, risk reduction and of local, national and global health risks

The State has a functional State Disaster Management Authority (SDMA) for all types of risks mitigation. A hospital manual for medical workers is in place, which needs to be enforced through education about risk reduction strategies, training of health professionals and by other means. By 2017-20 (in three years) it is planned to cover all sub divisions/blocks teams for the awareness/training/sensitisation about risk mitigation and reduction strategies. By 2024, the plan is to cover all villages in the State for the awareness /training /sensitization. By 2030, the plan aims to cover all schools up to 10+2 level for the awareness/ training/ sensitization programme.



### Challenges in achieving the targets

The health sector may not face big impediments in achieving the targets set under Goal 3. However, a few areas, which require attention and focussed strategic interventions are mentioned below;

- Difficult geographical & climatic conditions
- Unequal distribution of health facilities
- High prevalence of smoking (14.2% adults) and high percentage of biomass fuel use for cooking purposes
- Road & electricity issues especially in winters

5 Source: India: Health of the Nation's States (2016) a study conducted by Indian Council of Medical Research, Public Health Foundation of India, and Institute for Health Metrics and Evaluation.



- Lack of good NGOs/partners in the state that has resulted in a weak communitization of the programmes at grassroots level.
- Disproportionally greater load on the large health institutes, due to in-migration within the State

## Strategies for success

### Target 3.1 By 2030, reduce the maternal mortality ratio (MMR) to less than 70 per 1,00,000 live births

The State has planned to track and follow up all the pregnancies through the Mother and Child Tracking System (MCTS) and ASHA workers. To ensure quality, Medical Officers will provide ANC to all pregnant women. Accountability on the Village Health and Sanitation Committees (VHSNC) will be fixed for any maternal deaths and maternal death reviews will be made compulsory. Other factors like literacy, awareness, quality health services and economic factors will also help in reducing maternal deaths over time. Institutional deliveries will be promoted through IEC, BCC and IPC (Inter Personal Communication) and will be tracked through MCTS and ASHA.

In addition, the State will promote the free ambulance service and free drop back facilities, including Janani Suraksha Yojna (JSY), which is an incentive for institutional deliveries, and Janani Sishu Suraksha Karaykaram (JSSK), which provides free treatment for pregnant women and infants. Both JSY and JSSK provide benefits under the National Health Mission. Seven birth-waiting homes are planned to be set up near hospitals, so that the people from remote areas can come and stay there and wait for safe deliveries. All home conducted deliveries will be assisted by SBAs (ASHA workers will be empowered to work as SBAs).

### Target 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

The State has introduced Pneumococcal and Rubella vaccines as a part of the Universal Immunization Program (UIP) in 2017-18. Oral Rehydration Solution (ORS) and Zinc will be available at the ASHA worker level, for the management of diarrhoea. The provision of oral and injectable antibiotics, oxygen support, bronchodilators and the treatment of pneumonia up to the sub-centre level will be ensured. 100 percent Home Based Newborn Care (HBNC) will be ensured by ASHA workers, supported by the establishment of NBCC in all DDPS. Capacity building and infrastructure development will be a key focus area as per the Reproductive, Maternal, Neonatal, Child Health and Adolescent care (RMNCH+A) strategy.

### Target 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

Testing of HIV at the PHC level by 2020 then at the Sub Centre level will be ensured in a phased manner by 2025. The IEC/BCC activities will be scaled up, including strengthening the management of sexually transmitted infections (STI). Integrated Counseling and Testing Centres (ICTCs) will be monitored closely and zero parent to child transmission and 100 percent post exposure prophylaxis (a measure taken to maintain health and prevent the spread of disease) will be ensured. Targeted intervention programmes with the implementation of latest regulations will be strengthened. Viral suppression in more than 90 percent of people living with HIV (PLHIV) will be achieved. In order to combat TB, the daily regime and fix dose combination (FDC) has been started. It is planned to ensure 100 percent screening of HIV and diabetic patients (current status 82 percent and 50 percent, respectively). The State will ensure availability of FDC in the private sector also. In addition to the existing nine CBNAAT machines at the district level hospitals, it is proposed that this facility will be set up in all the 200-bedded hospitals, in a phased manner. From August 2017, the universal Drug Sensitivity Test (DST) was commenced to rule out multidrug-resistance (MDR) on Day-1. NIKSHAY (real time surveillance) will be started and a laptop will be provided to all Senior Treatment Supervisors (STS) at the block level. Family Directly Observed Treatment (DOTS) will be started, as a short course therapy for TB. Malaria surveillance will also be strengthened. Alongside this, IEC and BCC activities will be continuously strengthened for awareness generation, even in the remotest areas.

### Target 3.4 to reduce the premature mortality due to NCDs (Non-communicable diseases) by one third, by 2030, through prevention and treatment and promote mental health and well-being

With the electronic health card, real time and effective surveillance of risk factors for NCDs and other diseases can be done. NCD clinics up to Primary Health Centre (PHC) level will be setup. Free drug and diagnostic schemes to cover the treatment of all common NCDs will also be introduced. Strict enforcement of health regulations will decrease risk factors.

### Target 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

Special focus for awareness generation by IEC and BCC has been planned. The State shall also train health service providers for de-addiction. It will also ensure drug de-addiction facilities up to the PHC level, in a phased manner. Provision of adequate medicines will be made in



all such facilities. Strict enforcement of the Drugs and Cosmetic Act and the Narcotic and Psychotropic Substance Abuse (NDPS) Act through community policing will also be ensured. Advocacy for alcohol reduction through policy formulation will be the key method for alcohol reduction. To generate evidence for this action, a compliance assessment study of the existing regulations has been proposed.

### Target 3.6 By 2020, half the number of deaths and injuries from road traffic accidents

Effective IEC and BCC will be the key tools for this. A reduction in the response times of NAS -108 will ensure immediate help for the injured. The strengthening of Trauma care services up to 24x7 availability at the PHC level will also be undertaken. State specific studies will be conducted to generate evidence on the cause, type and time of road accidents. Currently, the exercise for identification of accident-prone areas is being conducted by the State and action will be taken in coordination with the concerned departments.

### Target 3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health in to national strategies and programs

IEC and BCC up to the level by HWs and ASHA workers will be the key strategy. 100 percent couple protection rate (CPR) is proposed to be achieved. The GOI RMNCH+A strategies with 129 ARSH clinics, 104 comprehensive call centres (toll free from 9.30 am to 5 pm) will also be strengthened. Currently, adolescent pregnancies are 2.6 percent (NFHS-4), and the target is to bring this down to less than 1 percent.

### Target 3.8 Achieve universal health coverage (UHC), including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicine and vaccines for all

The State aims to strengthen the surveillance and monitoring of the universal immunization program (UIP), develop a plan for the tracking of left-out children and fixing the accountability of ASHA and HW for low coverage are other tools. Free drug and diagnostic services will also be implemented to reduce the OOP expenditure and to ensure that only good quality drugs are procured.

### Target 3.9 By 2030, substantially reduce the number of deaths and illness from hazardous chemicals and air, water and soil pollution and contamination

The State will strengthen the IEC and BCC activities to reduce the indoor and outdoor pollution and mortality attributed to hazardous contamination. A survey/study will be conducted to generate evidence about the adverse health impacts of indoor and outdoor pollution and hazardous contamination. The promotion of clean/solar energy in the State will also be taken up. In order to reduce the OOP expenditure and to minimise the anticipated drift below the poverty line, the State has envisaged a Universal Health Care (UHC) scheme in which the above poverty line (APL) population can avail equitable health services by paying just Rs.1 per day for the entire family.

### Target 3.a Strengthen the implementation of the WHO Framework Convention on Tobacco Control in all countries, as appropriate

The State will activate flying squads, up to the block level, for law enforcement and to implement all the recommendations of WHO-FCTC. A plan to expand the National Tobacco Control Program (NTCP) in all the districts of the State will be put in place, and the monitoring of tobacco use and tobacco control activities on an annual basis will be ensured.

### Target 3.b To support the research and development of vaccines and medicines for communicable and non-communicable diseases

Programme implementation evaluation (operations research) by independent agencies and research institutes will be encouraged. Linkages with academic institutes and medical colleges will be established so that, the physical and financial progress of the programme can be reviewed by academicians/students. A concurrent evaluation of the progress of SDG-3 will also be undertaken.

### Target 3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce (Health+ Ayurveda)

The State will ensure optimum utilization of human resources (HR) and infrastructure. It is proposed that, a performance based appraisal system of HR will be introduced, in order to promote performance based incentives.

### Target 3.d Strengthen the capacity for early warning, risk reduction and of local, national and global health risks

Thematic health promotion approaches will be followed in the State for effective IEC and BCC.



## Indicators statement for monitoring the progress

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicator	State Indicator				
3.1	By 2030, reduce the maternal mortality ratio to less than 70 per 100,000 live births	3.1.1 Maternal mortality ratio	3.1.1 Maternal mortality ratio	Himachal Pradesh: 63 deaths (absolute numbers) in 2015-16. As per the available estimates the State has already achieved this target.	To reduce maternal deaths in absolute numbers <45	To reduce maternal deaths in absolute numbers to 25	H/MIS/NHM/DHS
		3.1.2 Percentage of births attended by skilled health personnel (period 5 years)	3.1.3 Percentage of births attended by skilled health personnel	Institutional deliveries – 84.21%  86% of total births are institutional and 14.58% of total home deliveries are attended by Skilled Birth Attendants (SBA)  Reported and designated delivery points (DDP) – 87/707 Health Institutes (HI),  NAS (108) ambulance -198 Full ANC (Antenatal Check up) - 83%.	Ensure 90% births attended by SBA or institutional deliveries	100 percent institutional delivery	NHM/NFHS/DLHS
3.2	By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	3.2.1 Under-5 mortality rate	Under-5 mortality rate	Himachal Pradesh: Under -SMR-42, NMR-25 and IMR-28	Reduction in Under-5 mortality from the existing level to 30	Reduction in Under 5 Mortality to <10	SRS/NFHS/NHM
		3.2.2 Neonatal mortality rate	Neonatal mortality rate	There are 13 Sick Newborn Care Units (SNCU), 49 Newborn Stabilizing Units (NBSU), and 120 Newborn Care Corners (NBCC) are functional. The State has a meticulous plan for diarrhoea & pneumonia management, and the management of malnutrition	Reduction in Neonatal mortality rate from the existing level to 15	Reduction in Neonatal Mortality rate down to 5-10	
3.3	By 2030, and the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	3.3.1 Number of new HIV infections per 1,000 uninfected population	Number of new HIV infections per 1,000 uninfected population	Incidence of HIV infection: HIV prevalence rate - India 0.26% (2015) Himachal Pradesh 0.12% (2015)	90% coverage under ART	100% coverage under ART	NACO/SACS
		3.3.2 Tuberculosis (TB) incidence per 100,000 population	Annual Parasite Rate (APR) per 1,000 population	Incidence of TB cases: India-217, and Himachal Pradesh: 209 (2016)	Zero transmission of HIV from mother to child	Zero transmission of HIV from mother to child Sustain the HIV prevention activities	NHM/DHS
3.3	By 2030, and the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	3.3.3 Malaria incidence per 1,000 population	Number of people will be monitored against dengue only, as the state doesn't fall under tropical region	API Rate (positive slides per 1000) - India: 0.85/1000, and H.P. <0.1/1000	Sustain the HIV prevention activities	Reduce TB incidence to <20/lakh	WHO/State
		3.3.4 Viral hepatitis (including A & B) incidence per 100,000 population	HIV Prevalence rate	The latest survey conducted in district Lahaul & Spiti by IGMC shows a prevalence of 23%, which is alarming. More data and analytical studies will be consulted to confirm these findings. The state has decided to administer Hep. B vaccine to all age groups in Lahaul & Spiti	Reduce TB incidence <100/lakh	Sustain the effort and ensure zero transmission of API	DHS/NHM/NVBDGP
3.3	By 2030, and the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	3.3.5 Dengue: case fatality ratio(CFR)					
		3.3.6 Number of Chikungunya cases					
3.3	By 2030, and the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	3.3.7 Number of new cases of Kalaazar/V Leishmaniasis					
		3.3.8 Number of new cases of lymphatic Filariasis(LF)					
3.3	By 2030, and the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	3.3.9 The proportion of grade-2 cases amongst new cases of Leprosy					
		3.3.10 HIV Prevalence rate					

## Indicators statement for monitoring the progress

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicator	State Indicator				
3.4	To reduce the premature mortality due to NCDs (Non communicable diseases) by a third by 2030 (prevalence and treatment and to promote mental health and well being)	3.4.1 Number of deaths due to cancer	Mortality rate attributed to CVD, cancer, diabetes or chronic respiratory disease	India: CVD - 26%, diabetes- 2%, respiratory disease - 13%, cancer - 7 %, only national estimates are available, no State level data is available	Implement of the compressive NCDs prevention programme in the state as per GoI guidelines	To reduce the prevalence of NCD risk factors by a third	WHO/GOI State
		3.4.2 Suicide mortality rate 3.4.3 . Percentage distribution of leading cause group of death	Suicide mortality rate Prevalence of anaemia in population				
3.5	Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	3.5.1 Percentage of adults (15+ years) who have had at least 60 millilitre or more of pure alcohol on at least one occasion weekly (approximately equivalent to standard alcoholic drinks)	Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and after care services) for substance use disorders	Treatment for substance use disorder: India-13.1% <20 years (child line), and Himachal Pradesh is about 20-25% (IGMC)  Prevalence of alcohol use: 29.2% men in the age group of 15-49 years use alcohol in India and 39.7% men 15- 49 years) use alcohol in Himachal Pradesh (NFHS-4)	Ensure de-addiction facility up to CHCs and PHC levels and to ensure quality of services at all level	To ensure awareness/enforced of the existing regulations  To access the impact of the innovations  Operationalization of the road map with the Excise, Police- Department and NGOs to minimise the use of harmful alcohol	DHS/NHM
		3.5.2 Number of persons treated in de-addiction centres 3.5.3 Percentage of population (men(15-54 years) & women(15-49 years)) who consume alcohol					
3.6	By 2020, halve the number of deaths and injuries from road traffic accidents	Death rate due to road traffic Accidents	Death rate due to road traffic injuries	Nationally there are 400 deaths in a day, where as in the State there are 1,000 deaths per year/approximately 3-4 deaths per day	To ensure dedicated trauma care services up to CHC level and quality services in all centres	To ensure dedicated trauma care services up to PHCs level by 2024, and quality services in all health facilities	State/GOI
3.7	By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health in to national strategies and programmes	3.7.1 Percentage of currently married women (15-49 years) who use any modern family planning methods	Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods	TFR (Total Fertility Rate) in Himachal Pradesh is 1.7  Total unmet need is 15.7%  Prevalence of adolescent pregnancies: India-10% (WHO), Himachal Pradesh 1.1% (NFHS-3)	Reduction in unmet need by 10%,  To ensure the 3 year gap between the birth of two children (to reduce sibling rivalry and improve maternal health)  Strengthening the existing ARSH clinic	Reduction in unmet need to <5% by 2025  To expand the ARSH clinic to all PHCs level by 2024  To ensure the optimum utilisation of the clinics with quality services	NFHS/ NHM
		3.7.2. Percentage of women aged 15-19 years who were already mothers or pregnant	Annual number of births to women aged 15-19 years per 1,000 women in that age group				
		3.7.3 Percentage of institutional births (5years/1 year)	Percentage of institutional births (5years/1 year)				
			Proportion of delivery attended by skilled health personnel				
3.8	Achieve universal health coverage (UHC), including financial risk protection, access to quality essential health-care services and access to safe, effective,	3.8.1. Percentage of currently married women (15-49 years) who use any modern family planning methods	Percentage of children aged 12-23 months who received the three doses of pentavalent vaccine before their first birthday	Full immunization (9 months) 99.5% in Himachal Pradesh  In the State > 76% population protected under Health insurance (against OOP Expenditure), whereas national level it is <20%.	100% immunization and the same will be retained.  100% coverage of entire population under Health Insurance scheme and the same will be sustained	To achieve 100% protection against catastrophic expenditure on Health	NFHS/RSBY /NHM



## Indicators statement for monitoring the progress

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicator	State Indicator				
3.8	quality and affordable essential medicines and vaccines for all.	3.8.2. Percentage of TB cases successfully treated (cured plus treatment completed) among TB cases notified to the national health authorities during specified period	Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods	Currently, RBSK (Rashtriya Bal Suraksha Karyakram), JSKK (Janani Shishu Suraksha Karyakram), RSBY (Rashtriya Swasthya Bima Yojna), Mukhya Mantri State Health care Scheme, and Universal Health Protection Scheme are being implemented	Population based screening, including for cervical cancer, of all NCDs		
		3.8.3. Percentage of people living with HIV currently receiving ART among the detected number of adults and children living with HIV	Percentage of women aged 15-49 years with a live birth in a given time period who received antenatal care, four times or more	Full immunization (9 months) 99.5% in Himachal Pradesh	Achieving 100% immunization and sustain the same		NFHS/HMIS /DHS
		3.8.4. Proportion of population in age group 15-49 years who are currently taking antihypertensive medication among age group 15-49 with systolic blood pressure > 140mmHg, or with diastolic blood pressure > 90mmHg	Percentage of children aged 12-23 months who received the three doses of pentavalent vaccine before their first birthday				NFHS/HMIS
		3.8.5. Proportion of population age group 15-49 years who are currently taking medication for diabetes (insulin or glycoemic control pills) among number of adults 15-49 years who are having random blood sugar level - high (> 140 mg/dl)	Percentage of population using safely managed drinking water services and percentage population using safely managed sanitation services				NFHS/ Census
		3.8.6 Proportion of women aged 30-49 years who report they were ever screened with cervical cancer and the proportion of women aged 30-49 years who report they were screened for cervical cancer during the last 5 years 3.8.7 Prevalence of current tobacco uses among men and women aged 15-49 years 3.8.8 Total physicians, nurses and the midwives per 10000 population					
3.9	By 2030, substantially reduce the number of deaths and illness from hazardous chemicals and air, water and soil pollution and contamination	3.9.1 Mortality rate attributed to unintentional poisoning	Households using polluting fuel / non-polluting fuels for cooking	There have been 3383 deaths due to water contamination (diarrhoea and typhoid) and 1,17,01755 diarrhoea cases were reported in the country in 2012	There is no specific data on deaths and illness from hazardous chemicals and air, water and soil pollution and contamination.  Therefore, the target cannot be fixed. The State may plan to conduct a survey /study to retrieve the data to fix the targets accordingly		GOI/State
		3.9.2 Proportion of men and women reporting Asthma 15-49 years	Households having access to potable drinking water				Census /State /GOI

## Indicators statement for monitoring the progress

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicator	State Indicator				
3.a	Strengthen the implementation of the WHO Framework Convention on Tobacco Control in all countries, as appropriate	3.a.1 Prevalence of current tobacco uses among men and women aged 15-49 years	Age standardized prevalence of current tobacco-use among persons aged 15+ years	Prevalence of tobacco-use among population aged 15 years and older: India -38%, Himachal Pradesh -22%	Bring down tobacco-use among those aged 15 years and older from current level 22% to 17%	Bring down tobacco-use among those aged 15 yrs and older to <5%	GATS/NFHS
3.b	To support the research and development of vaccines and medicines for the communicable and non-communicable diseases.	3.b.1 Total net official development assistance to medical research and basic health sectors	OOP expenditure on health	NHM is funding small research projects  Currently, an Acute Coronary Syndrome(ACS) registry, Hep.B, Immunization studies are being undertaken	SDG-3 indicator will be reviewed periodically	SDG-3 indicator will be reviewed periodically	NFHS/NSS Q/RSBY DME/DHS/ NHM
3.c	Substantially increase health financing and the recruitment, development, training and retention of the health workforce (health+ Ayurveda)	3.c.1 Total physicians nurses and midwives per 10,000 population	Total net official development assistance to medical research and basic health sectors	Health worker density and distribution: 1HW/10,000, 1 ASHA/1,000, H.R 1 FHW/3,379, 1 ASHA /800	The skills of human resources will be enhanced as per the emerging needs		DHS
3.d	Strengthen the capacity for early warning, risk reduction and of local, national and global health risks	National indicator not yet evolved	No. of beneficiaries covered (Indicator: No. of Blocks/ Panchayats or villages, schools sensitized about risk management and mitigation)	H.PSDMA, Clean energy, Hospital manual  Public awareness, risk reduction, training of health professionals and others	To cover all sub-divisions/ blocks teams for the awareness/training / sensitisation	To cover all villages in the state for the awareness /training /sensitisation by 2024  To cover all schools upto 10+2 level for the awareness/ training/ sensitisation	State/GOI





SDG 4

*ENSURE INCLUSIVE AND  
EQUITABLE QUALITY  
EDUCATION AND  
PROMOTE LIFELONG  
LEARNING OPPORTUNITIES  
FOR ALL*





## Vision

To ensure inclusive, equitable, affordable and quality education at all levels including, computer literacy and vocational training for all and promoting lifelong learning opportunities.

### Himachal Pradesh today

- Net Enrolment Ratio at primary level is 99.42%, and upper primary level it is 99.44%
- Net Enrolment Ratio at Secondary and Higher Secondary levels are 66.26% and 51.19% respectively
- 2,99,218 Children attend various Early Childhood Care and Education (ECCE) centers
- Gross Enrolment Ratio in higher education is 35.46%
- Parity indices at Primary level is 0.91%, at Upper Primary it is 0.90%, at Secondary-it is 0.88% and Higher Sec. is 0.89%
- The availability of computers for pedagogical purposes are as follows:  
Primary- 2.23%, Upper primary-18.17%, Secondary- 51.14%, and Senior secondary -90.05%
- The availability of the Internet for pedagogical purposes are as follows: Secondary -21.67%, and Senior secondary - 64.44%
- School toilets for Children with Special Needs at the Elementary level is 21.52%, Secondary is 30.88%, and Higher secondary is 35.27%
- 100% schools have drinking water facilities
- The State Literacy rate is 82.80% and the literacy rate for the youth in the age group of 15-24 years is 96%

### Focus for tomorrow

- Achieve 100% Net Enrolment Ratio at both Secondary and Higher Secondary level
- Maintaining 100% Net Enrolment Ratio at primary and upper primary levels
- Enhance proportion of female-male enrolment in higher education from the current level to 50%
- Enhance Gross Enrolment Ratio for tertiary education to 40% from the current level
- 100% computer use for pedagogical purpose at all levels i.e. Primary, Upper primary, Secondary, and Sr. Secondary level
- Enhance internet use for pedagogical purpose 90% at Secondary, and Sr. Secondary level
- 100% availability of toilets for Children with Special Needs at all levels
- 95% students from class I to X will attain appropriate competencies
- Improve proficiency levels in terms of nationally defined learning outcomes at all levels
- Cover all teachers at all levels of education under training programmes
- Skill education in all eligible institutions as per (National Skill Qualification Framework)



SDG-4 calls for ensuring the completion of primary and secondary education by all boys and girls, and guaranteeing equal access to opportunities for access to quality technical and vocational education and lifelong learning for everyone.

In Himachal Pradesh, significant progress had been made in universalising primary education, with improvement in the enrolment and completion rates at both primary and elementary levels. As of 2016-17, the Net Enrolment Ratio in primary and upper primary education for boys and girls was 99.42% and 99.44%, respectively. The States' Policy as well as the Sustainable Development Goal 4 shares the goals of universal quality education and lifelong learning. The flagship scheme of the Central Government - Sarva Shiksha Abhiyan, is aimed at achieving universal quality education for all in the State, and is being complemented by targeted schemes on nutritional support, higher education and teacher training. To make the education more inclusive, the state government has introduced several scholarship programmes for the students of minorities and other vulnerable communities.

In 1971, there were 52 middle, 9 high schools and one degree college, when the state came into existence. Since then, the State has taken a big leap in the expansion of education facilities. Today the state has 18,925 Anganwadis for early childhood care and education, 12,840 Government elementary schools (10,732 primary and 2,118 upper primary schools) 925 Government high schools, 1,818 Government senior secondary schools and 12 District Institutes of Education and Training (DIETs). In addition, there are 2,981 institutions managed privately, including 598 primary, 793 upper primary 1021 high

schools and 526 senior secondary schools. Therefore, there is an adequate number of government and private institutions for higher education. Some of the leading institutions for higher education, such as six medical colleges, the Indian Institute of Advanced Studies, Shimla, the Indian Institute of Technology (Mandi), National Institute of Fashion Technology (Kangra), and the Indian Institute of Information Technology (Una), are meeting the objective of providing professional skills to youth. In addition, there are 17 private universities functional in the State.

The state has taken big strides in increasing access to education at all levels and basic literacy skills have improved tremendously. Both public and private sectors have created huge infrastructure in the education sector. However, quality of education has been a matter of concern. A large number of graduates and post-graduates lack employable skills. Conducive atmosphere and facilities for research and development are required. Besides these, gender equality at higher levels of education and meeting education needs of children of special categories remain a challenge.

The State Government recognizes that, as a policy intervention education is a force multiplier which enables self-reliance, boosts economic growth by enhancing skills, and improves people's lives by opening opportunities for better livelihoods. In view of this, the government of Himachal Pradesh pursues the approach of Education for Sustainable Development that empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society for present and future generations.







**Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets**

**Target 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes**

To ensure that all girls and boys complete free, equitable and quality primary and secondary education, the Government has several schemes and programmes, many of which are centrally sponsored schemes. For elementary education, there is the Sarva Shiksha Abhiyan, and the Kasturba Gandhi Balika Vidyalaya (KGBV), Mid-Day-Meal, Shiksha Bharat (in Chamba district) and the disability scholarship schemes/programmes.

For secondary education there is the Rashtriya Madhyamik Shiksha Abhiyan, ICT @ school, inclusive education for disabled, teacher education, incentives to girls for secondary education, pre and post-matric scholarships and a range of other central and state schemes to incentivize and support students to acquire secondary education.

**Target 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre primary education so that they are ready for primary education**

The Government has stressed the importance of linking pre-school education with formal school education to enhance the quality of education and learning. At present pre-school education is being imparted through anganwadi centres.

**Target 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university education**

National Skill Qualification Framework (NSQF) is an attempt to make available clear educational routes from school to higher education, by providing certification of vocational skills. Eleven trades have been introduced in 873 government schools and two trades in 12 colleges. However, enrolment for these trades have been low. There are adequate number of higher education and technical education institutes in the state. There are 47 colleges on per lakh population in the State which is higher than the national average of 28 colleges per lakh population. The number of universities has also increased over the period of time. There are 25 universities in the state for higher education.

**Target 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship**

- ICT @ SCHOOL
- Vocational Education (NSQF)
- B-VOC

**Target 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous people, children in vulnerable situations, and**

**Target 4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide a safe, non-violent, inclusive and effective learning environment for all**

Several schemes and programmes are being implemented by the State Government for the elimination of gender disparities in education and to ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous people and children in vulnerable situations.

Sarva Shiksha Abhiyan is an effort to universalize elementary education by community ownership of the school system. Under SSA focus has been on bridging all the gender and social category gaps at the elementary education level by 2010. Elementary education is provided as per the Right to Education Act. Under the Kasturba Gandhi Balika Vidyalaya (KGBV), residential schools have been established at upper primary level for girls belonging predominantly to the SC, ST, OBC and other minorities located in difficult and hard to reach areas. Similarly, the Maharishi Balmiki Chattravriti Yojna is providing scholarship to the bonafide Himachali girl students, studying in both government and private schools, belonging to Balmiki Families, whose parents are engaged in scavenging work. The above scholarships also conferred up to college level for studies and professional courses.

In order to enhance the interest and motivation of children of deprived sections of society, financial assistance is being given to the students whose parents/guardians are working as scavengers, tanners, flayers and waste pickers. The State is providing Pre-metric Minority Scholarship (Elementary) to the school-going children of persons belonging to Muslim, Sikh, Christian, Buddhist, Jain and Parsi communities.

Inclusive Education for Disabled at Secondary Stage (IEDSS) from class 9 to 12 mandates providing education to every Child with Special Needs (CWSN), irrespective of the kind, category and degree of disability. The aim of this scheme is to enable all students with disabilities to pursue



four years of secondary education, with inclusive and enabling environment, after completing eight years of elementary schooling. Integrating employability education into school education has ensured vocationalization of Secondary & Higher Secondary Education. The scheme is operated with in the National Skill Qualification Framework (NSQF), which established a system of clear educational pathways from school to higher education by providing certification of vocational skills.

#### Target 4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

Under Saakshar Bharat Abhiyan, it is proposed that, Adult Education Centres (Lok Shiksha Kendra) will be set up at the gram panchayat level for lifelong learning and providing an opportunity to neo-literate adults to continue education. Chamba district of Himachal Pradesh, which has a literacy rate of less than 50 percent, has been selected for the implementation of the Saakshar Bharat Abhiyan. In addition, 283 adult education centres have been set up (one for each gram panchayat) 566 preraks have been appointed to run these centres in 20. Adult Education Centres and Prerena and Prayas under SSA also cover numeracy skills.

#### Target 4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and Small Isl and Developing States

The State has 12 DIETs, 21 private institutes and 75 institutions for teacher training. Each year, about 2400 students enroll for a diploma in elementary education and 8,425 students enroll for the Bachelor of Education programme. In the Education department, there are two training institutes - SCERT, Solan and GCTE Dharmshala, which impart in-service training to school and college staff, in accordance with the State's Training and Development Policy, 2012.



### Challenges in achieving the targets

#### Target 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

- Teachers are trained in mono-grade situations to teach primary classes; however, in many schools they have to teach in multi-grade situations. This presents a challenge for the teachers, in terms of making teaching joyful

- There are approximately 700 single teacher primary schools
- In upper primary and secondary schools, there are a number of vacancies of subject specific teachers
- Lack of women teachers in rural areas
- Shortage of non-teaching staff in secondary and higher secondary schools and in institutions of higher education
- Lack of peer group learning in class
- Insufficient expansion of school facilities
- Lack of regular recruitment of teachers as per requirement
- Limited use of ICT in classroom transactions
- Poor quality of school education
- Delayed release of funds by the Central Government and delay in its distribution to institutions

#### Target 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education, and

#### Target 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university education, and

#### Target 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

- The enrolment criteria i.e. a minimum number of students (25) per trade for introducing a vocational education is a big challenge.
- Lack of infrastructural facilities in schools
- Lack of facility of vocational Education under B.Voc.
- Insufficient academia-industry linkages

#### Target 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous people, and children in vulnerable situations

There is a lack of infrastructural facilities like ramps, facilities for children with special needs (CWSN) and child-friendly toilets. There is a need to introduce specialized courses for differently abled persons under the skill development project.

### **Target 4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve numeracy**

Himachal Pradesh is below the national average in learning outcomes. Less than half the children presently in Class III can read with comprehension a Class II level text. A little over half the students of Class V can solve a simple division problem. Around 40 percent of students in Class VIII cannot solve a simple division problem.

### **Target 4.7.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environment for all.**

In most schools, there is lack of Children with Special Needs (CWSN) friendly toilets and ramps. Separate toilets for girls are also absent in many schools. Besides this, a large number of schools do not employ qualified special educators as per disability and have inadequate infrastructure facilities.

### **Target 4.7.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States**

Currently, there exists no linkage between SCERT and DIETs, with each functioning under the control of a different Director. Training in communication skills, for students are lacking and there is also a paucity of subject specific teachers.



## **Strategies for success**

### **Target 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes,**

&

### **Target 4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy**

The State will work towards achieving a 100 percent success rate for students of Class I to X, with grade level competencies, by effective implementation of existing infrastructural norms within the Right to Education Act 2009 and will develop norms for learning outcomes.

Students struggling academically will be identified and shall be provided with remedial instructions. Steps will be taken to improve teaching standards in schools, create mechanisms for supporting children through special academic support services and widen access to multiple sources of knowledge including e-Resources.

The State Government has focused on defining and increasing learning outcomes and enhancing early grade reading, writing, comprehension and mathematical skills through the Prerana and Prayas programmes. These programmes try to improve learning outcomes by enhancing early grade reading, writing, comprehension and mathematical skills. Apart from this ICT labs have been established to link ICT with quality education to improve learning outcomes.

### **New schemes proposed to achieve the targets**

- Creation of infrastructure to establish ICT labs and smart classrooms from Class VI onwards
- Establishment of mathematics labs in schools, Class VI onwards
- Installation of e-Portal for teacher training under SSA/RMSA
- CCTV cameras & bio-metric machines will be installed
- Reading and spoken labs may be introduced to increase reading/pronunciation skills
- Provision of video and satellite communication facilities in schools

### **Target 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.**

Early childhood years are of critical importance and are the period when a child's mental and physical development is the highest. The Government is convinced about the importance of linking pre-school education with formal school education, to enhance the quality of education and learning. At present, pre-school education is being imparted through anganwadi centres, which lack trained teachers who can deal with pre-school students. To meet the gap of learning at the preschool level, the State Government is planning to integrate early child education with formal school education.





### **Target 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university education**

All departments will work together to ensure that the crosscutting nature of gender issues is addressed, beginning with education. The Government is dedicated to eliminating gender disparity in schools and ensuring 100 percent NER at the elementary level.

- Gender sensitization of parents will be a key factor in addressing this issue
- Parents of girl students will be sensitized through camps and electronic and print media
- Out of school children will be enrolled in non-formal education
- More schools will be upgraded for school-going girls to increase the access and reach of education.
- A module on menstruation and personal hygiene will be developed and implemented, in addition to establishing guidance counsellors and counselling centres in senior secondary schools

#### **New schemes to achieve the targets**

- In vocational education, more courses will be introduced in schools and colleges, as per market demand. Currently, the department has introduced undergraduate degree course in B.Voc in 12 colleges. These will be introduced in more colleges.

### **Target 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.**

To foster skill development, existing programmes within the school system will be reoriented for gainful employment of students and help them to develop entrepreneurial skills. Vocational education will be introduced in all government senior secondary and secondary schools with at least one trade skill.

As envisaged in the National Skill Development and Entrepreneurship Policy 2015, skill development programmes will be integrated in more schools to achieve a target of 50 percent. A plan for the creation of skill-based trade schools will be prepared, to improve employment opportunities for secondary school students, with a special focus on community needs.

To facilitate greater social acceptability, as well as vertical and horizontal mobility of students studying skill-based trades, skill-based programmes at the secondary education level will be integrated within mainstream educational facilities. Institutional mechanisms will be created for the certification of skills through multiple entry and exit options.

Vocationalization of schools will be carried out in a phased manner to achieve the targets listed in the vision document. Market driven vocational courses will be initiated in a phased manner and vocational labs will be strengthened and upgraded. The department will ensure the establishment of functional ICT labs in the remaining schools in a phased manner; the maintenance of ICT labs will be ensured.

### **Target 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous people, and children in vulnerable situations.**

The gender disparity is a critical cross cutting equity issue. The Government has taken initiatives to remove gender disparities in school education; these have contributed to improving female literacy. There remains, however, a significant differential in literacy rates; it is 89.53 percent for males and 75.93 percent for females. The Government is committed to bridging this gap by 2030.

- Parents/Community will be sensitized through camps and through multimedia to remove gender disparity and issues related CWSN.
- More model schools will be established with all facilities like all streams, vocational education, ICT labs and sports, library facilities, etc.
- More model inclusive schools with residential facility will be established to provide access to CWSN.
- Provision of home-based tutors for CWSN will be made under SSA and RMSA.
- Vocational training for the vulnerable women and CWSN will be introduced through vocational education.

### **Target 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including among others, through education for sustainable development and sustainable life styles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity,**

**&**

### **Target 4.7.a Build and upgrade education facilities that are child, disability and gender sensitive and provide a safe, non-violent, inclusive and effective learning environment for all.**

- Language learning tools and e-Basta will be rolled out in schools to improve the language skills and to reduce the burden of physical books
- Virtual labs: access to online-labs for students to experiment with their ideas without risk
- Online support to enhance the learning of students through interactive portals

- Providing computer labs to foster interactive communication in the class room and the use of ICT
- Establish and improve infrastructural facilities for a congenial environment, to meet teaching needs, and for sports and co-curricular activities
- Establish two Model Schools in each legislative assembly constituency to build quality
- Establish integrated science labs in all schools
- Build capacities of science, mathematics and language teachers to improve their domain knowledge and skills, including through video conferencing, web portals and structured training

**Target 4.7.c By 2030, substantially increase the supply of quality teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States**

- Recruitment of teaching and non teaching staff: Vacancies in educational institutions and all positions of Head Teachers and Principals will be filled through fresh recruitment, through open competition, giving equal opportunities to all eligible candidates. Leadership training for head teachers and Principals will be made mandatory. Fair, equitable and transparent norms will be developed for the deployment of teachers; the norms will be available in the public domain.
- Interventions will be put in place to curb teacher absenteeism and eliminate teacher vacancies, and to enhance teacher accountability. Powers to monitor the primary schools will be vested in School Management Committees (SMCs). Disciplinary powers will be given to Head Masters/Principals in the case of upper primary and secondary schools, for enforcement of policies on absenteeism and indiscipline. These measures will be strengthened with technological tools for recording attendance through mobile phones and biometric devices and surveillance through CCTV cameras.
- Special emphasis will be laid on improving the effectiveness of programmes for the initial preparation and continued professional development of teachers. Diploma and graduate level education programmes as well as teacher training institutions will be reviewed for changes in duration, pattern, structure and curricula, as well as delivery methods to overcome existing limitations. The SCERT will be strengthened.
- Accreditation will be mandatory for teacher education institutions (government & private), such as District Institutes of Education and Training (DIETs), and B.Ed. Colleges. Teacher development programmes will have components to help teachers appreciate the importance of co-scholastic activities, especially life skills, ethical and physical education and arts and crafts. These components will be introduced into the teaching-learning process in

schools. Programmes for enhancing the capacity, motivation and accountability of teachers deliver quality education and improvements in learning outcomes of students will be accorded priority. It will be mandatory for all in-service teachers to participate in training/professional development programmes, once in every five years. The Education Department, SCERT and DIETs will make adequate arrangements to train all in-service teachers within a period of three years by leveraging technological tools.

- Induction training is mandatory for all newly recruited teachers. All training undertaken by the teacher would be entered in the PMIS records of the teacher in order to avoid duplication of training (This training has to be completed in the first vacation).

### Community partnership

The SMC is the basic unit of the de-centralized model of governance and ensures the active involvement of parents and community in the functioning of the school. The SMC prepares and implements the school development plan and monitors teacher attendance, mid-day meal (MDM), utilization of funds and grants received from the Government, execution of civil works and the preparation of the school activity calendar, with help from the school administration.

### Policy changes required for achieving all the targets under SDG-4

- Pre-primary education will be part of general education, for which defined standards will be evolved. Elementary and secondary education will be integrated under one umbrella (Classes I- XII)
- At least 25 percent of staff in government schools will be women
- The vacancies of teachers on long leave, including maternity and child-care leave will be filled. Vocational education will be part of secondary education. At present it is an optional subject and most students do not get an opportunity for skill development.





## Indicator statement for monitoring the progress

SDG	Target	Indicators	Current Status		Target By 2022	Target By 2030	Data Source	
4.1	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	4.1.1 Net Enrolment Ratio (NER) at primary/ upper -primary levels	The NER at primary level is 99.42% In upper primary level it is 99.44%		100%	100%	UDISE	
		4.1.2: Adjusted NER in secondary and Higher Secondary education	Secondary and Higher Secondary NER is 66.26% and 51.19%, respectively		Secondary- 80% Higher Secondary- 60%	100% 100%	UDISE	
		4.1.3 Gross Enrolment Ratio (GER) Higher Secondary	Secondary-103.84% Higher Secondary-91.97%		100% Already reached and maintained	100% Already reached and maintained	UDISE	
		4.1.4 Percentage of students in grade -III, V, VIII and X achieving at least a minimum proficiency level in terms of nationally defined learning outcomes to be attained by pupils at the end of each of the above grades	Subject	Number of children achieved >50% in 2015-16				NAS
			Class - III					
			Hindi	49%	60%	65%		
			English	51	60	65		
			Math	54	65	70		
			EVS	56	65	70		
			Class - V					
			Hindi	66	75	80		
			English	54	65	70		
			Math	63	75	80		
		EVS	73	78	80			
		Class - VIII						
Hindi	55	62	65					
English	32	40	45					
Math	11	20	25					
Science	49	60	65					
SST	34	45	50					
Class - X								
English	3%	30%	50%					
Maths	10%	35%	60%					
Science	13%	40%	65%					
Social Science	26%	45%	60%					
Hindi	57%	70%	75%					
4.1.5 Gross intake ratio to the last grade (primary, upper primary and secondary)	Data not available							
4.1.6 Proportion of students in grade 1 who reached the last grade or primary/ upper primary/ secondary	Proportion of students starting from Grade I who reach the last grade at the primary and upper primary level is 98.56% and 98.14% and at the secondary/senior secondary levels, it is 95.07% and 82.50% respectively		100%	100%	UDISE			
4.1.7 Out-of-school ratio (primary/ upper primary/ elementary, secondary and higher secondary)	Total number of children who are out-of-school in the State is 5,799 at the elementary level and 1,958 at the secondary & higher secondary level		60% out-of-school children will be enrolled in schools	100% out-of-school children will be covered	UDISE			
4.1.8 Number of years (free and ii) compulsory education guaranteed in legal framework	The State has been providing free and compulsory education to all eligible students.		Effective implementation of education guaranteed in legal framework will be ensured.		HP Directorate of Elementary Education			

## Indicator statement for monitoring the progress

SDG	Target	Indicators	Current Status	Target By 2022	Target By 2030	Data Source
4.2	By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	4.2.1 Participation rate in organized learning one year before official primary school entry	2,99,218 Children attending various Early Childhood Care and Education (ECCE) centres			WCD
		4.2.2 Gross early childhood education enrolment ratio	45% covered under early childhood education			WCD dept.
4.3	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	4.3.1 Participation rate of youth and adults in formal and nonformal education and training in the previous 12 months	8,375 Youth participation in non formal education and training			
		4.3.2 Proportion of male-female enrolled in higher education, technical and vocational education	Male-female enrolled in higher education, has been 36.7%. One of the 7 states in India where women outnumber men in higher education.	Enhanced to 45%	Enhanced to 55%	AISHE
				Enhanced to 100%	Enhanced to 100%	Technical Education
		4.3. GER for tertiary education	GER in higher education is 35.46%	Enhanced to 40%	Enhanced to 50%	NITI Aayog
4.4	By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	4.3.1 Participation rate of youth and adults in formal and nonformal education and training in the previous 12 months	8,375 Youth participation in non formal education and training	Non formal education and training programme has been extended upto December 2017 based on evaluation reports the programme may be extended	Enhanced to 55%	AISHE
4.5	By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous people, children in vulnerable situations	4.4.1 Students enrolled under IP subject in secondary and highersecondary education	Students enrolled in ICT in schools 12,840 primary schools - nil 623 secondary schools - 1,73,480 students 1,517 higher secondary schools - 1,52,000 students	6,000 primary upper primary schools 607 - Senior secondary schools will be covered under ICT @ school scheme	6,840 Primary/ upper primary schools	Dept. of Education
4.6	By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve and numeracy	4.5.1 Enrolment ratio of children with disability	Elementary level 11,956 students Secondary + higher secondary 2,734 students	100%	100%	U-DISE
		4.5.2 parity indices	Primary - 0.91% Upper primary - 0.90% Secondary - 0.88% Higher Sec. - 0.89%	Gender disparities at all levels will be eliminated 100%	The status will be maintained 100%	U-DISE Census



## Indicator statement for monitoring the progress

SDG	Target	Indicators	Current Status	Target By 2022	Target By 2030	Data Source
4.7	By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including among others, through education for sustainable development and sustainable life styles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	4.6.1 Literacy rate of youth in the age group of 15-24	Literacy rate of youth in the age group of 15-24 years 96% (2011)			
4.a	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environment for all	Proportion of schools with access to (a) electricity, internet for pedagogical purpose, computers for pedagogical purposes, adapted infrastructure and materials for students with disabilities, basic drinking water, single sex basic sanitation facilities and basic hand wash facilities (as per the WASH indicators definitions)	<p>Electricity</p> <p>Primary- 99.91%</p> <p>Upper primary -99.66%</p> <p>Secondary-99.46%</p> <p>Senior secondary -100%</p> <p>Computer for pedagogical purposes</p> <p>Primary- 2.23%</p> <p>Upper primary -18.17%</p> <p>Secondary- 51.14%</p> <p>Seniorsecondary -90.05%</p> <p>Internet for pedagogical purposes</p> <p>Secondary -21.67%</p> <p>Seniorsecondary -64.44%</p> <p>Adapt infrastructure and materials for students who are differently-abled</p> <p>100% facilities to students who are differently-abled</p> <p>70% 90% Secondary -21.67%</p> <p>Senior secondary -64.44%</p> <p>Basic drinking water facility 100% of schools have basic drinking water facility</p>	<p>100%</p> <p>Primary-25%</p> <p>Upper primary-30%</p> <p>Secondary-100%</p> <p>Senior secondary-100%</p> <p>70%</p> <p>100%</p>	<p>100%</p> <p>Primary-100%</p> <p>Upper primary-100%</p> <p>Secondary-100%</p> <p>Senior secondary 100%</p> <p>90%</p> <p>100%</p>	UDISE

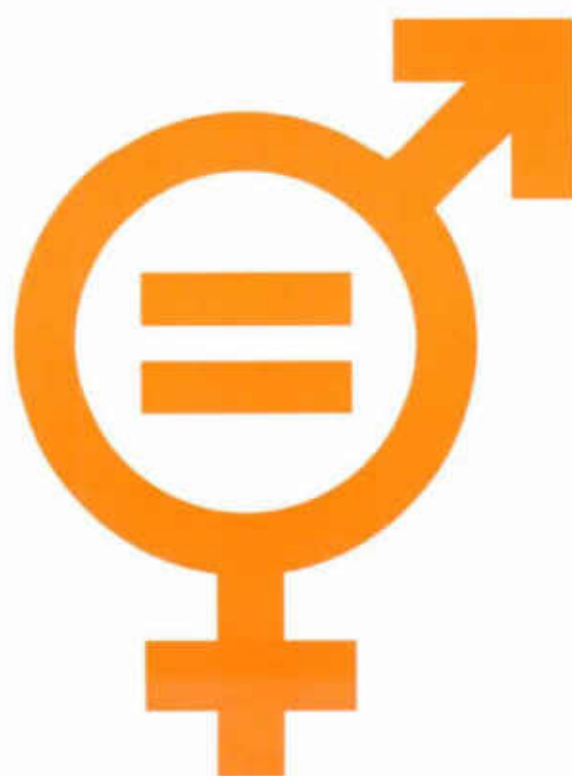
## Indicator statement for monitoring the progress

SDG	Target	Indicators	Current Status	Target By 2022	Target By 2030	Data Source
			<b>Basic sanitation facilities</b> Primary: Boys - 99.93% <b>Girls -100%</b> Upper primary: Boys - 99.95% <b>Girls -100%</b> Secondary: Boys- 99.95% <b>Girls -100%</b> Senior secondary: Boys- 99.48% Girls-98.84%	100%	100%	
			<ul style="list-style-type: none"> <li>• Toilets for Children With Special Needs</li> <li>• Elementary-21.52%</li> <li>• Secondary-30.88%</li> <li>• Highersecondary-35.27%</li> </ul>	100% Elementary- 50% Secondary-50% Higher secondary - 35.27%	100% Elementary- 100% Secondary-100% Higher secondary- 100%	
4.b	By 2020, substantially expand globally the number of scholarship available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries	National indicators not yet evolved				
4.c	By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	4.c.1: Proportion of trained teachers, by education level (pre – primary, primary, upper primary, secondary and higher secondary education)  4.c.2: Pupil/trained teacher ratio (PTR) by education level	<b>Number of trained teachers</b> <b>Unit</b> <b>Year 2016-17</b> Primary- 25,083 Upper primary- 17,408 Secondary- 9,217 Higher secondary- 14,173 <b>Total</b> <b>65,881</b>	Training of 100% of teachers will be ensured	Training of 100% of teachers will be ensured	UDISE
			<b>PTR</b> <b>Unit</b> Primary - 12.40 Upper primary - 3.24 Secondary - 18.68 Higher secondary - 12.19	Maintained	Maintained	UDISE



SDG 5

*ACHIEVE GENDER  
EQUALITY AND  
EMPOWER ALL  
WOMEN AND GIRLS*





## Vision

Achieving gender equality and empowering all women and girls, and enabling them to participate in the decision making and development process.

## Himachal Pradesh today

- The Female literacy rate is 78.93%
- The dropout rates at the elementary level is 3% and higher secondary is 7%
- Child Sex Ratio (0-6) to 915 per 1000 male child
- Female life expectancy at birth is 75.2 years
- The Male female sex ratio is 972 per 1000
- 21.3% of employees in the Government sector, including local bodies and public undertakings are women
- A Women's Helpline and One Stop Centre for women who are victims of violence is functional in one district
- All-women police stations are functional in five districts
- 20.19% women serve in the Armed Police Force
- 5.8% seats held by women in the State Legislative Assembly

## Focus for tomorrow

- 100% enrolment and retention of girls in schools at the elementary level
- Increase the Child Sex Ratio (0-6) to 950 per 1000 male child
- 190 days maternity benefit to all women in the organized and unorganized sectors and 90 days of paternity leave for men
- Women police stations in all the districts
- 100% CCTV cameras night buses
- Fully operational Women's Helpline and One Stop Centre in all districts for women who are victims of violence
- Increase in the number of women drivers and conductor in HRTC buses beyond 3%
- Increase number of women representatives in the State Legislative Assembly





All Sustainable Development Goals have strong and inbuilt linkages with gender equality and empowerment of women. In fact, women's empowerment is a precondition to achieve the targets defined under various SDGs like poverty eradication, reduce inequality, health and wellbeing for all, decent work and economic growth among others.

As far as Himachal Pradesh is concerned, the State has been striving to end all forms of discrimination against women. The important indicators such as female literacy (78.93%), female life expectancy at birth (75.2), sex ratio (972 per 1000), dropout rates at elementary (3%) and higher secondary (7%), crime against women etc. suggest that Himachal Pradesh has been placed at a better vis-à-vis many other states. The State government is committed for effective enforcement of the laws meant for protection and promotion of women's rights. However, some incidence of discrimination against women in the State still remain an issue despite various policy and legislative reforms being undertaken at all levels.

The Government of India has identified ending violence against women as a key national priority and so as the state. Several schemes such as 'Beti Bachao Beti Padhao' initiative aims at providing access to education for girls in India. In addition, specific interventions on female employment, programmes on the empowerment of adolescent girls, the 'Sukanya Samridhi Yojana' on girl child prosperity and the 'Janani Suraksha Yojana' for mothers advance government's commitment to gender equality. A large number of central and State schemes and programmes focussed on protecting and promoting women's rights are being implemented in the state.

Women's representation at local government level is more than 50% in the state. Further, the State government is also trying to ensure that women participate equally and are adequately represented at all levels of State leadership and decision-making in economic, political and social aspects of life. One of the possible reasons as to why women are still lagging behind socially and economically in the State is perhaps they do not have enough representation of their own in governmental and political positions to raise their concerns and grievances on their behalf. A large number of government programmes aims at ensuring easy access of women and girls to reproductive and sexual rights in accordance with the 'Beijing Declaration and Platform for Action and International Conference on Population and Development'. The State government has been stressing upon the need to formulate and execute social reforms to allow women to have equal ability to access economic resources, financial services, and ownership and control of properties such as lands and homes.

The government of Himachal Pradesh is committed to undertake necessary amendments in the provisions of specific laws/policies/schemes ensuring mainstreaming of SCs/STs/women and also to repeal the old and redundant provisions and introduce more relevant provisions for promoting sound policies and executable legislation to enhance gender equality and girl and women empowerment at all levels.





### Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

The Government of Himachal Pradesh is implementing schemes/programmes to promote equality and women's empowerment.

#### **Mukhya Mantri Kanyadan Yojana**

A marriage grant of Rs. 40,000 is given to the parents/guardians of the girls or to the girl to solemnize her marriage, provided the annual income does not exceed Rs. 35,000.

#### **Window/Destitute/Single Woman Pension Scheme**

Pension at the rate of Rs 650 per month is provided to widows, destitute women (legally separated from husband) and single women above 45 years of age, whose annual income does not exceed Rs 35,000.

#### **Widow Re-Marriage Scheme**

The scheme is for rehabilitation of young widows, encouraging them to remarry. Under the scheme, an amount of Rs 50,000 is provided as a grant to the couple.

#### **Mother Teresa Asahay Matri Sambal Yojana**

Under this scheme, Rs 4,000 per child, per annum, is given to destitute women belonging to BPL families or to those with annual income less than Rs 35,000 for the maintenance of their children, till they attain the age of 18. The assistance is provided for two children.

#### **Self-employment scheme for women**

Rs 5,000 is provided as grant-in-aid to women whose annual income is less than Rs. 35,000, for carrying out income generating activities.

#### **State homes**

For destitute women, a State home is being run at Mashobra (Shimla) by the Department of Women and Child Development. Inmates are provided free education, clothing and boarding and lodging facilities, and training in vocational trades is imparted. For their rehabilitation, when they leave the State home, financial assistance of Rs. 20,000 is provided.

#### **Mahila Kalyan Board**

The Mahila Kalyan Board has been constituted, under the Chairmanship of the Chief Minister, with Cabinet Ministers and administrative secretaries of relevant departments, and 102 social workers as members. Its mandate is to make recommendations for policies, acts, and rules, relating to the security, safety, development, empowerment and welfare of women.

#### **Women's Development Corporation**

A Women's Development Corporation has been set up to assist vulnerable women to avail loans from banks at low rates of interest, for self-employment ventures. Upto March 2016, there were 414 beneficiaries and a total of Rs 344.50 lakhs was made available, in loans<sup>1</sup>.

#### **State Commission for Women**

The State Commission for Women has been set up for redressal of grievances of women related to harassment and dowry, and to make them aware about their legal rights. It provides counselling services and legal aid to women, and looks into complaints of violence and atrocities against women. The Commission has a chairperson and nominated members who are educationists, social workers, NGOs, environmentalists and jurists. At present it has four non-official members.

#### **Beti Hai Anmol**

To change negative family and community attitudes towards the girl child at birth, and towards her mother to improve enrolment and retention of girls, post birth, a grant of Rs. 10,000 and scholarships ranging from Rs. 2,250 to Rs. 4,500 are provided from class I to class XII, for two girls per family, for those belonging to BPL families.

#### **Kishori Shakti Yojna**

This scheme is being implemented to improve the nutritional and health status of girls in the age group of 11-18 years; to provide the required literacy and numeracy skills through non-formal education to train and equip them; to improve/upgrade home-based and vocational skills and to promote awareness of health, hygiene, nutrition and family welfare, home management/child care; and to take measures to facilitate their marrying only after attaining the age of 18 years and if possible, even later. The scheme is being implemented in Shimla, Sirmaur, Kinnaur, Mandi, Hamirpur, Bilaspur, Una and Lahaul & Spiti districts.

<sup>1</sup> Department of Social Justice & Empowerment, Govt of Himachal Pradesh, (2015-16), "Administrative Report".



### **Rajiv Gandhi Scheme for Empowerment of Adolescent Girls**

In order to improve the health and nutritional status of the adolescent girls in the State, a Centrally Sponsored Scheme has begun in Solan, Kullu, Chamba and Kangra districts. Its nutritional component covers out-of-school adolescent girls and it has non-nutritional components as well.

Under the nutritional component, two groups of girls are being covered: out-of-school adolescent girls (11-14 years) and all AGs (15-18 years), school going and out-of-school. The non-nutritional component covers out-of-school girls in the age group of 11-18 years and helps these girls by providing them with IFA supplements, health check-ups, nutritional and health education and life skills education.

### **Mata Shabri Mahila Sashaktikaran Yojna**

This scheme is for women belonging to BPL families of SC and ST categories, with annual income up to Rs. 35,000 per annum. Under the scheme, 50 percent subsidy, subject to a maximum of Rs. 1,300 is given to eligible women for the purchase of a gas connection. With access to LPG gas connection, women save time, which they spent earlier in collecting firewood. The cleaner fuel also reduces a number of ailments that are caused due to poorly ventilated smoke-filled kitchen/cooking spaces.

### **Vishesh Mahila Utthan Yojna**

The State Government has started 'Vishesh Mahila Utthan Yojna' for training and rehabilitation of women who have been physically and sexually abused. There is a provision to provide a stipend at the rate of Rs. 3,000 per month, per trainee and a test fee of Rs. 800 per trainee at the end of the training period. For those women, who intend to start self-employment projects, a back end subsidy is provided at 20 percent of the project cost, subject to a maximum of Rs. 10,000 per beneficiary, on loan arranged through the HP Mahila Vikas Nigam<sup>2</sup>.

### **Financial Assistance and Support Services to Victims of Rape Scheme, 2012**

The scheme provides financial assistance and support services such as counselling, medical aid, legal assistance, education and vocational training. An affected woman is entitled to financial assistance and restorative support/services to a maximum of Rs. 75,000. Additional assistance of Rs. 25,000 can be given in special cases.

### **Self Help Groups**

To empower poor women, the State is forming Self Help Groups (SHGs) of women through anganwadi workers. These SHGs are carrying out income generating activities, such as mushroom cultivation, floriculture, sericulture, pickle and juice making, and hand knitted woollen garments, etc. So far, 23,057 SHGs have been formed in the State; of these 10,372 SHGs have been linked with banks. The savings of the SHGs till October 2016 was Rs. 97.66 crores and the bank credit made available was Rs. 84.47 crores.

### **Prevention of sexual harassment of women at the work place**

A mechanism has been created in the State by forming committees for prevention of sexual harassment of women at the work place, as per the directions of the Hon'ble Supreme Court. Sexual Harassment Complaint Committees have been constituted in all Government offices.

### **Beti Bachao Beti Padhao Scheme**

The Centrally Sponsored "Beti Bachao Beti Padhao" scheme is being implemented in Kangra, Hamirpur and Una Districts to improve the sex ratio. A scheme of awarding gram panchayats for recording a favourable sex ratio has been started in the State.

### **Institutional arrangements:**

#### **Mahila Kalyan Board**

To promote security, social and economic development, welfare and empowerment of women the Mahila Kalyan Board has been constituted, under the Chairmanship of the Chief Minister.

#### **Women Development Corporation**

A Women's Development Corporation has been set up in the State.

#### **State Commission for Women**

A State Commission for Women has been set up in the State for redressal of grievances of women related to harassment, dowry, etc., and to make them aware about their legal rights. This Commission provides counselling services and legal aid to women.

<sup>2</sup> The target beneficiaries under this scheme are sex workers, identified and sponsored by the HP State AIDS Control Society. The department is providing training in different trades viz garment making, beauty culture, basic computer fundamentals, apart from new trades such as lubrication, basic electronics and production of bakery products and namkeens, etc.

## Challenges in achieving the targets

Gender equality is considered a critical element in achieving social and institutional change that leads to sustainable development with equity and growth. Inequalities between men and women manifest themselves in all areas of development. The State Government has initiated steps for ensuring gender equality in the State. For women, there is 50 percent reservation in Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs), reduction in stamp duty for registration of property in their name of women and equal wages for men and women in Government jobs.

There are challenges that hamper empowerment of women. Inequalities are visible in health and nutrition, education, employment, economic development, participation in public life and policymaking. There is violence against women and gender stereotyping.

Health discrimination begins early and is evident in the sex ratio of 972 women to 1,000 men and the adverse Child Sex Ratio, which is at 909. Enrolment and retention of girls in educational institutions is lower than that for boys. Official data does not reflect the amount of work that women actually do, as women do most of the domestic work, which is unpaid and not accounted for in the Gross Domestic Product.

Most agricultural workers are women and many crops depend on intensive labour, yet on an average, women's wages are lower than those of men. Most women experience physical violence at home, and are now covered under the Protection of Women from Domestic Violence Act. In some areas of the State (such as Lahaul and Spiti), women do not have any land and property rights due to the prevailing customary law.

An observed gap is the lower participation of women in labour and employment, as compared to men. The main reason affecting women's participation in the workforce, particularly in secondary and tertiary sectors, is the lack of necessary skills. The State Government envisages a major initiative for scaling up of skills from traditional to emerging skills, which would help women break gender stereotypes and move into employment that requires higher and different skills. The H.P. Kaushal Vikas Nigam has been set up for the purpose. Skill development is a vehicle to improve lives and not just livelihoods. Data on unpaid care and domestic work done by women is not available; the State will conduct a survey to provide estimates.

Since pregnancies are monitored regularly, after they are reported, within 70 days of the conception to the AWW/centres, possibilities of wilful termination of monitored pregnancies are virtually ruled out. This institutional mechanism for tracking pregnancies has been found to be helpful in changing the negative mind-set of many parents towards girl children.

## Strategy for success

### Target 5.1 End all forms of discrimination against all women and girls everywhere

Property rights to all women will be ensured by 2022-23 by carrying out amendments in the customary laws, subject to the outcome of pending cases before the Supreme Court of India. Maternity benefits will be ensured to women in organized/unorganized autonomous organizations by carrying out amendments in the Acts and Rules by 2019-20. Paternity Leave/Child Care leave will be provided to male members for 90 days, half of which can be availed while working from home, which will be notified by the Government.

Table 5.1: Available resources in existing Government schemes/programmes and additional finances required

Scheme	Expenditure for 2016-17 (in Lakh)	Budget for 2017-18 (in Lakh)
Beti Hai Anmol Yojna	Rs 951.05	Rs 999.00
Self Employment to Women	Rs 102.90	Rs 8.02
Kishori Samagra Vikas Yojana (new scheme)	---	Rs 200.00 (Projected)
SABLA (CSS)	Rs 1456.98	Rs 1816.00
BBBP	Rs 69.63	Rs 268.50
Maternity Benefit Scheme (new scheme)	---	Rs 2300.00 (Projected)
Financial Assistance to Victims of Rape	Rs 140.75	Rs 125.00
Vishesh Mahila Uthan Yojana	Rs 126.00	Rs 120.00
State Home	Rs 43.36	Rs 50.00
Mukhya Mantri Bal Udhar Yojana	Rs 369.20	Rs 495.94
Integrated Child Protection Scheme	Rs 2345.48	Rs 3606.00
Foster Care Programme	Rs 116.00	Rs 100.00
<b>Total</b>	<b>Rs 5721.35</b>	<b>Rs 10,088.46</b>



Equal wages for males and females and timely release through Aadhar linked bank accounts will be ensured, by implementing the labour laws in the unorganized sectors. During 2017-18 a survey will be to ascertain the extent of discrimination against women in the unorganized sector. Educational camps with employers, about equal wages for equal work, will be organized in the next two years. Monitoring and evaluation will be ensured at the State level, to bridge the gaps that that emerge during reviews.

Online Payments into Aadhar linked bank account of women workers in organized/ unorganized sectors will be ensured within two years, and a second round survey will be conducted after five years. A Committee will be notified for monitoring and implementation of equal work for equal wages within six months. The Industries Department will organize awareness camps in which contractors will be included along with concerned departments and stakeholders.

Awareness campaigns on the STEP scheme will be carried out in the ICDS blocks. The Women's Development Corporation will take measures and identify suitable NGOs. Tracking of jobs, income and empowerment will be reviewed after a year and a second review will be conducted after five years, in 2022-23.

Creation of better job opportunities for women will be ensured by the Kaushal Vikas Nigam. While providing skill development training to potential entrepreneurs, special provision will be made for women. A State level Monitoring Committee will review job related issues. For quick reporting of incidents of violence against women, an App to report the same will be developed, in the next three years.

Women will be encouraged to go for self-employment and the Women's Development Corporation will promote and finance women in self-employment. For better protection, safety and security of working women in the unorganized sector, working women's hostels have been established by the Government in all the districts.

School dropout rate of girls will be reduced and a retention rate of 99.70 percent at the elementary level will be ensured by 2021-22, by sensitizing parents of girls and the public through IEC camps, and through the electronic and print media. 100 percent enrolment will be ensured by 2029-30. At the higher secondary level, enrolment among girls will be increased from 93 percent to 97 percent by 2021-22 and 100 percent enrolment will be achieved by 2029-30.

The Child Sex Ratio in the State is 909. It is hoped that this will increase to 915 in the next four years, by 2021-22, and in the next seven years to 950, through the effective

implementation of the Beti Bachao Beti Padhao, and Muskaan, the ICDS and the Beti Hai Anmol Yojana.

It will be ensured that there is no discrimination in entry to religious places on the basis of gender or caste. Temple/ LAC authorities will be sensitized and appropriate hoardings will be installed at prominent places.

### Target 5.2 Eliminate all forms of violence against all women and girls in public and private spheres, including trafficking and sexual and other types of exploitation

In the next seven years, an all-women police station will be set up in every district and the existing all-women Police Stations (at Shimla, Mandi, Kangra, Kullu and Baddi) will be strengthened. Women account for 11 percent of the police force in Himachal Pradesh. This percentage will be increased to 20 percent by 2020 and then to 30 percent by the end of 2024. Three all-women police stations will be opened in the next three years. Protection of Women under the Domestic Violence, Act 2015 will be strictly implemented. Rescued women will be given vocational training in protection homes.

A one-stop centre (which supports women affected by violence, both in private and public spaces, in the family, community or workplace) has been established at Salogra in Solan district, in 2017-18. Judicial officers will be sensitized to domestic violence. The Judiciary will be requested to constitute a Committee of the High Court to monitor domestic violence cases. Periodic sensitization of all police personnel about handling cases related to women will be undertaken at the district and block levels in the period 2017-18 to 2019-20. Special courts will be established for speedy trial of cases of rape and molestation.

### Target 5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation

Strict implementation of the Protection of Children from Sexual Offences Act (POCSO) Act will be ensured. Awareness generation regarding POCSO and other acts related to violence against women will be conducted in ICDS projects and a review done every two years. Provision of detrimental punishment in cases of sexual abuse of minor girls will be made. In night buses, CCTV cameras with recording facilities will be installed in the next two years. A special campaign to recruit women drivers and conductors will be carried out over the period 2017-18 to





2021-22; it will be ensured that at least 3 percent of the drivers/conductors recruited in the Himachal Road Transport Corporation (HRTC) are women.

Sensitization programmes will be held in areas prone to trafficking. At present four Anti-Human Trafficking units in Shimla, Kangra, Kullu and Sirmour have been established; in the next three years they will be set up in the remaining districts, except in Kinnaur and Lahaul & Spiti. Special juvenile police units will be established in the next three years. NGOs will be encouraged to generate awareness amongst the people to prevent trafficking of women.

Strict implementation of the HP Registration of Marriage Act will be carried out. Wide publicity will be conducted through the media, newspapers, IEC camps, ICDS functionaries and in collaboration with line departments at the village level. A survey to ascertain the figure for child marriages will be conducted in the next three years. Thereafter, a special scheme to target the issues highlighted by the survey will be undertaken in the next seven years.

To reduce the school dropout rate of girls at the secondary and higher education levels, a special IEC campaign will be started. Efforts for universalization of secondary education and integrated school (Class VI to 10+2) level will be reinforced. Infrastructure facilities like building, furniture, separate toilets for boys and girls, safe drinking water, ramps for children with special needs (CWSN) in educational institutions will be created in the next five years. All schools will be ICT-enabled with Internet facilities for classroom transactions by 2021-22.

Vocational training under NSQF with the subject/ trades i.e. automobiles, retail, security, ITEs, health care, tourism, agriculture, telecommunications will be introduced in schools during the period 2017-18 to 2021-22. Vocational courses like wellness, cutting and tailoring, dress designing, cookery and catering, acting, dance and drama, photography, rock climbing, water sports, para-gliding, floriculture, disaster management, horticulture, will be introduced.

**Target 5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies, and the promotion of shared responsibility within the household and the family as nationally appropriate, and**

**Target 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life**

The proportion of women representatives in the Vidhan Sabha is 5.8 percent; the state will strive to improve the representation of

women in the Vidhan Sabha. In urban local bodies, municipal councils and nagar panchayats, there is already 50 percent reservation of seats for women. At present, there is 57 percent representation of women in the PRIs.

Reputed coaching centres will be identified over the course of a year to help improve the entry of girls/ women in public sector jobs; the Government will bear the coaching expenses for girls. Their selection will be on the basis of income and merit.

**Target 5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences**

Institutional deliveries will be increased from 75 percent to 85 percent in the next three years and to 90 percent in the next five years and to 100 percent by 2029-30.

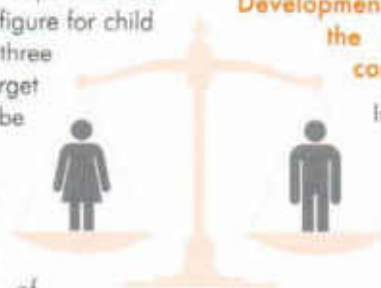
To reduce anaemia, heart ailments and bone-related problems, camps will be organized at the sub centre level at six-month intervals. A proposal will be submitted to the Government under the Mukhya Mantri Bal Udhaar Yojna for the enhancement of rehabilitation assistance to children leaving Child Care Institutions. Child care institutions at Tufikandi, Mashobra and Arki have been declared as after care institutions.

**Target 5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources in accordance with national laws, and**

**Target 5.b Enhance the use of enabling technologies, in particular ICT, to promote women's empowerment of women, and**

**Target 5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels**

Information from the revenue department and other concerned departments will be gathered to determine the percentage of property titles in the name of women. This will be monitored and reviewed periodically. Similarly, number of vehicles registered in the name of women will be recorded, monitored and reviewed periodically. Efforts will be made to include other indicators showing women's access to resources and their ownership status.



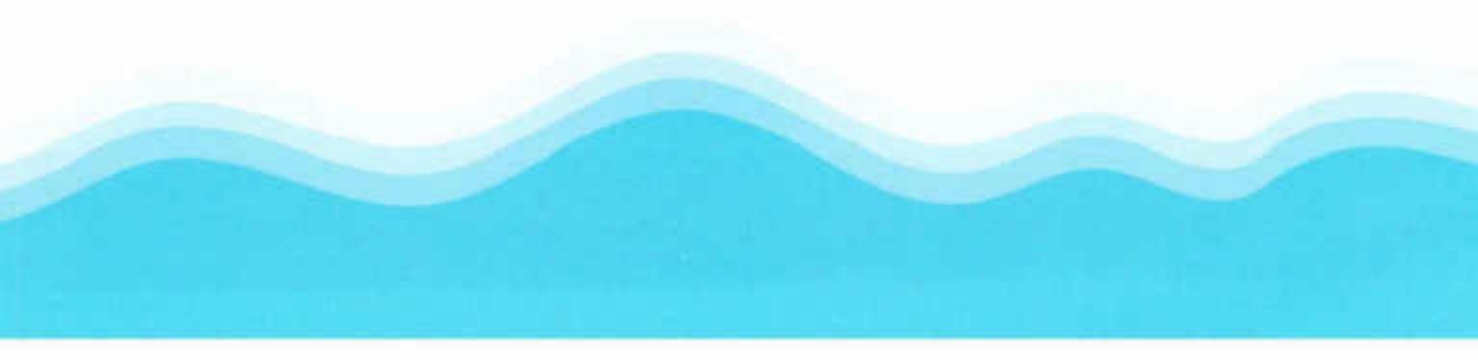


## 5. Indicators Statement for monitoring the progress

SDG	Targets	Indicators	Current status	Target by 2022	Target by 2030	Data Sources
5.1	End all forms of discrimination against women and girls everywhere	Ensuring property rights for all women	Presently in Kinnaur & Lahaul – Spiti districts, women do not have the right to own property/land	Amendment in customary laws	--	Revenue Department
		Ensuring maternity benefits to all women in organized / unorganized sectors	135 days	190 days	--	Personnel Department
		Paternity Leave	15 days	90 days		
		Establishing a Women's Helpline (WHL) and Open Shelters for women victims of violence	Only one district-Solan, has a WHL and a One Stop Centre (OSC)	WHL & OSC will be made operational in Kangra, Mandi and Hamirpur districts	WHL & OSC will be made functional in the remaining 8 districts	Directorate of WCD
		Reduce school dropouts till Class VIII	97%	99.70%	100%	Elementary Education Department
		No. of girls retained in school till 10+2 level	93%	97%	100%	Higher Education Department
		Increase in number of girl children per 1,000 male children (Child Sex Ratio)	909	915	950	Census 2011
5.2	Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation	To set up an all-women police station in every district. All Women Police Officers will be trained/ sensitized on the issue and Assessment Committees will be constituted at all levels in all the departments	5 districts	12 districts	12 districts	Police Department
		Increase in women employees in the HP Police	20.19%	25%	30%	Police Dept., HP
		Increase in number of women drivers and conductors in HRTC buses	--	3%	10%	HRTC
		Provision of a special app button for women	--	To be activated		Police Department
		Increase in number of night buses having CCTV cameras	--	100%		HRTC
		No. of districts having Anti Human Trafficking Units	04	10 (except Kinnaur, Lahaul and Spiti)		Police Department
5.3	Eliminate all harmful practices, such as child early enforced marriage and female genital mutilation	Eliminate the incidence of child marriages in the State	1 child marriage was reported by the Police Department	0	0	Police Dept.
5.4	Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	Separate toilets for girls and boys in schools	--	95% of schools will be covered	100 %if schools to be covered	Education Dept.
		ICT enabled internet facilities in class-rooms	--	90% of schools	100% of schools	Education Dept.
		Vocational training on various trades in schools	--	90% of schools	100% of schools	Education Dept.
5.5	Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	Proportion of seats held by women in HP Vidhan Sabha	5.8%	Increase the no. of women representatives in state assembly	Increase the no. of women representatives in state assembly	
5.6	Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences	Increasing percentage of institutional deliveries	84.21%	90%	100%	Health Dept., HP

SDG 6

*ENSURE AVAILABILITY AND  
SUSTAINABLE MANAGEMENT  
OF WATER AND SANITATION  
FOR ALL*





## Vision

Providing adequate, safe and wholesome water and sanitation services through building partnerships with communities at the local levels and experts at the national and international levels, in order to increase water use efficiency and ensure sustainable use of water resources and waste management.

### Himachal Pradesh today

- 100% of the urban population has access to drinking water, but only 10.39% receives at least 135 lpcd of water supply
- 100% of the rural population has access to drinking water, but only 61.43% receives at least 70 lpcd rate of water supply
- 51.83% of the urban population uses sanitation services
- Himachal Pradesh is the second state in the country to be declared Open Defecation Free (ODF); all 3,226 gram panchayats in the State are ODF
- 49 Sewerage Treatment Plants (STPs) have been installed in the State
- A solid waste to energy conversion plant has been installed in Shimla
- The Solid Liquid Waste Management (SLWM) Programme has been initiated in 1300 gram panchayats
- The Integrated Water Resources Management (IWRM) Programme is in progress in all districts
- The State has five wetlands declared under the NWCMP programme
- 14 district level and 28 sub-divisional level water quality testing laboratories in the State
- A Communications and Capacity Development (CCDU) State Training Centre has been established at Mandi in 2012, for training of PRIs and water sector officials. During the last five years 58,981 members of PRIs and 15,170 officials have been trained. A State Data Centre has been set up at Mandi where surface water, ground water and meteorological data from all established stations is being collected and the data is analyzed, disseminated and used for monitoring purposes.

### Focus for tomorrow

- 100% coverage of the urban population with 135 lpcd and the rural population with 70 lpcd water supply availability
- 100% coverage of the urban population with sewerage schemes and 100% treatment of the liquid and solid waste generated in urban areas
- 100% solid-liquid waste-free gram panchayats
- Reduction in non-revenue water system from 30% to 10%
- 100% volumetric metering in urban areas
- Bring down water losses in the irrigation sector from 35% to 15%
- 40 MCM pondage creation
- Aquifer mapping of the State and regulated withdrawal of ground water
- Implementation of the National Wetland Conservation Management Programme (NWCMP)
- Training to 1,00,000 PRI members and 35,000 water sector officials for improving water and sanitation management

Himachal has the Sivalik, Dhauladhar, Pirpanjal and Zaskar mountain ranges. Five Himalayan perennial rivers - Sutlej, Beas, Ravi, Chander Bhaga and Yamuna flow through the State. Together they form a water ecosystem that provides quality water to the valley areas of Himachal and the plains of India. As much as 62 percent of the land area of the State has been declared as forest land, whereas the forest cover out of the total geographical area is 26.6 percent.

The increasing water demand, due to population pressure and improvement in living standards, is putting pressure on water sources. Climate change is another aspect that impacts the sustainability of the sources. The geography of the State is a constraint that impacts water lifting. In the summer months, yield from sources reduces and there is often acute water scarcity. Leakage plugging, volumetric metering, efficient revenue collection, O&M, service delivery benchmarks are major challenges for the water supply sector.

The United Nations recognizes access to safe drinking water and sanitation as a human right. According to the World Health Organization and UNICEF studies, improved water supply and adequate sanitation can result in substantial reduction in water borne and diarrheal diseases and anaemia. Lack of access to water and sanitation also impinges on the rights of children and women.

The Sustainable Development Goal No-6 seeks to ensure availability and sustainable management of water and sanitation for all by 2030. Simultaneously, it envisages that water quality needs to be improved by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials in the water sources. The goal also seeks efficient use of water across all sectors and ensures sustainable withdrawals and supply of fresh water to address issues related water scarcity. By 2030, the State needs to implement integrated water resource management at all levels, including through transboundary cooperation if required. In this regard protection and restoration of water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes is imperative.

Himachal Pradesh has a relatively good record on human development indicators and access to public services. As far as availability and management of water and sanitation services are concerned, the State's performance has been impressive. The latest data of NFHS-4 suggests that 94.9 percent households in Himachal Pradesh are availing potable water from the improved drinking water sources<sup>1</sup>, which is comparatively better than the national average of 89.9 percent. Similarly, 70.7 percent households have access to improved sanitation<sup>2</sup> facilities in the State that is again much better than the national average of 48.4 percent.

Availability of water and sanitation services in rural areas of the State are fairly good, which indicates equitable access to resources and public services by all social groups including of vulnerable population.

Recently, in 2016, the State was declared Open Defecation Free (ODF) for rural areas. However, to maintain the ODF status, the State needs to pay required attention especially in urban areas and along the national / state highways with regard to sanitation facilities in public places. It has also been observed that the needed behaviour change is still a distant reality than can ensure open defecation free environment. Therefore effective IEC/BCC and community participation would be required to keep the State ODF. The figures given below provide a comparative status on availability of water and sanitation in Himachal Pradesh.

**Figure 6.1 Households with improved Drinking Water Source**



**Figure 6.2 Households with improved Sanitation Facilities**



<sup>1</sup> Piped water into dwelling/yard/plot, public tap/standpipe, tube well or borehole, protected dug well, protected spring, rainwater, community RO plant.

<sup>2</sup> Flush to piped sewer system, flush to septic tank, flush to pit latrine, ventilated improved pit/biogas latrine with slab, twin pit/composting toilet, which is not shared with any other household.



## Drinking Water

### Urban

Only six of the 54 towns receive the norm of 135 lpcd, and this constitutes only 10.39 percent of the urban population. All of the urban population, in all towns, is proposed to be covered under this norm, by 2030.

### Rural

At present, only 61.43 percent of the rural population in 34,417<sup>3</sup> habitations (of 53,604 habitations) in the State receive the norm of 70 lpcd. The balance population and habitations are proposed to be covered by 2030. The remaining rural population of 34.7 percent (19,187 habitations) will be covered with 70 lpcd, by 2030.

## Sanitation

A little over half, 51.83 percent<sup>4</sup> of the urban population has access to sewerage schemes. By 2030, the rest of the population will be covered. At the same time, the 100 percent ODF status of rural areas will need to be sustained, with an assured water supply of 70 lpcd by 2022.

## Improve Water Quality

All 49 STPs of the State are to be upgraded by 2030 to meet the new effluent standards of the Central Pollution Control Board. One waste to energy plant has been installed in the State and the remaining 53 towns are to be provided with waste to energy plants by 2030. Solid-liquid waste management (SLWM) programmes in the remaining 1926 Gram Panchyats (GPs) are to be completed by 2022. The SLWM programme has been started in 1300 GPs.

## Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

The State recognizes clean drinking water and sanitation as a human right. The State has created the Irrigation and Public Health department, to ensure programme implementation and management of water supply, sewerage and flood management schemes.

### Target 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

### Urban

The State has completed 38<sup>5</sup> urban water supply schemes; work on another 11<sup>6</sup> is in progress. The water supply in 48 towns will be upgraded, so as to supply 135 lpcd, for the population, by 2030. The funds for urban water supply sector are available from the State and other sources such as UIDSSMT, AMRUT Mission and World Bank.

### Rural

The State has completed 9,393<sup>7</sup> water supply schemes and installed 36,308<sup>8</sup> hand pumps in the rural sector. The 19,187 partially covered habitations are to be upgraded to fully covered by 2022. The State has adopted 70 lpcd water supply rate for coverage of rural habitations, whereas the funds available under the National Rural Drinking Water Programme (NRDWP) are for 55 lpcd.

### Target 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

### Urban

There are 54<sup>9</sup> Urban Local Bodies (ULBs) in the State of which only 18 ULBs are completely connected to sewerage systems. Sewerage schemes for 26 ULBs are in progress and DPRs for the remaining 10 ULBs are under preparation. Funds are available under urban sanitation programme for new sewerage schemes and O&M. Funding under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) has been provided.

### Rural

Himachal Pradesh is the second state in the country to have achieved 100 percent ODF status. The Rural Development department of the State has been entrusted with the rural sanitation programme. The State Government, under the 'Total Sanitation Campaign' achieved the ODF status. Incentive schemes of the Government such as Maharishi Valmiki Sampurn Swachhata Purshkar, Mahila Mandal Pratishthan Yajna and School Sanitation Reward Scheme, have helped in achieving 100 percent ODF status. To maintain the ODF status, the State needs to upgrade rural drinking water supply schemes. Funds under 'Swachh Bharat Mission' for rural sanitation are available.

3. Data source NRDWP IMIS.  
4,5,6,7,8,9 Data source HPIIP.



**Target 6.3** By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

**Target 6.4** By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

## Urban

**Liquid waste:** Sewerage schemes in 18 ULBs have been completed and 49 STPs have been installed. The process for installation of sewerage schemes and STPs in the remaining 36 ULBs should be completed by 2030. The existing 49 STPs need to be upgraded to meet the new norms of the Central Pollution Control Board.

**Solid waste:** The Shimla Municipal Corporation has installed a waste to energy plant<sup>10</sup>. The State has prepared a MSWM Action Plan, which commits to install solid waste processing plants in all the ULBs. Funding needs would be met from the flagship programme of the Government of India, the Swachh Bharat Mission (SBM-Urban).

## Rural

An Action Plan to implement SLWMP in the State has been prepared, and the programme has begun in 1300 gram panchayats. The funds are available under Swachh Bharat Mission Gramin programme.

## Water Supply

The State is committed to reduce the Non Revenue Water (NRW)<sup>11</sup> to 10 percent by special repair and overhauling of water supply schemes. The unaccounted for water in the water supply sector is as high as 30 percent,<sup>12</sup> owing to the topography and rugged terrain. The Government is replacing the flat rate metering system, in a phased manner, to a volumetric metering system.

## Irrigation

Irrigation potential of 2.66 lakh<sup>13</sup> hectares has been created in the State, of which only 33 percent<sup>14</sup> is being utilized. The CAD & WM programme has been implemented in 35,791 hectares. To increase utilization and water-use efficiency, the State intends to implement the CAD & WM programme in the remaining created potential. It is encouraging the use of sprinkler and drip irrigation techniques. Funds to repair leaking irrigation systems and introduction of new methods of irrigation, such as sprinkler and drip irrigation are needed.

<sup>10</sup> Data source UD

<sup>11</sup> Water that is pumped and then lost or unaccounted for

<sup>12</sup> Data source HPIPH

<sup>13</sup> Data source NRWP MIS

<sup>14</sup> Data source HPIPH



### Target 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

The State has targeted to create 40 MCM pondage to recharge 50 percent of water supply and irrigation schemes in the State by 2030. The State has provided water harvesting and soil conservation structures under the watershed programme and MNREGA. The Forest, Rural Development, Irrigation and Public Health and Soil Conservation departments are engaged in IWRM related activities in their respective domains. The IWRM programme in the State is a continuous process; funds are available under various programmes.

### Target 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

The State intends to complete five on-going wetland schemes in the State by 2022; an action plan will be prepared for the improvement of the remaining wetlands. As per the National Wetland Inventory, the State has 641 wetlands, of all kinds, covering an area of 98,496 hectares. There are 471 wetlands, which have water surface area of more than 2.25 hectares. The five wetlands identified for development under the National Wetland Conservation & Management Programme (NWCMP) are: Pong Dam, Chandertal, Renuka, Khajjiyar and Rewalsar. Himachal has the Sivalik, Dhauladhar, Pirpanjal and Zaskar mountain ranges. Five Himalayan perennial rivers - Sutlej, Beas, Ravi, Chander Bhaga and Yamuna flow through the State. Together they form a water ecosystem that provides quality water to the valley areas of Himachal and the plains of India. Funds under the NWCMP programme are available for improvement of the State's wetlands. For regulation of extraction of ground water in the State, an aquifer mapping programme is underway. Additionally, a National Hydrology Project, funded by World Bank, is in progress. As much as 62 percent of the land area of the State has been declared as forest land, whereas the forest cover out of total geographical area is 26.6 percent.

### Target 6.a By 2030, expand international cooperation and capacity-building support to developing countries in water-and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

The State has targeted to implement four schemes/programmes under International Cooperation by the end of 2030. The Government of Himachal Pradesh, under the aegis of the World Bank has signed a MoU with World WaterNet Amsterdam (WWn). The goal is to provide potable water supply, waste water treatment and sewerage

to the population residing in the city of Shimla and Shimla planning area. The MoU affirms the commitment of the parties to implement activities, to be agreed joint work plan developed through the WWn collaborative Water Operators Partnership (WOP). The WOP aims to equip the operator with practical operational knowledge, strategic business plan and developing an autonomous organization based on experience of WWn. The MoU is under consideration for the period from signing until the end of 2018. WWn has expressed willingness to share with the State, its expertise and experience.

### Target 6.b Support and strengthen the participation of local communities in improving water and sanitation management

The State will train 1,00,000 members of the PRIs and handover all water supply schemes/part of water supply schemes to PRIs by the end of 2030. The State is committed to decentralized management of rural water supply and sanitation schemes, in accordance with the 73rd Constitutional Amendment, by strengthening GPs to manage schemes and provide improved services. The State has been building the capacity of PRIs, VWSC and grassroots level workers through training and IEC activities. In the last five years 58,981 members of PRIs and 15,170 officials have been trained. Financial support for capacity building is available under the NRWDP.

## Challenges in achieving the targets

### Target 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

The increasing water demand, due to population pressure and improvement in living standards, is putting pressure on water sources. Climate change is another aspect that impacts the sustainability of the sources. The water requirement for domestic animals has to be given consideration. The geography of the State is another constraint that impacts water lifting. Despite the new networks, the problem of unequal distribution of water persists. The problem of high turbidity in the rainy season exists and the schemes have to be closed for days. Water borne diseases are still prevalent. In the summer months, yield from sources reduces and water scarcity prevails. Leakage plugging, volumetric metering, efficient revenue collection, O&M, service delivery benchmarks are major challenges for the water supply sector. The sluggish flow of funds from Central Government, in both urban and rural water supply sectors, is a major impediment in achieving the target by 2030.



**Target 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations**

The connectivity of individual households, in urban areas, to the sewerage system is the key challenge. The urban population is increasing rapidly and new areas have come up at the fringes of the existing towns. The present sewerage policy is confined to the municipal limits and there is no policy for sanitation in the newly mushrooming areas. There are many pockets within the existing towns, which cannot be linked to the sewerage schemes, due to topographical constraints. The efficient O&M of sewerage networks and treatment plants is a technical challenge. The State has achieved 100 percent ODF status in rural areas. To sustain this, the State needs to improve the rural water supply system and pay the required attention, especially in rural areas and along the National / State highways, to sanitation facilities in public places. Effective IEC and community participation will be required.

**Target 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally**

The volume of sewage reaching the STPs is low due to missing links and connectivity issues. The STPs are functioning below their designed capacities. Lack of skilled labour is another factor constraining the operation of STPs. The STPs have to be upgraded to comply with the new effluent standards of the Central Pollution Control Board. Solid Waste Processing plants in the remaining ULBs/clusters still need to be set up. Speedy implementation and monitoring of the liquid waste management programme in rural areas is required.

**Target 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity**

Leakages in water supply schemes need to be minimized. Household rainwater collection and use is to be encouraged. Wastages at the household level are to be reduced through IEC. Replacement of old and rusted pipes, old and leaky appurtenances and implementation of volumetric metering are challenges in urban water supply.

Repair and maintenance of irrigation schemes to stop wastage is needed. Beneficiaries are to be encouraged to

adapt to crops, which require less irrigation. The old methods of flood irrigation have to be substituted by sprinkler and drip irrigation. The low utilization of creating irrigation potential in the State has to be reduced by implementing the CAD & WM programme.

**Target 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate**

Climate change will adversely affect the water sources of the State. The IWRM programme can be helpful in mitigating climate change effects. Rain water harvesting and recharge structures can supplement the depleting water sources.



**Strategies for success**

**Target 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all,**

**Target 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations,**

**Target 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally**

The Government is working towards raising the water supply level to 135 lpcd in urban by 2030 and 70 lpcd in rural areas by 2022. It is committed to improve the water quality of drinking water as per the standard laid down in BIS 10500:2012, the code for drinking water specifications, by the year 2022. Regular monitoring of water quality supplied by the State is being done and is required in more laboratories. The Government of Himachal Pradesh will provide a sanctioned water connection to each household; distribution of water shall be made equitable by 2022. Himachal Pradesh has submitted a proposal of Rs. 3,267 crores, to the Government of India for full coverage of remaining partially covered habitations up to the year 2022. The proposal is likely to be funded by the NDB. The Shimla water supply and sewerage proposal, costing approximately Rs 1,000 crores is under consideration, for



funding, with the World Bank. The O & M cost of schemes in the State is high due to the hilly terrain. The shortage of the staff for O & M has resulted in outsourcing, which needs to be rationalized.

The State is working towards providing sewerage schemes in all towns. It is committed to achieve 100 percent connectivity of households by 2030. Left out pockets shall be provided with alternate sewerage solutions. A policy to provide sewerage connectivity for the areas at the outskirts of the main towns will be framed by 2022. Water supply in rural areas will be strengthened. The STP of all the sewerage schemes will be upgraded to achieve by 2030 the new treatment standards of the Central Pollution Control Board. The Government has prepared a proposal for upgradation of STPs on PPP mode, which is under consideration of the India Infrastructure Development Fund.

Training of the staff deployed on STPs will be made mandatory. By 2030, solid waste processing plants in all ULBs will be set up. In rural areas, the public will be motivated through IEC to adopt the solid-liquid waste management programme. The Government is committed to make all Panchayats solid, liquid waste free by 2022 and all town's solid waste free by 2030.

To achieve the targets 6.1, 6.2 & 6.3, the State would need to restructure the organizations responsible for water and sanitation. Both, the urban water supply and sanitation sectors are required to be merged into a single department. Similarly, the rural water supply and sanitation departments could be clubbed together to form a separate department.

**Target 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity,**

**Target 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate,**

**Target 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes**

Water use efficiency and conservation of water is critical in the context of climate change. Reduction of loss of NRW to 10 percent in water supply and 15 percent in irrigation, by the end of 2030, construction of 40 MCM through rain water harvesting structures by 2030, completion and development of the five on-going wetlands and the remaining by 2030 and regulated withdrawal of ground water by 2030 are key strategic areas. To achieve the targets 6.4, 6.5 & 6.6, the Government needs to carve out a water resources department which would look after the irrigation, rivers and flood management, integrated water resources management programmes and the development of wetlands. The State has submitted a proposal, amounting to Rs. 1,200 crores to the Government of India, for funding under the Green Climate Fund. The proposal includes the water conservation measures to be adopted in five river basins of the State.

**Target 6.a By 2030, expand international cooperation and capacity-building support to developing countries in water-and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies,**

**Target 6.b Support and strengthen the participation of local communities in improving water and sanitation management**

The State recognizes the importance of international knowledge sharing in the field of water supply and sewerage. It is focusing on the need of capacity building of the PRIs and officials who are manning the systems. To achieve the target 6.a & 6.b by 2030, the WSSO organization needs to be reorganized. The WSSO will be made responsible for monitoring water quality and effluent quality of STPs, operation of all the water testing laboratories and training to the PRIs. A Hydrology project and State Data Centre is required under the jurisdiction of WSSO.



## Indicators statement for monitoring the progress

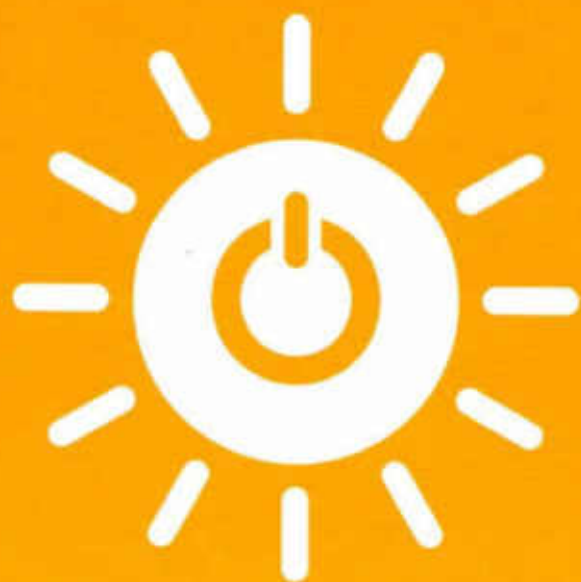
SDG	Targets	Indicators	Current status	Target by 2022	Target by 2030	Data source
6.1	By 2030 Achieve universal and equitable access to safe and affordable drinking water to all	Urban	10.39%	30%	100%	IPH DEP
		<ul style="list-style-type: none"> <li>Percentage of urban population having access to drinking water @ 135lpcd (CPHEEO standard) from 'improved sources'</li> <li>Percentage of urban household connections</li> </ul>	48%	70%	100%	IPH DEP
		Rural	61.43%	100%	Maintain 100%	IPH DEP
		<ul style="list-style-type: none"> <li>Percentage of rural population having water @70 LPCD (national standard) from 'improved sources'</li> <li>Percentage of rural household connections</li> </ul>	56.60%	100%	Maintain 100%	IPH DEP
6.2	By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	Urban	51.83%	90%	100%	IPH DEP
		<ul style="list-style-type: none"> <li>Percentage of urban population (ULBs) using safely managed sanitation services</li> </ul>				
		Rural	Maintain 100%	Maintain 100%	Maintain 100%	RD DEP
		<ul style="list-style-type: none"> <li>Percentage of population using safely managed sanitation services along with hand washing facility</li> </ul>				
6.3	By 2030 improve, water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials	Urban	42.48%	70%	100%	IPH DEP
		<ul style="list-style-type: none"> <li>Percentage of the waste water generated by households and economic activities in the urban areas that is safely treated</li> <li>Percentage of solid waste managed scientifically to that of generated in all ULBs of the State</li> </ul>	25%	44%	100%	UD dept.  Presently 350 tonnes/day of solid waste is generated in the State
		Rural	Work has started in 1300 Gram Panchayats	Cover all 3226 Gram Panchayats	3226 Gram Panchayats	RD dept.
6.4	By 2030 substantially, increase water use efficiency across all sectors and ensure sustainable withdrawals and supply of fresh water to address water scarcity.	Water supply	30%	Reduction of NRW to 15% in water systems	Reduction of NRW to 10% in water systems	IPH dept.
		<ul style="list-style-type: none"> <li>Reduction of NRW to 15% in water systems</li> <li>Percentage of connections on volumetric tariff in urban areas</li> </ul>	56.24%	70%	100%	IPH dept.
		Irrigation	35%	25%	15%	IPH dept.
		<ul style="list-style-type: none"> <li>Percentage of water losses in irrigation sector</li> <li>Implementation of CAD&amp;WM programme to increase the farm efficiency and potential utilization</li> </ul>	35971 hectares	71,942 hectares	165,79 hectares	IPH dept.



## Indicators statement for monitoring the progress

SDG	Targets	Indicators	Current status	Target by 2022	Target by 2030	Data source
6.5	By 2030 implement, integrated water resources management of all levels, including through transboundary cooperation as appropriate	• Pondage creation	To be assessed	15 MCM	40 MCM	IPH dept.
		• Recharge of water supply and irrigation schemes	To be assessed	25% schemes of all drainage basins	50% schemes of all drainage basins	IPH dept.
6.6	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	• Aquifer mapping in the State under hydrology project	Mapping of aquifers of the State in progress under Hydrology Project	Analyzing of data and delineation of aquifers and preparation of final maps	Data usage for regulation and control of extraction of ground water	IPH dept.
		• No. of Wetlands under NWCMP Programme for development	8, Pong Dam, Chandtal, Renuka, Khajjiar, Rewalsar, Bhriagu, Saraswar and Nako	8	8	Science and technology dept.
		• Area under forest and tree cover in the State	26.66%	26.66%	26.66%	Forest dept.
6.a	By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes	• No of water supply/sewerage schemes in the state with international cooperation	1	3	Completion of 4 schemes	IPH dept.
6.b	Support and strengthen the participation of local communities in improving water and sanitation management	• Training to PRI members	58,981 in last 5 years	70,000	100,000	IPH dept.
		• Training to water sector officials	15,170	25,000	35,000	IPH WSSO
		• Percentage of water supply/part of water supply schemes handed over to PRIs	21.29%	100%	100%	IPH WSSO





SDG 7

*ENSURE ACCESS TO  
AFFORDABLE, RELIABLE,  
SUSTAINABLE AND  
MODERN ENERGY FOR ALL*



## Vision

Ensuring quality and affordable 24x7 power supply for all, with an emphasis on exploitation of existing hydropower potential and additions to solar energy production.

### Himachal Pradesh today

- Estimated hydro potential of 27,436 MW out of which 24,000 MW has been assessed as harnessable; the balance potential is not planned to be harnessed to safeguard the environment and to meet ecological and social concerns.
- Almost total electrification was achieved in 1988. At present, the total electricity requirement is of about 9,800 MUs, which includes 15% share of renewable mix energy.
- The State has also installed 6.12 MW off-grid solar photoic systems, 35,491 m<sup>2</sup> solar water heating systems, solar cooking systems of 11,129.4 m<sup>2</sup> capacity, 19 multi purpose projects (MPP) water mills, two state level energy parks and 12.7 MW biomass co-generation power plants for captive use.

### Focus for tomorrow

- 24x7 power for all with required quality voltage
- 100% use of energy efficient domestic bulbs
- Bring down T&D losses to 9.80 percent from the current level
- 60% energy efficient equipment penetration
- Total installed capacity 23,000 MW

SDG 7 mandates to ensure access to affordable, reliable, sustainable and modern energy for all. Energy access is integral to development in the twenty-first century and as a state, Himachal Pradesh is endowed with rich hydro resources, which have helped meet its energy requirements. The State has made significant progress in the power sector achieving 100 percent electrification long back. The State's economic growth is linked to the development of its power sector, as continued growth here, along with the availability of reliable and affordable energy has helped boost industrial activity and economic growth. However, the State Government continues to strive to improve the quality of power supply to all consumer categories.

The 24x7 Power for All Program is being implemented by the Government of Himachal Pradesh with support from the Government of India. The Program aims at providing 24x7 supply to all electricity consumers. The Power for All roadmap encompassing power sector interventions including

generation, transmission, distribution, renewable energy and energy efficiency measures will be implemented from 2016 to 2019. The State Government will continue to support the power sector through targeted subsidy schemes aimed at supporting the poor and marginal consumers and elimination of regional disparities in the State. The State Government is committed to support the utilities and other development agencies engaged in the power sector for the implementation of the various measures and targets enumerated in the Power for All Roadmap.

The State will make the required investments in the power generation, transmission and distribution infrastructure, in order to provide affordable and quality power to all. The share of renewable energy in the State energy mix will also be increased in a phased manner. The State Government will provide all the necessary support required by the power sector for achieving the various targets outlined in Goal number 7.



## Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

### Target 7.1 By 2030 ensure universal access to affordable, reliable and modern energy services

#### Target 7.1.1 Percentage of households with access to electricity

Himachal achieved 100 percent electrification in 1988; but electrification is an on-going process and new villages and households emerge each year, which need to be electrified. In the 2011 Census, 35 villages were identified as un-electrified, of which seven villages were found to be uninhabited; as per the field survey, people visited these villages seasonally for short stays. The remaining 28 villages have been electrified under the Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY). Therefore, Himachal Pradesh has achieved 100 percent electrification.

#### Target 7.1.2 Percentage of households with primary reliance on clean fuels and technology

The usage of electricity in the state is based on hydel (91 percent), 6.4 percent from thermal and other sources, 2 percent from nuclear energy, and less than 1 percent from solar energy. Many households are still dependent on solid biomass for cooking; as many as 57.5 percent of the households in the State use firewood for cooking, which is higher than the national average of 49 percent. The State will strive to increase the use of LPG for cooking purposes, a challenging target, especially amongst forest dwellers and nomads, who are located in far-flung areas, deep forests and other difficult, occasionally unapproachable locations.

### Target 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

#### Target 7.2.1 Renewable energy share in the total final energy consumption

At present, the share of renewable energy in the total electricity requirement of about 9,800 MUs is 93.6 percent. In view of the guidelines of the GoI for that have mandated solar Renewable Purchase Obligations (RPOs), the requirements for solar power are about 80-90 MW, by the year 2021-22. Presently 3.5 MW solar power is being

procured from the Solar Energy Corporation of India (SECI) and NTPC, which equals to 58 MU. HPSEBL is in the process of installing 2.5 MW hybrid power plant at Kaza (2 MW solar PV + 0.5 MW wind hybrid), in a joint venture with SECI, for which a joint venture company by the name of 'Himachal Renewable Limited' has been incorporated. In principle, approval for a 1,000 MW Solar Park at Kaza, district Lahaul and Spiti has been given by the Ministry of New and Renewable Energy (MNRE) for which the evacuation system needs to be planned by the Central Electricity Authority (CEA) and the Power Grid Corporation of India Limited (PGCIL). The additional power from solar projects shall be vital in increasing the share of renewable power in HPSEB Ltd. (Source: Administrative Report of Himachal Pradesh State Electricity Board Limited)

### Target 7.3 By 2030, double the global rate of improvement in energy efficiency

#### Target 7.3.1 Energy intensity measured in terms of primary energy and gross domestic product (GDP)

Table 7.1 Per Capita Electricity Consumption (in kWh)



Source: Himachal Pradesh State Electricity Board Limited, GoHP



The Cumulative Annual Growth (CAG) rate is 3.7 percent. To conserve energy, HPSEBL has introduced LED lights, tubes, low loss transformers, etc. and is actively taking up work associated with the improvement of transmission and distribution infrastructure to reduce energy losses as per the trajectory given below.

**Figure 7.1 Reduction in T&D losses**



Source: Himachal Pradesh State Electricity Board Limited, GoHP

Under the UJALA scheme, HPSEB has distributed over 6.7 million LED bulbs (till November 2016) and benefited over a million consumers. These measures are being taken to make consumers energy conservation conscious; the programme will, over time, benefit 2.2 million consumers. The Government is working on notification/implementation of the Energy Efficiency Building Code – 2017 (ECBC); it is expected to be notified soon and result in considerable energy saving in buildings. (A draft code has been uploaded on the website seeking suggestions and objections from stakeholders. The ECBC code shall come into implementation soon). HPECBC, in 2017 will mandate all commercial buildings above 50 kw load or 500 square meters of conditional area. The national code for residential buildings will soon be notified; Himachal Pradesh will then initiate its implementation, in accordance with state specific criteria.

Energy audit incentive schemes in small and medium enterprises of Parwanoo, Paonta Sahib, Baddi-Boratiwala, Una and other industrial clusters of the state with connected load of above 100 kw SMEs on a 'first come first served' basis are being implemented in a phased manner.

Subsidized replacement of old ceiling fans with BEE star rated energy efficient ceiling fans is underway. With the mandate of GoI, the Perform Achieve & Trade (PAT) scheme is effective in the state. As of now 15 indicators in the area of bulk cement, textiles, paper industries and the state DISCOM HPSEBL have been enrolled as designated consumers.

**Target 7.a By 2030 enhance international co-operation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil fuel technology and promote investment in energy infrastructure and clean energy technology.**

HPSEBL is seeking Externally Aided Projects (EAP) funding for the execution of some of its projects. It has tied up with KfW (German Development Bank) for loans for reinforcing and strengthening electrical infrastructure for evacuation of renewable power. Under a KfW aided project of Rs. 911 crores, the transmission and distribution system is being strengthened for evacuating green energy.

**Target 7.a By 2030 enhance international co-operation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil fuel technology and promote investment in energy infrastructure and clean energy technology.**

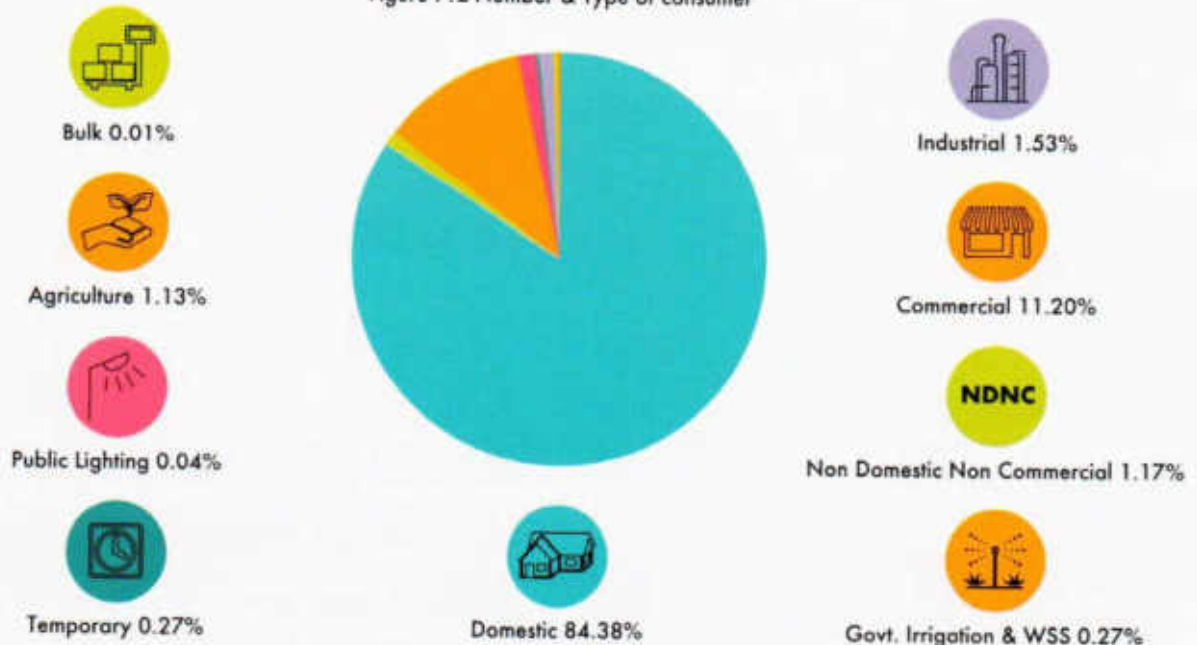
**Target 7.b.1 Ratio of value added to net domestic energy use by industry**

In 2015-16, out of 22,56,966 consumers, there were only 34,637 industrial consumers, i.e. 1.53 percent, whereas the domestic consumers were 84.38 percent and commercial i.e. (NR) consumers were 11.20 percent. However, as far as the energy consumption is concerned, out of the total energy consumption, industry accounts for 57.9 percent, domestic consumers for 24.4 percent, and domestic and commercial (non residential supply) consumers for 6.2 percent. Industrial consumers contribute 40.05 percent of the total revenue; domestic consumers account for 12.7 percent and commercial consumers 4.6 percent of the total revenue.

The Cumulative Annual Growth (CAG) works out to be 3.7 percent.

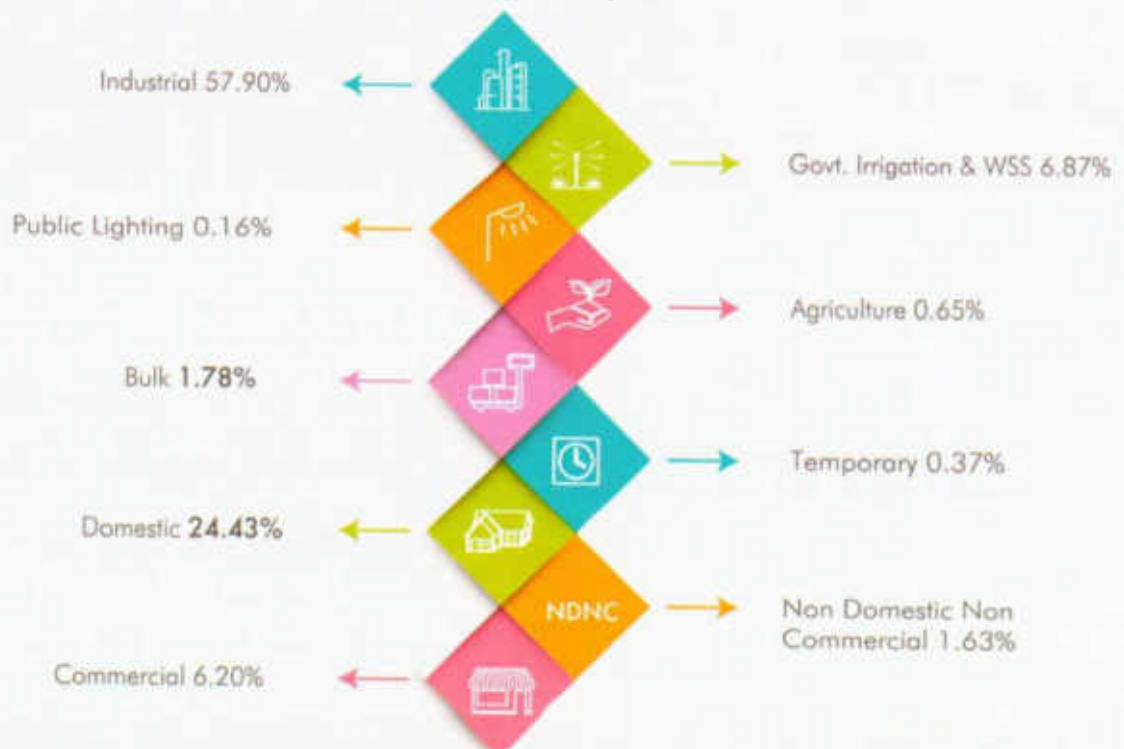
In order to conserve energy, HPSEBL has introduced LED lights, tubes, low loss transformers, etc. and is actively taking up the work associated with improvement of transmission and distribution infrastructure to reduce the energy losses as per the trajectory given here:

**Total Number of consumers**  
Figure 7.2 Number & Type of consumer



Source: Administrative Report, Department of Energy, GoHP, 2015-16

**Energy Consumption**  
Figure 7.3 Energy Consumption



Source: Administrative Report, Department of Energy, GoHP, 2015-16



By 2030, the State aims to ensure that transmission corridors are optimally utilized by making a high capacity line, which can cater to the evacuation of ultimate potential in a valley instead of making a mesh of low capacity lines, which destroys the landscape. A power system composite transmission master plan has been prepared by M/S British Power International, a U.K. based Consultant, appointed by ADB. The State also aims to provide quality and uninterrupted power on demand to the consumers, as well as meet the entire power demand of the state by energy generated from renewable resources, that is, solar, hydro, wind, etc., by 2030.

To ensure reliable, affordable and uninterrupted quality power supply and to cater to the enhanced demand of electricity, HPSEBL is expanding its electrical infrastructure commensurate with growth in electricity demand. HPERC has approved schemes amounting to Rs. 3,622 crores, with investment of Rs. 2,220 crores for the years FY 2015 to FY 2019. Future investments will have a focus on the introduction of the latest technologies and establishment of SMART grids for making reliable and sustainable electrical energy available to consumers.

The following externally aided schemes are running in the state:

- **R-APDRP (Restructured Accelerated Power Development and Reforms Programme):** HPSEBL has undertaken various activities for improving sub-transmission and distribution network under R-APDRP Scheme of GoI worth Rs. 339 crores. These include renovation, modernization and strengthening of 11kV and 22 kV level substations; transformers /transformer centres, reconductoring of 11kV and LT lines, load bifurcation, feeder separation, load balancing, HVDS (11 kV), aerial bunched conductoring, replacement of electromagnetic energy meters with tamper proof electronic meters, installation of capacitor banks, mobile service centres and strengthening at 33 kV or 66 kV system.
- **IPDS (Integrated Power Development Scheme):** This R-APDRP scheme stands subsumed in the Integrated Power Development Scheme; the scope includes strengthening of sub-transmission and distribution networks in urban areas, provisioning of solar panels on Government buildings including net-metering, metering of feeders/distribution transformers/consumers in urban areas and IT enablement of distribution sector.
- **DDUGJY (Deen Dayal Upadhyaya Gram Jyoti Yojana):** To strengthen electrical infrastructure in rural areas, the GoI has sanctioned a scheme of Rs. 158 crores, for electrification of rural households, separation of agriculture and non-agriculture feeders,

strengthening and augmentation of sub-transmission and distribution infrastructure, including metering at transformers, feeders and at consumer points. The objective is to ensure reliable and quality power supply in rural areas. A scheme was formulated by HPSEBL for the 12 districts covering 35 un-electrified villages, one SAGY (Sansad Adarsh Gram Yojna) village and 14,088 rural households including 3,288 BPL households.

- **SMART Grid Projects:** The impetus has been given to state-of-the-art technologies for the delivery of power to consumers. HPSEBL has launched a pilot project under NSGM at Kala Amb for developing it as a Smart City. In this project, an Advanced Metering Infrastructure (AMI-I), Outage Management System (OMS), Peak Load Management (PLM) and Power Quality (PQ) etc. are being introduced. The approved project cost is Rs. 19.45 crores with GoI support of Rs. 9.73 crores. The project was awarded to M/s Alstom T&D at a cost of Rs. 24.99 crores. HPSEBL is exploring the possibility of implementation of the Smart Grid projects at Dharamshala and Shimla, as well. In 1971-72, there were only 1,79,616 consumers. This number has grown to 23,09,612, in February 2017. The details of category wise consumers between 2002-03 to 2015-16 areas follows:

The growth rate in the total number of the consumers in the last 15 years is about 2.5 percent each year. Consumers are being serviced through 45 EHV sub-stations (voltage level 220 kV, 132 kV and 66 kV), 169 33 KV sub-stations, 28,359 distribution sub-stations and 96,881 Kms of extra high tension (EHT)/High Tension (HT)/Low Tension (LT) lines spanning the state. In 1971, the State had only 3,279 electrified villages. It the first hill state in to achieve 100 percent electrification of all census villages, in 1988. Per capita consumption of electricity, which was 61 kWh in 1975, is presently 1160 kWh.

Despite a vast network of HT/LT lines for the delivery of power, it is being delivered to consumers with efficiency; the energy losses which were 24.85 percent in 2002-03) have been brought down to 12.40 percent (2015-16). HPSEBL has been entrusted with the work of formulation/updating and execution of the Transmission Master Plan of the state for strengthening of the transmission network for 66 kV and above and evacuation of power from upcoming HEPs.

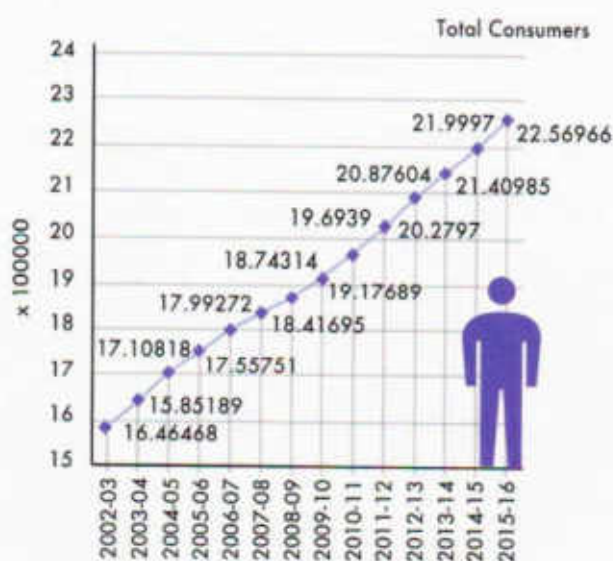
With Technical Assistance (TA) from the ADB of US \$ 0.6 million, the Power System Master Plan (PSMP) was finalized in 2010. The Government of India has allocated \$350 million under the Multi Tranche Financing Facilities (MFF) of ADB loan its implementation. Tranche-I (110 million US dollars) and Tranche-II (113 million US dollars) of this loan is already signed and projects are under construction. This loan will fund construction of about 456 circuit kms of

transmission lines along with 13 sub stations of 2284 MVA capacity, with 66 kV and above voltage level.

In addition, work on six sub-stations and three additional transformer banks of 941 MVA capacity and 234 circuit kms of transmission lines are planned to be taken up with funds amounting to Rs. 716 crores, approved under the Green Energy Corridor Scheme of the Government of India, with a fund flow as 40 percent loan from KfW bank, 40 percent from NCEF grant and 20 percent equity.

As on 30 April 2017, HPPTCL has commissioned three substations of 194.5 MVA and two transmission lines of 96 circuit kms and is committed to add up about 780 circuit kms and 3,500 MVA capacities to the state transmission network, by the year 2020. This infrastructure shall facilitate the evacuation of about 3,500 MW of power from various remotely located HEPs up-to key load centres and CTU injection points.

Figure 7.4 Growth of electricity consumers



Source: Himachal Pradesh State Electricity Board Limited

- **Post Commissioning LADF:** Project developers of all capacities are to contribute 1 percent free power towards LADF over and above the rates of royalty agreed to be paid to the State Government in the Implementation Agreement (IA)/Supplementary Implementation Agreement (SlA), as the case may be. This additional 1 percent free power, over and above the royalty component provided to the host state will be a pass through in tariff.
- GoHP implemented its policy for post commissioning LADF @ 1 percent additional free power (AFP) in respect of Chamara-III HEP (231 MW) as a pilot

project against which the cash transfer for the FY 2012-13 and FY 2013-14 in favour of the 5,482 entitled beneficiary families in PAA began and will continue till the entire life of the project, on a yearly basis.

- Rs. 4,06,20,970/- out of Rs. 4,24,09,236/- stands disbursed to 5,256 families till 12 June, 2015.
- Rs. 1.81 crores for FY 2014-2015 and Rs.1.5 crores FY 2015-16 stands transferred to LADC Kullu for further distribution among 1,946 PAFs.
- Process to finalize list of entitled beneficiary families for Rampur (412 MW) and Koldam (800 MW) HEP is in progress.
- Regarding projects under execution by HPPTCL, three substations of 194.5 MVA capacity and two transmission lines of 96 circuit kms have already been commissioned in FY 2016-17. Another two substations of 63 MVA capacity and five transmission lines of 122 circuit kms are expected to be commissioned in FY 2017-18.



## Challenges in achieving the targets

### 1) Gap analysis:-

- There is a lack of communication between various stakeholders as far as hydropower development aspects are concerned. The consumers in the state are getting power 24x7 and to make it available on a sustainable basis, as envisaged in the SDGs, the electrical infrastructure is being reinforced every year, through CAPEX, approved by HPERC. Besides, HPSEB Ltd is focusing on meeting the gaps. This is being done through the following measures:
- Introduction of Information Technology (IT) for bringing transparency in the billing and accounting system.
- Supervisory Control and Data Acquisition (SCADA) in the distribution system to make reliable and quality power and the introduction of two way communication with the energy metre of the consumer.
- Interface with renewable power i.e. from solar and wind, etc. as the distribution system is meant for unidirectional flow of power but integration of renewable energy will result in bidirectional flow of power, which will require strengthening/ augmentation of the electrical infrastructure.
- Creating adequateredundancy in the system so as to providereleiable power to the consumer.
- Take steps for making power available at the affordable rates.
- Although most of the transmission projects are being funded under the Externally Aided Project (EAP) scheme



of the Government of India, where 90 percent of the loan component (80 percent of the project cost) is available to the State as a grant (also to other hill states) from the Government of India, the State Government has been contributing through equity capital to meet 20 percent of the project cost.

- Another challenge is that, 57.5 percent of the households in the State use firewood for cooking, which is higher than the national average of 49 percent. The State will strive to improve the use of LPG for cooking purposes. Although, it will be a real challenge for the state to ensure enhanced use of LPG and electrical appliances for cooking purposes, especially among forest dwellers, nomads and those who are located in far-flung areas, deep forests and in difficult to approach locations.

## 2) Problem identification

### (i) Identifying enabling factors

- Funding tie-ups with internal/external financial institutions at cheap interest rates for the long term
- Availability of skilled manpower at the project sites
- Policy changes at Government of India level need to be initiated so as to make the hydro sector more sustainable and financially attractive for private investors
- Lower market rate of hydro power energy due to healthy competition with solar and others forms
- Lack/absence of adequate transmission infrastructure for evacuation of power of upcoming HEPs located in various river basins in the State
- Soft loans/grants available at cheap interest rates under EAP schemes of Government of India for evacuation of clean and green energy.

### (ii) Identifying bottlenecks

- Speedier execution of hydropower projects can be ensured if the inordinate delay in according Environment /Forest clearance is avoided
- The land acquisition process for project construction is extremely cumbersome and getting NOCs from village Panchayat/Gram Sabha is a time consuming process
- Private land acquisition is a very tedious and long drawn process, which invariably leads to delay in execution of hydro electric projects and therefore, the present land acquisition rules/Act need to be modified/relaxed for hydropower projects, in line with relaxation for linear projects
- Delay in approval of Forest Conservation Act (FCA) cases
- Non availability of NOC from Panchayats in tribal areas

- Lack of better infrastructure - road connectivity
- Majority of hydroelectric project sites are located in far-flung and isolated areas, where the project proponent has to bear the high cost of infrastructure development viz. roads and bridges
- Power evacuation arrangement from isolated and land locked areas is another major challenge.

### (iii) Identification of growth drivers

- Short term credit/loan facility is made available to hydropower sector in general
- At present, hydropower projects upto 25 MW of installed capacity only are treated as sources of renewable energy, in India. Considering the present energy scenario and low carbon foot print of hydropower, this threshold limit should be removed and hydropower projects irrespective of their installed capacity should be considered as a source of renewable energy
- Hydro power purchase obligation to be introduced on similar lines as those applicable for solar and wind power
- The condition for Forest Rights Act (FRA) be exempted for Himachal Pradesh, where all rights already stand settled and recorded
- The State Government and Forest Department be empowered to finalize and approve the FCA cases for small projects involving land less than five hectares
- The Right of Way (RoW)/corridor width for transmission lines be limited to 3.5 metres for 33 kV and 5.33 metres for 66 kV
- Provision of liberal financial assistance for development of transmission corridors, as well as for development of hydro electric projects
- Complete synchronization of priorities for execution of projects between the Government agencies and the project proponents needs to be ensured.

### (iv) Observing and analyzing trends in indicators.

Various bottlenecks and challenges in the hydropower sector lead to higher per unit cost of electricity, which makes it difficult for the project proponent to be financially competitive.



## Strategies for Success

### 1) Restructuring and rationalization of on-going schemes

Communication strategy to be implemented and adopted soon in order to avoid gaps and bottlenecks at various stages of hydropower execution, power evacuation and distribution

- Results Framework Documents (RFD) has enabled the Department of MPP and Power to adopt a systematic approach for planning its strategies, keeping in perspective the goal of achieving the strategic objectives and to select interventions that are most suitable for the targeted problems
- SAP-ERP solution with the objective to implement state-of-the-art information technologies is under implementation. HPPTCL is aiming to use this ERP based system to develop a process based work culture, which is more efficient, accountable and transparent
- O and M of the projects is to be carried out with modern technical inputs such as SAS and SCADA, etc. so that the manpower requirements are minimized
- All schemes to be oriented towards ensuring demand based quality power 24x7

## 2) New schemes:

### Schemes proposed

AFD (Agence Francaise de Developpement, the French Development Agency) has agreed in principle for funding the Chanju-III HEP (48 MW) and Deothal Chanju HEP (30 MW) for an amount of Euro 80 million. The signing of the loan agreement and award of major works is likely to be completed by the end of March, 2018.

- Tranche-III of the US dollar 350 million ADB-MFF loan is being pursued with the Government of India and the ADB and the agreement is expected to be signed in 2017-18.
- HPERC has approved the various schemes as detailed here:
- New schemes of Rs. 428.13 crores are proposed by HPSEBL for execution during FY 2017-18.

## 3) Existing/proposed electrical infrastructure in industrial areas

In order to supply power to existing and prospective industrial units in the State, HPSEBL has a well-knit electrical infrastructure from 220 kV to 11 kV in the identified industrial areas of the state.

To ensure reliable, affordable and uninterrupted quality power supply and to cater to the enhanced demand of electricity in the state, HPSEBL is expanding its electrical infrastructure commensurate with growth in electricity demand, from time to time. HPERC has approved schemes amounting to Rs. 3,622 crores with the investment of Rs. 2,220 crores for the years 2015 to 2019.

As indicated in the table above, HPSEBL proposes to undertake schemes worth Rs. 1,897 crores under a three-year action plan i.e. 2017-18 to 2019-20. So far as the seven-year strategy i.e. 2017-18 to 2023-24, is concerned the investment shall be subject to the approval of HPERC after the year 2019-20.

This investment also includes the various works being carried out for improvement of sub-transmission and distribution system under the following programmes of support:

- Restructured Accelerated Power Development and Reforms Programme (R-APDRP) (only the balance component) as the scheme has now been subsumed into Integrated Power Development Scheme (IPDS).
- IPDS
- DDUGJY (Deen Dayal Upadhyaya Gram Jyoti Yojana)
- SMART Grid Projects

Proposed cost of schemes (in Rs. crores)



Total : 3,622 crores



#### 4) Resource assessment (State budget resources and private sector investment)

##### i) For financial year 2017-18

S. No.	Agency		Amount in Rs. crores
1	HPSEBL	State/ Centre Budget	428.13
2	HPPCL		761.87
3	Himurja		383.06
4	HPPTCL		180
5	Directorate of Energy		5.28
6	Investment in-flow under Private sector		982
Total		(1,758.34+982)	2,740.34

##### ii) For three years (from 2017-18 to 2019-20)

S. No.	Agency		Amount in Rs. crores
1	HPSEBL	State/ Centre Budget	702.51
2	HPPCL		2,842
3	Himurja		1,821.75
4	HPPTCL		1,500
5	Directorate of Energy		22.48
6	Investment in-flow under Private sector		2,613
Total		(6,888.74+2,613)	9,501.74

##### iii) For seven years (from 2017-18 to 2023-24)

S. No.	Agency		Amount in Rs. crores
1	HPSEBL	State/ Centre Budget	1,166.49
2	HPPCL		8,733.7
3	Himurja		6,822.77
4	HPPTCL		2,000
5	Directorate of Energy		55.11
6	Investment in-flow under Private sector		6,167
Total		(18,778.07+6167)	24,945.07

An ADB Loan of US \$ 800 million was sanctioned for four projects i.e. Sawra Kuddu HEP (111 MW), Integrated Kashang HEP (195 MW), Sainj HEP (100 MW) and Shongtong Karchham HEP (450 MW). To cover the funding gap for the electro-mechanical works of Shongtong Karchham HEP (450 MW), HPPCL and KfW (German Development Bank), signed the loan agreement on 21st December 2012, for Euro 150 million. As such, for the construction of these projects, 30 percent of the project cost will be met through equity contribution from the Government of Himachal Pradesh, whereas the remaining 70 percent of the project cost will be met through loans.

Computerized billing and introduction of SMART Grid at Kala Amb, connectivity of roof top solar projects to be done.

Financial Year	MVA Capacity Planned to be added	Circuit. Kms planned to be added
2017-18	63	122
2018-19	1602	164
2019-20	177	128
<b>Total</b>	<b>1842</b>	<b>414</b>

- Under Indo-German Bilateral Development Co-operation Programme, KfW in August 2013, committed for funding of Thana Plaun Hydroelectric Project and accordingly tie up with KfW for financial assistance of Euro 200 million was signed. Concerted efforts are being made to finalize the financial tie up of Surgani Sundla HEP by December, 2018
- Creating redundancy in the system, SCADA control
- Complete the master plan by 2020-21 and add up 3,500 MVA transformation capacity and 780 circuit kms to HP transmission network to ensure modern, reliable and robust infrastructure for evacuation of power from various upcoming clean and green energy resources without any transmission constraints
- Make available quality, reliable and affordable power to all consumers
- Proper operation and maintenance of transmission infrastructure with modern technical inputs such as SAS and SCADA and minimum use of manpower, to ensure reliability of transmission infrastructure
- Nakthan HEP and Renukaji dam project have been envisaged for construction/commissioning by year 2030. Renuka dam project (40 MW) in district Sirmour,

is a project of national importance. This project is to be funded by the Government of India to the extent of 90 percent of the water component and irrigation component cost, and 10 percent will be paid by the beneficiary states. In addition, the cost of power component of the project is to be borne by the State Government. It is anticipated that the financial tie up for Nakthan HEP will be finalized by December, 2019.

### 5) Identifying areas of community participation

Communication strategy to be implemented and adopted soon in order to avoid gaps and bottlenecks at various stages of hydropower execution, power evacuation and distribution. In this way the participation of the local communities shall be ensured at all levels of development.

### 6) Policy changes required to meet the targets

Policy amendments have been issued from time to time. Presently the Government is in the process of reviewing the existing policy, so as to boost the hydro power development in the state to overcome the recession being faced in the hydro sector and to address various issues relating to the transmission and distribution of power.





## 7. Indicators statement for monitoring the progress

SDG	Targets	National Indicator	State Indicator	Current status	Target by 2022	Target by 2030	Data Sources
7.1	By 2030, ensure universal access to affordable, reliable and modern energy services	Percentage of Households electrified	Percentage of Households electrified	100%	100% to be maintained	100% to be maintained	HPSEBL/ DoE
			24X7 power for all with required voltage	98%	100%	100% to be maintained	HPSEBL
			Reduce T&D losses	12.40%	11.40%	9.80%	Regulators order/ HPSEBL
		Percentage of household using clean cooking fuel	Solid biomass use of cooking	57.5%	40%	30%	Civil supply department
7.2	By 2030, increase substantially the share of renewable energy in the global energy mix	Renewable energy share in the total final energy mix	Renewable Energy share in total final energy consumption	93.6%	95%	100%	HPSEBL
			Capacity addition through Hydro Power	10400 MW	12368 MW	23000 MW	DoE
7.3	By 2030, double the global rate of improvement in energy efficiency	Energy intensity measured in terms of primary energy and GDP	Energy efficient domestic bulbs	85%	100%	100% to be maintained	Energy Efficiency Service Limited (EESL)
			Energy efficient Street Lights	100%	100% to be maintained	100% to be maintained	
			Energy efficient equipment penetration	10%	30%	60%	
7.a	By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	Official Development assistance on clean energy					
7.b	By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support	National indicator not yet developed					

SDG8

*PROMOTE SUSTAINED,  
INCLUSIVE AND  
SUSTAINABLE ECONOMIC  
GROWTH, FULL AND  
PRODUCTIVE  
EMPLOYMENT AND  
DECENT WORK FOR ALL*





## Vision

To achieve and sustain double-digit economic growth with higher levels of economic productivity, through diversification, technological up-gradation and innovation, to promote entrepreneurship, create more employment opportunities and ensure decent work for all.

### Himachal Pradesh today

- In 2012-13, the Annual growth of real GDP per employed person was 5.8% and 6.7% in 2014-15
- Gross Value Added (GVA) attained a growth of 7.1% during 2014-15 (base 2011-12) against the growth rate of 6.3% during the year 2013-14
- In 2014-15, the share of the tourism sector in the State GDP was 7.08% and the employment generated in the tourism sector was 5.38% of the state's total
- Banking services were availed of by 89.1% of households, in comparison with the national average of 58.7%. There were 2,037 bank branches (PSBs, RRBs, private and Cooperative) and 1,792 ATMs in March 2016
- From 8% in 2011-12, the growth rate slowed marginally to 7.7% in 2015-16

### Focus for tomorrow

- By 2022, the percentage of population living below the poverty line 8.1% to 2%. By 2030, poverty in the State to be completely eliminated
- The growth rate is projected to rise to 8.5% by 2022; subsequently double-digit growth will be achieved and sustained through 2030
- Per capita real GDP per employed person to increase to 8% by 2022, and to 9.5% by 2030
- Total unemployment rate to reduce to below 6% by 2022 and to below 3.5% by 2030
- Child labour in all its forms to end and human trafficking will be eliminated by 2022
- The share of tourism in the State GDP to increase to 8.5% by 2022. Employment in the sector to increase to 20% by 2030
- All households to be linked with banking, insurance and financial services by 2022. 50% of bank account holders will use internet banking/ mobile money services by 2022, and all bank account holders to use internet banking/mobile banking by 2030
- There will be full DBT coverage of social security and welfare schemes of all departments by 2022





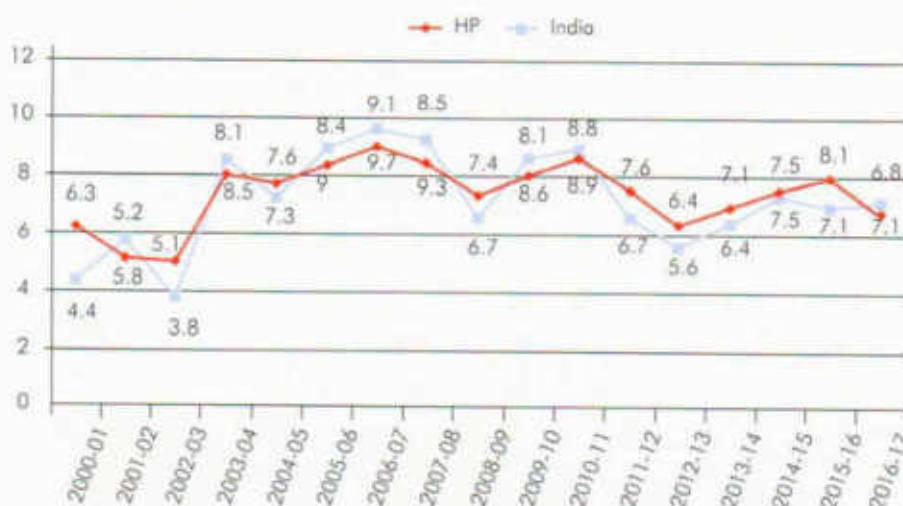
### Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

SDG 8 seeks to achieve higher growth rate on a sustained basis and simultaneously make the growth process more inclusive<sup>1</sup>. It aims to encourage sustained economic growth by achieving higher levels of productivity and through technological innovation. Promoting policies that encourage entrepreneurship and job creation are key to this, as are effective measures to eradicate forced labour, slavery and human trafficking. With these targets in mind, the goal is to achieve full and productive employment, and decent work, for all women and men by 2030.

declined to 17.09 percent in 2014-15. The contribution of the secondary sector was 16.73 percent in 1970-71. It increased to 43.02 percent in 2008-09 but declined to 37.56 percent in 2014-15. The share of the tertiary sector was 27.71 percent in 1970-71 and this has increased to 45.35 percent in 2014-15. This structural shift from the primary to the secondary tertiary sector is indicative of a growing economy. Low productivity in agriculture is of concern; it manifests itself in under employment and disguised unemployment.

The Gross Value Added (GVA) at basic prices saw a growth of 7.1 percent during 2014-15 (base 2011-12) against the growth rate of 6.3 percent during the year 2013-14. The growth rate in GVA during 2014-15 was achieved due to

Figure 8.1 Growth rate in Himachal Pradesh and India, 2000-01 to 2016-17



Source: Economic Survey (2017-18), E&S Department, GoHP

### Sustain inclusive growth higher than national average

Himachal Pradesh is a leader in hill area development, agriculture and horticulture. The State is a preferred destination for investments in power and tourism. The economy achieved a growth rate of 7.5 percent in 2014-15, which is equivalent to the national growth. The growth rate in 2015-16 was 8.1 percent, better than the national growth rate of 7.1 percent<sup>2</sup>. Since 2011-12, in most years, the rate of growth of the State has been higher than the rate of growth of the country as a whole.

The contribution of the primary sector to the State Domestic Product was 58.56 percent in 1970-71, which has

high growth in other services (11.4 percent), mining and quarrying (10.8 percent), trade, hotels & restaurants (10.7 percent) public administration (9.8 percent), electricity, gas, water supply & other utility services (8.0 percent) and financial services (7.9 percent). Agriculture, forestry & fishing showed a decline of 0.2 percent; thus, productivity increases are needed in agriculture, forestry and fishing, through diversification, technological up-gradation and innovation and a focus on high value added technologies. The annual growth rate of real GDP per employed person was 5.8 percent during 2012-13, which increased to 6.7 percent during 2015-16.<sup>3</sup>

<sup>1</sup> The term 'inclusive' is a broader term when used in context with the growth in GDP, it would imply that a growth process aimed at achieving more equitable distribution of income; more equality among various socio-economic groups with regard to the access to more opportunities and simultaneously freedom to choose from the available opportunities; reduction in regional imbalances; and, provision of increased employment opportunities through skilling, developing capabilities and empowerment. Environmental sustainability needs to be achieved simultaneously with the social and economic sustainability.

<sup>2</sup> Economic Survey (2016-17), E&S Department, GoHP

<sup>3</sup> Economic Survey of the Economics and Statistics department, GoHP



Figure 8.2 Structural shifts from primary to secondary to tertiary sector, in GSDP 2004-05 to 2014-15

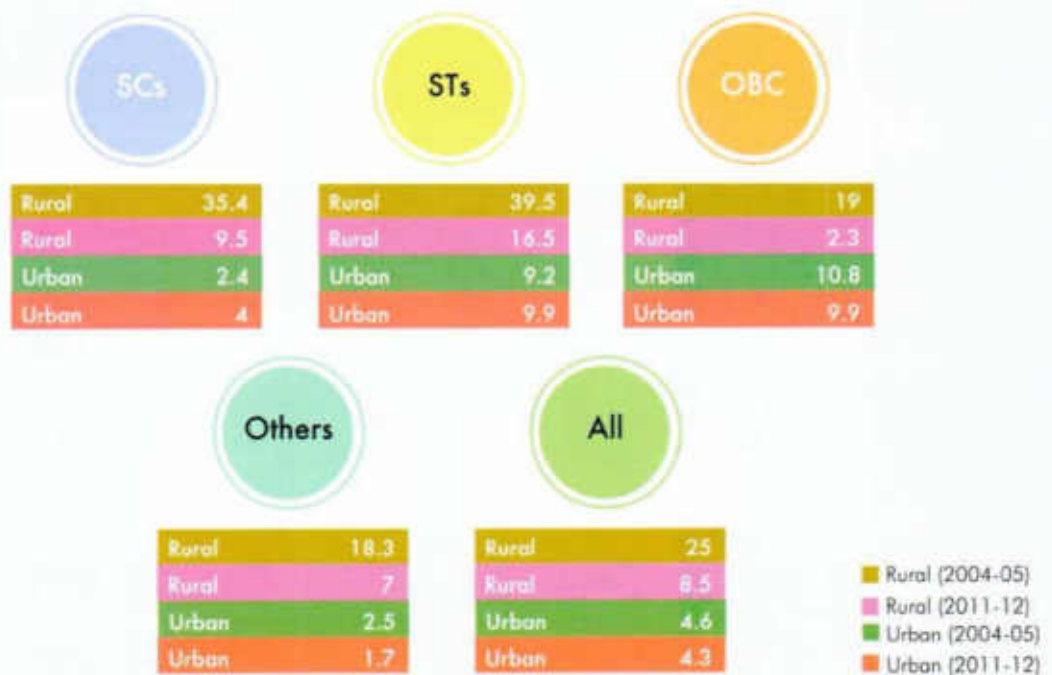


Source: Economics & Statistics department, HP

The State Government, in its budget for 2016-17 set a target to reduce the percentage of population living below the poverty line from the existing 8.1 percent to 2 percent by 2022. With the on-going initiatives of the Government, it is expected that the percentage of population living below

the poverty line will reduce to negligible by 2030. The informal economy comprises half to three quarters of all non-agricultural employment<sup>4</sup>. The share of informal employment in non-agriculture employment in India was 83.6 percent as per 2009-10 estimates, employment for

Figure 8.3 Poverty decline benefit to social groups



Source: World Bank Group Report, Scaling the Heights- Social Inclusion and Sustainable Development in Himachal Pradesh, 2015

<sup>4</sup> Informal can often signify poor employment conditions, the absence of social benefits, irregular or sporadic work opportunities and absence of job security. Women, migrants and other vulnerable groups of workers who are frequently excluded from most opportunities have little choice but to take informal low-quality jobs.

females was 84.7 percent, and the figure for males was 83.3 percent.<sup>5</sup> In Himachal Pradesh, the share of non-agriculture informal employment to the total non-agriculture employment is only 64.46 percent, which is lower than the national figure of 83.6 percent.<sup>6</sup>

Sustainable consumption and production is about promoting resource and energy efficiency, providing better infrastructure, and access to basic services, a better quality of life for all. Himachal Pradesh is richly endowed with natural resources. It is home to three major river basins, and serves as a watershed for more than 200 million people in Haryana, Punjab, Uttar Pradesh, and Rajasthan. The watersheds act as an important carbon sink for greenhouse gases. It is one of the main sources of clean energy-hydropower for the country.

Keeping in view the sustainable consumption and production framework, the Department of Environment & Scientific Technology has prepared an Environment Master Plan and a State Strategy & Action Plan on Climate Change. Detailed action plans are proposed for Water, Forest, Biodiversity & Ecosystem, Agriculture & Horticulture, Health, and Eco-tourism, Housing & Urban Planning departments.

### Strengthening of tourism

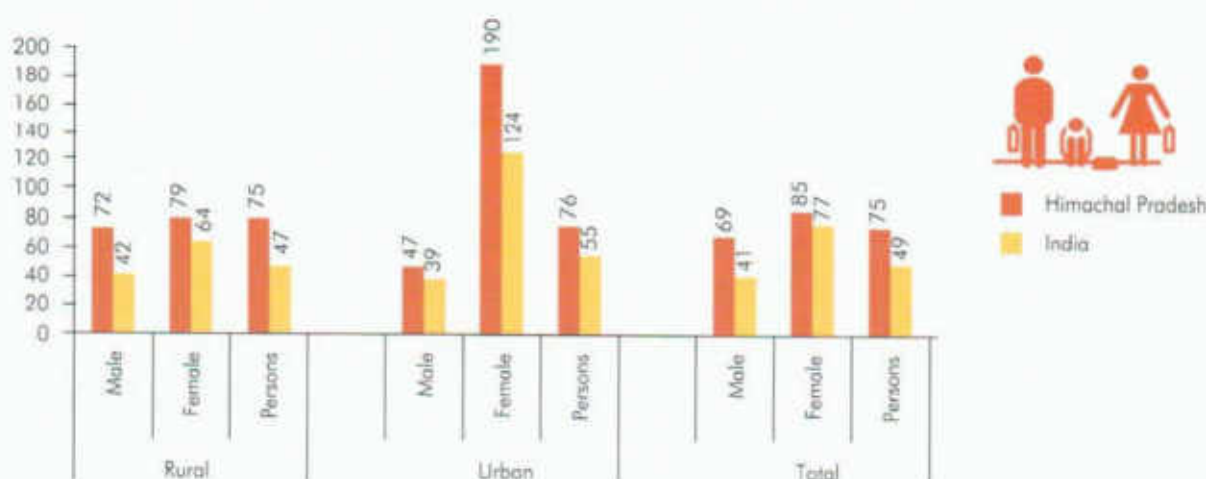
Himachal Pradesh is a well-established and recognized tourist destination. Tourism is an important sector of the economy and a significant contributor (7.8 percent of the

State GDP) to economic growth and prosperity of the State, besides effectively addressing the problems of unemployment and poverty. The sector has been given high priority, with the State Government making efforts to strengthen infrastructure to enable tourism development including the provision of public utility services like roads, communication networks, airports, transport facilities, tapped water supply and good civic amenities. This sector provides employment to 54,643 persons, which accounts for 5.38 percent of the total employment in the State.

### Skill Development

The unemployment rate reflects the proportion of persons who were available for work but did not work during the reference period. Labour Force Participation Rate (LFPR) indicates the supply of labour and is an important input for production of good & services<sup>7</sup>. In its report in 2013, International Labour Organization (ILO) had estimated that, nearly 75 million people were unemployed around the world and the global unemployment rate was projected at 12.7 percent. The Report further suggests that, in comparison with adults, youth continue to be almost three times as likely to be unemployed and that unemployment rates affect them disproportionately. The following figure provides a comparison between the unemployment rate (per 1000 persons) aged 15 years and above, according to the Usual Principal Status approach in Himachal, and in India, as a whole.

**Figure 8.4 Un-employment rate (per 1000) for persons aged 15 years and above according to Usual Principal Status Approach (2013-14) Himachal and all India**



Source: 4th Employment and Un-employment Survey Report 2013-14, Ministry of Labour and Employment, Government of India

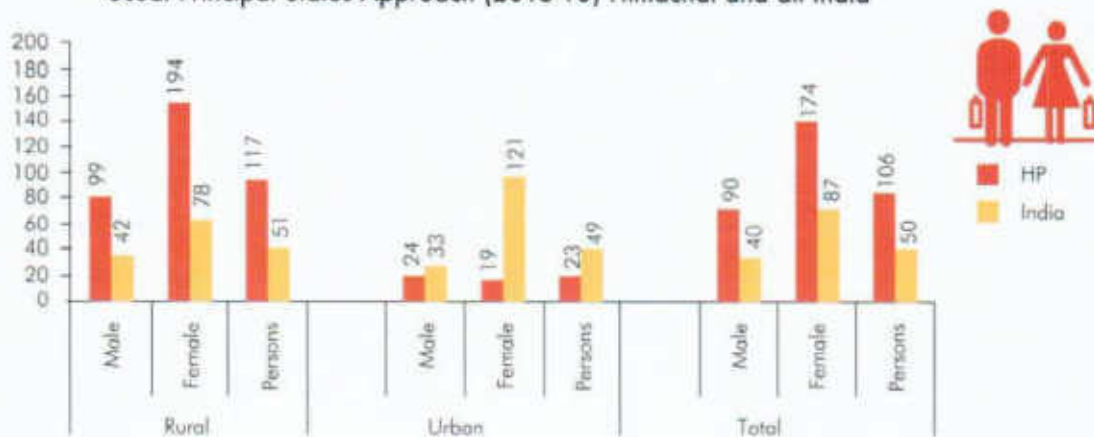
<sup>5</sup> Statistical update on Employment in Informal Economy (ILO) Report- Department of Statistics, June, 2012.

<sup>6</sup> Department of Economics and Statistics, GoHP.

<sup>7</sup> 4th Annual Employment and Un-employment Survey Report 2013-14-Ministry of Labour & Employment, Government of India.



**Figure 8.5 Un-employment rate (per 1000) for persons aged 15 years and above according to Usual Principal Status Approach (2015-16) Himachal and all India**



Source: 5th Employment and Un-employment Survey Report 2015-16, Ministry of Labour and Employment, Government of India

Although the growth rate of the economy has been above the national average for some time, it does not seem to be generating employment as is evident from figure 8.4.

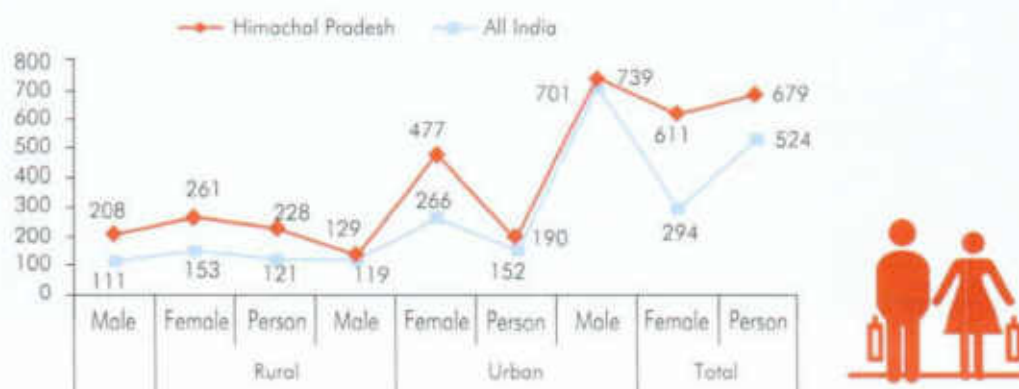
It is believed that unemployment rates are higher for young people because of limited opportunities and their lack of work experience, educational attainment and poor employability. The approach paper to the Twelfth Plan gave a high priority to the employment of youth, through quality education and skill development. For growth to be inclusive, it must create adequate livelihood opportunities and add to decent employment, commensurate with the expectations of a growing labour force.

The third Annual Employment Unemployment Survey was conducted by Ministry of Labour & Employment, GOI. The employment structure in the age group 15-24 years, 18-29 years and 15-29 years were estimated to assess the extent of unemployment, by broad activity, by educational qualifications and kinds of activities. A striking feature of

youth employment brought out by this survey was that a relatively high share of youth was engaged in unpaid family work or as helpers; beginning their working life supporting (informal) family businesses or farms; very few were self employed or entrepreneurs. This has important policy implications for developing youth oriented programmes for skill up-gradation, knowledge enhancement and access to capital for the youth. In the Fourth Annual Employment-Unemployment Survey 2013-14, a report on 'Youth Employment-Unemployment Scenario 2013-14' was prepared. The following figure provides the status of unemployed in the age group of 18-29 years:

The State needs to focus in urban areas, where the unemployment rate, particularly among women is high, higher than the all India figure. The State spends 1.56 percent of its total budget on employment programmes, which is 0.48 percent of the Gross State Domestic Product.

**Figure 8.6 Un-employment Rate (per 1000) for persons in age group of 18-29 years according to Usual Principal Status Approach (2013-14) (Himachal and India)**



Source: 4th Annual Employment and Unemployment Scenario, Volume II, 013-14-Ministry of Labour & Employment Govt. of India

Skills and knowledge are the driving forces of economic growth and social development of any economy. Economies with higher and better levels of skills adjust more effectively to the challenges and opportunities of the world of work. Potentially, the target group for skill development comprises all those in the labour force, including those entering the labour force for the first time, those employed in the organized sector and those working in the unorganized sector. There is a need to design and execute development strategies that target this large young population. The demographic advantage of the State will not last indefinitely. Therefore, timely action to make people healthy, educated and adequately skilled is of paramount importance. Priority needs to be given to address the employability issue, by initiating a multi-skills development programme in mission mode and focusing on job creation and entrepreneurship, in rural and in urban areas.

The problem of child labour continues to pose a challenge. Considering its magnitude and extent and the fact that it is essentially a socio-economic problem, inextricably linked to poverty and illiteracy, it requires concerted efforts for eradication. According to the Census of India, 2011, there were 8.22 million main and marginal working children in the age group of 5-14 years as compared to 11.3 million in 1991, revealing an declining trend in absolute numbers, and the work participation rate of children (5-14) has come down from 5.4 percent during 2001 to 5 percent during 2011. Due to definitional problems, a substantial proportion of child labour remains uncoun- ted. However, the Census data suggests that in Himachal Pradesh, the percentage share of child labour in the age group of 5-14, which was 1.77 percent in 2001, decreased to 0.69 percent in 2011 (Source: National Commission for Protection of Child Rights Report 2014).

The Labour and Employment department is tasked to check child labour; defaulting units are prosecuted and fined. During the period, 2013-14 to 2016-17 (up to June, 2016), 12,744 units were inspected, prosecution proceedings were launched against 39 units and fines of Rs. 2.19 lakhs were imposed. The provisions of the centrally legislated Factories Act, 1948 are intended for the health, safety and welfare of workers and are enforced through periodical inspections. In 2013-15, there were 83 accidents, of which 27 percent were of a fatal nature.

## Financial Inclusion

Himachal Pradesh has a wide network of public, private and cooperative sector banks. Banks have a substantial outreach in the rural as well as in backward and remote areas. There are 2023 bank branches, out of which more than 85 percent branches were in rural areas.<sup>8</sup>

Aadhaar enrolment in the State is more than 95 percent, and Aadhaar seeding is nearly 69 percent. Under Prime Minister's Jan Dan Yojana (PMJDY) Scheme, the banks have opened more than ten lakh accounts and nearly 77 percent of the account holders have been issued RuPay Debit Cards.

**Figure 8.7 Availability of Banking Services**



Source: SDG India Index Report - 2018

## Challenges in achieving the targets

After reaching 8.8 percent during in 2009-10, the growth rate slowed to 7.1 percent in the 2016-17. Agriculture, forestry & fishing showed a decline of 0.2 percent, and there is therefore a need to increase productivity in these sectors through diversification, technological up-gradation, a focus on high value added technologies and innovations.

Tourism is an important sector and a significant contributor to growth and prosperity. However, the tourism sector has been facing challenges. The State will strive to decongest tourist destinations. Tax incentives to new enterprises will be provided and private investment encouraged. The State will identify and develop new tourist destinations; environmentally smart tourism will be promoted. The State will seek funding from international and national funding agencies to improve tourism infrastructure.



## Skill development & enhance spending on employment generation programmes

It is generally believed that unemployment rates are naturally higher for young people because of their limited work experience and poor employability, due to deficits in educational attainment and limited opportunities. There is need to focus in urban areas where the unemployment rate, particularly among urban women, is quite high, much higher than the all India figure. The State spends 1.56 percent of its total budget on employment generation programmes, which is 0.48 percent of the GSDP<sup>9</sup>. Spending on employment generation programmes will be enhanced.

### Strategies for success

**Target 8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 percent gross domestic product growth per annum in the least developed countries**



#### Targets

- Raise the growth rate to 8.5 percent by 2022; achieve and sustain double-digit growth by 2030



#### Strategy for Agriculture & Allied Sectors

Increasing productivity per hectare of the main crops like maize, wheat, pulses, fruits and oilseeds and taking it to the level comparable with high production states/countries

- Increasing public investment and encouraging private investment
- Diversifying into high return crops and activities like floriculture and apiculture
- Comprehensive insurance of crops and steps to protect damage from wildlife
- Establishing market linkages and access to financial institutions using ICT
- Providing technological inputs for farm operations and post harvesting management
- Building partnerships between the Government, the private sector and academicians/research institutions for working in the direction of improving sector specific productivity
- Promotion of gender friendly farm equipment and machinery to overcome labour shortages

## Action plan for agriculture & allied sectors

### Agriculture

- Protection of crops from wild animals
- Education of farmers about soil health and other inputs with the help of ICT
- Crop diversification and a gradual shift to organic farming
- Strengthening of existing and creating new market yards
- Technological inputs like micro irrigation and poly houses

### Horticulture

- Horticulture will be diversified and made climate resilient. Modernization through new technologies, and measures to promote diversification and resilience to climate change, to strengthen productive capacities of the producers
- Development of agro-enterprises and strengthened market access
- Skilling of unemployed youth, five from each Panchayat, especially women, in operations such as pruning and chip budding
- Additional area will be brought under the revamped 'Apple Rejuvenation Project'
- Bringing more area under protected cultivation of fruits, vegetables and flowers



### Animal husbandry

- Improved fodder and chaff cutters to farmers.
- Provision of improved artificial insemination and breed improvement activities and Liquid Nitrogen Gas
- Establishing linkages with the markets to provide an appropriate platform for disposal of the produce at appropriate process

### Fisheries

- 11,557 fishermen are engaged in fishing. There has been continuous growth in per hectare fish production, in Gobindsagar and Pong dam reservoirs

<sup>9</sup> Source Economics and Statistics dept., GohP

- The State has 600 kilometres of trout streams and there is a good potential of trout farming in the high-altitude areas. Over 570 trout units have already been established. Financial assistance for the construction of 100 trout units in the State, during 2016-17, has been provided. Additional units will also be added, keeping in view the available potential

#### Power

- Expedite realization of existing potential of hydro power
- Explore the possibilities of non-conventional sources of energy like solar and wind power, including under the revised solar policy
- Minimize transmission losses and ensure continuous supply (24x7) and quality power to all households
- Cover left-out hamlets with the objective of providing electricity to all households
- Attracting further private investment in production, transmission and distribution

#### Industries

- Providing ease of doing business in the State, comparable to the most investment friendly countries/states
- Identifying areas where there is adequate return, to facilitate investment
- Identifying the factors responsible for slow growth of the industrial sector in the State and taking corrective measures, such as improving working conditions in the formal and informal sectors and addressing Occupational Safety and Health (OSH) issues to minimize industrial accidents and eliminate fatalities.
- Provision of an industry friendly environment for attracting new investments and strategies for improving the competitiveness of MSMEs in the supply chain. Industries department has already streamlined the system of granting approval by introducing a single application form.
- On-line processing of common application by line departments through a single portal
- The State has set up the 'Himachal Bureau of Investment', which is a multi-departmental bureau, with the mandate to ensure speedy and time bound clearances
- Shifting of local raw material based industries to the interior areas of the State, so as to link with local markets and provide employment to local youth

- Attract private investment for high-end tourism, and to increase the duration of stay of all tourists, including through activity-based tourism
- Promote environmentally smart tourism
- Provide tax incentives to new enterprises
- Seek funding from international and national funding agencies specially to improve infrastructure
- Development of new tourist destinations in the State, with funding from international funding agencies/ private investment and Government of India

**Target 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors.**



#### Strategy

- To sustain economic growth and achieve a higher level of economic productivity, task each sector and department to contribute to increasing economic productivity

**Target 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro, small and medium-sized enterprises, including through access to financial services,**

&

**Target 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value,**

&

**Target 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training**

#### Baseline

- The LFPR, for persons aged more than 15 years in Himachal Pradesh (449) is lower than that of the average for the country (503). The male LFPR (723) is significantly higher in the State than the female LFPR (170).
- The unemployment rate amongst youth in Himachal is 10.6 percent while for India as a whole, it is 3.7 percent<sup>10</sup>.

#### Strategy for Tourism

- Decongest already established tourist destinations, identify and develop new tourist destinations with the involvement of the private sector



## Targets

- Increase the LFPR for women and eliminate the differential with men by 2030
- Reduce the total unemployment rate to below 6 percent by 2022 and to less than 3.5 percent by 2030

## Strategy

- Initiation of multi-skill development programmes focusing on job creation and entrepreneurship based on an analysis of skill demand and supply
- Develop programmes for skill up gradation, knowledge enhancement and access to capital for young people
- Encourage vocationalization in higher education institutions
- Increase State spending on employment generation programmes
- Improve the efficiency of the Labour & Employment department
- Analysis to explore avenues/ innovations for skill development initiatives

## Action Plan

- Establish a qualitative database of total unemployed persons from different social groups
- Conduct need assessment studies for the skills required for varied age groups
- Promote public private partnerships for technical skill development programmes
- Redesign and restructure the curriculum in higher education
- Smart functioning of Employment Exchanges with use of IT

**Target 8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead.**

### Baseline

- The forest area in Himachal Pradesh is 66.52 percent of the geographical area; forest cover is 39.64 percent of forest area, which in turn is 26.37 percent of the total geographical area

- The State has a total forest cover 14,679 (area 'km2), which is 2.12 percent of the national forest cover

## Targets

- Increase the total forest cover from current level to 2.2 percent
- Conservation of rare and endangered species of flora and fauna (10 each), by 2030

## Strategy

- Diversification from timber and non-timber based forest produce, so as to ensure the livelihood of local communities
- Gradual shift from a conservation approach to a management approach

## Action Plan

- Improvement of forests, tree cover and compensatory afforestation and plantation through participatory forest management. Sustainable management of natural resources and wildlife outside Protected Area Network (PAN) in order to conserve wildlife and to manage human-wildlife interface
- Reduction of silt load in catchments through Catchment Area Treatment Plans
- Increased awareness of forests, forestry and biodiversity amongst people and their mobilization for participatory management
- Implementation of actions proposed in the Environment Master Plan, including evaluation of the effects of climate change on natural resources. Analysis of the vulnerability and adaptation potential of natural resources, and collation of information on parameters related to environmental concerns.
- Conduct a socio-economic assessment of the impact of climate change on natural resources and determination of the availability of natural resources in the future, considering the effects of both climate change and demand forecasts.

**Target 8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms.**

### Baseline

- The total number of working children (child labour) has decreased from 107,774 (2001) to 15,001 (2011)
- The rate of cognizable crime related to human trafficking in the State was 0.1 percent in 2014 as compared to the all India figure of 0.4 percent



### Targets

- End child labour in all its forms by 2022 and eliminate human trafficking by 2022



### Strategy and action plan

- Create and maintain a database on child labour and human trafficking
- Enforce the laws / rules and amend them, if required
- Ensure liaison and coordination between the Women and Child department, Home (Police) and Social Welfare department, and with NGOs and the media

**Target 8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.**

### Baseline

- The Labour & Employment department is tasked with ensuring implementation of 26 Central and two State labour laws for protection of labour rights and to promote a safe and secure working environment.



### Targets

- Strive to achieve well-being of workers engaged in the un-organized sector, particularly women migrants
- Create a data base on building and maintaining workers engaged in unorganized sector, especially of those engaged in unsafe employment



### Strategy

- To enforce labour laws effectively, in order to protect labour rights, both in formal and informal sectors, and ensure the welfare of workers, particularly women and those engaged in unsafe employment.



### Action Plan

- Complete and periodic verification of self certification of employers regarding implementation of provisions of statutes under labour and factories laws such as (i)

working hours, (ii) leave with wages, (iii) welfare (iv) timely payments of wages (v) payment of minimum wages as notified

- Regular inspections by the Labour and Employment department
- Time-bound redressal of complaints pertaining to non-payment of wages, non-implementation of safety measures and welfare provisions
- Provide crèches for children up to three years of age, at construction sites and in industrial belts
- IEC for awareness of rights of labour
- Engage with employers and trade unions
- Initiatives to promote labour rights in the informal sector

**Target 8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products**

### Baseline

- The share of the tourism sector in the State GDP was 7.08 percent in 2014-15
- Total employment generated in the tourism sector was 5.38 percent in 2014-15



### Targets

- Increase the share of tourism in the State GDP to 8.5 percent by 2022
- Achieve and sustain double digit contribution to the State GDP by 2030
- Increase the share of employment in the tourism sector to the total employment generation of the State by 2022 and raise it up to 20 percent by 2030



### Strategy

- Plan to decongest already established tourist destinations
- Identifying and developing new tourist destinations, with the involvement of the private sector
- Private investment to raise the proportion of high-end tourists and to extend the stay of all tourists in the State
- Working in the direction of promoting environmentally smart tourism



### Action Plan

- In order to increase the duration of the stay of the tourists, special emphasis will be laid on the development of activities-based tourism



- Tax incentives will be provided to new enterprises in the tourism and hospitality sector
- Funding from international and national funding agencies to improve infrastructure
- Development of new tourist destinations in the State with funding from international funding agencies/ private investment and the Government of India
- Research to explore new areas and avenues for safe tourism

**Target 8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.**

#### Baseline

- The State has a total of 2,037 bank branches (PSBs, RRBs, private banks and co-operative banks) and 1,792 ATMs as of March 2016
- As high as 89.1 percent of households avail of banking services in the State, as compared to the national figure of 58.7 percent

#### Targets

- Linkage of 100 percent of households, specifically with access to banking, insurance and financial services, by 2022

- 100 percent Direct Benefit Transfer (DBT) coverage for social security and welfare schemes, of all the departments by 2020
- Increase and sustain 50 percent of bank account holders using internet banking/ mobile money services by 2022 and 100 percent by 2030



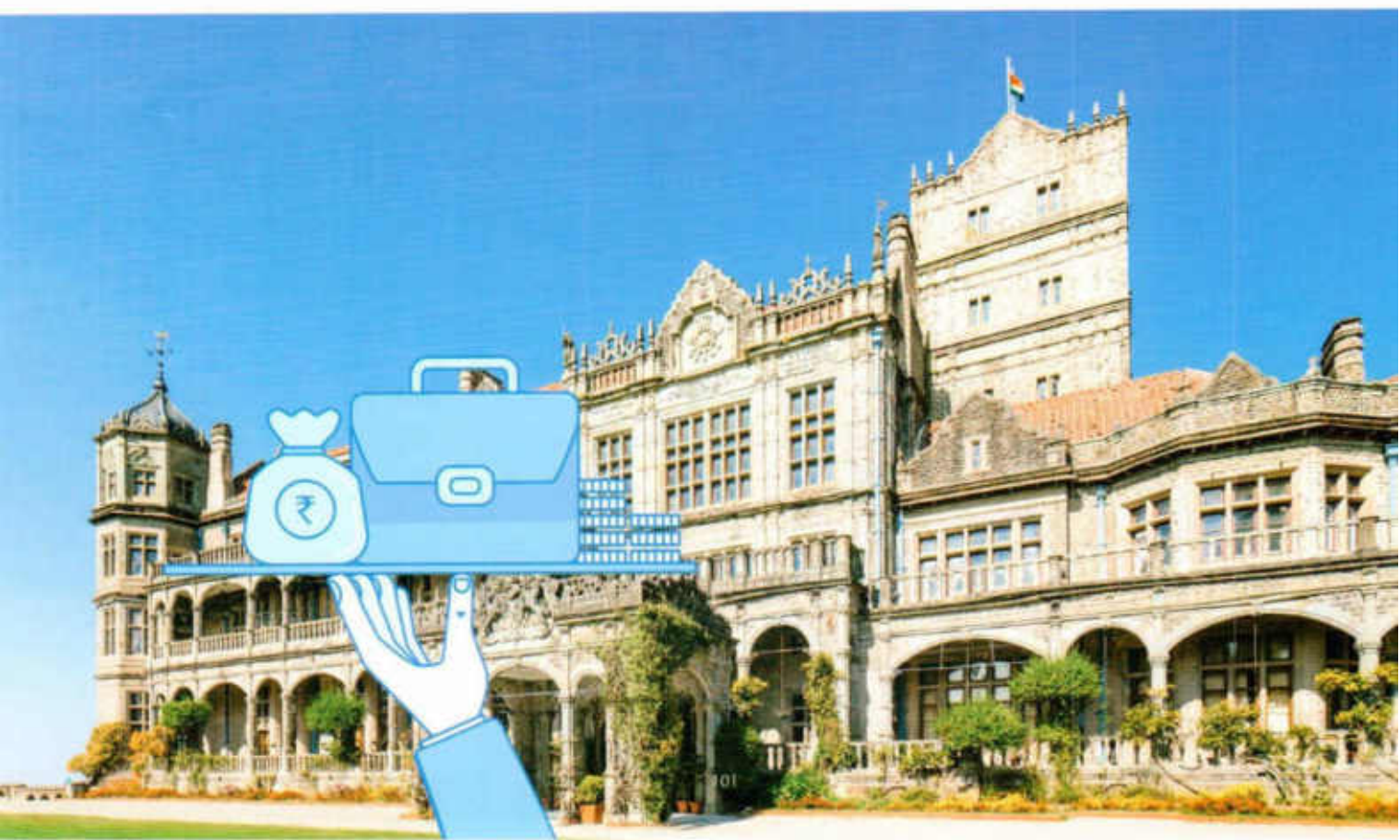
#### Strategy

- Expansion of the access of domestic financial institutions



#### Action Plan

- Access to banking, insurance and financial institutions will be expanded for all by 2022
- For better financial inclusion and to facilitate the transfer of benefit directly to the account of beneficiaries under the DBT scheme, the State is focussing on Aadhaar number and mobile numbers seeding in the bank accounts of customers
- Promotion of ICT enabled bank services
- The State will endeavour to cover all welfare schemes of the departments by DBT



## Indicator statement for monitoring the progress

SDG	Targets	Indicators		Current Status	Target By 2022	Target By 2030	Data Source
		National indicators	State indicators				
8.1	Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 % GDP growth per annum, in the least developed countries	Annual growth rate of real GDP per capita	Annual growth rate of real GSDP per capita	Growth rate was 8% in FY 2011-12 and it decreased to 7.7% in 2015-16	Increase the growth rate to 8.5 %	Achieve double digit growth and sustain the same	E&S dept.
8.2	Achieve higher levels of economic productivity through diversification, technological upgrading and increase in the share of the working population of differently-abled persons to total population innovation, including through a focus on high-value added and labour-intensive sectors	Annual growth rate of real GDP per employed person	Annual growth rate of real GSDP per employed person	Annual growth of real GSDP per employed person was 5.8% in FY 2012-13  Gross value added (GVA) of the State at basic prices was a growth 7.1% during 2014-15 (base year 2011-12) against a growth rate of 6.3% during 2013-14	Increase the per capita real GSDP per employed person to 8 %  Raise the GVA by 8 percent	Increase the per capita real GSDP per employed person to 9.5%  Achieve and sustain two digit GVA	E&S dept.
		Proportion of informal employment in non-agricultural employment	Proportion of informal employment in non-agricultural employment	Total Labour Force Participation Rate (LFPR) for persons aged above 15 years is 44.9%	Increase the total LFPR for persons aged 15 years and above up to 50%	Increase and equal the female LFPR to the male LFPR in the State	E&S dept.
8.3	Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services			Youth (18-29 years) unemployment rate is 10.6% which is higher than all India figure of 5%	Reduce the total unemployment rate of the State to below 6%	Reduce the total unemployment rate of the State to below 3.5%	E&S dept.
		Total emission (quantity) by developed countries	Total emission (quantity) in the State	Foot print on industrial production is 5570.88 (000' tons) G grams CO2 eq emission	Reduction in CO2 emission by 10 percent of 2012 levels	Reduction in CO2 emission by 20 percent of 2012 levels	E&S dept.
8.4	Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead	Per capita plastic consumption	Reduction in municipal waste and hazardous wastes	45 tonnes of municipal waste and 60 tonnes of hazardous waste are generated per day	Reduction up to 300 tonnes of municipal waste and 40 tonnes of hazardous wastes	Reduction up to 150 tonnes of municipal waste and 20 tonnes of hazardous waste	HP DEST
		Unemployment rate	Unemployment rate	Unemployment rate for 15 years and above in the state has increased from 7.5% (2011-12) to 10.6% (2015-16)	Reduce the total unemployment rate of the State to below 6%	Reduce the total unemployment rate of the State to below 3.5%	HP DEST/MC
8.5	8.5 By 2030, Achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, equal pay for work of equal value	Workforce participation Ratio (WPR) of women, youth, persons with disabilities	Workforce participation Ratio (WPR) of women, youth, persons with disabilities	Workers population ratio of women is 14% (2015-16)	Workers population ratio of women to increase to 30%	Workers population ratio of women will be increased to 45%	E&S dept.



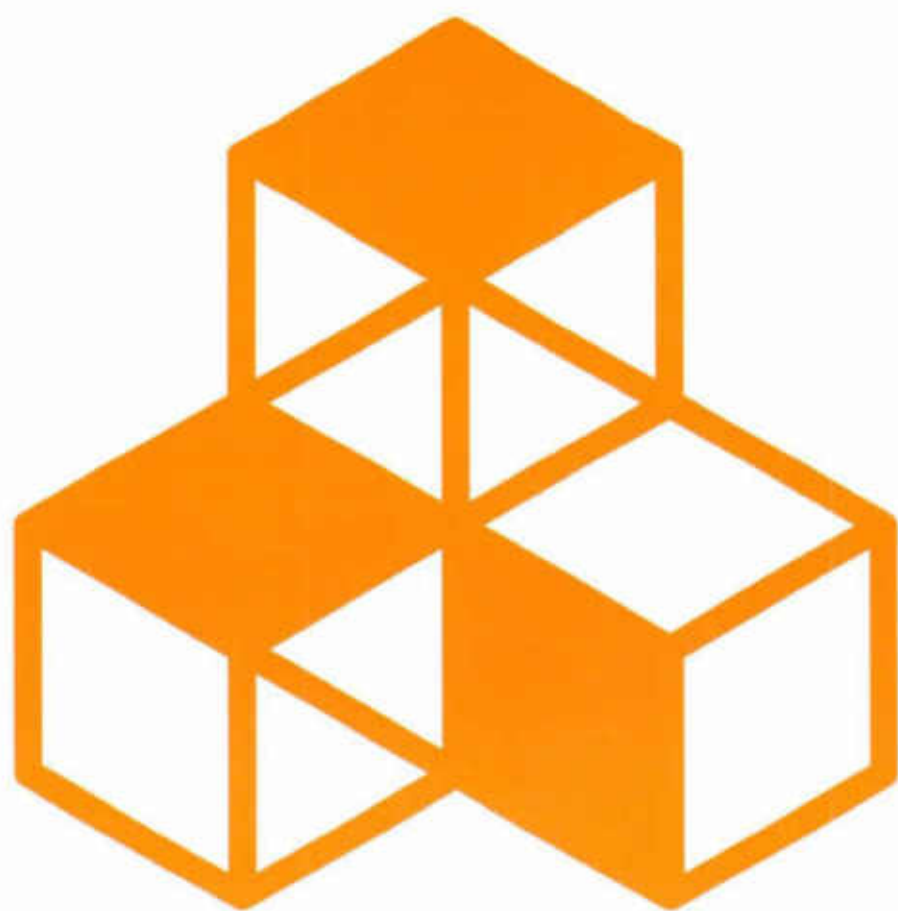
## Indicator statement for monitoring the progress

SDG	Targets	Indicators		Current Status	Target By 2022	Target By 2030	Data Source
		National indicators	State indicators				
				Out of total differently-abled working population, 44.37% of persons are engaged in employment activities	Increase in the share of the working population of differently-abled persons to 60%	Increase in the share of the working population of differently-abled persons to 80%	L&E
		Existence of legal protection system for equal pay for equal work	Existence of legal protection system for equal pay for equal work	The State has appropriate legal protection system for equal pay for equal work. However, enforcement of the same is lacking.	Effective enforcement of laws pertaining to protection of equal pay for equal work will be ensured by making necessary amendment in the old and redundant legal system.	Effective enforcement of laws pertaining to protection of equal pay for equal work will be ensured	Census
		Unemployment Rate (15-24 years)	Unemployment Rate (15 years and above)	Unemployment rate for 15 years and above is 10.6 %	Reduce the total unemployment rate of the State to below 6%	Reduce the total unemployment rate of the State below 3.5%	L&E
8.6	By 2020, substantially reduce the proportion of youth not in employment, education or training	Total crimes relating to human trafficking	Total crimes relating to human trafficking	Cognizable crime relating to human trafficking in the State was 0.1% in 2014	100% elimination of all kinds of human trafficking	100 % elimination of all kinds of human trafficking and will be sustained	L&E
8.7	Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms	Whether the country has a law against child labour	Whether the State has a law against child labour	Yes, the State has appropriate laws for elimination of child labour  Total number of child labour has decreased from 107,774 (2001) to 15,001 (2011)	Child labour practices will be eliminated in all its forms in the State and same will be sustained by effective enforcement of laws	End child labour in all its forms and same will be sustained	NCRB/ SCRB
		Number/proportion of workers covered under ESI Act	Number/proportion of workers covered under ESI Act	100 percent workers are covered under ESI	Same status will be maintained	Same status will be maintained	NCRB/ SCRB
8.8	Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrant workers, those in precarious employment	Number/proportion of workers covered under health insurance	Number/proportion of workers covered under health insurance	Mukhya Mantri State Health care scheme being implemented to cover all daily wages workers, part-time workers and contractual employees of the Govt. Autonomous bodies/ societies and persons with disability	Increase the coverage up to 70% under the health insurance scheme	90% coverage under the health insurance scheme	L&E
		Accommodation in working women's hostel	Accommodation in working women's hostel	14 working women's hostels in the State	Strengthening of the existing women hostels and improve the quality of services	Strengthening of the existing women hostels and improve the quality of services	L&E/ DHS
		Number of tourists who visited/percentage increase in number of tourists (domestic and foreign)	Number of tourists who visited/percentage increase in number of tourists (domestic and foreign)	There were 1,79,97,750 Indian and 45,2770 foreign tourists, a total of 1,84,50,520 tourists visited Himachal in 2016.	10% increase in the tourists (Indians and foreigners) from the current level	15% increase in the tourists (Indian and foreigners) from the current level	L&E

## Indicator statement for monitoring the progress

SDG	Targets	Indicators		Current Status	Target By 2022	Target By 2030	Data Source
		National indicators	State indicators				
8.9	By 2030, devise and implement policies to promote sustainable tourism that creates job and promotes local culture and products	Number of jobs in tourism industries	Number of jobs in tourism industries	Out of total employment, 5.38% employment was generated in the tourism sector in 2014-15	Increase the employment in the tourism sector to 12% of the total employment generation of the state	Increase employment in the tourism sector to more than 20 %	E&S dept.
		Number of jobs in tourism industries	Number of jobs in tourism industries	Employment generated in the tourism sector as a percentage of the total employment was 5.38 in 2014-15	Increase the percentage of employment in the tourism sector to total employment to 12%	Increase the proportion of employment in the tourism sector to total employment to above 20%	E&S dept.
		Tourism share as a proportion of total State GDP	Tourism share of GDP as a proportion of total GDP	Tourism share in State GDP was 7.08 % in 2014-15	Increase the tourism share of the State GDP to 8.5%	Increase and sustain double digit share of tourism in the State GDP	E&S dept.
		Number of jobs in tourism industries	Number of jobs in tourism industries	Out of total employment, 5.38% employment was generated in the tourism sector in 2014-15	Increase the employment in the tourism sector to 12% of the total employment generation of the state	Increase employment in the tourism sector to more than 20 %	E&S dept.
		Number of accounts opened under PMJDY	Number of accounts opened under PMJDY	Total 1,033,620 accounts were opened under PMJDY PMJDY account has been opened almost for all the eligible persons in the state.	100 % coverage under PMJDY	100 % coverage under PMJDY	E&S dept.
8.10	Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all	Number of commercial bank branches per 1,00,000 population	Number of commercial bank branches per 1,00,000 population	As per the Census - 2011, the population per branch was 3,315. As per RBI guidelines, one branch is required for a population of 11,000 people	Maintaining and strengthening the banking services	Maintaining and strengthening the banking services	IF
				Availability of bank branches seems to be adequate in the state.			IF
		Automated Teller Machines (ATMs) per 1,00,000 population	Automated Teller Machines (ATMs) per 1,00,000 population	There are 1900 ATMs that are functional in the state. It is expected that each year 30-40 ATMs will be added by the banks	150 new ATMs will be opened	200 new ATMs will be opened. Thus, by 2030 there will be around 2200 ATMs functional in the state	
		Proportion of adults with an account at a bank or other financial institution or with a mobile money service provider	Proportion of adults with an account at a bank or other financial institution or with a mobile money service provider	About 89.1% of households have bank accounts in the State	100 % of households to be linked with banks	100% of households to be linked with banks	IF
8.a	Increase aid for trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries	National Indicator not yet developed					IF
8.b	By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization	8.b.1 : Number of man days created under Mahatma Gandhi National Rural Employment Guarantee Act(MGNREGA)					





SDG 9

*BUILD RESILIENT  
INFRASTRUCTURE,  
PROMOTE INCLUSIVE AND  
SUSTAINABLE  
INDUSTRIALIZATION AND  
FOSTER INNOVATION*

## Vision

Providing an enabling environment, supported by robust and resilient infrastructure, a simplification of procedures and investment friendly policies, for the promotion of industrialization and to generate employment opportunities for the local youth.

### Himachal Pradesh today

- Out of 18,711 habitations 13,618 connected with 2 kms of an all-season road
- 6,222 passenger buses and 1,57,668 goods carriages operational in the State
- There are 40,150 small-scale units employing about 2,25,889 persons and 505 medium & large-scale enterprises providing employment to 61,040 persons
- One Common Effluent Treatment Plants is functional in Baddi Industrial area
- State Level Single Window Clearance and Monitoring Authority for faster clearance of the proposals
- 18,229 villages connected by fixed/mobile network
- 0.0099% expenditure on Research & Development to the total GPD

### Focus for Tomorrow

- 100% road connectivity for rural population, within 2 km of an all-season road
- 44.19% increase in passenger buses and 29.9% increase in goods carriages from the current level
- 100% increase in employment in MSME and L&M from the current level
- 50% growth in development of additional Marketing Yards from current level
- 135.29% increase in banks financing/loans to small-scale industries from the current level
- 50% reduction in CO<sub>2</sub> emission from the current level
- 100% availability of broadband
- 2% expenditure on Research & Development to the total GPD





Goal No. 9 focuses on three important aspects: building resilient infrastructure, inclusive industrialization and innovation. All three aspects have strong interlinkages. Resilient infrastructure provides all necessary infrastructure facilities such as roads, transportation, electricity, information technology, marketing etc. that are required for business activities, and innovation increases technological potential of industries that leads to the development of new skills and makes the business activities more environment friendly.

Himachal Pradesh has enormous potential for sustainable industrialization, as the State has diverse topography, varied climatic zones, rich natural resources, mineral deposits and an identified hydel potential of over 27,436 MW. The State has been striving to create a conducive and enabling industrial climate that could attract investors to Himachal Pradesh. Several steps have been taken in this direction. With a view to provide umbrella support to the existing and new ventures, the State Government had notified a State Level Single Window Clearance and Monitoring Authority (SLSWC & MA). The State has been suitably strengthening the infrastructure; there are 41 industrial areas and 17 industrial estates with necessary infrastructural facilities. In Baddi, there is a Trade Centre

for Export Oriented Units, an Inland Container Depot, a freight station, a Common Effluent Treatment Plant, a Solid Waste Management Plant, labour hostels and a skill development centre. The emphasis of the State Government would be on uniform dispersal of the industries across the State and in the industrial corridors in particular.

There are many areas with a vast potential of industrial activities in the state. These are power, all weather tourism, agro-processing, FMCG, electronics and electrical, biotechnology and pharma sector. The State has been acknowledged as Asia's largest pharmaceutical hub with more than 700 units manufacturing pharma formulations. The State Government has been supporting start-ups through incubation centres and ideation hubs to nurture innovative ideas for sustainable businesses. Overall the State has been an ideal investment destination. The major challenge for the State is promoting the expansion and diversification of industrial activity, job creation and economic growth, development of common infrastructure around notified industrial areas, and fostering innovation by setting standards and conducting foundational research.







### Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

**State Mission on Food Processing:** The State Mission on Food Processing (SMFP) continues to facilitate food-processing industries.

**CM Start-up Scheme:** The Chief Minister's Start-up/Innovation Projects/New Industries scheme will encourage educated youth to establish start-ups and innovative projects and provide skills to develop entrepreneurship.

- **Rashtriya Krishi Vikas Yojana (RKVY):** A project within the framework of the RKVY will support strengthening of a silk technology demonstration-cum-training centre and capacity building through demonstration of appropriate technology. In addition, the State Catalytic Development Programme will provide for clustered infrastructure and capacity building in the sericulture sector.
- **Baddi Barotiwala Nalagarh Development Authority (BBNDA):** The Barotiwala, Nalagarh Development Authority (BBNDA) has been created for the development and planning of infrastructure in Baddi-Barotiwala-Nalagarh area. Besides improvement and strengthening of roads, sewerage and sanitation, drainage and water supply schemes are being implemented by BBNDA.
- **Rural Industries Programme/Rural Artisan Programme (RIP/RAP):** These programmes will upgrade the skills of rural artisans by providing training in improved techniques and tools, and helping to set them up in their trades.

**Rural Engineering Based Training (REBT) (SCA for SCSP):** This scheme aims to develop and upgrade skills of unemployed youth of BPL families in rural engineering based industries.

**Industrial Consultancy, Promotion and Training Scheme:** This scheme promotes industrial activities, organizes industrial fairs and provides information, consultancy and training to prospective entrepreneurs.

**National Handloom Development Programme:** Support will be provided for cluster development handloom marketing development and strengthening of handloom institutions.

- **Development of Handloom Industries:** Grants will be provided to the State Handicrafts & Handloom Corporation for the development of the industry, to free

weavers and artisans from exploitation by traders, impart training, improve their skills and provide marketing facilities. Grants will be provided to the State Board to operate carding plants, oil expellers and mini finishing plants in tribal areas.

- **Central Transport Subsidy/ Freight Subsidy Scheme:** New industrial (irrespective of size) and MSME units that undertake substantial expansion through additional investment in the public and private sectors will be eligible for reimbursement of 75 percent of the transportation cost for bringing of raw material and supply of finished goods from site to outside Himachal, to designated rail heads.
- **Assistance to States for Infrastructure Development of Exports and allied activities (ASIDE scheme):** ASIDE scheme was launched to assist the State Government in creating infrastructure for the development and growth of exports in the State.



### Challenges in achieving the targets

- Research and development activities in potential sectors are as yet nascent or still to begin.
- Traditional, often out-dated and obsolete industrial technological processes and equipment are being used, consuming excessive power and resources and producing uncompetitive products.
- There is no state-wide industrial goods movement corridor that connects remote areas with national goods movement grids, adding to time and resources in transit, especially in interior and remote areas. Horticulture is a major contributor to income, and an improved transport system with alternate options for movement of goods through railways and ropeways would help cultivators in realising more value for their produce.
- Since most produce and products are transported by road, checks on emission norms, quality of vehicles and their efficiency need to be carried out regularly.
- For start-ups and MSMEs, there are difficulties, as well as the reluctance on the part of institutions to extend support.
- Advancements in scientific research, technological capabilities of industrial sectors is an urgent need to improve the efficiency and net product output and the development of technologies in the fields of IT, life sciences, food processing industries.
- Notified industrial areas need to be connected through good roadways to encourage movement and trade of goods within and outside the state. There are few alternatives to road networks for the movement of goods within the state; additional options need to be created.



- The development of common facilities in industrial areas will help save cost and efforts by MSME enterprises. For example, R & D labs are not present as a common facility in the state, which could be used for technological and process up-gradation of smaller units, giving them enough competitive advantage in terms of enhanced product or service delivery.

## 2 Strategies for success

**Food Processing:** The State is committed for setting up of food processing units around grower unions in the State for providing backward linkages and common marketing support for effective marketing of the finished product, along with the establishment of value chains to develop local producer-consumer bases. The setting up of food processing industries and subsequent value chain creation will be done with assistance provided by MOFPI under its Kisan Sampada scheme. Till 2022, identified food processing clusters will be established so as to develop a complete value chain in each cluster.

**Backward linkages:** Producer Union groups, agricultural inputs for better harvest, R&D support for primary level processing units (more than Rs. 2 crores investment in plant and machinery). Common storage and loading-unloading facilities for secondary level consumer unit or supplier units. Common facilities like exports linkages, branding and packaging support, as required, based on progress for value chain filler units.

**Forward linkages:** Market connect support, simplified transportation amenities, export support hubs, physical market place, online market place through e-commerce and amenities, as may be decided.

### Number of clusters proposed: Five

**Advanced virtual technologies, artificial intelligence (AI), robotics and sensor technologies:** Research & Development lab facility, will be set up with amenities enabling research in the field of virtual technologies AI and robotics and a major firm in the Indian IT industry or from abroad to start its operations from the state.

**Life Sciences:** Two firms, two R&D Labs 7(PPP) and two hospitals and patient care facilities proposed for data-led patient engagement, growth of genetics/genomics, orthopaedic implants, ocular research and herbal medicinal research, etc. Two firms and two hospitals and patient care facilities (PPP) proposed for multifarious growth of existing facilities depending on results and critical illness research and treatment. Five firms and two R&D labs (Govt. and one R&D lab (PPP) for state-of-the-art Research Institute for Advanced Medical and Life Sciences Technologies prevalent.

**Chief Minister's Start-up/innovation projects/New Industries Scheme:** The scheme has been introduced to encourage educated youth to move from job seekers to job creators. Establish a knowledge hub with high speed Internet, Wi-Fi, a dictionary of successful start-ups, National/International and Idea Centres, etc. The mentors will be given exposure in other incubator setups in the country. The following activities will be undertaken on a priority basis:

- The building of the knowledge hub will be completed in one and a half years
- During the construction period the mentors from at least three incubators will be taken to the already set up incubators in the country for updating their knowledge
- To identify fund managers
- To increase the number of incubators from seven to ten, setting up new incubators in districts that do not have them; choose the sites through an objective survey and analysis
- To set up a sub knowledge hub at a central location in the State to cater the needs of far flung areas, such as Pangti, Bharmour, Chhota Bhangal, Bada Bhangal of District. Chamba and Kangra.
- Explore obtaining funds from the Government of India and other sources (external funding agencies)
- To identify reputed incubators in the country, study the pattern of venture capital, as is being done elsewhere and to appoint fund managers

**Technology upgradation:** Traditional industrial processing process and equipment is being used by the industries, which consume substantial power and resources and yield products that lack comparative advantage.

### Intervention

- Technology upgradation assessments by DIC, selection of eligible units and creation of common facilities
- Assessment for upgradation requirements for the second phase, selection of eligible units and creation of common facilities
- Assessment of gaps
- Aid for upgradation to stand alone units
- Common facilities

### No. of firms benefitted:

- Firms: All
- Support to isolated units: 2 per district
- Technology gap fillers: 10 per district

### Communication, infrastructure, energy and an enabling environment:

- Rail connectivity in at least three major industrial areas by 2030, and ensuring uninterrupted power supply with no/little voltage fluctuation (33KVA to 132 KVA supply) in all industrial areas.
- All weather roads: There are 42,725 kms of roads in the State (35,775 kms of PWD roads, 2350 kms of forest roads and 4,600 of rural roads). There are 18,711 habitations, of which 13,618 are connected (October 2016). In the next three years, upto 2019-20, 270 habitations will be connected and by 2023-24, another 600 habitations will be connected; by 2030 all habitations will be connected. By 2030, all habitations will be connected through a network of National Highways (53 sanctioned) and PMGSY roads.
- Infrastructure will be improved through provisioning of a theme-based park approach e.g. for bulk drugs and pharma, biotech, food and textiles parks, etc.
- Enhancing scientific research is paramount, as is encouragement to innovation and increasing research/development workers. Technological development and increasing access to information and communication technologies will be provided.
- Availability of industrial infrastructure and utilities is critical. It is essential to make land available at a reasonable price, through new industrial estates and providing assured supply of electricity and water at competitive rates. SMEs also need common infrastructure such as effluent treatment, testing and laboratory facilities that can be set up on a cluster basis.
- HPSEBL Existing and proposed electrical infrastructure in industrial areas: For the sustainable development of industries in the state, HPSEBL has created a well-knit electrical infrastructure from 220kV to 11kV in the identified industrial areas of the State. Total capacity created is 831.5 MVA at 220 KV (3 sub stations)/1308.5 MVA at 132 KV (18 sub stations)/558.9 MVA at 66 KV (13 sub stations)/270.4 MVA at 33 KV (26 sub stations). The HPSEBL proposes to set up 12 sub stations to boost the electricity infrastructure. The voltage wise aggregate capacity existing and proposed to cater to power demand of existing and prospective Industrial clusters in Himachal Pradesh is summarized as under:

**Figure 9.1- Voltage Wise Capacity (MVA) created and proposed in Industrial Areas**



Further, recently, the Government of Himachal Pradesh, Department of Industries has notified the potential Industrial Zones in Industrial Corridors in Himachal Pradesh in Una, Simmour, Kangra, Solan and Bilaspur areas<sup>1</sup>.

HIMUDA has envisaged housing projects at Moginand (Kala Amb)/Sheel (Solan) and Jathia Devi near Shimla Airport. The tentative residential units planned in these are

695. The strategy of HIMUDA is to acquire land in the potential areas to create a land bank and to provide housing according to the demand of the area. Further, adequate land needs to be kept reserved for creating housing infrastructure, in the upcoming Industrial Areas/Estate in the State and HIMUDA can undertake the construction work as deposit works for this purpose.

1. Notification No. Ind.-A(F)8-1/2016 dated 01.06.2016



**Housing:** Himachal Urban Development Authority (HIMUDA) has developed housing colonies throughout the State and in industrial sectors at Parwanoo and Baddi, where plots have been allotted.

**Himachal Pradesh State Industrial Development Corporation (HPSIDC):** HPSIDC has developed an industrial area under the Self-Financing Scheme at Baddi in 1987. It is developing another industrial estate at Davni (near Baddi) where besides strengthening/upgrading the existing allied infrastructure such as roads, electricity, drainage, sewerage and solid waste disposal, the Corporation will also develop common facilities, commercial complexes and industrial housing.

**Tourism infrastructure:** The tourism sector in Himachal Pradesh is one of the most important sectors of the economy, and it can be a major engine for future growth. The State is endowed with all the basic resources necessary for a thriving tourism industry like geographical and cultural diversity, clean and peaceful environment, high mountains and picturesque valleys, beautiful streams, sacred shrines, historic monuments and a friendly and hospitable people. The contribution of the tourism sector to the State's GDP is approximately 7.08 percent<sup>2</sup>, which is quite significant. The tourism industry<sup>3</sup> in Himachal Pradesh has been given very high priority and the Government has developed appropriate infrastructure for its development, which includes public utility services, roads, communication network, airports, transport facilities, water supply and civic amenities, etc. There are three airports - Shimla, Bhuntar (Kullu-Manali) and Kangra and 63 operational helipads. The State Government has also conveyed the 'in-principle' approval for the construction of new helipads at Banderaru near Sanjauli - Dhalli bye pass road and Chowari, in Chamba district.

**Educational facilities:** The State has one National Institute of Technology (NIT) at Hamirpur, one IIT at Mandi, one NIFT at Kangra, 20 Engineering Colleges, 34 Polytechnic Institutions, two Government Medical Colleges, one private sector Medical College, and 13 B-Pharmacy Colleges. There are 241 ITIs and 14 Universities, of which four have been established by the Central and the State Government and ten by private entities. A Regional Centre of Indian Institute of Foreign Trade is being set up in Shimla district. There is a CIPET at Baddi, and a hydro engineering college is being set up in Bilaspur district.

**Transportation facilities:** The State seeks to strengthen the public transport system and infrastructure, ensuring availability of requisite infrastructure in all industrial townships and connectivity to all habitations by 2030. With urbanization and increase in incomes, the demand for

passenger and goods transport has increased, including in the luxury segment. Connectivity to remote localities is of concern, as is the transportation of farm produce and industrial products at competitive rates. Owing to increased vehicle density and passenger miles travelled, congestion, pollution and road safety are important emerging issues. The sector is characterized by relatively old and out-dated rules, procedures and tax laws.

The State will focus on infrastructure, ensuring property rights, providing a favourable investment climate and business environment, reducing regulatory burdens and providing tax or financial incentives. It will endeavour to ensure generation of gainful employment opportunities as a result of increased investment in infrastructure development and the resultant increase in industrial development. An opportunity for PPP in the development of transport infrastructure has emerged; to take advantage of it a healthy business environment and stable, long-term policies will be needed.

**New infrastructural developments:** Development of state-of-the-art industrial areas under MIUS at Pandoga (Una) and Kandrari (Kangra) are in progress

Other proposals those are likely to come up over the next 3 to 7 years

- Industrial areas at Dabhata, a bulk drugs park, a biotechnology park and a city centre in Nalagarh tehsil, Solan district
- Agricultural clusters (at Kinnaur, Lahual & Spiti, Chamba)
- The Department of Tourism has submitted infrastructure projects of around Rs. 100 crores to the GOI, for support under the 'Swadesh Darshan' scheme. It has encouraged the private sector to develop tourism related infrastructure in the PPP mode. Five sites (Baddi, Solan district; Jhatingri, Mandi district; Shuja/Banjar, Kullu district; Bilaspur district and Suketi in Sirmaur district) can be offered to the private sector on a long-term lease.
- A dynamic private sector plays a crucial role in the economic development process, as it is an engine of investment, innovation, and growth and offers an effective way to create employment, incomes, and prosperity. The State will encourage active participation of the private sector in ensuring sustainable development of infrastructure and industrial development. The private sector can contribute to the development of industrial areas, participate in development of infrastructure and invest in energy

<sup>2</sup> Economics & Statistics department, Himachal Pradesh

<sup>3</sup> At present, about 2,604 hotels with a bed capacity of about 70,869 beds are registered; in addition, there are 787 registered home stay units with 2,137 rooms.



efficiency and access and the provision of cleaner sources of energy, including renewable energy. The sector can help in the new Smart Urban Centres and implement low carbon technologies and pathways for urbanization and invest in better waste and water management,

**Target 9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise**

**industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries**

#### Baseline

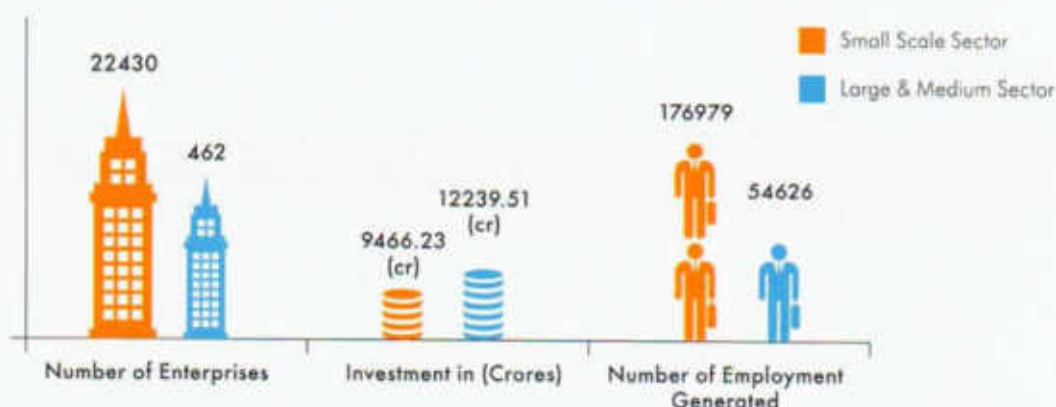
Manufacturing is the foundation of economic development, employment and social stability.

**Table 9.1- The Gross Value Added (GVA) of manufacturing to the State GDP is as follows:**

Item/Year	2011-12	2012-13	2013-14	2014-15	2015-16
GVA of manufacturing (org. + un-organized) Rs. In lakhs	1,799,827	2,063,113	2,300,256	2,410,930	2,513,444
Percentage share of State GDP	24.75	25.07	24.84	23.85	22.74
GVA of un-organized manufacturing (Rs. In lakhs)	87,449	94,968	97,556	103,661	109,076
% of un-organized manufacturing to GVA of the manufacturing sector	5.11	4.83	4.43	4.49	4.54

In the period between 1991-92 and 2016-17, 22,892 industrial enterprises (22430 small scale and 462 large & medium enterprises) were established with an investment of Rs. 21,705.74 crores, which provided employment to 231,605 persons. There were 462 large and medium industrial enterprises (2.01 percent of the industrial enterprises), which provided employment to 54,626 people (23.58 percent of the employment in the industrial sector) and 22,430 small scale enterprises provided jobs to 1,76,979 persons.

**Figure 9.2-Investment made and Employment generated by Enterprises between 1991-92 to 2016-17**



#### Targets

Estimated growth of Gross Value Added (GVA) of manufacturing sector from 2017-18 to 2030 is proposed as under

Item/Year	2017-18 to 2019-20	2017-18 to 2023-24	2017-18 to 2029-30
Percentage share of GVA of manufacturing to the State GDP (Org.)	24%	25%	27%



## Strategy

GVA of manufacturing to the GDP has seen a decline over the period 2011-12 to 2015-16; this trend needs to be arrested and reversed. Other challenges are improving ease of doing business index and ranking.

## Action plan

To reverse the declining trend GVA of manufacturing in the State GDP to positive growth, several initiatives will be taken. The focus will be on the sericulture, handloom and handicraft sectors, through technological upgradation and marketing support.

## Ease of doing business

The State is in the process of implementing a single window clearance system, which will facilitate time bound clearances in an organized manner. It will function as a hub and spoke model, spread across the State with a central agency at the Directorate level and the District Industries Centres as nodal agencies. Facilitation desks and help lines will be installed at nodal offices of the Industries department. A State Level Review Committee will grant time bound clearances; for mega and ultra mega projects, a State Level Committee under the Chairmanship of the Chief Minister will be formed. There will be a provision for handholding of enterprises throughout their life cycle. An industrial financial facilitation cell has been proposed.



**Table 9.2-Credit flow projections in MSME sector up to 2030 (in Rs. crores)**

Year	Amount	Year	Amount	Year	Amount
2016-17	11,400	2020-21	23,639	2025-26	58,821
2017-18	13,680	2021-22	28,367	2026-27	70,586
2018-19	16,416	2022-23	34,040	2027-28	84,703
2019-20	19,699	2023-24	40,848	2028-29	101,644
	2024-25	49,019	2029-30	121,972	

**Target 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes**

**Target 9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets**

## Baseline

As against 20 percent year-on-year credit growth, at the year ended March 2016, in Himachal Pradesh the overall performance of banks stood at 9.40 percent, with total outstanding of Rs. 9505.88 crores to a total of 22,8810 units<sup>4</sup>. Of the total credit to MSME, public sector banks contributed the major share of 65 percent (The finance to MSME units made by banks from outside the State is not included). According to figures from March 2016, the total outstanding amount of finance available from outside the State to units set up in various districts, stands at nearly Rs. 8,455 crores.

These figures include financing mainly to industrial sector activities, including hydel projects, cold storage, food processing units and other MSME units. We may therefore safely presume that a substantial amount of credit flows to units set up in the state, which is financed by banks /financial institutions (FIs) from outside the State and that this will improve the position of the overall credit flow to the MSME sector in the state, and the annual growth rate of 20 percent as envisaged for the MSME sector is achievable.

## Strategy

Implement key schematic interventions - PMMY and PMSGP, Stand Up India<sup>5</sup>, and establish specialized bank branches for lending to the MSMEs; encourage them to carry out skill upgradation and find ICT solutions.

## Baseline

- 25 MLD CETP has been commissioned at Baddi Industrial Area
- The treatment, storage and disposal facility (TSD) land fill site at Nalagarh is catering to 2,888 industries for treatment of hazardous waste

<sup>4</sup> State Level Bankers' Committee Report 2015-16

<sup>5</sup> Stand-Up India scheme facilitates bank loans between Rs.10 lakhs and Rs.1 crore, to at least one SC or ST borrower and at least one woman borrower per bank branch, for setting up a green field enterprise. This may be in manufacturing, trading or in the services sector. For more details see <https://www.standupmitra.in/>

A report titled Carbon Intensity Himachal<sup>6</sup> provides a comparative analysis of policies undertaken over the last five years, to understand the response on climate change adaptation and mitigation. This detailed report provides

insights to the Green House Gases (GHG) emission levels and the effects of the mitigating steps adopted.

**Table 9.3- Carbon Emission**

	Annual CO <sub>2</sub> emissions (eq) (In thousands of metric tonnes) giga gram	Percentage of global total
India	17,27,706.10 (2007 levels)	<5% of global
Himachal Pradesh*	9196.4748* ~0.00134 per capita 000'tonnes*(2012 levels)	~0.53% of India*

\* Without taking into consideration emission/ removals due to hydropower generation 7957.29 MW contributed to grid as clean energy. - (-) 17094.74000'tonnes CO<sub>2</sub> eq @ ~45% operational capacity.

This assessment provides information on Himachal Pradesh's emission of GHGs (Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>) and Nitrous Oxide (N<sub>2</sub>O)) emitted from anthropogenic activities at the State level from: energy; industry; agriculture; waste; land use, land use change and forestry (LULUCF).

GHG emissions from the industry sector in 2012-13 were 5.571 million tonnes of the total CO<sub>2</sub> equivalent emissions, in comparison to 2008-09, when they were at 5.484 million tonnes. Of this 5.569 million tonnes were of CO<sub>2</sub>, 0.004897000 tonnes of CH<sub>4</sub> and 0.0066000 tonnes of N<sub>2</sub>O. As much as 95.33 percent of the CO<sub>2</sub> equivalent emissions from the industry sector were from cement production, other emissions have shown a downward trend.

The analysis shows that, in Himachal Pradesh, a major part of the emissions are from energy consumption by industry, commercial activities, tourism and institutions.

**The sector wise description is as follows:**

- Industry:** In Himachal Pradesh, of 9.196 million tonnes of CO<sub>2</sub> equivalent, industrial activities together emitted 5.57 million tonnes.

- Cement and glass production:** The cement industry emitted 5.31 million tonnes of CO<sub>2</sub>, which is 95.33 percent of the total CO<sub>2</sub> equivalent emission from the industry sector. The emissions cover all the large, medium and mini cement plants and grinding plants. Glass production emitted 892.3 000' tonnes of CO<sub>2</sub> equivalent.
- Metals:** Metals including aluminium, ferroalloys, lead, zinc and copper production contribute emissions of 0.233 million tonnes of CO<sub>2</sub> equivalent, about 4.18 percent of the total.
- Chemicals:** Chemical industries together emitted 0.0259 million tonnes of CO<sub>2</sub> equivalent emissions; about 0.466 percent of the total.
- Other industries:** Other industries comprising of pulp/paper, leather, textiles, food processing, mining and quarrying, rubber, plastic, watches, clocks, transport equipment and furniture emitted 0.0786 000' tonnes of CO<sub>2</sub> eq; only about 0.0014 percent of the total emissions.

**Figure 9.3- Wastewater generated in major industries in Himachal Pradesh**



Source: ULBs and Industry Department



## Strategy

### Reducing emissions from the industry sector

Monitoring and evaluation is essential for the formulation of an effective strategic framework. There are a wide variety of industrial activities that cause GHG emissions and there are several ways to reduce them. The table below indicates some of the methods that industry can adopt to reduce emissions.

Type	How emissions are reduced	Actions
Energy efficiency	Upgrading to more efficient industrial technology	<ul style="list-style-type: none"> <li>Identifying ways through which manufacturers can use less energy</li> <li>Adopt natural air conditioning</li> </ul>
Fuel switching	Switching to fuels that result in less CO <sub>2</sub> emissions but the same amount of energy, when combusted	<ul style="list-style-type: none"> <li>Using natural gas instead of coal</li> <li>Clean fuel</li> </ul>
Recycling	Producing industrial products from materials that are recycled or renewable, rather than producing new products from raw materials	<ul style="list-style-type: none"> <li>Using scrap steel and scrap aluminium</li> </ul>
Training and awareness	Making companies and workers aware of the steps to reduce or prevent emissions and leaks from equipment	<ul style="list-style-type: none"> <li>Development of policy and SOP for perfluorinated (PFCs), hydro fluorocarbons (HFCs), and sulphur hexafluoride (SF<sub>6</sub>) that reduces occurrences, accidental releases and leaks from containers and equipment</li> <li>Voluntary programmes that provide resources for training</li> </ul>

## Action Plan

- The major source of GHGs emission is due to the bulk demand of energy from industry, commercial activities, tourism and developmental activities. The State will ensure adaptation and mitigation measures, including the introduction of cleaner production technologies, waste minimization, environmental and energy efficiency audits. It will promote mass transportation, ropeways, run-of-river micro hydel projects, solar passive technologies, rainwater harvesting, green houses, transportation and industry.
- It will enhance the afforestation and reforestation activities and establish a State GHGs Emissions Inventory Management system
- Providing solar power to reduce CO<sub>2</sub> emission and to supplement clean energy
- Adopting clean manufacturing processes and reducing, recycling, reusing and recovering waste
- Installing and commissioning CETPs in industrial areas in the State followed by tertiary treatment and 100 percent reuse of treated water to cater to clusters of industries to achieve Zero Liquid Discharge (ZLD). Industrial areas will have their own modern TSDF.

**Target 9.5 Enhance scientific research, upgrade the technological capabilities of the industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending, and**

**Target 9.b Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities**

### Baseline

The total Research & Development budget for 2016-17 was Rs. 11.04 crores, which was 0.0099 percent of the State GDP of Rs. 1,10,511 crores.

### Strategy

The State will endeavour to increase the R&D budget to 0.5 percent of the State GDP by 2030.



### Action plan

Institutions like IIT/NIT/CSIR, etc. are being encouraged to provide incubation facilities and to take technology to the field. The focus will be on collaborating with institutions like NIPER/CIPET for enhancing research activities and increasing the number of R&D workers. An Ideas Centre will be established under the Chief Minister's Start-up Scheme, and State universities will institute awards for innovation and research.

### Target 9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet

#### Baseline

All three pillars of sustainable development – economic development, social inclusion and environmental protection-need ICT as key catalysts. Global and local infrastructure in the 21st century is controlled, managed and optimized by ICTs-whether power networks, water

supply, transportation systems or communications networks themselves. Industrialization is highly dependent on the effective use of ICTs.

There are more than 80 lakh telecom users (wireless and wired) in Himachal Pradesh. More than 65.52 percent of the user base is in rural areas. Himachal Pradesh has the highest rural tele-density in the country, which is 84.88 percent. There are more than 20,000 revenue villages in the state, out of which 1,771 villages have no Internet connectivity.

### Action plan

The focus will be on providing Internet connectivity, wireless broadband services and mobile connectivity to the remaining 1,771 villages and achieving 100 percent tele-density by 2030. The State will connect all panchayats and lok mitra kendras, with high speed wireless broadband services; industrial areas and hubs and Government offices will be provided uninterrupted wireless broadband services.





## Indicator statement for monitoring the progress

SDG	Target	Indicators		Current Status	Target By 2022	Target By 2030	Data Source
		National Indicator	State Indicator				
9.1	Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	Proportion of rural population who live within 2 kms of an all-season road	Proportion of rural population who live within 2 kms of an all-season road	Of 18,711 habitations 13,618 are connected	14,218	18,711	PWD dept.
		Passenger and freight volumes, by mode of transport	Passenger and freight volumes, by mode of transport	6,222 buses & 157,668 goods carriages	7,222 buses & 181,318 goods carriages	8,972 buses & 204,968 goods carriages	Transport dept.
		Total public and private investment in infrastructure as share of annual GDP	Total public and private investment in infrastructure as share of annual GDP	Not available	-	-	-
9.2	Promote inclusive and sustainable industrialization and by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries	Annual mean levels of fine particulate matter (e.g. PM 2.5 and PM10) in cities (population weighted)	CETP Plants in Industrial Areas (IA)/ Estates; at least one CETP in every IA/IE (Target 59 CETP)	1 (at Baddi IA)	30% (18 CETP in other IAs)	100% (40 CETP in all IAs)	Industries dept.
		Manufacturing employment as a percentage of total employment	Double the employment in manufacturing and services sector by 2030	225,889 persons in MSME sector & 61,040 in L&M sector	30% increase i.e. 293,655 in MSME & 79,352 in L&M sector	100% increase in MSME 451,776 & 158,704 in L&M sector	Industries dept.
9.3	Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets	Proportion of small-scale industries in total industry value added	Value chain and marketing to be established in 7 districts (Agri & Hort.)	7 Marketing yards	20% (in Marketing)	50% (4 Marketing yards)	HP Marketing Corpn.
			Agriculture value chain clusters (6)	0	50% (3 clusters)	100% (3 clusters)	Agriculture dept.
		Proportion of small-scale industries with a loan or line of credit	SLBC financing to double	8500 crores	Rs 14,250 crores	Rs 20,000 crores	SLBC
9.4	By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.	CO2 emission per unit of value added	Halve CO2 emission by, 2030	9196 per 000 tonnes	6897 per 000 tonnes	4598 per 000 tonnes	HP PCB
		Energy use intensity of manufacturing value added	Improve efficiency by 100% till 2030 by technology up gradation	31 unit	-	-	Industries dept.
			Industrial effluents to be minimized to half of current figure	52,034 KLD	36,423 KLD	25000 KLD	HP PCB



## Indicator statement for monitoring the progress

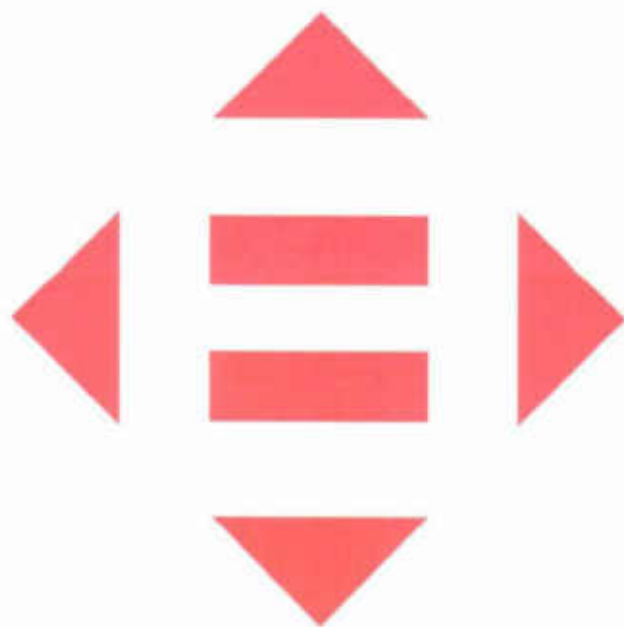
SDG	Target	Indicators		Current Status	Target By 2022	Target By 2030	Data Source
		Draft National Indicator	State Indicator				
9.5	Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending	Percentage share of expenditure in R&D to total GDP	Percentage share of expenditure in R&D to total GDP	0.0099%	0.5%	0.5%	Statistical dept.
		Researchers (in full time equivalent) per million inhabitants	Researchers (in full time equivalent) per million inhabitants	0.0028%	1%	2%	Education dept.
		Percentage share of private sector spending on R&D	Not prepared	--	--	--	--
9.a	Facilitate sustainable and resilient infrastructure development through enhanced financial, technological and technical support	Total official international support (official development assistance plus other official flows) to infrastructure	Not prepared	Not available	-	-	-
9.b	Support domestic technology development, research and innovation by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities.	Proportion of medium and high-tech industry value added in total value added	Not prepared	Not available	--	--	--
9.c	Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020	Proportion of population covered by a mobile network, by technology	Connectivity for remote areas	18,229 villages	18,937 villages	20,000 villages	BSNL
		Broadband subscribers per 10,000 persons	Broadband subscribers per 10,000 persons	8,500	9,000	10,000	BSNL





SDG10

*REDUCE INEQUALITIES  
WITHIN THE STATE*



## Vision

To ensure equal rights and equal access to available opportunities for all, along with freedom to exercise choice, irrespective of gender and class.

## Himachal Pradesh today

- In 2014-15, the share of the services sector in the GSDP was 45.35%<sup>1</sup>
- The Gini coefficient<sup>2</sup>, based on the Mixed Reference Period (MRP) was 0.283 (rural) and 0.351 (urban) during 2009-10
- Sex ratio in Himachal Pradesh is 972/1000 (Census 2011), more favourable than the national average of 943 /1000
- The child sex ratio (0-6) years in Himachal is 909/1000 (Census 2011), which is lower than the all India average
- The rate of cognizable crimes committed against women was 34% in 2015, lower than the national average 53.9%
- The rate of cognizable crimes committed against SCs in Himachal Pradesh, was 5.5% in 2015, which is lower than the national average of 22.3%<sup>3</sup> in the same year
- The poverty level among the SC population in rural areas has declined from 35.4% in 2004-05 to 9.5% in 2011-12<sup>4</sup>
- Women occupied 50.54% of the seats in Panchayati Raj Institutions (PRI) elections (2010)
- Of the representatives at the PRI level, 25.68% were women, 6.34% belong to the STs and 7.14% belonged to the OBC group
- 5.8% women members in the State Legislative Assembly

## Focus for tomorrow

- Redistribution of income in favour of the poorer segments of the population and bringing the Gini coefficient down by at least 0.05 percentage points by 2030
- Ten point improvement in overall gender parity index and a more positive sex ratio in the 0-6 year age group by 2030
- Increase the share of the service sector by 2 percentage points in GSDP by 2022 and further by 2 percentage points by 2030, taking into account the disadvantages in undertaking large scale agriculture operations and limited scope for large and medium scale industries
- Increase skill based employment opportunities to 1 lakh youth by 2022 and an additional 1 lakh young people by 2030



<sup>1</sup> Department of Economics & Statistics, GoHP

<sup>2</sup> Gini coefficient is a measure of inequality, which measures the distribution of consumption, and it can give us an idea about the inequalities in income distribution. The value of the Gini co-efficient lies between 0 to 1, and higher values indicate the existence of greater inequalities.

<sup>3</sup> NCRB data 2015

<sup>4</sup> NSSO data round 61 and 68



## Inequality matters

According to the World Bank's report, *Taking on inequality*, 'the evidence that equity enhancing interventions can also bolster economic growth and long-term prosperity is wide-ranging. To the extent that such interventions interrupt the intergenerational reproduction of inequalities of opportunity, they address the roots and drivers of inequality, while laying the foundations for boosting shared prosperity and fostering long-term growth. Reducing inequalities of opportunity among individuals, economies, and regions may also be conducive to political and societal stability and social cohesion. In more cohesive societies, threats arising from extremism, political turmoil, and institutional fragility are less likely<sup>5</sup>.

There are several manifestations of inequalities. However, inequalities can be summarized into four categories, which are most common i.e. (i) Economic inequality; which refers to differences found in various measures of economic well-being among a group or population, (ii) Social inequalities; which can be defined as exclusion-linked deprivation and institutions that exclude, discriminate and isolate some groups on the basis of caste, sex, ethnicity, religion, etc. (iii) Gender inequality is another form of social exclusion that is often observed within society. It is found that women and girls are more vulnerable to deprivation of basic needs than men and boys. Decreasing sex ratio and overall sub-optimal participation of women is the result of gender discrimination, (iv) Political inequalities may be observed when certain individuals or groups have greater influence over political decision-making and undermining the central democratic idea that all citizens, regardless of status, should be given equal consideration and opportunities. These disparities call for action that requires the adoption of sound policies for empowering the bottom percentile of income earners, mitigates gender discrimination and promotes socio-economic inclusion regardless of sex, race, religion or ethnicity.



**Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets**

## Reduction in Income Inequalities

The monthly per capita consumption expenditure (MPCE) is a good indicator of income levels, as it is a direct function of income. Historically, MPCE is being used to study the inequalities in income distribution in India. The data on the MPCE is brought out periodically by the NSSO and the latest available data is for the year 2011-12<sup>6</sup>. Fig.10.1

indicates that inequalities in income distribution in India have increased since 1973-74 particularly in urban areas (Fig 10.2). Inequalities in India, in the rural areas, increased during the initial years.

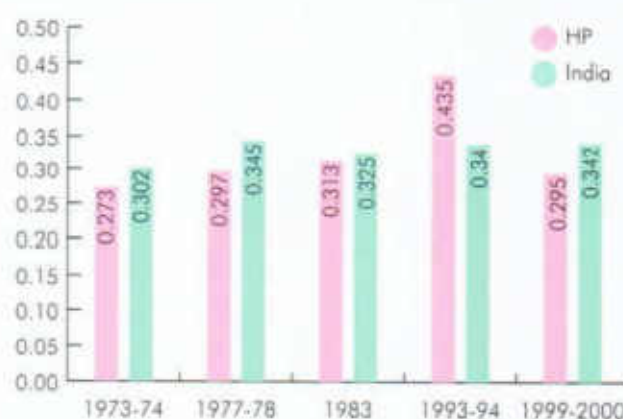
Inequalities in income distribution both in urban and rural areas have increased in Himachal Pradesh since 1973-74, however, inequalities in rural and urban areas reduced after 1993-94,

Figure 10.1 Gini coefficient of distribution of consumption: 1973-74 to 1999-2000 for rural areas



Source: Databook Planning Commission, 2014

Figure 10.2 Gini coefficient of distribution of consumption: 1973 -74 to 1999-2000 for urban areas



Source: Databook Planning Commission, 2014

The Gini Coefficient data is available only till 1999-2000. After that the NSSO adopted a different methodology for estimating monthly per capita consumption expenditure (MPCE) and the figures are not strictly comparable. None the less, they do indicate to the fact that the income

5. Extracted from the World Bank Report, *Taking on Inequality*, 2016, from the Poverty and shared prosperity series, available online at <https://openknowledge.worldbank.org/bitstream/handle/10986/25076/9781464809583.pdf>

6. 68th round NSS for Household Consumer Expenditure across Socio-Economic Groups, 2011-12.

inequalities in Himachal Pradesh have tended to increase after 1999-2000 as is evident from the following table:

Table 10.1 Gini coefficient of distribution of consumption expenditure in Himachal Pradesh

Year	Rural		Urban	
	URP*	MRP**	URP	MRP
2004-05	0.296	0.260	0.318	0.261
2009-10	0.305	0.283	0.399	0.351

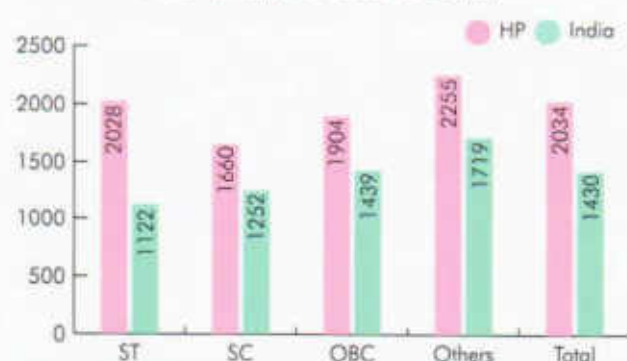
Source: Databook Planning Commission, 2014

\*Uniform Reference Period (URP) \*\*Mixed Reference Period (MRP)

Gini coefficients for the consumption expenditure for 2010-11 are not available.

The consumption expenditure figures for the year 2011-12 have been made available by the NSSO in its 68th round report. MPCE distribution by social groups for Himachal Pradesh and India is shown in Fig10.3.

Figure 10.3 Monthly per Capita Expenditure (MPCE) for Social Groups for rural areas (Rs.)



Source: NSS report No. 562: Households Consumer Expenditure across Socio - Economic Groups 2011-12

Figure 10.4 Monthly per Capita Expenditure (MPCE) for Social Groups for urban areas (Rs.)



Source: NSS report No. 562: Households Consumer Expenditure across Socio - Economic Groups 2011-12

Eliminating socio-economic and political disparities irrespective of age, sex, caste, race, disability and economic status can significantly reduce inequalities. The State has been striving to achieve balanced economic growth and this has resulted in reducing poverty with good human development outcomes. Successful implementation of land reforms has helped in reducing inequality in the state. A majority of the agrarian population (nearly 80 percent) possesses some land.

The State has a provision of 50 percent reservation for women candidates in the PRIs and Urban Local Bodies (ULBs). In the 2010 PRIs elections, 1639 (50.54 percent) seats were occupied by women in the 3,243 Gram Panchayats. Further, in all the Gram Panchayats, 421 seats (25.68 percent) were won by SC women, 104 seats (6.34 percent) by ST women and 127 seats (7.74 percent) were occupied by OBC women. Similarly, out of a total of 77 seats for Chairpersons of the Panchayat Samities, 42 seats (54.55 percent) were won by female candidates. Of 12 seats for Chairpersons of the Zila Parishad, six seats (50 percent) were won by women (2010).

The data indicates that the representation of women in PRIs has improved. This has strengthened the decision-making power of women in the political sphere and enhanced their position and voice in family and household matters. In Parliament (Lok Sabha and Rajya Sabha) the situation is less inspiring<sup>7</sup>. The success rate of women candidates in the State Legislative Assembly in Himachal Pradesh is also dismal; which is only 5.8 percent of the total seats

It is the responsibility of the State to formulate policies/laws that protect the rights of vulnerable groups in the society. In Himachal Pradesh, the State has been effectively enforcing laws meant for the protection of rights of vulnerable segments of the population. There are several schemes focussing on development of SCs/STs and women that have yielded desired positive results. Early policy reforms have reduced inequality in land proprietary rights.

The proportion of SCs and STs in Himachal Pradesh is higher than the national average. The SCs comprise 25.1 percent of the population whereas the STs constitute 5.7 percent of the population.<sup>8</sup> The State has relatively low inter-group disparities.

The rate of cognizable crimes against members belonging to the SC communities in the State is lower than the national average. However, attention is required to further mitigate the crimes being committed against SCs/STs and other vulnerable groups.



7. There are only two women in the Rajya Sabha

8. Census 2011



Table 10. 2 Cases reported and crimes committed against SCs in 2014 and 2015

Categories	Himachal Pradesh		All India	
	2014	2015	2014	2015
Cases reported	122	95	47,064	45,003
Percentage of all India total	0.3	0.2	-	-
Rate of total cognizable crimes <sup>9</sup>	7.1	5.5	23.4	22.3
Population of SCs (in percent)	25.1	25.1	16.6	16.6

Source: National Crime Records Bureau, Ministry of Home Affairs, Govt.

Table 10.3 indicates certain inequalities, in maternal and child health (MCH) indicators among SCs and STs. Several MCH indicators were lower in SC and ST population in comparison to the State average. Only 12.7 percent ST women received a full antenatal check (ANC) in comparison to the State average of 26.3 percent, whereas 25.5 percent of SC women received ANC, which was close to the State average. The rate of institutional deliveries was 61.4 percent among SCs, in comparison to the State average of 68.7 percent, whereas the same in STs was 68.4 percent. Similarly, full immunization (12-23 month old children) was 75.1 percent and 67.9 percent, respectively, in SCs and STs, against the State average of 80.2 percent.

Table 10.3 Status of women and children belonging to SCs/STs, availing health services

Indicators	Category				
	Total	SC	ST	OBC	Others
Women who received full ANC (%)	26.3	25.5	12.7	22.0	30.6
Institutional deliveries (%)	68.7	61.4	68.4	67.7	75.2
Delivered by skilled health provider (%)	71.6	64.6	71.2	72.4	77.1
Post natal check-up within 48 hours of discharge / delivery (%)	13.1	11.7	10.9	5.7	17.6
Newborns who received first check up within 24 Hrs. of birth/discharge (%)	14.4	11.6	12.9	6.6	19.9
Fully immunized (%) (=Children aged 12 -23 months)	80.2	75.1	67.9	91.1	81.7

Source: Rapid Survey on Children (2013-14), Ministry of Women and Child Development, Govt.

Gender based violence is a manifestation of gender bias and gender inequality. It is difficult to acquire accurate data

on domestic violence against women because of social, cultural and legal barriers, lack of evidence and amount of secrecy and the sensitivities involved.

Table 10.4 Cases reported and crimes committed against women during 2014 and 2015

Categories	H.P.		All India	
	2014	2015	2014	2015
Cases reported	1517	1289	337922	327394
Percentage of all India total	0.4	0.4	-	-
Rate of total cognizable crimes <sup>10</sup>	44.4	34	56.3	53.9
Mid-year projected population of women (in Lakh)	34.2	34.4	5998.7	6070.8

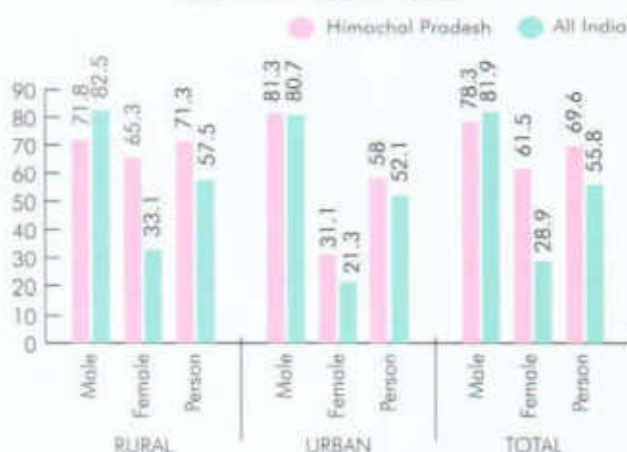
Source: National Crime Records Bureau, Ministry of Home Affairs, Govt.

The State needs to continue taking necessary action aiming at elimination of crime against vulnerable groups. There are a number of schemes/programmes being implemented in the State for empowerment of SC/ST/women, which can be integrated/rationalized and restructured.

### Employment generation and skill development

The 5<sup>th</sup> Employment and Unemployment Survey suggests that total Labour Force Participation Rate (LFPR), based on Usual Principal Status (UPS)<sup>11</sup> approach, in Himachal Pradesh is higher than the all India level. Figure 10.6 clearly indicates that the total LFPR of the State (69.6 percent) is higher than the all India level (55.8 percent). Total rural LFPR (71.3 percent) of the State is also higher than urban LFPR (58 percent) at the national level.

Figure 10.5 Labour Force Participation Rate, India and Himachal Pradesh



Source: 5<sup>th</sup> Annual Employment and Unemployment Survey 2015-16

9. Rate of total cognizable crimes = (Total case reported under crimes against SCs/total population of SCs)\*100,000 i.e. incidence of crime per one lakh population of SCs  
10. Rate of total cognizable crimes = (Incidence of crimes against women/female population of SCs)\*100,000 i.e. incidence of crime per one lakh of female population  
11. Reference period of 365 days preceding the date of survey is taken. Activity status is decided on the basis of Major Time Criteria (MTC) during the reference period. First, one is categorized as belonging to the labour force or not. Second, from the persons belonging to labour force, the broad activity status of either working or unemployed is determined on the basis of MTC.



The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) has proved to be an effective platform to provide employment to women, including differently-abled people and all social groups. Skill up-gradation programmes some of which will be undertaken by the recently established Himachal Pradesh Kaushal Vikas Nigam (HPKVN), will further improve the situation.

### Challenges in achieving targets

The MPCE across all the social groups in Himachal Pradesh is higher than the all India levels; differentials amongst the social groups and classes are relatively small, in particular for STs and OBCs, less so for SCs.

The low representation of women in the State legislature (only 5.8 percent) is a cause for some concern and needs attention. The socio-cultural dependence of women is one of the key detrimental factors in their participation in the political domain. Women lack access to and ownership of productive resources, limiting the scope and possibility of political work.

Labour force participation rate (LFPR) of men and women is an important aspect in minimizing inequalities. However, the female LFPR is considerably lower than the male LFPR. This could be due to rising income that allows more women to stay at home, which is the preferred household choice in a predominantly patriarchal society. However, this also points towards the non-availability of suitable job opportunities for women, commensurate with their skills and expected remuneration.



### Strategy for success

**Target 10.1** By 2030 progressively achieve and sustain income growth of bottom 40 percent of the total population at a rate higher than the national average

#### Baseline

- The Gini coefficient, based on MRP<sup>12</sup>, in the State was 0.283 (rural) and 0.351 (urban) during 2009-10.
- Based on MPCE, the gaps between the SCs and other groups are wide, both in rural and urban areas. The gap is more pronounced in rural areas.
- The ST population in the urban areas of the State has relatively higher income than other groups.

#### Target

- Redistribution of income in favour of the poorer segment of the population and bringing the Gini coefficient down by at least 0.05 points by 2030.

#### Strategy

- Empower vulnerable sections of society by providing them more opportunities and ensuring the right to exercise choices amongst the available opportunities. Ensuring income generation on a sustained basis for the bottom 40% population.

#### Action plan

- Skill development programmes focusing on job creation and entrepreneurship development for vulnerable populations, in urban and rural areas.
- Targeted and focused implementation of schemes/programmes for ensuring rapid socio-economic development and empowerment of vulnerable populations including women.
- Ensuring property and ownership rights to women and to people belonging to STs, SCs and OBCs.
- Redesigning programmes and schemes with the aim to include women, and other vulnerable sections of the society as beneficiaries for providing more opportunities to them and their empowerment.

**Target 10.2** By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status,

&

<sup>12</sup> This is a measure of MPCE obtained by the consumer expenditure survey when household consumer expenditure on items of clothing and bedding, footwear, education, institutional medical care, and durable goods is recorded for a reference period of "lost 365 days" and expenditure on all other items is recorded with a reference period of "lost 30 days".



### Target 10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.

#### Baseline

- The sex ratio in Himachal Pradesh is 972 women per 1,000 men (Census 2011), which is better than the national average 943/1,000 and the sex ratio in many neighbouring states.
- The child sex ratio (0-6) years is 909 per 1,000 (Census 2011), which is a matter of concern, although it has improved from 896 to 909, between the 2001 and 2011 Censuses.
- The rate of cognizable crimes committed against women in Himachal Pradesh was 34 percent in 2015, which is lower than the national average 53.9 percent.
- The rate of cognizable crimes committed against SCs in Himachal Pradesh was 5.5 percent in 2015, which is again lower than the national average of 22.3 percent in 2015.
- Poverty level among the SC population in rural areas has dropped from 35.4 percent in 2004-05 to 9.5 percent in 2011-12.

#### Target

- A ten-point improvement in overall gender parity index and greater improvement in sex ratio in 0-6 years by 2030.

#### Strategy

- To undertake necessary amendments to the provisions of specific laws/policies/schemes pertaining to SCs/STs/women, to repeal the old and redundant provisions and introduce more relevant provisions.
- Integration and simplification of schemes/programmes meant for empowerment of SCs/STs/women. Periodic collection of more data regarding social and economic disparities by the Department of Economics & Statistics and using this data for mid course corrections.
- To increase the participation of women in political processes and in the State Assembly

#### Action plan

- Mapping and identifying the areas of overlap between schemes/programmes being implemented and rationalizing and restructuring them
- Targeted and effective implementation of the existing schemes/programmes pertaining to women/SCs/STs/OBCs
- Thematic partnerships with NGOs/CBOs/Foundations to access and effectively use Corporate Social Responsibility (CSR) funds.
- Use of media for creating issue-specific awareness and education of target groups

- Collection and analysis of disaggregated data pertaining to vulnerable populations of the State
- Registering women as the head of family in the digitized smart ration cards
- Universal coverage of schemes under DBT mode for providing assistance to SCs/STs/women
- External evaluation of major schemes being implemented for socio-economic inclusion of vulnerable populations

### Target 10.4 Adopt policies, especially fiscal, wage and social protection policies and progressively achieve greater equality

#### Baseline

- Total services sector share of GSDP is 45.35%
- Female LFPR (61.5%) is less than male LFPR (78.3%)
- Rural LFPR is higher (71.3%) than urban LFPR (58%)

#### Target

- Increase the share of the services sector by 2 percentage points in GSDP by 2022 and further by another 2 percentage points by 2030, considering inherent disadvantages in undertaking large scale agriculture operations and limited scope of large and medium scale industries in the State
- Skill based employment opportunities to 1 lakh youth by 2022 and to an additional 1 lakh by 2030

#### Strategy

- Enhance employment opportunities through skill upgradation
- Ensure employment opportunities for all persons by age, sex and social groups corresponding to their skills and intervening wherever additional skill sets are required

#### Action plan

- Coordination between the industry and the skill providing agencies to make mid-course changes in skill up-gradation requirements
- To make Himachal Pradesh Kaushal Vikas Nigam (HPKVN) fully functional and implement the Asian Development Bank's (ADB) Himachal Pradesh Skill Development project
- Targeted skill programmes in the market demand oriented areas to provide necessary skills to women and more vulnerable sections of the society
- Third party evaluation/survey of market demand commensurate with the demand from industry to ensure employability of skilled labour force
- Integration of skill development programmes being provided, under the HPKVN, to ensure their quality and efficacy

## Indicator statement for monitoring the progress

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicator	State Indicators				
10.1	By 2030, progressively achieve and sustain income growth of the bottom 40% of the population at a rate higher than the national average	Growth rate of household expenditure or income per capita in the bottom 40% of the population and the total population	Growth rate of household expenditure or income per capita in the bottom 40% of the population and the total population	Gini coefficient, based on MRP of the State was 0.283 (rural) and 0.351 (urban) in 2009-10	Redistribution of income in favour of the poorer segment of the population and bringing Gini coefficient down by at least 0.150 percentage points	Redistribution of income in favour of the poorer segment of the population and bringing Gini coefficient down by at least 0.050 percentage points	NSSO
		Gini co-efficient	Gini co-efficient				
10.2	By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	Proportion of people living below 50 % of median income, by sex, age and persons with disability	Proportion of people living below 50% of median income, by sex, age and persons with disability	Sex ratio in Himachal Pradesh is 972 women per 1000 men (Census 2011) that is better than the national average 943 / 1000 in the rest of the country	Raise the sex ratio to 980	Increase and sustain the sex ratio at 990	NFHS
				Child sex ratio (0-6) years in Himachalis 909 (Census 2011), which is a matter of concern, although it has improved from 896 to 909 between 2001 to 2011 Census	5 point improvement in overall gender parity index and greater increase in child sex ratio (0-6 years)	10 point improvement in overall gender parity index and greater rise as regards child sex ratio (0-6 years)	NFHS
				Rate of cognizable crimes committed against women in Himachal Pradesh was 34% in 2015, which is lower than the national average 53.9%	Reduce the crime against women to 25%	100% elimination of crimes against women	NCRB
				Rate of cognizable crimes committed against SCs in Himachal Pradesh was 5.5% in 2015, which is again lower than the national average 22.3% during 2015	Reduce the rate of crimes committed against SCs to negligible	End the crimes committed against SCs	NCRB
				Poverty level among the SCs population in rural areas has dropped from 35.4% in 2004-05 to 9.5% in 2011-12	Reduce the poverty among SCs population in rural areas to 2 percent	End the poverty among SCs population in rural areas	SECC
10.3	Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard			There are several laws and policies to protect SCs/STs/women to reduce inequalities and promoting mainstreaming of vulnerable population in the State	Necessary amendments will be undertaken to the provisions of discriminatory laws, policies and practices pertaining to SCs/STs/women and introduce more relevant provisions		Dept. of SCs, OBCs and Minority Affairs, and Dept. of WCD and Tribal Development
10.4	Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality			Total services sector share in GSDP is 45.35%	Increase the service sector share by 2% in GSDP	Additional 2% increase in the share of services sector	E&S dept.
				Female LFPR (61.5%) is less than male LFPR (78.3%)	Skill based employment opportunities to 1 lakh youth	Additional 1 lakh skill based youth employment opportunities	HPKVN
				Rural LFPR is higher (71.3%) than urban LFPR (58%)	Increase the rural LFPR to more than 75% and urban LFPR up to 65%	Increase and sustain the rural LFPR up to 80% and urban LFPR up to 70%	E&S dept.

8. This is the measure of MPCE obtained by the consumer expenditure survey when household consumer expenditure on items of clothing and bedding, footwear, education, institutional medical care, and durable goods is recorded for a reference period of "last 365 days", and expenditure on all other items is recorded with a reference period of "last 30 days"



SDG11

*MAKING CITIES AND  
HUMAN SETTLEMENTS  
SAFE AND RESILIENT*



## Vision

Developing a reliable and efficient urban transport system and eliminating all deprivations of urban populations by striking a balance between consumption and production patterns, to make sustainable urban development a reality.

### Himachal Pradesh today

- 10.03% of the population lives in urban areas of the State and 89.97% live in rural Himachal
- There are 54 ULBs (2 Municipal Corporations, 30 Municipal Councils and 22 Nagar Panchayats) in Himachal Pradesh
- Dharmshala and Shimla are being developed as Smart Cities
- The Municipal Corporation of Shimla and the Municipal Council of Kullu are being developed under the Atal Mission for Rejuvenation and Urban transformation (AMRUT)

### Focus for tomorrow

- Providing affordable housing to all, and clean water for drinking and sanitation facilities
- Providing affordable and clean energy using green technology in building construction
- Generating employment opportunities through schemes like the National Urban Livelihood Mission (NULM) and skill development programmes
- Establishing innovative infrastructure and industries
- Capacity building of people of the State for responsible consumption of natural resources and production of energy from waste materials

The Urban Development department in partnership with Urban Local Bodies (ULBs) is striving to find innovative and technological solutions to pivotal issues in the urban sector such as infrastructure, integrated transport, sanitation, solid waste management, poverty and, housing, and to address the financial sustainability of ULBs and governance.

The Urban Development department works in association with nine departments viz. Town and Country Planning, Transport, Home, Revenue, Disaster Management, Women and Child Development, Public Works, State Pollution Control Board, Language, Art and Culture to achieve its goals.





Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

## Target identification

**Target 11.1** By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade all slums

### 11.1.1 Percentage of slums/Economically Weaker Sections (EWS) households covered through formal/affordable housing

The housing demand assessment survey in 13 identified towns of Phase-I of Pradhan Mantri Awas Yojana – Housing for All (PMAY-HFA) schemes has been carried out. The beneficiaries covered under slum/EWS category are 10,947 in the 13 cities, identified in the first phase. In the remaining 31 towns, surveys are in progress and about 3,608 beneficiaries of slums/EWS have been identified. Based on the demand outcome, the housing requirements will be completed by 2022, either covered under ‘in-situ’ component or under component of ‘affordable housing in partnership’<sup>1</sup>.

### 11.1.2 Percentage of slum area covered with basic services

As per the Census 2011, the slum population of Himachal Pradesh is 8.9 percent of the total urban population. Surveys of slum areas covered with basic services are underway in all the ULBs under PMAY-HFA (Urban).

### 11.1.3 Proportion of urban population living in slums, informal settlements or inadequate housing

The urban population of the State as per Census 2011 was 6,88,704 persons (10 percent of the population); 61,312 people resided in slums (less than 9 percent of the urban population). There are slums in 22 towns of the 54 ULBs; Kangra district has the largest number of slums.

**Target 11.2** By 2030, provide access to safe affordable assessable and sustainable transport system for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disability and older persons.

## 11.2.1 Proportion of cities with efficient urban mobility and public transport

**Strengthening the public transport system:** The Himachal Road Transport Corporation (HRTC) provides transport connectivity throughout the State and with other states. It plays an important social role in providing connectivity and provides free, concessional and subsidized transport facilities to various sections of society. The Corporation has a fleet strength of 2,763 buses (including JnNURM buses) and HRTC has a target to replace 250 buses every year, to keep its fleet mechanically fit, so as to be able to provide efficient services.

**Figure 11.1- Requirement of funds under capital head**



In addition to the above, the following permits of stage carriages will be provided to the HRTC and private operators by 2030 to meet the demand of the people of the State: -

## Action



(i) Additional permits under Stage Carriages

## Targets

2017 to 2019 (3 years)	2020 to 2023 (7 years)	2018 to 2020 (14 years)
200 permits	300 permits	500 permits

<sup>1</sup> The issue of availability of land however will be a bottleneck, as all vacant lands are categorized as forest land and securing clearances under Forest Conservation Act (FCA) is a cumbersome task. Policy changes at the Govt level need to be initiated for allowing clearance of open land for increasing the housing stock for the urban poor.

**Establishment of Transport Nagars:** Parking places and repair sites are required at several locations. The department will conduct a survey of the state, to select suitable sites for setting up of Transport Nagars, with facilities for parking, repair, and sale of genuine spare parts, pollution checking, rain shelters, cloakroom and cafeterias. The Department proposes to establish eight Transport Nagars at Darlaghat, Nagrota-Bagwan, Barotiwalla, Gaggal, Barmana, Baddi and Una. The land for the Transport Nagar at Una has been identified and transferred in the name of the department; for which an amount of approximately Rs.100 crores is required by 2030.

**Road Safety:** The Transport department is the nodal agency to ensure road safety in the state. The department is concerned about the road accidents in the State and a strategy has been formulated to minimize accidents.

**Construction of bus stands:** The Himachal Pradesh Bus Stands Management and Development Authority (HPBSMDA) has been constituted and mandated with the task of constructing and managing bus stands. For the above purposes the following budget provisions are required:

### Action



(i) Provision for providing basic infrastructure for Transport Nagar in PPP mode

### Targets



2017 to 2019  
(3 years)  
20 crores



2020 to 2023  
(7 years)  
25 crores



2018 to 2020  
(14 years)  
250 crores

### Action



Construction of bus stands at the sub-division & block level

### Targets



2017 to 2019  
(3 years)  
30 crores



2020 to 2023  
(7 years)  
50 crores



2018 to 2020  
(14 years)  
200 crores

S.No.	Action	Targets
		2017 to 2019 (3 year)      2020 to 2023 (7 year)      2018 to 2020 (14 year)
1	All drivers of state carriage buses will now be required to get empanelled in the Transport department before being eligible to drive a bus. They will be provided annual training.	Selection and empanelment of drivers and training of 200 drivers each year      Selection and empanelment of drivers and training of 500 drivers each year      Selection and empanelment of drivers and training of 1000 drivers each year
2	The department will issue a badge. This will ensure that no unauthorized person drives a stage carriage vehicle	Badges to STU drivers      Badges to private stage carriage drivers      Badges to all commercial drivers
3	Buses will have modern systems of control	Efforts will be made by organizing workshops, etc. to make such provisions in stage carriage buses      Legal provisions for mandatory enforcement in commercial vehicles      Roll out in all commercial vehicles
4	The maximum length and breadth of buses allowed to ply on each interior road will be fixed	Norms will be fixed with the concerned agencies for the road fitness and specifications      Survey and deployment/ sanction of buses as per road specifications
5	A review of training carried out by driving schools will be undertaken at frequent intervals. Instructors at commercial driving training schools shall be imparted training in crisis management	Review, survey and improvement in the working of the driving training school
6	A provision will be made either in the rules or as a condition of the permit, to provide that no stage carriage bus that has completed ten years of life will ply on the roads	Will be implemented in STU      Rolled out in private buses
7	IEC (Information Education Communication) measures will be undertaken to promote awareness on road safety among various stakeholders	<b>Road safety measures:</b> To prevent road accidents and to save precious lives the strategy of the Government on road safety measures is focused mainly on three major thrust areas: <ul style="list-style-type: none"> <li><b>Preventive measures</b> <ul style="list-style-type: none"> <li>Vehicles need to be safe for plying on roads, and the police and transport departments are required for enforcement purposes</li> <li>Funds to other departments for road safety measures</li> <li>Trauma centres on national highways</li> <li>Funds for implementation of Supreme Court &amp; NGT orders</li> <li>Making wearing of helmets compulsory</li> <li>Road Safety Week</li> <li>Inter departmental team – to study fatal accidents</li> <li>Ban on use of mobile phones, while driving</li> <li>Air Quality Management Measures</li> <li>Emergency Accident Relief Centres (EARC)</li> <li>Compensation to road accident victims</li> </ul> </li> <li><b>Surveillance and detection and</b></li> <li><b>Enforcement measures.</b></li> </ul>



**Target 11.3** By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management

#### 11.3.1 Proportion of cities with integrated development plans

Himachal Pradesh has only one city with a population over one lakh i.e. Shimla. Presently, out of 54 ULBs, 34 have been brought under the ambit of the HP Town and Country Planning Act, 1977. Development plans have been prepared for 18 ULBs. The Government has constituted each district as a region and regional plans for each district will be prepared shortly, with Lahaul-Spiti and Solan being taken up on priority.

**Target 11.4** Strengthen efforts to protect and safeguard the world's cultural and natural heritage

#### 11.4.1 Restoration and Reuse of Historic Buildings

ASI (Shimla Circle) is responsible for the maintenance and up keep of the centrally protected monuments within Himachal Pradesh. There are four buildings in Himachal Pradesh under the purview of the Language, Art and Culture department (i.e. Gaiety Theatre - Shimla, Bantony Castle - Shimla, Gorton Castle - Shimla, Gandla Castle - Lahaul and Spiti).

#### Targets up to 2022:

- Preserve the mural paintings of the Buddhist monastery and Phoo Gompha at Tabo, in district Lahaul and Spiti, and expand tourism in the Buddhist circuits in the region.
- Conservation and overall development of the Rock-Cut temple at Masroor including providing conveniences/ public amenities and setting up of a cultural interpretation centre.
- Develop the historically significant Mrikula Devi temple as a tourist destination in the Keylong area of Lahaul and Spiti.

#### Targets up to 2030:

- Recover the temples of Bilaspur submerged by the Gavind Sagar Dam and relocate them to a safe area; develop the location as an archaeological park.
- Develop the Hidimba Devi Temple and other centrally protected monuments in Kullu district as a tourist circuit.
- Improve the Kangra Fort, Masroor rock-cut temple and associated monuments in the Kangra valley and provide tourist facilities. Add more historically significant monuments to the list of centrally protected monuments in Himachal Pradesh, under ASI.

**Target 11.5** By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses caused by disasters, including water related disasters, with a focus on protecting the poor and people in vulnerable situations.

#### 11.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 people.

The State has been subjected to numerous disaster incidents that have affected the lives of many people (See Annexure 6 for details regarding the number of lives lost and people injured due to various disasters and road accidents). Positive initiatives have been taken by the State Government, for minimizing the effects of disasters.

**Target 11.6** By 2030, reduce the adverse per capita environmental impact of cities, by paying special attention to air quality and municipal and other waste management

#### 11.6.1 Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities

Presently only about 25 percent of the total waste generated in the State is being processed scientifically. The Waste to Energy plant established at Bhoriyal, Tolu-Tara Devi bye-pass road, Shimla is processing the waste generated from Shimla city. As per the directions of Honourable NGT, the solid waste from Solan city is also being transported to this plant for processing. Total solid waste generated in all ULBs is 342.35 tonnes per day.

To scientifically process and dispose all the solid waste being generated in all the towns of the state, the Urban Development department has prepared an Action Plan. In pursuance to the Action Plan, all the 54 ULBs have been divided into five major clusters. The Urban Development Directorate and HP State Pollution Control Board jointly have conducted a feasibility study for these clusters by engaging independent consultants. Further, to set up the processing and disposal facilities for all the towns in the state, the HP Infrastructure Development Board (HPIDB) has been brought on board to suggest a PPP model and assist in the bidding process.

It is expected to complete the process within six months and the target is for setting up of waste processing facilities for all the towns in the State in three years i.e. by 2020. All the solid waste generated from all the 54 ULBs shall be treated in a scientific manner. (For details of solid waste generated in the ULBs please see Annexure 7)

### 11.6.3: Number of days the levels of fine particulate matter (PM 2.5 and PM 10) was above mean level

There are certain industrial areas in the State where PM level remains high, however, it does not affect the working environment of the state.

**Target 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, particularly for women and children, older persons and persons with disabilities.**

#### 11.7.1 Per capita availability of green spaces

As per HP-Town and Country Plan rules and Urban & Regional Development Plans Formulation and Implementation Guidelines, for hill towns, the public, semi-public (8-10 percent) and recreation land use like parks and open spaces, etc. (15-18 percent) together constitute about 23-28 percent of the land area. All development plans are being prepared to achieve this target norm.

**Target 11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.**

#### 11. a.1 Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city

18 out of 54 ULBs do have development plans, the remaining plans are under preparation.

**Target 11.b. By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans toward inclusion, resource efficiency, mitigation and adaption to climate change, resilience to disasters, and develop and implement, in line with the Sendai framework for disaster risk reduction 2015-2030, holistic disaster risk management at all levels.**

#### 11.b.1 Whether the State has adopted and implemented State disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2031

The Government of Himachal Pradesh with support from the Ministry of Home Affairs and UNDP organized a State level conclave on the implementation of the Sendai Framework for Disaster Risk Reduction (SFDRR). As part of implementation of SFDRR the State has taken several steps. A platform for Disaster Risk Reduction (DRR) has been established for multi sectoral mechanism to build

partnership with all stakeholders. The State has conducted a detailed study on Hazard Vulnerability and Risk Assessments (HVRA); the study has been a useful tool in Disaster Risk Management (DRM) and DRR planning, as well as in development planning. The State is a pioneer in the country to embed the landslide Standard Operating Procedure (SOP) and warning system in its DRR planning, as per the NDMA review. District Disaster Management Plans have been prepared in all the districts. The SDMA has done capacity development strategy on DRR and Climate Change Adaption (CCA), which is an important step to promote and strengthen linkages with DRR and CCA for actions to be taken. Steps have been taken for mainstreaming of DRR and CCA, particularly in climate sensitive sectors such as health, urban development, education, agriculture, environment and forest, energy production, tourism and social welfare. The State is planning to initiate Panchayat level DRR and CCA action plans, disaster response and preparedness plans.

The Police department is the first responder in all situations to maintain law and order and provide security and safety during disaster. To make the Police department more responsible, and to help them to respond quickly to disasters, at all stages of mitigation, and to build preparedness during and after disasters, committees have been constituted at different levels. Presently Disaster Management Plans exist in every district and control rooms for the purpose have been established. Quick Reaction Teams (QRTs) have been constituted and equipped with the available disaster rescue equipment. Mapping of flood prone areas has also been done and necessary directions have been given to all concerned, including those who reside near the banks of the river / rivulets.

#### Problem identification:

- Standard Operating Drill for specific kind of disasters
- Capacity building of disaster force
- Awareness, infrastructure, training and equipment

#### Proposed action plan:

To make the Police department more responsible, so as to enable quick reaction to disasters, at all stages of preparedness, mitigation during and after disaster, the following initiatives will be taken in a phased manner:

- Create awareness among the public about possible disasters
- Identification of hazards and vulnerable areas
- Standard Operating Drill
- Constitution of Disaster Management Force
- Focus on capacity building, infrastructure, better equipment and more responsive police force
- Training to sensitize and quicken police response



### Targets up to 2022:

- Liaise with SDMA to develop multi-hazard early warning systems, with the support from Geological Survey of India (for landslides and earthquakes in the hills), Indian Met Department, etc. and discuss ways and means by which the technical warnings issued by these agencies are converted into simple, understandable information for the primary responders
- Capacity enhancement of the dedicated Disaster Response Force (DRF) in each district, in partnership with Home Guards/ Civil Defence /Fire Service
- Ensure business continuity mechanism for continuity of operations at critical levels in the Police department, especially through establishing continuity in communications- HF/digital radios, etc.
- Ensuring safety of buildings and infrastructure
- Mainstreaming of DRR through central and State plan schemes
- Developing capacities of masons, engineers, architects and doctors, for disaster resilient appropriate technologies as well as non-structural measures
- Integrating the Disaster Risk Management approach in the tourism industry
- Providing guidance to the line departments for utilization of flexi funds provided under Centrally Sponsored Schemes.

### Targets up to 2030:

- Empowerment of the community through access of multi-hazard early warning system, along with disaster risk information and the use of enabling technology such as the use of HAM radios, etc.
- Mainstream and integrate disaster risk reduction into decision-making, at all levels in the department.
- Train and equip all personnel at Police Station /Police Post level, to respond to disasters and conduct search and rescue operations strategy to reduce human loss by 25 percent.
- Training of masons, rapid visual screening and retrofitting of critical lifeline buildings.
- Updating of ICT platform with information at the village level.
- Landslide mitigation.
- Implementation and updating of HRVA at the micro level.

**11.b.2: Proportion of the State and local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies**

HPSDMA has already completed the HRVA for the entire State by engaging the services of an expert agency. HPSDMA has developed ICT platform up-to the Gram Panchayat level, for better disaster preparedness, planning and response.

## Challenges in achieving the targets

### Challenges in implementation of PMAY-HFA (Urban) in Himachal Pradesh

- The financial assistance fixed for implementation of the Beneficiary Led Construction Component is not sufficient, as the cost of construction is very high in the hill areas and some of beneficiaries are not able to start the construction of their houses.
- The financial assistance fixed for implementation of affordable housing in partnership and in-situ redevelopment is not sufficient and additional funding may be provided, so that affordable housing projects may be taken up with the involvement of the community.
- In Himachal Pradesh, most of the land belongs to the forest department and the projects can only take off after the forestland is transferred for non-forest purposes, in relaxation of the FCA.

Challenges and gaps in the existing system to achieve the targets of Swachh Bharat Mission (SBM) (Urban)

Swachh Bharat Mission aims at improving the sanitation situation in the country, by providing access to adequate sanitation facilities to all. Under the Mission, it is proposed that all the insanitary toilets in the country shall be converted into sanitary ones and the households defecating in the open shall be motivated to construct toilets by providing suitable incentives. Under the Mission, no insanitary toilet will be allowed and all households will have a toilet. Since Himachal is an ODF state, attention needs to be paid to the provisioning of sanitary toilets. For Solid Waste Management (SWM), the target under the Mission is that all the Urban Local Bodies (ULBs) shall have a proper and scientific waste management system in place.

Ministry of Housing & Urban Affairs (MoHUA) has allocated funds under each component for achieving the objectives set under the Mission. However, a few factors have been identified which would need to be addressed for achieving these targets, which are listed below:

**Land availability:** Due to the topographical conditions and being a hill state, there is scarcity of land in or around urban areas to set up waste processing/disposal facilities.

**Lack of sufficient funds for SWM:** Under SBM (U), the State allocation for SWM is only Rs. 18.26 crores, which is very low, as compared to the requirement. As per the prepared Detailed Project Reports (DPRs), it is estimated that for developing an Integrated Solid Waste Management

system, Rs. 1 crore per tonne (approx.) would be required. At present the total solid waste generation in all the 54 ULBs of State is 342 tonnes per day. Therefore, additional funds under this component would be required to cover all the ULBs to provide for a scientific SWM system.

**Adoption of technology:** At present there are many technologies available in the market; however no comparative study is available regarding the success or failure of these technologies in hill states, with different environmental conditions as compared to other parts of the country. There is a need to identify and adopt the technology suitable to the environmental/topographical conditions of the state. Assistance from the HP State Pollution Control Board or Environment department of the State is required, so that the right technology, most suitable for Himachal Pradesh, is considered.



## Strategies for success

The schemes and projects that are currently being implemented in urban areas of the State are as follows:

### 1. SBM (Urban): Mission period: 2014 -2019

This mission is a flagship programme of Government of India, which aims at making the cities/towns of the country clean and ODF by 2nd October 2019 by the 150th birth anniversary of Mahatma Gandhi. The components under Swachh Bharat Mission are:

- Individual household toilets
- Community toilets
- Public toilets
- Solid Waste Management
- Information, Education and Communication
- Capacity Building

This scheme is being implemented in all the 54 ULBs of the state.

### 2. Pradhan Mantri Awas Yojna (PMAY) (Housing for All): Mission period: 2015-2022

The PMAY scheme has been launched with the aim to make housing affordable for all. The four verticals of the PMAY scheme are:

- Slum re-development
- Affordable housing through credit linked subsidy
- Affordable housing in partnership
- Subsidy for beneficiary-led housing

PMAY scheme is being implemented in all the 54 ULBs across the state.

### 3. Deendayal Antyodaya Yojna- National Urban Livelihood Mission (DAY-NULM): Mission period: Five years (2014 - 2019)

Main objective of DAY-NULM is to reduce poverty and vulnerability of the urban poor households by enabling them to access gainful self-employment and skilled wage employment opportunities, resulting in an appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots level institutions.

The components of DAY-NULM are:

- Social mobilization and institutional development
- Capacity building and training
- Employment through skill training and placement
- Self-employment programmes
- Shelters for urban homeless
- Support to urban street vendors

### 4. Smart City Mission: Mission period: Five years (2015-2020)

The Smart City Mission was launched in 2015. This mission aims at developing 100 cities of the country into the Smart Cities. The selection of cities has been done based on the proposals received from the cities. In Himachal Pradesh, Dharamshala was first selected to be developed as a Smart City, based on the proposal submitted by the city. The total cost of the proposal for setting up of the Smart City of Dharamshala is Rs. 2,224 crores. The execution of the Smart City project is being implemented by a Special Purpose Vehicle (SPV) of Dharamshala Smart City Ltd. Subsequently, Shimla has also been selected to be developed as a Smart city (June 2017).

### 5. Atal Mission for Rejuvenation and Urban Transformation (AMRUT): Mission period: Five years (2015-2020)

AMRUT mission was launched to develop cities/towns of the country into ideal city in terms of providing basic civic amenities to the public. The components of AMRUT are as below:

- Sewerage
- Water supply
- Urban transport
- Storm water drainage
- Green spaces and parks

Shimla and Kullu have been nominated by the Government of India to be covered under this mission.



The scheme wise details on current situation, progress till date and a gap analysis is presented:

## 6. Sanitation - SBM

### Situational analysis

**Baseline information:** As per the data of Census 2011, out of total of 1,57, 059 urban households, 2012 households in Himachal Pradesh have insanitary latrines and 10,371 households do not have toilet facilities, within their premises at all. Therefore, 12,383 households, which is about 8 percent of the total households in the urban areas of the State either, have insanitary toilets or no toilet facilities at all.

Figure 11.2- Sanitation Analysis in Himachal Pradesh (Urban)



Source: Census, 2011

Himachal Pradesh generates approximately 342 tonnes of Municipal Solid Waste per day. The waste generated is collected by ULBs through door-to-door garbage collection schemes or through community bins placed within the city/town. The waste collected is then transported to dumping sites identified by the ULBs, without processing. The Municipal Corporation of Shimla has developed a partially functioning waste to energy plant.

**Problem identification:** The households in urban areas not having toilet facility at all or having insanitary toilets are mostly located in the slum colonies, which are largely populated by migrant labourers. These households do not have enough space within their premises to construct toilets. Even if the toilets are constructed, they do not have a sewerage connection, as these colonies are not regularized colonies. Most of these colonies get drinking water also from public taps, hand pumps or other natural sources of water. With the growth in the job prospects in the urban areas, these migrant labour colonies are growing at a very rapid pace. In recent times, permanent structures

have also come up in slum colonies. Due to the improvement in economic condition of people, they have begun constructing concrete buildings in slum colonies. However, due to space constraints, every inch is being used for the creation of living rooms only and toilets are usually not constructed within the premises. Another rapidly growing problem is that there is no proper management of municipal Solid Waste in the cities/towns. The major issue is the incomplete segregation of waste at the source and non-processing of waste before dumping. People feel that it is the responsibility of ULB to manage their waste. This aggravates the problem, as very little support is provided by the people to the administration/ULB. Moreover, the ULBs lack capacity, technical as well as financial, to come up with a sustainable solution for the growing problem of Municipal Solid Waste Management. Due to recent change in consumerism and other factors, the generation of municipal solid waste has increased many times over, and ULBs are finding it difficult to manage this waste. Further, Himachal Pradesh, being a hill region, most of the dumping sites of in the cities/towns are located on the hill slopes or near rivers, which poses a risk to the fragile ecology of the state. The leachate generated from dumping sites ends up into the nearby water bodies and pollutes them.

**Target identification:** Creation of new toilets and conversion of insanitary toilets into sanitary ones for all households as identified by the Census 2011 will be the target of the state. Every existing household shall have toilet constructed within their premises or have access to a community toilet. Incentives are also being provided under SBM to household owners for the construction of new toilets. For SWM, putting in place an effective and sustainable system in every city/town of the State is targeted. Collection, segregation and transportation to processing sites will be carried out in every city/town. Processing facilities will be established taking into account the specificity of the waste. Engineered sanitary landfills will be constructed for safe disposal of rejected waste.

### Targets by 2022:

All households as targeted under the SBM shall have access to toilet by the end of 2022 and people will be encouraged to use them. For SWM, at least the district headquarters ULB and some other major ULBs of the State shall have effective implementation of segregation at source and collection of 100 percent of segregated waste from the generation point itself.

### Targets by 2030:

No new household shall come up without a toilet facility within the premises.

No city shall be dumping its waste in the open. Effective monitoring tools shall also be developed for keeping a check on the sanitation of cities/towns.

**Strategy formulation:** Swachh Bharat Mission SBM (U) is one of the major schemes being implemented with the support of Ministry of Urban Development, Government of India. In addition to eliminating open defecation the mission aims to have a proper SWM system in every city. It aims at creating a behavioural change among the masses and makes this mission a public driven campaign. The target under SBM(U) is to build toilets for every household, which as per the Census 2011 do not have access to toilets, and to put effective SWM systems in place in cities/towns.

Efforts are being made by the Central and State Governments, and other agencies to achieve the aims and objectives of this mission. Despite all these efforts, it has been observed that the ground situation is changing at a very slow pace. A major factor is that the funding for every component is low, which is making it difficult to make the initiative viable. For example, only Rs. 5,333/- is being provided by the Centre and State Government (combined) to the beneficiary for construction of individual household toilet. Being a hill state, and considering the topography the cost of construction is higher than that in the plains. This incentive may not be enough for an individual to motivate him/her to construct a toilet. In case of Swachh Bharat Mission (Rural) (SBM (R)), Rs. 12,000/- is being provided to the individual as incentive for the construction of individual household toilet. In view of this, it is proposed that for Himachal Pradesh, being a special category state, funding/incentive for individual under the Individual Household Latrine (IHHL) component may be made at par with that provided under the SBM(R) programme i.e. Rs. 12,000/- in which the Centre's share would be Rs. 10,800/- (90%) and the State share would be Rs. 1,200/- (10%). Therefore, the gap of Rs. 6,667/- per individual shall be provided to the State as additional funding.



A similar situation prevails with the construction of new community toilet/public toilets (CT/PT) and SWM. The viability gap funding provided under the SBM (U) is calculated based on the model design/estimates prepared for cities, where resources or the construction cost is less than in hill states. Out of the estimated cost of Rs. 98,000/- per seat, only 40 percent i.e. Rs. 39,200/- per seat, is being provided to the states for construction of CT/PT. In view of this, it is proposed that, the base cost of Rs. 98,000/- may be raised to at least Rs. 1,20,000/- per seat, considering that Himachal Pradesh is a special category State and the Viability Gap Funding (VGF) may be raised from 40 percent to 80 percent i.e. Rs. 96,000/-. The remaining 20 percent may be arranged by the ULB itself.

As per the provisions under the new amended SWM, 2016, the rag pickers operating in the cities/towns shall be registered and provided ID cards. In view of this, a scheme of integration of these informal workers into the formal system of waste management is proposed. Under this scheme, all benefits such as health care, personal protective equipment and shelter shall be provided to the people who work in these areas, as it is expected that with the rapid growth in economy across the country, it will be difficult to find people to work in these jobs, unless they are adequately compensated. Facilities such as waste depots shall be the operating places for these rag pickers and the development of such facilities should be provisioned in the State budget, along with the other provisions for the upkeep of sanitation in the state. These depots shall be made sustainable through the sale of recyclable or bulky waste, deposited by the general public, at such facilities.

In addition to this, for the SWM component of SBM (U), only 30 percent of the VGF is being provided while the major cost in SWM is required for infrastructure development. It is stated that most of the ULBs have low population; therefore, the waste generation in these ULBs is very low. Almost all of the ULBs have a reasonably robust

**Figure 11.3-The additional funds required**



Total toilets to be constructed for targeted households as per Census 2011  
**12,560 (Nos.)**

Revised target as per information received from ULBs  
**11,266 (Nos.)**



Funds available under SBM (@Rs. 5,333/- per household)  
**Rs. 6.01Crore**

Additional funds requirement proposed (@Rs. 6,667/- per household)  
**Rs. 7.51Crore**





collection and transportation system but lack processing facilities and scientific disposal. It is submitted that in most of the ULBs, smaller capacity plants are required. Therefore, almost 90 percent of the funding for the installation of processing plants in the ULBs shall be provided under the SBM (Urban). Also, 90 percent funding for the construction of regional landfills for cluster of ULBs will be provided under the Mission. The ULBs shall contribute for the entire collection, transportation and the remaining 10 percent funding for installation of processing plants and the construction of regional landfills.

#### Funds required for setting up of solid waste processing and disposal facilities:

Total estimated waste generation in urban areas of H.P. (tonnes per day) TPD

342

Total funds required for setting up waste processing & disposal facilities for all the ULBs (Rs.)

171.00  
crores

18.26  
crores

Funds available under Swachh Bharat Mission (Urban) for SWM (Rs.)

152.74  
crores

Additional funds required based on the waste generation (@ approx. 50.00 lakh per tonnes\*) (Rs.)

\* Approx. cost based on the DPR prepared by DUD for Sundernagar.

**Three-year action plan:** To achieve the targets as set under the SBM (U) i.e. access to sanitary toilets for every household, 100 percent segregation of waste at source and 100 percent collection of this segregated waste and waste processing and safe disposal facilities for all district headquarters and ULBs.

**Seven-year strategy:** To formulate a policy under which no new household shall come up, without a toilet facility and ensure its strict enforcement. Implementation of all provisions of the new amended SWM Rules, 2016, in all major ULBs of the state. Development of monitoring tools to watch the sanitation situation.

**Thirteen-year strategy:** To develop and install smaller capacity plants in all public/community toilets, so as to treat the waste water discharged from these toilets and re-circulate the same for re-use within the same toilet, thereby reducing the load on natural water sources.

Ensure 100 percent implementation and enforcement of provisions of new amended SWM Rules, 2016, in all cities/towns.

#### 1) Pradhan Mantri Awas Yojna (PMAY) – Housing for all (HFA) (Urban) Mission

##### Situational Analysis:

**Baseline information:** At present, the department is implementing PMAY HFA (Urban) Mission. The Mission will be implemented through four verticals giving option to beneficiaries, ULBs and Governments. These four verticals are:

- Slum rehabilitation of slum dwellers with participation of private developers using land as a resource
- Promotion of affordable housing for weaker sections through credit linked subsidy
- Affordable housing in partnership with the public and private sector
- Subsidy for beneficiary-led individual house construction

The mission will support construction of houses up to 30 square metres and 60 square metres carpet area, with basic civic infrastructure. It is a state-wide plan of action, which will meet the demand of housing by eligible beneficiaries in the ULB, along with the interventions selected out of the above-mentioned four verticals of the PMAY. The scheme also prescribes certain mandatory reforms for easing up the urban land market for housing, to make adequate urban land available for affordable housing.

The State Government has signed a Memorandum of Agreement (MoA) with Ministry of Housing and Urban Poverty Alleviation (MoHUPA), GoI for achieving reforms for speedy implementation of PMAY (Housing for All -Urban) Mission with the following provisions:

- The State will speed up the Non Agricultural (NA) permission, in case land falls in the residential zone earmarked in the master plan of city/town by 2016-18.
- The State will prepare/amend the master plans earmarking land for affordable housing by the year 2018-19.
- The State will put in place a single-window time bound clearance system for layout approvals and building permissions by the year 2016-17.
- The State will adopt pre-approved building permission and layout approval system for EWS/LIG housing or exempt approval below certain built up area/plot area by the year by the 2017-19.
- Himachal Pradesh will legislate or amend existing rent laws on the lines of the Model Tenancy Act circulated by the First Party by the year 2016-18.
- The State will provide additional Floor Area Ratio (FAR)/Floor Space Index (FSI)/Transferable Development Rights (TDR) and relax density norms, for slum redevelopment and low cost housing by the year 2016-18.



**Beneficiary led construction:** Under the beneficiary led construction (BLC) component of PMAY-HFA (U), the DPRs amounting Rs.16.15 crores for 1,077 new house constructions (30 sq. metres) have been approved on April, 2016 for nine towns namely Solan, Nahan, Bilaspur, Una, Hamirpur, Mandi, Kullu, Dharamshala and Chamba, by the Gol.

**Incremental housing (Enhancement):** 'In-principle' approval by MoHUPA, Gol for Central assistance of Rs.12.56 crores for eight projects in the towns of Solan, Nahan, Bilaspur, Una, Hamirpur, Mandi, Kullu and Dharamshala, with 837 houses under the enhancement component of BLC has also been granted.

The work for preparing housing for all plan of action (HFAPoA) and DPR for 13 towns of Himachal Pradesh has been awarded to M/s Stesalit Systems limited, Kolkata and the demand survey is near completion, in all the 13 towns. The remaining 41 cities/towns of Himachal Pradesh were included under PMAY-HFA (U) in June, 2016 by MoHUPA, Gol.

The demand survey for the 13 selected towns is near completion and 12,874 beneficiaries have been identified so far, with 354 beneficiaries in 'in-situ slum redevelopment' component, 786 beneficiaries in credit linked subsidy scheme, 6,183 beneficiaries in affordable housing, in partnership component and 5,551 beneficiaries in BLC (1,923 beneficiaries in new and 3,628 beneficiaries in enhancement sub components). The MIS entries of the surveyed beneficiaries in the PMAY-MIS are under progress and about 12,874 complete entries have been inventoried.

According to the demand survey conducted by the agency to access the requirements of housing stocks, in preparing 'Housing for All' plan of action, approximately 13,000 individual houses are required in 13 towns, selected in the first phase. In the remaining 41 towns selected in phase-II of HFA, demand assessment survey will be started very soon.

**a) Bottlenecks - Land issue:** Lack of land in most of the towns in HP is a major deterrent for developing housing stock. The vacant land falls in the purview of the forest department, and getting clearance for housing is difficult.

**b) Strategy formulation- PMAY:** Pradhan Mantri Awas Yojna - Housing for All (Urban) is one of the major schemes being implemented in the state, with the support of Ministry of Housing and Urban Poverty Alleviation, (MoHUPA), Government of India with its mission period 2015-2022. Main objective of HFA (U) is to supply sufficient housing stock to achieve housing for all urban poor.

Efforts are being made by the Central Government, as well by the State Government to achieve the aims and objectives of this mission. Despite these efforts, it has been observed that the funding for every component is less than what is required, which is making it difficult to make the initiative very effective. Further, being a hill State and considering the terrain at most of the places in Himachal Pradesh, the cost of construction is much higher than that

in the plains area. Therefore, this incentive may not be enough for an individual to motivate her/him to construct a house. For example, only Rs. 1,50,000/- is being provided by the Centre and Rs. 15,000/- (10 percent) is being provided by the State Government to the beneficiary for construction of the individual house. As per the plinth area, schedule of rates of HPPWD, GoHP, the cost calculated for constructing individual Dwelling Unit (DU) is Rs. 24,436/sq.mt. For 30 sq. metres it works out to Rs.7.33 lakhs per DU, whereas Gol is providing 1.50 lakhs per DU and the State Govt. is contributing 10 percent @ Rs.15, 000/DU. Thus the gap of Rs.5.68 lakhs/DU is to be borne by the urban poor beneficiary, which is on the high side. In view of this, it is proposed that being a special category hill state, funding for individual houses, to bridge the gap of Rs. 18,936/sq. metre may be claimed additionally from Gol. (For details see Annexure 9)

Financial Year	Target Houses (Dwelling Units)	Funds Required (Rs. in Crore)
2017-18	2,575	106
2018-19	2,575	106
2019-20	2,575	106
2020-21	2,575	106
2021-22	2,574	106
<b>TOTAL</b>	<b>12,874</b>	<b>530</b>

Note - \*Additional funds will be required & will be quoted as per actual area requirement emerging from Demand assessment survey on year to year basis for Enhancement subcomponents under HFA Verticals (ii) CLS and Vertical (iv) BLC.





## Indicator statement for monitoring the progress

SDG	Targets	Indicators	Current status	Target by 2022	Target by 2030	Data Source
11.1	By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	Percentage of Slums/Economically Weaker Sections (EWS) households covered through formal/affordable housing	Survey is under process	55%	100%	Urban Development (PMAY-)
		Percentage of slum area covered with basic services	Survey is under process	100%	Formal/affordable housing for all	
		Proportion of urban population living in slums, informal settlements or inadequate housing	8.9%	6%	1%	
11.2	By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, and children, persons with disabilities and older persons	Proportion of cities with efficient urban mobility and public transport	45%	65%	100%	Transport dept.
11.3	By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in the entire State	Proportion of cities with integrated development plans	30%	74%	100%	Town & Country Planning dept.
		Share of mixed land use area in overall city land use	Currently information is not available and the same will be made available by 2022 and thereafter the indicator will be monitored on yearly basis			
		Net Density	Currently information is not available and the same will be made available by 2022 and thereafter the indicator will be monitored on yearly basis			
11.4	Strengthen efforts to protect and safeguard the world's cultural and natural heritage	Restoration and reuse of Historic buildings		Restoration of all the historic buildings ensured and maintained	Restoration of all the historic buildings ensured and maintained	ASI /Language Art and Culture department
11.5	By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to gross domestic product caused by disasters, including water related disasters, with a focus on protecting the poor and people in vulnerable situations	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population	2.69%	Minimizing the deaths to as low as zero	Minimizing the deaths to as low as zero	Disaster Management Cell-Revenue dept.
11.6	By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.	Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	15%	68%	100%	Urban Development (SWM- Urban branch)

## Indicator statement for monitoring the progress

SDG	Targets	Indicators	Current status	Target by 2022	Target by 2030	Data Source
		Annual mean levels of fine particulate matter (e.g. PM 2.5 and PM 10) in cities (population weighted)	PM 10 =85.6 NOx= 13 SOx=2.18	PM 10 = 70 NOx=11.7 SOx= 3.50	PM 10 = 55 NOx=10.9 SOx= 3.90	Himachal Pradesh State Pollution Control Board
		Number of days the levels of fine particulate matter (PM 2.5 and PM 10) above mean level	0	0	0	
11.7	By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, particularly for women and children, older persons and persons with disabilities	Per capita availability of green spaces	Currently information is not available and the same will be made available by 2022 and thereafter the indicator will be monitored on an annual basis			Town & Country Planning dept.
11.a	Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning	Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city	35%	72%	100%	Town & Country Planning dept.
11.b	By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans toward inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai framework for disaster risk reduction 2015-2030, holistic disaster risk management at all levels	Whether the State has adopted and implemented State disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2031	State disaster risk reduction plan being implemented effectively			Disaster Management Revenue dept.
		Proportion of State and local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	The State has adopted local disaster risk reduction strategies in line with national disaster risk reduction strategies			
11.c	Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials	National indicator not yet developed				





SDG12

*ENSURE SUSTAINABLE  
CONSUMPTION AND  
PRODUCTION PATTERNS*



## Vision

Increasing resource efficiency for overall improvement in the quality of life. The State shall endeavour to enhance net welfare from those economic activities that use limited resources and cause less degradation and pollution during their entire life cycle.

### Himachal Pradesh today

- 26.40% area under forest cover, another 1.36% area outside forest is covered with trees
- 80% area under rain fed agriculture
- 450 tonnes of municipal solid waste and 60 tonnes of hazardous waste are generated, every day, in the state
- The population of the State increased by 17.53% between the years 1991-2001 and then further increased by 12.81% from 2002 to 2011

### Focus for tomorrow

- Sustainable practices to harness renewable energy
- Enhance forest density and cover
- Integrated watershed development
- Efficient use of natural resources
- Efficient management of waste through prevention, recycling, re-use, etc
- Sustainable patterns of consumption and production





## Himachal Pradesh today<sup>1</sup>

Sustainable Consumption and Production (SCP) has been defined as 'the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of future generations'<sup>1</sup>.

SCP also provides a possibility to 'leapfrog' to more resource efficient, environmentally sound and competitive technologies, bypassing inefficient, polluting, and ultimately costly phases of development. This could improve the competitiveness and the access of local products to national, regional and international markets, increasing the possibilities of national revenues and economic growth, which in turn, if distribution policies and activities are in place, can contribute to poverty eradication<sup>2</sup>.

The Government of Himachal Pradesh will strive to sustainably harness renewable sources of energy, reduce waste generation through prevention, reduction, recycling and re-use and to sustainably manage the use of natural resources.

## Gaps between targets and current achievements in Himachal Pradesh

Reserved forests constitute 5.13 percent, protected forests 89.27 percent and un-classified forests 5.60 percent of the total forest area. About two thirds of the geographical area is under recorded forests. However, a substantial part of this is not conducive for tree growth, being under permanent snow, glaciers and cold deserts. The forest cover in the state, based on interpretation of satellite data is 14,679 km<sup>2</sup>, which is 26.35 percent of the state's geographical area. In terms of forest canopy density classes, the state has 3,224 km<sup>2</sup> very dense forest, 6,381 km<sup>2</sup> moderately dense forest, and 5,074 km<sup>2</sup> open forest. The data shows that there has been a decrease of 2 km<sup>2</sup> in the moderately dense forest and an increase of 13 km<sup>2</sup> in open forest. It also shows that there has been some improvement in the area under forests. (For details see Table 12.1 in Annexure 12).

The primary sector, which includes agriculture, forestry, fishing, mining and quarrying, witnessed a growth rate of 0.7 percent, during 2015-16. During the year, 145,984 m<sup>3</sup> of timber, 10 tons of firewood, two tons of charcoal and 7,285 m<sup>3</sup> of khair (acacia catechu) was extracted from the

state's forests.

Forest plantation is being carried out under the Productive Forestry and Soil Conservation Scheme. These schemes include improvement of tree cover, raising nurseries for departmental plantation and public distribution, development of pasture and grazing land and protective afforestation, soil conservation and afforestation. During the financial year 2016-17, an area of 7,969.23 hectares has been covered under these schemes. About 35 lakh medicinal plants were planted in the financial year 2016-17. (For details of land use, see Table 12.2 in Annexure 12).

Forests are exposed to dangers of fire, illicit felling and encroachment. It is therefore necessary that check posts are established at suitable places to curb illicit timber trade. Installation of fire fighting equipment and new techniques have been introduced in all the forest divisions, where fire is a major threat. A good communication network is required for good management and protection of forests. Keeping these factors in view, intensification of Forest Management Scheme is being implemented with central assistance. An outlay of Rs. 402.00 lakhs has been estimated for the financial year 2017-18.

## Gap analysis:

- Focus is on productivity, outputs and yields and is not matched with an equal emphasis on conservation and rejuvenation of environmental and natural resources
- Implications of future trends - increasing population pressure, the imperatives of development and climate change - are inadequately understood and addressed. This is putting additional pressure on the quantity and quality of natural resources
- Training courses follow a sectoral approach and not an eco-system approach. Forest department conducts some excellent training courses but needs to strengthen them through an eco-system approach
- Training does not take into account women's traditional knowledge on agriculture and allied activities (crop varieties, animal species, seed selection and storage, bio-pesticides, etc), nor adds value to it
- Legislators are not trained in adaptation measures - neither in local measures based on traditional knowledge and practice that can be scaled up successfully, nor in new measures
- Training on participatory social audit needed for larger impact and effective monitoring and evaluation

1 United Nations Environment Programme (UNEP), Oslo Symposium, 1994

2 UNEP-DTIE, 2010

- Designated officers for environment too few – usually just one – and located only at headquarters, not in field/implementation areas
- No focus on resource constraints and rejuvenation of environmental and natural resources as integral to operational plans
- Inadequate incorporation of environmental issues in trainings of regulation bodies though these bodies are key to maintaining the health of environmental resources
- Trainings are sectoral and project-focused, and do not take a macro or a 'programmatic' view, for example, the need to take the entire river basin as a parameter for each hydro-power unit
- Trainings do not include backward and forward linkages, which are necessary for environmental considerations, for example, mining plans, construction of roads with adequate drainage, etc.
- Elected representatives are not exposed to some of the best practices in eco-friendly urban development and management that are available in India and in other countries, particularly Latin American countries
- Inadequate attention to use of state-of-the-art technology like GIS (Geographic Information System) for planning and monitoring
- Inadequate knowledge about cross-sectoral linkages, understanding of convergences
- Attitudinal change required for more pro-environment decision-making and management practices



### Current Interventions

In a short span of time, Himachal Pradesh has become a model of development not only for smaller states but for the bigger states of the country as well, in the field of education, health, horticulture, social welfare and inclusive growth. The economy of the state is expected to achieve a growth rate of 6.8 percent, in the current financial year. The Government of Himachal Pradesh has been working towards green growth and sustainable development in the state. In order to achieve sustainable development the following interventions have been made:

### 12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

The Government of Himachal Pradesh has undertaken the preparation of an Environment Master Plan (EMP) for the state, in order to ensure the sustainability of environmental heritage and natural resources and to develop a long term

perspective on achieving environmentally sustainable development. Further, the state has adopted the motto of 'fast-track development', in harmony with environment protection with the involvement of citizens.

A sectoral approach to the EMP has been adopted, to mainstream environmental concerns into the state's development planning, in all sectors of economy for 30 years. Three sectors namely infrastructure, natural resource management and services have been identified for preparation of the EMP. Under natural resource management, agriculture, horticulture, animal husbandry, livestock, forests, wildlife and wetlands and the fisheries sector are all covered. The detailed baseline information on the natural resources has been analyzed, vulnerability assessments have been carried out and sector wise comprehensive guidelines have been prepared.

### 12.2 By 2030, achieve sustainable management and efficient use of natural resources

Himachal Pradesh is blessed with natural resources. Distribution of various species follows fairly regular altitudinal stratification. The vegetation varies from dry scrub forests at lower altitudes to Alpine pastures at higher altitudes. In between these two extremes, distinct vegetation zones of mixed deciduous forests, bamboo, chil, oaks, deodar, kail, fir and spruce, are found. The richness and diversity of flora can be gauged from the fact that, out of total 45,000 species found in the country as many as 3,295 species (7.32 percent) are reported in the state. More than 95 percent of the species are endemic to Himachal Pradesh and characteristic of Western Himalayan flora, while about 5 percent (150 species) are exotic, and have been introduced over the last 150 years. The forests of Himachal Pradesh are rich in vascular flora, which forms the conspicuous vegetation cover. The state has considerable mineral resources which include rock salt, limestone, gypsum, silica-sand and barite. Traces of iron, gold, lignite, pyrite, natural gas and slate have been found in some districts like Bilaspur, Kangra, Mandi and Solan.

In order to improve and protect and manage the available natural resources following actions have been taken:

- State Environment Master plan has been prepared
- State Biodiversity Board has been constituted and bio diversity committees constituted at the village level
- Afforestation programmes
- Glacier monitoring
- Wetland management committees, conservation programmes

The major river systems of the region are the Chandra Bhaga or Chenab, Ravi, Beas, Sutlej and Yamuna. These perennial rivers are fed by snow and rainfall. The annual replenishable ground water resource in the state is 0.43BCM (billion cubic metres) and the stage of ground



water development is 30 percent. In order to protect water resources and encourage the judicious use of water, the State Government has come up with the following actions:

- Water Policy with environmental parameters adopted
- Rain water harvesting system essential in buildings
- Irrigation schemes
- Water under controlled supply
- Efficient irrigation techniques adopted in agriculture and horticulture

Himachal Pradesh is rich in hydel resources. The state accounts for about 25 percent of the national potential of hydro electricity. It has been estimated that about 28GW of hydel power can be generated in the state, by the construction of various hydel projects on the five perennial river basins; these may be major, medium or small. Out of the total harnessed hydel potential of about 10.5 GW, only 7.6 percent is under the control of Himachal Pradesh Government while the rest is being exploited by the Central Government. The State Government has been giving high priority for the development of hydel resources, since hydel generation can meet the growing need for power for industry, agriculture and rural electrification. It is also the biggest source of income for the state, as it provides electricity to other states also.

Solar energy is another resource that can be exploited in Himachal Pradesh, at least for some months of the year. An assessment of the potential has been made. Himachal receives an average insolation of 5.99 kWh/m<sup>2</sup>/day in the warm summer months of March, April and May; 5.89 kWh/m<sup>2</sup>/day in the wet monsoon months of June, July, August and September; 3.94 kWh/m<sup>2</sup>/day in the colder winter months of end October, November, December, January and February. For the period from March to October the entire physiographic zone of Himachal Pradesh receives insolation above 4kWh/m<sup>2</sup>/day, favouring commercial as well as domestic applications of solar energy. With the onset of winter, by the end of October, the insolation in Himachal Pradesh drops down and a low insolation period prevails till the end of February. This confines the exploitation of the incident solar energy to domestic appliances like solar cookers, solar water heaters, etc. in winter.

**The following actions has been taken to promote renewable energy:**

- Identified hydropower potential- 28GW
- Amount harnessed - 10.5GW
- Solar potential identified- 34 MW (NISE) (National Institute of Solar Energy) – 53 GW IREDA (Indian Renewable Energy Development Agency)
- 15 percent minimum water discharge
- LADF (Local Area Development Fund) created and one percent of the share of the hydel power project has

been ear-marked for project affected families

- Integrated Catchment Area Treatment (CAT) plans, Cumulative Environment Impact Assessment (CEIA)

### 12.3 By 2030, halve per capita food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

Agriculture is the main occupation of the people of Himachal Pradesh and has an important place in the economy of the State. Himachal Pradesh is the only State in the country where 89.96 percent of the population lives in rural areas. Therefore, dependence on agriculture and horticulture is high, as it provides direct employment to about 62 percent of the total workers in the State.

The agriculture sector witnessed major changes with the Green Revolution and productivity increased during that period, significantly. However, as a result of indiscriminate use of chemicals in modern agriculture, this sector now faces challenges like soil sickness, environment pollution, reduced population of friendly insect-pests, increased incidence of harmful insect-pests, incidence of new disorders, increased input cost per unit, etc. To overcome these challenges, organic farming is a suitable option in Himachal, because of rain-fed conditions that prevail in much of the State.

In order to achieve an environmentally sound management of chemicals and wastes throughout their life cycle, in accordance with the agreed international framework and significantly reduce their release into air, water and soil, and to minimize their adverse impact on human health and the environment following actions have been taken:

- Complete ban on fossil fuel burning
- Integrated watershed management practices adopted
- Organic farming policy adopted
- Solar power policy adopted
- Integrated CAT Plans prepared for soil conservation
- Air quality monitoring through automatic air monitoring systems
- Numbers of stores have been set up to store food grains (117 stores with a capacity to store 60,488 MTs of grain)
- Farm produce marketing facilities created
- Food preservation and processing industries
- Food and Supply depots set up in the State
- Cold storage chains
- Patent information centre set up

**12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.**

In Himachal Pradesh, out of 9.196 million tons of CO<sub>2</sub> eq, industrial activities together emitted 5.57 million tons of CO<sub>2</sub> eq of green house gases (GHG). Industry sector emissions have been estimated from the data base for production process manufacturing of cement, glass, metals, chemicals and other specified industries. The emissions covered in the industry sector include process-based emissions.

#### Cement and glass production

The cement industry emitted 5.31 million tons of CO<sub>2</sub> eq, which is 95.33 percent of the total CO<sub>2</sub> eq emissions from the industry sector. The emissions cover all the large, medium and mini cement plants and grinding plants. Glass production emitted 892.30 tons of CO<sub>2</sub> eq.

#### Metals

The metal industry namely, aluminium, ferroalloys, lead, zinc and copper production lead to an emission of 0.233 million tons of CO<sub>2</sub> eq, about 4.18 percent of the total of CO<sub>2</sub> eq emissions.

#### Chemicals:

Chemical industries together emitted 0.0259 million tons of CO<sub>2</sub> eq, about 0.466 percent of the total of CO<sub>2</sub> eq emissions.

#### Other industries

Other industries comprising of pulp/paper, leather, textiles, food processing, mining and quarrying and non specific industries comprising of rubber, plastic, watches, clocks, transport equipment, furniture, etc., together emitted 0.0786 tons of CO<sub>2</sub> eq, and this constitutes only about 0.0014 percent of the total emissions.

The methane (CH<sub>4</sub>) emission from waste water generated from industry has been estimated, based on data available with ULBs and the Industries department. The industries have been included for estimating CH<sub>4</sub> from industrial waste water and methylene (CH<sub>2</sub>) emissions from industries and domestic waste are given in the following table:

**Waste water generated in major industries in Himachal Pradesh**



Source: ULBs and Industry Dept.

#### Waste water:

The waste water generation emissions are estimated only for waste water disposal from industries.

#### Municipal Solid Waste (MSW):

MSW is a major contributor to the emission of GHGs in the State. It has been estimated that the MSW generation and disposal resulted in the emissions of 1.0489 (000'tons) G grams of CH<sub>4</sub> in Himachal Pradesh. Systematic disposal of solid waste is carried out only in the major towns, resulting in CH<sub>4</sub> emissions, due to the aerobic conditions generated by the accumulation of waste over a period of time.

There are 54 urban local bodies (ULBs) in Himachal Pradesh (viz. 1 – Municipal Committee, 31 – Municipal Corporations, and 21 – Nagar Panchayats), of which 33 have been provided with MSW dumping facility, where waste is partially collected and disposed in a systematic way, resulting in CH<sub>4</sub> emission from anaerobic conditions. In most towns, the MSW is disposed in landfills, by means of open dumping; a small fraction is used for composting at some of the disposal sites. In the major towns, such as Shimla, Kullu, Dharamsala, Solan, Baddi, the rate of generation of MSW is high, due to both tourists and high population density.

In rural areas, waste is scattered and as a result aerobic conditions prevail, with no resulting CH<sub>4</sub> emission.

The rate of disposal of MSW varies from place to place, therefore, the estimation of CH<sub>4</sub> generated from MSW at the State level is difficult, unless year wise data on MSW generation is incorporated in the estimates. In the present calculations, IPCC 2000 guidelines have been used. Average CH<sub>4</sub> emission factor derived from a study by NEERI (National Environmental Engineering Research Institute) in 69 cities (NEERI, 2005) has been applied to the calculations.

Waste quantities arising in the steadily expanding urban areas of Himachal Pradesh are at much lower rates than in the other metropolitan cities of India. The quantities of MSW generated in Himachal Pradesh is 300-350 tonnes per day SOER (State of Environment Report, 2007); an insignificant contribution to 100,000- 120,000 metric tonnes per day produced by the country (World Bank, 2006 and HPSoER, 2007).



In order to achieve the objectives of its Clean Himachal and Healthy Himachal drive, the following actions are being taken:

- Waste collection, treatment and disposal facilities are being set up in all ULBs
- Waste to energy plant set up at Shimla
- Ten waste to energy plants being set up in the state
- Door-to-door waste collection introduced
- Bio composting/ vermi compost units being set up in the state in rural areas
- One TSDF for hazardous waste set up at Nalagarh
- One CETP set up at Baddi- treating 29 MLD industrial waste water
- One common bio-medical waste disposal site developed at Arki

### 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

In Himachal Pradesh, the waste water originates from a variety of domestic, commercial and industrial sources. In industrial usage, commercial hotels, etc. waste water is treated on site, however, for waste water being generated from domestic sources, in towns where the treatment facility is available, it is collected in centralized treatment plants but the percentage is very low. According to information obtained from the HP State Pollution Control Board, there are about 30 Sewage Treatment Plants (STPs) installed in the State by various ULBs, out of which only six have been granted permission by the State Board for operation. Another 34 STPs are being installed in the State, which will enhance the capacity of the State to treat the waste from domestic sources. At the moment, much of the waste water is disposed untreated, nearby. Methane is emitted from waste water, when it is treated or disposed anaerobically.

It is estimated that about 4,813.56 K litres per day (KLD) of domestic waste water is generated from the urban areas in Himachal Pradesh, as against 52,034.46 KLD of industrial wastewater. The waste water generated from rural areas is not treated in any way, therefore, as it decomposes in an aerobic condition, it is considered not to be a source of  $CH_4$ . Domestic waste water has been categorized under urban and rural, since the characteristics of the municipal waste water vary from place to place and depend on factors, such as economic position, food practices of the area, water supply status and climatic conditions of the area.

Waste water treatment and discharge pathways for the waste water generated in the urban areas is partial and about 70 percent of the waste water generated from the

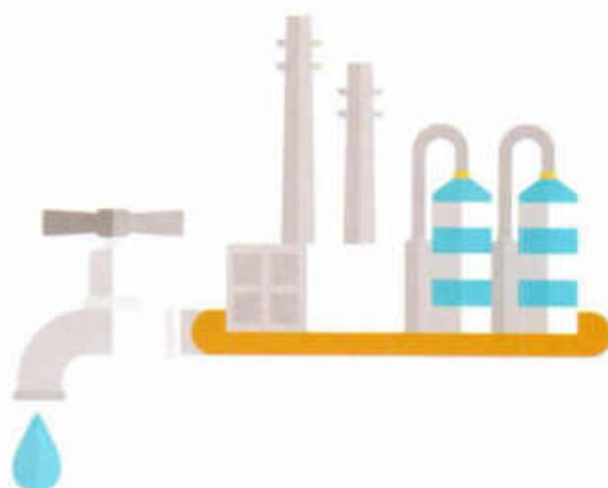
urban centres is not collected and treatment is provided to only 10 percent of what is collected. This is not very significant. The waste water gets disposed of largely in aerobic conditions. Therefore, no specific calculations have been made.

### 12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

In order to encourage industrial sector/ companies to adopt sustainable practices and to integrate sustainability information into their reporting cycle, the State of HP introduced the New Industrial Policy in 2013 and subsequently revised in 2017. The Industrial Policy focuses to promote and incentivize industry-led sustainable economic growth by creating a conducive climate, which enables environmentally sustainable inclusive development, generates income and employment opportunities and encourages skill development, thereby establishing Himachal as a model industrial hill State.

The Government of Himachal Pradesh is committed to pursue a development strategy that takes into account the vulnerability of the Himalayan region and the need for environment protection. The endeavour is to support a transformational shift towards an environmentally sustainable and carbon smart economic growth model, with the help of individuals/ organizations and demonstrate best practices towards environment protection.

To recognize innovative actions and initiatives by individuals, institutions, organizations the Government of Himachal Pradesh has decided to institute the 'Himachal Pradesh Environment Leadership Awards' from 2016, to be conferred annually. The following institutions/ companies have been awarded for their Effective Environment Management Practices:



1. M/s TVS Motor Company Ltd.
2. Elin Appliances Pvt. Ltd.
3. M/s Wildflower Hall, Chharabra, Shimla
4. M/s The Pinewood Hotel
5. Indira Gandhi Medical College & Hospital
6. Maharishi Markandeshwar Medical College & Hospital
7. Chitkara University
8. Akal College of Engineering and Technology

### 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

The State Government is following the National Information Centre (NIC) and GoI sponsored systems and has jointly developed public procurement procedures and practices in the State. NIC has developed e-procurement software system GePNIC to cater to the electronic procurement/ tendering requirements of the government departments and organizations. This application is under implementation in 26 departments/ PSUs/ statutory bodies, etc. In June 2017, 537 tenders were processed electronically, which were worth Rs. 18,647.10 lakhs. NIC e-procurement system has been designed taking into account the best tendering practices followed in the country including The World Bank and the Asian Development Bank guidelines. (These adhere to GFR 2005, CVC Guidelines, IT Act 2000 and its amendments).

Himachal Pradesh Government is promoting alternative sources of energy like solar and wind energy for consumers in the tribal areas and in far-flung areas of the State. In an initiative to promote energy efficiency, the Govt. of Himachal launched a scheme to distribute light-emitting diode (LED) tube lights and energy-efficient fans. The scheme Ujala or 'Unnat Jeevan by Affordable LEDs and Appliances for All' is an extension of the State's domestic efficient lighting programme.

### 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

The State Government with the assistance of The World Bank has implemented a Green Growth and Sustainable Development Programme and various policy reforms have been incorporated in the existing policies towards sustainable development. Training need assessment modules for climate change adaptation planning and implementation in Himachal have been developed in

technical association with the Swiss Agency for Development and Cooperation (SDC) and Indian Himalayan Climate Adaptation Programme (IHCAP). Training and capacity building/ awareness for integrating climate change in Himachal Pradesh have been identified through reviewed literature to understand the vulnerability of Himachal Pradesh, as a result of both observed climate change and projected climate change. Sectors such as agriculture, horticulture, water, forest and biodiversity (eco-tourism) energy-hydropower, human habitats and human health have been identified in the training need assessment.

### 12.a Support to strengthen scientific and technological capacity to move towards more sustainable patterns of consumption and production

Scientific and technological capacity is being supported and strengthened through the State Council for Science, Technology and Environment.

### 12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products

The Government promotes sustainable tourism by encouraging the private sector to develop tourism related infrastructure without damaging the ecology or environment. To support the concept of sustainable tourism development, various programmes for encouraging adventure sports, religious and rural tourism, are being implemented to facilitate tourists and create job opportunities in local communities. The private sector is being encouraged to develop tourism related infrastructure including setting up environment friendly ways of transportation like ropeways. The Home Stay scheme is being implemented; currently 876 Home Stay units are registered with the Government. These play an important role in promoting local culture/ tradition and in generating self employment. The scheme allows private homes to offer accommodations to tourists, subject to fulfilment of certain conditions. In addition to these, community based tourism activities are in progress in major tourism destinations.



### Challenges: Natural resource management

#### Water

The supply of fresh water is emerging as a challenge today. At present, all 100 percent (both urban and rural) of the population has access to drinking water, but only 10.30



percent of the population gets 135 lpd of water supply in urban areas and 65.30 percent of the population in rural areas gets 55 lpd. There is thus a large gap between the demand and supply. There are pressures from shrinking resources and increasing population levels.

STPs have been provided but there are gaps in technical implementation.

### Forests

The forests of Himachal Pradesh are known for their grandeur and majesty. The forest cover in the state, is about 26.37 percent of the state's geographical area, based on satellite data. There are 38 forest types which belong to eight forest type groups, viz. tropical moist deciduous forest, tropical dry deciduous forest, subtropical Pine forest, Himalayan moist temperate forest, Himalayan dry temperate forest, sub Alpine forests, moist Alpine scrub and dry Alpine scrub. These forests host 7.32 percent of the flora and 7.4 percent of the fauna of the country and are presently under stress due to the impact of economic development and the growth in human and cattle population.

### Soil

The overall production of the agriculture sector and horticulture sector for the year 2015-16 has been 2,84,7000 metric tons and 8,19,000 metric tons, respectively. However, if we look at the growth of the area and the production, we find that the potential for growth has not been achieved. There are a number of factors that are responsible for this, including soil quality. Maintaining soil quality is critical to improving productivity in agriculture/ horticulture. There is need to control degradation of soil quality, through effective water resource management and solid waste management, so as to ensure qualitative and quantitative outputs.

### Renewable Energy

Domestic demand accounts for about 84 percent of the total production of renewable energy. At present only 0.6 percent energy is generated from solar energy, 2 percent from nuclear and 6.4 percent from thermal sources. There is need to enhance the share of solar energy. The electrical energy intensity is increasing everyday and the transmission and distribution losses pose a threat to the the demand and supply chain.



## Resource Management - Challenges and Actions

### Natural Resource Management

#### Challenges

- Climate change (Precipitation, rainfall and temperature)
- Increasing water demand
- Non rain water harvesting
- Ground water depletion



#### Actions

- Adaptation actions in water sector
- Improve efficiency in water distribution
- Enhance rain water harvesting
- Ground water recharge
- Improve water quality

#### Challenges

- Forest density decreasing
- Forest cover decreasing
- Forest fire increasing
- Loss of biodiversity

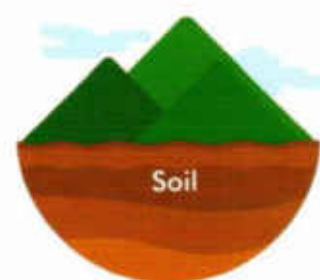


#### Actions

- Protect and conserve forests
- Afforestation programme
- Creation of infrastructure to control forest fire
- Increase use of cleaner fuels- LPG

#### Challenges

- Agriculture and horticulture Production
- Uncontrolled unscientific Solid Waste Management
- Depleting forests



#### Actions

- Improve soil quality
- Soil moisture, nutrient level checks and improvements
- Effective sanitation systems
- Control industrial pollution

#### Challenges

- Lacking in infrastructure development
- Transmission and distribution losses
- Depletion of glacial cover
- Silt management



#### Actions

- Transmission and evacuation of power
- Construction costs rationalization as greener energy
- Enhance solar energy usage
- Enhance wind energy use

#### Challenges

- Air pollution due to cement industries
- Increasing network of roads
- Increasing vehicles
- Increasing industries



#### Actions

- Implementation and monitoring of integrated CAT (Catchment Area Treatment) plans
- Green roads and road side plantations
- Strengthening of automatic air quality monitoring stations
- Maximize use of clean fuels
- Mass transportation
- Parking facilities





## Strategies and targets for success

To better manage renewable sources of energy, reduce waste generation through prevention, reduction, recycling and re-use and to sustainably manage the use of natural resources the following three-fold strategy has been adopted:

- Strategies for protecting natural resources
- Strategies for better waste management
- Strategies for sustainable consumption and production

In order to sustainably harness the renewable sources of energy, reduce waste generation through prevention, reduction, recycling and re-use and to sustainably manage the use of natural resources, the Government of Himachal Pradesh has set following targets to be achieved by 2030:

- Increase the solar – wind renewable energy production and consumption by 10%
- Collect, treat, process 50 percent, – 250 tons of municipal waste through waste to energy facilities in the state

- Increase the area under organic farming under horticulture from 17,000 hectares to 30,000 hectares and under agriculture increase vermi composting units from 1000 to 1930 and increase the production of organic manure from 0.85 lakhs MT to 0.164 lakhs MT, benefiting 20,000 farmers
- Reduce the total pesticides used in agriculture by 20% from the present use
- Area to be brought under Bio Control from 100 hectares to 175 hectares and release of bio agents from 150 lakhs to 270 lakhs, benefiting 6,932 families
- Increase hydro power - renewable energy capacity by 30 %
- Construct covered storage for food grains at the micro level
- Set up cold chains at basin levels
- Promote and set up horticulture and agriculture produce processing and preservation units at the small scale level

## Indicators statement for monitoring the progress:

SDG	Targets	Indicators	Current status	Target by 2022	Target by 2030	Data Source
12.1	Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries	<b>Material footprint and material footprint per capita</b>	Foot print on industrial production is 5570.88 (000'tonnes) G grams CO2 eq.  15.86 lakhs LPG users	Reduction in CO2 emission by 10% over 2012 levels  Increase by 10% over 2012 levels	Reduction in CO2 emission by 20% over 2012 levels  Increase use of LPG by 30% over 2012 levels	All stakeholder departments  Food & Civil Supplies dept., Indian Oil Corporation
12.2	By 2030, achieve the sustainable management and efficient use of natural resources.	<b>Solar and wind - renewable energy production and consumption increased by 10%</b>	At present only 0.6% share of solar energy	Achieve 10% of solar-wind renewable energy production	Achieve 60% of solar-wind renewable energy production	Dept. of Energy
		<b>Increase hydro power - renewable energy capacity</b>	At present only 10 GW (Gigawatt) hydro-power has been harnessed	10% increase	30% increase	Dept. of Energy
12.3	By 2030, halve per capita food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	<b>Increase the area under organic farming under horticulture and agriculture</b>	17,000 hectares in agriculture sector  Adoption of organic farming policy	20,000 hectares in agriculture sector 15,000 families benefited  Soil testing labs at district level set up	30,000 hectares in agriculture sector 30,000 families benefited  Soil testing facility at block level setup	Agriculture & Horticulture dept.
		<b>12.3.2. Reduce the total pesticides used in agriculture/ horticulture</b>	238 MT use of pesticides	10% reduction	30% reduction	Agriculture & Horticulture dept.
		<b>12.3.3. Construct covered storage for food grains at the micro level</b>		10% increase	40% increase	Agriculture & Horticulture Dept.

## Indicators statement for monitoring the progress:

SDG	Targets	Indicators	Current status	Target by 2022	Target by 2030	Data Source
12.3		12.3.4. Set up cold chains at basin levels	-	2 river basins	5 river basins	Agriculture & Horticulture dept.
		12.3.4. Promote and set up horti-agri produce processing and preservation units at small scale level	-	30 FPOs (Farmer Produce Organizations) set up	78 FPOs set up	Agriculture & Horticulture dept., Dist. Administration
12.4	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	12.4.1. Collect, Treat, Process 50%, – 250 tonnes of municipal wastes through waste to energy facilities in the state	-	Produced – 5 MW of energy from municipal waste  Common municipal solid waste disposal in all blocks to be setup  Common effluent waste water treatment plants in all major industrial areas Preliminary project report (PPR) prepared  STP setup in local bodies	Produced – 20 MW of energy from Municipal waste  Common municipal solid waste disposal in all Tehsil headquarters to be setup  CETPs setup in all major areas  STP made functional in all towns	ULBs, Dist. Admn. Energy dept.  Pollution Control Board (PCB), Department of Environment Science & Technology (DEST)  PCB, DEST  PCB, DEST
12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	12.5.1. Collect, Treat, Process 50%, – 250 tonnes of municipal waste through waste to energy facilities in the state	-	Produce – 5 MW of energy from municipal waste	Produce – 20 MW of energy from municipal waste	ULBs, District. Admn. Energy dept.
12.6	Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.	12.6.1 Policy framework for adopting sustainable practices and to integrate sustainability information into their reporting cycle	-  At present 1% waste water recycled	50%  10% increase in waste water recycling in industrial areas compared to 2012 levels	100%  50% increase in waste water recycling in industrial areas	Industries dept.
12.7	Promote public procurement practices that are sustainable, in accordance with national policies and priorities	Implementation/ development of state specific procurement policies in accordance with national policies	-	Policy developed/ implemented e-procurement system adopted	100% implementation of public procurement policy	All stakeholder departments
12.8	By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	Dissemination of information about sustainable development and lifestyles in harmony with nature by incorporating it in existing education system	-	Education curriculum updated	100 % implementation	Education dept.
				Develop 30 eco villages	Develop 80 eco villages	DEST
				Organization of 1000 mass awareness camps	Organization of 10,000 mass awareness camps	DEST
12.a	Support to strengthen scientific and technological capacity to move towards more sustainable patterns of consumption and production	-	-	Develop R&D modelling facility for awareness on environmental practices at the state level	Develop R&D model facility on environmental protection at the district level	DEST
12.b	Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products	-	-	Build model green roads of 10 kms. length Promote Green industries Develop training modules for green jobs and traditional knowledge	Build model green roads in all districts Promote Green industries Conduct 1000 trainings for green jobs and traditional knowledge	DEST, PWD Tourism, Forest depts.  Dept. of Industries, DEST

1. Economic Survey 2016-17, Economic & Statistics Department, HP

2. Annual Administrative Report, HP Forest Department





SDG 13

*TAKE URGENT ACTION TO  
COMBAT CLIMATE CHANGE  
AND ITS IMPACTS*

## Vision

In consonance with the State Action Plan on Climate Change (SAPCC), the State will strive to increase resilience, spread climate change knowledge and awareness, and improve the adaptive capacity of the people towards changing climate, especially in the extremely vulnerable areas.

## Himachal Pradesh today

- Himachal Pradesh is likely to experience 1.7°C to 2.2°C warming
- The mean annual rainfall likely to vary between 1268±225.2 and 1604±175.2 mm in the State
- Himachal Pradesh accounts for only ~0.67% of the emission of GHGs (Green House Gases) in the country

## Focus for tomorrow

- Climate change vulnerability assessment at the village level
- Promote sustainable development through climate change related adaptation and mitigation actions
- Increase awareness and education on mitigation, adaptation and resilience in all communities, especially in vulnerable areas





In the context of the climate trends in Himachal Pradesh, both precipitation and temperature are considered significant indicators. Based on comprehensive studies carried over the North Western (NW) Himalayas, on long term trends in maximum, minimum and mean annual air temperature<sup>1</sup>, including observations from Shimla, for the period 1901-2002, indicate that temperatures increased by about 1.6°C, over the NW Himalayan region, over the last century, with winters warming at a faster rate.

Himachal Pradesh is highly vulnerable to a large number of natural as well as man-made disasters. Earthquakes occur occasionally, causing loss to lives, property and infrastructure. Floods, droughts, landslides and cloudbursts are other common natural calamities that are very frequent. In the context of human vulnerability to disasters, people in the economically weaker groups are the worst affected.

**Figure 13.1 Frequency and intensity of disasters**



**Floods**

Frequency	Intensity
Regular feature	High



**Droughts**

Frequency	Intensity
Every 3-5 years	Moderate



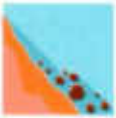
**Cloudbursts**

Frequency	Intensity
Regular feature	High



**Earthquakes**

Frequency	Intensity
Regular feature	Moderate to very high



**Landslides**

Frequency	Intensity
Regular feature	High



**Avalanches**

Frequency	Intensity
Regular feature	Low



**Lightning strikes**

Frequency	Intensity
Rare	Low



**Diseases and epidemics**

Frequency	Intensity
Rare	High



**Industrial toxicity**

Frequency	Intensity
Rare	Low



**Accidents**

Frequency	Intensity
Regular feature	High



**Fires**

Frequency	Intensity
Regular feature	High

Source: Environment Master Plan, Himachal Pradesh 2013

<sup>1</sup> Bhattacharya, K. and P. P. "Long-term trends in maximum, minimum and mean annual air temperatures across the Northwestern Himalaya during the twentieth century", <https://www.researchgate.net/publication/225412050>

Table 13.1 Some devastating earthquakes in Himachal Pradesh

Date	Magnitude (on Richter scale)	Areas most affected	Losses
4 April, 1905	8.0	Greatest damage to areas around Dharamshala	20,000 people are believed to have died, 100,000 houses demolished, 53,000 domestic animals perished
28 February, 1906	6.5	Shimla	26 people died and 45 injured
19 Jan, 1975	6.8	Leo, Chango, Shalkar, Sumdoh, Giu, Thabo, Sumera Hurling were among the worst affected villages	60 deaths 278 houses destroyed, and about 2000 houses damaged
26 April, 1986	5.5	Dharamshala	6 people died and considerable damage to property

Source: Himachal Pradesh - State Disaster Management Plan 2017

Table 13.2 Other disasters that have occurred in Himachal Pradesh

Date	Locations	Damages
June 8, 2014	Release of water from Larji hydroelectric dam	25 dead (24 students and one tour coordinator)
June 2005	Pareechu lake, Kinnaur, Rampur	5 bridges damaged, 50 houses submerged
August 2004	Satluj river Kinnaur, Shimla, Kullu, Bilaspur	3,500 people and 56 villages evacuated
July 2003	Godsa valley-Kullu	35 dead
August 2001	Chamba	16 dead, 3010 sq kms affected
July 2000	Satluj river, Kullu, Mandi, Kinnaur, Rampur	140 dead, 400 shifted, 12,400 sq. kms affected

Source: Himachal Pradesh - State Disaster Management Plan 2017



## Gaps between targets and current achievements in Himachal Pradesh

Assessments indicate that there are gaps in our knowledge about natural resources and their vulnerability to climate change in the Himalayan region and in Himachal Pradesh. On biodiversity, systematic monitoring, documentation and research is needed. There are inferences and observed changes, but scientific evidence is needed to understand the impact of climate change now and in the future. Local people have developed mitigation and adaptation strategies, and these can provide a wealth of information, if collated and analyzed.

### Three broad areas stand out as knowledge and data gaps:

- The potential magnitude and rate of climate change at the regional and local level, and the subsequent impact on the range of biodiversity and points and ecosystems
- Consolidated biodiversity conservation techniques (both traditional and natural), or climate adaptation techniques, for Himachal Pradesh or the larger Himalayan region
- Analysis for priority and vulnerable sectors, specific to agriculture, horticulture, biodiversity and other natural resources

Based on the available database and the current/prevalent conditions, an analysis has been carried out for Himachal Pradesh to demonstrate how vulnerable the State is with respect to climate change risks and what are the indicators/scenarios. An attempt has been made to undertake a district level mapping of the adaptive capacity in the State as a composite of bio, social and technological indicators. The inadequate database and the knowledge gaps indicated, highlight the need to strengthen the capacity of the State on this account.

As far as climate change induced disasters are concerned, there is a lack of basic knowledge of safety<sup>2</sup> (KAP Report, 2012). Educational institutions of the State are especially vulnerable to earthquakes. There is a need to prepare a standard and uniform disaster operations procedure to deal with various situations and to provide training, at different levels, on the management and mitigation of disasters and relief, rescue and rehabilitation.

The department should establish a monitoring mechanism, at the district level, to review district level disaster management plans. A pool of resource persons is needed in each district, to help in the preparation of safety plans. It will be helpful if these plans are audited at the grass root

level. Adequate financial powers need to be vested with the district, college and school level authorities to manage a crisis, if and when it occurs. Although, district level plans are being prepared, under the aegis of the State level authority, and some district level authorities have also been put in place, the process is not yet complete.



### Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

## Target 13.1 Strengthen resilience and adaptive capacity to climate related hazards and natural disasters

As per Providing Regional Climates for Impacts Studies (PRECIS) simulations, Himachal Pradesh is likely to experience the following climatic variations:

### Temperature variations

- Annual temperatures are set to rise
- The rise in temperature, with respect to the 1970s, shows a range between 1.7°C to 2.2°C. Temperatures are set to increase in all seasons.

### Rainfall variations

- The mean annual rainfall is likely to vary between  $1268 \pm 225.2$  and  $1604 \pm 175.2$  mm in Himachal Pradesh<sup>3</sup>
- The rate of increase is more in north western parts of the State i.e. areas of district Kangra, Chamba, Kullu, Una are likely to receive rainfall with increased intensity
- The number of rainy days is projected to increase in Himachal Pradesh, with decrease in average intensity. An increase in rainfall in the pre-monsoon and post monsoon months, with an increase in the number of storms in Himachal Pradesh has also been indicated

### Extreme events

- Change in rainfall patterns with increased variability in future will see some regions (south eastern parts) experiencing less rainfall. Drought-like conditions may prevail according to these projections.

Projected increase in temperature, rainfall, rainfall variations and intensities in the State may lead to accelerated summer flows leading to situations like floods/ flash floods in the North-Western parts of the State.

<sup>2</sup> Baseline survey on assessment of existing knowledge level, awareness and preventive practices of disaster management in Himachal Pradesh, Draft Report, 2012. Department of Economics & Statistics, Government of Himachal Pradesh available at [http://www.hpdsma.nic.in/KAP\\_Report.pdf](http://www.hpdsma.nic.in/KAP_Report.pdf)

<sup>3</sup> See State Strategy and Action Plan on Climate Change, Himachal Pradesh – 2012



The changes in extreme events of rainfall and temperature will have direct or indirect bearings on different sectors of economy, with changes in the hydrological response of the basins including impact on glaciers. Changes in land use are likely as development occurs.

**In order to deal with the climate change impacts, the following steps have been taken by the State Government:**

- Comprehensive State Climate Change Action Plan has been prepared in line with National Climate Change Action Plan and has been adopted
- At present, synergy exists in integration of climate change measures into State policies but this needs improvements and more coordination
- A State level Climate Change Knowledge Cell has been established
- Climate change impact assessment studies are being undertaken to widen the scope in understanding the effects of climate change
- A State level Disaster Management Authority (SDMA) has been constituted and is functional

### Target 13.2 Integrate climate change measures into national policies, strategies and planning

**Actions for adaptation and mitigation of climate change:**  
The Government of Himachal Pradesh is already taking various initiatives to adopt the path of sustainable development and inclusive growth and has initiated programmes and actions, which will be further strengthened so as to deal with the challenge of climate change. Some actions have already been initiated in the State to streamline the policies to deal with towards expected changes in various sectors viz. agriculture, water resources, forests, biodiversity, ecosystem, energy (hydro power), health, tourism, urban development, transport, industry (mining), and disaster management, etc. The State Government has demonstrated its commitment by taking steps for the reduction in GHG emissions by way of bringing energy efficiency to the State.

### Agriculture – Horticulture

The department of Agriculture has the responsibility of the economic upliftment of the farming community through planned agriculture development and a strategy for future sustainable agriculture. Improvement in productivity and quality, through various adaptive measures such as setting up of 21 Seed Multiplication Farms, where foundation seeds of Kharif and Rabi crops are being produced are envisaged. Annually, between 3,500 to 4,000 quintals of cereals, pulses and vegetable seeds are produced. Besides this, the department has established 11 Soil Testing Labs and four mobile Soil Testing Labs to provide free soil testing

facilities. The department of Agriculture is also keeping an eye on the pest situation in the State. About 160-168 million tonnes of pesticides are being supplied to the farmers through departmental sale outlets. For quality control of pesticides, a State Pesticides Testing Laboratory has been set up with an annual capacity of 500 samples. A Bio Control Laboratory has been set up at Palampur, where conservation and augmentation, rearing and multiplication of bio-agents is being carried out. Farmers Field Schools (FFS) are also being organized to train farmers/ extension workers, etc. The plant protection material including plant protection equipment is supplied to SCs/ STs/ under the Integrated Rural Development Programme (IRDP), and to farmers in backward areas, at 50 percent of the cost. There are 13 Potato Development Stations in the state, where foundation seed potato is being produced. More area is being diversified for undertaking production of cash crops and an attempt made to market maximum potato as table variety and to produce only as much seed potato as can easily be marketed outside the State.

The diversification is towards high value cash crops/ vegetables. Three Vegetable Seed Farms have been set up, where quality seed is being produced. Besides this, two Training Centres, one at Mashobra in district Shimla and other at Sundernagar, district Mandi, have been established. Farmer training camps are being organized at the village, block and district levels. Weather Based Crop Insurance Scheme (WBCIS) has been introduced for different crops. Two risk financing programmes have been started, which support adaptation to climate impacts. The Crop Insurance Scheme supports the insurance of farmers against climate risks, and the Credit Support Mechanism facilitates the extension of credit to farmers, especially for crop failure due to climate variability. The department of Agriculture is working with the Rural Infrastructure and Development Fund (RIDF) for the creation of irrigation potential through minor irrigation/ water harvesting structures. A programme for the production of cash crops through the adoption of precision farming practices, through poly-house cultivation and a dedicated project on the diversification of agriculture through micro-irrigation and other related infrastructure is being implemented in the State.





A 'seed village programme', by which sufficient seed multiplication can be achieved in order to meet local seed requirements, is being implemented, which facilitates the supply of seeds at a reasonable cost and ensures quick multiplication of new varieties in a shorter time. Under this programme, areas of better seed production are identified and a compact area approach is followed. The Government of India has launched a National Project on Agriculture to promote organic farming in the State. Under this project, financial assistance is being provided for setting up of model farms, training of farmers, setting up of vermi-composting units, hatcheries, etc. The adoption of organic agriculture is expected to provide sustainability, and it will help in increasing the income of farmers<sup>4</sup>.

The current programmes aim to minimize the adverse effects of drought on production of crops and livestock, and on the productivity of land, water and human resources, so as to lead to drought-proofing of the affected areas. It aims to promote overall economic development and improve the socio-economic conditions of the resource poor and disadvantaged sections inhabiting the programme areas. The Horticulture Technology Mission funded by the Government of India is taking care of adaptation actions to combat climate change impacts as well as capacity building of extension workers, farmers and NGOs to support practices that reduce vulnerability.

## Water resources

In view of the vital importance of water for the sustenance of human and animal life, for maintaining the ecological balance, for economic and developmental activities and considering its increasing scarcity, the planning and management of water resources and its optimal, economical and equitable use is a matter of utmost urgency. Concerns of the community are taken into account for water resource development and management.

The State Water Policy has been prepared and is being currently revised. In order to provide permanent drinking water supply and to avoid the deployment of tankers/tractors, rehabilitation and source level augmentation of various schemes has been undertaken. Percolation wells are being developed. The villages/habitations proposed to be covered under these schemes are water scarce areas and a huge number of

tankers and tractors are usually deployed to supplement the drinking water demand in the summer season. Although hand pumps are being installed throughout the state, they do not cover the areas, which have no road connectivity. On implementation of these schemes, sufficient drinking water supply is likely to be available to all habitations.

A demand-driven, participatory approach is being adopted in the State on water allocations. The Village Panchayats/community are delegated with powers to plan, implement and manage schemes. An integrated approach to water, sanitation and hygiene, ground water conservation and rainwater harvesting is being adopted. Capacity development of the community to plan, implement and manage the rural water supply schemes is being undertaken.

The non-conventional methods for utilization of water, including inter-basin transfers, artificial recharge of groundwater, as well as traditional water conservation practices like rainwater harvesting, including rooftop rainwater harvesting, are being practised to increase the utilizable water resources. Rainwater harvesting has been made mandatory for all buildings in Himachal Pradesh.



## Forests and biodiversity

There is a strong and diversified afforestation programme. The impetus to the afforestation process was accelerated by the enactment of the Forest Conservation Act (FCA), 1980, which aimed at stopping the clearing and degradation of forests through a strict, centralized control of the rights to use forest land and mandatory requirements of compensatory afforestation in case of any diversion of forest land for any non-forestry purposes. In addition, an aggressive afforestation and sustainable forest management programme resulted in annual reforestation of 1.78 million hectares during the period 1985-1997, which is now about 1.1 million hectares annually. The State is known for its forest wealth and has demonstrated its commitment to afforestation with an increase in open forest of 13 sq. kms. Traditional methods are promoted for conservation of bio resources.

## Health

The State has better public health care infrastructure and better health status compared to many other states. For

<sup>4</sup> To promote organic farming, a project has been taken up in Shimla district, in collaboration with Morarka Foundation and District Rural Development Agency, Shimla.

example, the infant mortality rate in the State is less than two-thirds of the all India average. The people of the State find value in the care provided by government facilities. The department of Health has sought to improve government health facilities and implement targeted disease reduction campaigns. Other important programmes include surveillance and control of vector borne diseases such as malaria, provision of emergency medical relief in the case of natural calamities and capacity building of Gram Panchayats for health sector management.



## Disaster management

A State Disaster Management Authority (SDMA) has been set up to combat the emerging threat of natural disasters. The State provides grants to victims of weather related disasters. It supports proactive disaster prevention programmes, including dissemination of information and training on disaster-management personnel. The State Disaster Management Plan is also being finalized wherein the vulnerability assessment of the State will be carried out and various mitigation measures will be suggested. Besides this, District Disaster Management Plans have been prepared by most of the districts and District Disaster Management Authorities have been established. The State Emergency Operation Centre (SEOC) has been established as well.

**The State Strategy and Action Plan on Climate Change has been developed with the following recommendations:**

- Promote sustainable development through climate change related adaptation and mitigation actions
- Prepare sector specific adaptation plans, guidance manuals, or criteria for the management and regulation of urban and rural development, health, water supply, hydropower development subject to significant climate change by 2017
- To assess the risks to the State from climate change and recommend strategies to reduce those risks building on the State's Climate Adaptation Strategy



- Empowering local communities and stakeholders to promote integrated watershed management as an instrument for rural poverty reduction, through improvements in the productivity and climate resilience of natural resources
- To develop a plan for expanding existing protected areas or altering land and water management practices to minimize adverse effects from climate change induced phenomena.
- Extensive research activities with respect to land and aquatic habitats, which are significantly susceptible to climate change, need to be undertaken.
- Reviewing of water management practices and uses, as climate change is likely to create greater stress on the limited water resources that are required for drinking water supply, agriculture, ecology and environment, and hydropower. To work out and implement strategies to achieve at least 5 to 10 percent reduction in per capita water consumption by 2022.
- To expand surface and groundwater storage, implement efforts to fix water supply, quality and ecosystem conditions, support agricultural water use efficiency, improve state-wide water quality, and improve ecosystem conditions and stabilize water supplies.
- Soil conservation activities are required to be enhanced in the state.
- All significant State development projects, including township, hydropower, industry projects, must consider the potential impacts of locating such projects in areas susceptible to hazards resulting from climate change.
- To develop plans for an increased use of renewable energy; harnessing solar, wind power to meet out the energy demand from projected population growth with greater energy conservation.
- To adopt alternatives and study approaches that avoid significant new developments in areas that cannot be adequately protected (planning, permitting, development and building) from extreme events of climate change. The most risk-averse approach for minimizing the adverse effects of temperature increases, river bed, water level rise and storm activities, is to carefully consider these aspects while developing new areas, which are vulnerable to these.
- To assess mitigation and adaptation strategies that include impacts on vulnerable populations and communities and assessment of cumulative health impacts including assessments of land use, urbanization, hydropower development, industrial development and transportation that can impact health.
- Ecosystems evaluation analysis and issuance of a State policy on payment for environmental services based on pilot projects



- Sustainable management of forests as per agreed methodology for REDD+ (Reducing Emissions from Deforestation and Degradation)
- Preparation and implementation of Basin-wise Integrated Catchment Area Treatment (BICAT)
- To develop effective fire fighting plans, in view of the increased risk of forest fires, as a result of climate change. The impact of fires on biodiversity, public health and safety, property damage, watershed and water quality, vegetation conversions and habitat fragmentation all need to be understood. Further, measures to combat fires and emergency response mechanisms are also required.
- To broaden and fund research beneficial to policy makers and planners on climate change impacts in Himachal Pradesh, focusing on linkages with international agencies, central funding resources, developing vulnerability studies, and synthesizing the latest climate information into useable information for local needs, using different tools.

### Target 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

The State Knowledge Cell on Climate Change (HPKCCC) under the National Mission for Sustaining the Himalayan Ecosystem (NMSHE) has been set up in the Department of Environment, Science & Technology.

Through this cell, the State Government intends to place a coordination mechanism for ensuring cooperative and cohesive actions on climate change through active coordination with Department of Science Technology (DST), Government of India. The NMSHE Climate Change Knowledge Cell will be an activity based set up, which will function with following approach:

- Data generation, information, policy directives formulation, vulnerability assessments, participatory resource management strategies and development of livelihood options.
- Deploying technologies for hazard mitigation and disaster management, development of ideal human habitats and agriculture and forest sector innovations.
- Awareness, capacity building, developing human resources, emphasis on skill development, enable communities become sufficiently empowered with know-how and mountain specific required skills, necessary for adaptation to climate change.
- Active community participation for enhancing ecological sustainability by involving the community in investigating causes and consequences of disturbance

regimes, promoting conservation of native and endemic elements, and understanding glacier and river system dynamics.

Through this cell, a database on climate change will be generated and existing knowledge gaps will be filled. The setting up of a knowledge centre will build a vibrant and dynamic knowledge system in line with the objectives of the national missions, with primary focus on collection, collation and dissemination of climate change knowledge in the state. It will build human and knowledge capacities, institutional capacities, evidence based policy implementation capacities, continuous learning and pro-active designing of development capacities and a regional network of knowledge institutions engaged in research on the Himalayan ecosystem. The Department of Environment aims to develop a coherent database on the geological, hydrological, biological and socio-cultural dimensions, so as to create a knowledge base for policy interventions on climate change.

A detailed study on reducing the glacial lake outburst, floods and flood risk in Parvati valley of Kullu district, Himachal Pradesh has been conducted, focusing on the development of a mechanism for early warning systems. Thematic Task Forces have been established, anchoring around lead institutions working in different areas of the Himalayan ecosystem. These institutions and the thematic areas include Wadia Institute of Himalayan Ecology (WIHE), Dehradun (natural and geological wealth); National Institute of Hydrology (NIH), Roorkee (water, ice, snow including glaciers); Wildlife Institute of India (WII), Dehradun (micro flora and fauna, wildlife and animal population); GB Pant National Institute of Himalayan Environment and Sustainable Development (GBNIHSED), Almora (forest resource and plant biodiversity); institutions of Indian Council of Agriculture Research (ICAR) in the Himalayan region (Himalayan Agriculture) and research teams from JNU (traditional knowledge systems). The Task Forces scientifically support the NMSHE objectives to develop the capacity to continuously assess the health status of the Himalayan ecosystem and enable policy bodies in their policy formulation functions.

The objective of setting of a knowledge cell in the State of Himachal Pradesh is to establish knowledge networks among the existing knowledge institutions, engaged in research and development, relating to climate science and facilitate data generation, sharing and exchange through a suitable policy framework and institutional support. Therefore, research networks are envisaged to be established by encouraging research in the areas of climate change impacts, on important socio-economic sectors like agriculture, health, natural ecosystems, bio-diversity, etc. providing an improved understanding and awareness of the key climate processes and the resultant climate risks and associated consequences.



**Target 13.a** Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible, and

**Target 13.b** Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women

Targets 13.a and 13.b may not appear to be of relevance at the sub national levels. However, the State Government has been pro-actively engaging with various multi-lateral funding agencies (through DEA, MoF, GoI) and has taken advantage of the technological expertise available with these agencies and of the financial support extended by them. A project on community based water harvesting and natural water resource management project by IPH (Irrigation & Public Health) department and one on Himachal Pradesh Climate Resilient Forest Management by department of Forest (through the nodal department i.e. department of Environment, Science and Technology) have been submitted to Green Climate Fund Board, through NABARD.



## Challenges in achieving the targets

The economy of the State is dependent on sectors like hydel power generation, horticulture, agriculture, forestry and tourism, etc. and these sectors are all under threat with climate change. Any change in these sectors, will affect the livelihood prospects in the agrarian economies of the mountain regions, and will also impact people who live in the plains.

**The issues of concern due to climate change are:**

- Largely agrarian economy, with 90 percent of the population in rural areas
- Dependence on rainfall for agrarian activities
- Sustainability of the hydro-economy depends on snow and glaciers
- Sustaining water sources for drinking and irrigation

- Rural livelihood dependency on forests for fuel wood, fodder and non-wood products, etc.
- The role of medicinal herbs in the economy

**Indicators of climate change in Himachal Pradesh are:**

- Rise in temperature in the NW Himalayan region by about 1.6°C in the last century
- Warming rate of Shimla was higher during the period 1991-2002, as compared to earlier decades
- There has been a decline of about 17 percent in the rainfall in Shimla area, from 1996 levels
- A decline in the seasonal snowfall in Shimla has been observed, over the last several years, especially since 1990, and it was lowest in 2009<sup>5</sup>
- The monsoon discharge in the Beas river has shown a significant decrease
- Winter discharge in the river Chenab has shown a significant increase
- Sutlej river has been showing an increasing trend in winter and spring discharge
- The quality of apples has been affected and the apple line has shifted upwards
- Area under apple is being diverted to vegetables, due to rising temperatures
- Incidence of pest and disease is more severe
- Pine forest invading heights
- Kikar, tali (shisham), deodar, ban trees are declining

There is a lack of trained human resources, an absence of the requisite institutional set up and limited policy guidelines to tackle climate change issues.

- No significant infrastructure available for early warning systems for disasters and natural calamities
- There is a need to undertake district level mapping of the adaptive capacity in the state, as a composite of bio, social and technological indicators
- Inadequate data base and the knowledge gaps indicate the need for strengthening the capacity of the State on these counts

The water crisis, droughts and floods, agriculture-horticulture security issues, agriculture, land fertility, vulnerable forests, deforestation and loss of biodiversity, pollution of air, water and soil and health impacts (especially vector borne diseases) will fall disproportionately on the more vulnerable groups of society.

5 Information from Environment Information system (ENVIS), Ministry of Environment, Forest and Climate Change, GoI.



From the analysis, it has been concluded/observed that the impact on agriculture-horticulture production will be visible in the form of change in cropping pattern and the crop productivity can be projected to decrease even with a small increase of 1o to 2o C change in temperature. Himachal Pradesh is likely to experience between 1.7° C to 2.2°C of warming<sup>6</sup>, and the likely impacts of this are:

- Northern parts of the State at higher altitudes are likely to witness the most shifts
- Agriculture may benefit from the increase in the length of the growing period initially, but will be adversely affected later on
- Apple production may be affected, with a shift in the long term
- Some regions may experience large reduction in yields (up to 50% by 2020)

Impact of climate change on water resources will definitely be manifested in the state. Water stress will increase with changes in rainfall patterns and the fast melting of Himalayan glaciers.

- The rainfall is projected to increase during June to September
- Increased occurrence of floods and increased flow in rivers and dams, increased instances of soil erosion and silt load
- Increase in water stress for rain-fed crops due to warming (1.7°C to 2.2°C)
- Glacial retreat may affect the discharge dependability of all rivers

#### Impact of climate change on the forests is highly uneven due to climate variance:

- The forests of the State are highly vulnerable especially the high altitude dense forests
- Forest type shifts may occur in more than 80 percent of forested grids<sup>7</sup> (2080 scenarios)
- The occurrence of forest fires may increase
- The forest productivity may increase initially but there will be long term adverse impacts

About 26 percent of the state's geographical area is the repository of 3,295 species, out of which 95 percent are endemic to the State and 5 percent (150) of the species are exotic. Most of the people in the rural areas of the State depend directly or indirectly, on forests, for their livelihood.

There is a need for further analysis; capacity enhancement to cope up with the likely climate change impacts in Himachal Pradesh and for adaptation and mitigation measures.

## Strategies for success

The losses due to extreme events and climate change may adversely impact the immense geographic diversity. This can only be addressed by developing and implementing appropriate climate risk management strategies. Within the country, the impacts will vary across states, sectors, locations and populations. The climate projections for the country suggest that impacts are likely to be diverse and mixed, with some regions experiencing more intense rainfall and flood risks, while others will encounter sparser rainfall and prolonged droughts. Among the more substantial effects is a projected spatial shift in the pattern of rainfall towards the areas under the snow line or already having heavy rain, while in some regions water scarcity may increase, thereby affecting land fertility. Climate variability and climate change poses huge risks to life and a threat to the sustainability of the state's fast growing economy.

Himachal Pradesh is known for its dominant rural/tribal population, traditions and culture. To retain and sustain the traditional way of life of the people along with their developmental graph is indispensable for the state. The options available may be realized through various strategic interventions by different public authorities at the State and local levels. The purpose of Climate Change Strategy for Himachal Pradesh is two-fold:

- Taking into account the prevailing developmental process - its achievements and losses
- Identification of solutions and actions, as may be required, at various levels such as regulatory, institutional, programme policy and planning

As the climate changes, so must the State respond. To effectively address the challenges that a changing climate will bring, climate adaptation and mitigation actions must complement each other; efforts within and across sectors must be coordinated. These approaches have been viewed as alternatives, rather than as complementary and equally necessary approaches. The Department of Environment, Science & Technology (DEST) has worked out strategies for climate change adaptation and mitigation, and developed the necessary tools to effect adaptation protocols. Closer coordination is needed between the various approaches.

6. See <http://www.hpccc.gov.in/futureprojections.aspx>

7. See Green Growth and Forestry in Himachal Pradesh, TERI report, 2015

**The strategy for Himachal Pradesh has been developed using a set of guiding principles:**

- Involvement of all related stakeholders in identifying, reviewing and cultivating the state's adaptation strategy
- Give priority to adaptation strategies that initiate, encourage and enhance existing efforts that improve economic and social well-being, public safety and security, public health, environmental justice, species and habitat protection and ecological function
- Prioritizing adaptation strategies that modify and enhance existing policies rather than solutions that require new funding and new staffing
- Recognizing the need for adaptation policies that are effective and flexible enough for circumstances that may not yet be fully predictable
- Use a reliable data base in identifying climate change risks and adaptation strategies
- Recognize sustainable scientific data base collection and knowledge about climate change is continuously evolving
- Establish and retain strong partnerships with central, state, and local governments, the people, private business and landowners and NGOs to develop and implement adaptation strategy recommendations, over time

To increase resilience, spread climate change knowledge and awareness, improve the adaptive capacity of the people; the following two-fold strategy needs to be adopted:

- Implementation of recommendations of the State Climate Change Action Plan
- Follow climate change adaptation strategies

As climate change impact cuts across the jurisdictional boundaries of various sectors, it will require governments, businesses, NGOs and individuals to minimize risks and take advantage of potential planning opportunities in a collaborative manner. The adaptation strategies explained subsequently emphasize the need for collaboration and identify issues where cross-sector relationships are necessary.

The fundamental purpose and goal of the strategy is to begin a state-wide and committed process of adapting to a changing climate, in the context of other changes in the environment, economy and society. To achieve this goal, the adaptation strategy pursues the following specific objectives:

**Identification and synthesis of climate change risks:**

There is a need to analyse to the greatest extent possible, how temperature rises, document extreme weather events, precipitation changes, seasonal shifts, ways to exacerbate existing water supply and quality, air quality, habitat loss, human health risks, fire and floods, etc. and to assess how these changes will impact the state's economy, infrastructure, society and environment.

**Develop the criteria for prioritizing identified adaptation strategies:** The applicability of these criteria may vary across sectors and should ideally include but not be limited to social, environmental, technological, human resources, institutional, policy and financial /economic considerations.

Identification of sector-specific and cross-sectoral adaptation strategies to reduce vulnerabilities and build climate resilience: To make strategies which help to (a) improve preparedness for climate change impacts and extreme events, (b) avoid, prevent or minimize climate change impacts on agriculture, public health, biodiversity, land, forests and infrastructure, (c) enhance the state's response capacity in case of extremes, and (d) facilitate recovery from impacts and extremes in order to enhance the state's resilience.

**Cross-cutting supportive strategies:** Identify governance efforts (such as policy or changes in regulations, procedural adjustments, etc.) and available resources.







## Indicator statement for monitoring the progress

SDG	Targets	Indicator	Current status	Target by 2022	Target by 2030	Data Source
13.1	Strengthen resilience and adaptive capacity to climate related hazards and natural disasters in all countries	Village level climate change vulnerability assessment for all districts covering all 20,690 villages of 3,226 panchayats in all 78 developmental blocks	Village level climate change vulnerability assessment (CCVA) of three blocks of district Simaur completed	CCVA of all villages of Simaur, Kullu, Bilaspur, Una, Hamirpur & Kangra districts with hydrological modelling	CCVA of all villages of the State of all districts.  Vulnerability assessment of all agro-climatic zones	Census, meteorology, all concerned stakeholder departments
		Establish at least one climate smart eco-village in all 78 developmental block of the state	Climate smart eco-villages guidelines prepared and process of identifying eco-villages initiated	Implementation of climate smart eco-villages guidelines in five villages of the State	Implementation of climate smart eco-villages guidelines in one village of 78 blocks	Panchayati Raj, District Administration BDOs, etc.
		Building resilience through increased water availability and efficient water use in rural areas by constructing 3226 water harvesting structures	To improve the adaptive capacity of the rural community climate change adaptive measures initiated in Simaur district under National Adaptation Fund on Climate Change (NAFCC)	1000 water harvesting structures made functional  Restoration of 500 natural springs	3226 water harvesting structures to be made functional  Revive 3,000 natural springs	Agriculture, Horticulture, RD, Panchayati Raj, District Administration, IPH
		Adoption of climate smart agriculture technologies and farm diversification options for climate resilient livelihoods	Climate smart agriculture technologies and farm diversification options for climate resilient livelihoods initiated in district Simaur under NAFCC	Target beneficiaries 1 lakh farmers under climate smart technologies	Target beneficiaries 5 lakh farmers under climate smart technologies	Agriculture, Horticulture, RD, Panchayati Raj depts. District Administration IPH
		Number of villages covered by early warning system for floods	A study on early warning systems for floods has been carried out for district Kullu, under which setting up of early warning system in villages around Parvati river has been proposed	Flood prone villages of Kullu district situated around Beas and Parvati river will be equipped with early warning systems	Flood prone villages situated around all river basin of the State will be equipped with early warning system.	Disaster Management Authority, District Administration
13.2	Integrate climate change measures into national policies, strategies and planning	Implementation of actions of State Strategy & Action Plan on Climate Change (SAPCC) integrated with Nation Action Plan on Climate Change	State Action Plan has been prepared with sectoral guidelines and recommendations and actions are being implemented with sectoral departments/agencies	Integration of recommendations of SAPCC in all upcoming developmental schemes of the State and the Centre	Implementation of recommendations of SAPCC in all developmental schemes	All sectoral departments of the state
13.3	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Block level capacity building & awareness programme organizing 200 awareness camps		100 awareness camps on climate adaptation  Prepare report  Model R&D facilities in 10 villages	200 awareness camps on climate adaptation  Publishing of reports and papers  R&D facility to demonstrate climate smart practices set up in 50 villages	Administration RD, ULBs, Agriculture, Horticulture, KLBs, etc.

SDG	Targets	Indicator	Current status	Target by 2022	Target by 2030	Data Source
		Improved community mobilization to collectively plan and undertake climate change adaptation		Five cluster/ FPOs: (Farmer Produce Organizations) setup	FPO in 10 clusters set up in 10 blocks	Administration RD, ULBs, Agriculture, Horticulture, RLBs, etc.
		Improved potential of livestock resources as an option for livelihood stabilization in rural areas		20 sensitization camps for shepherds conducted	50 camps organized	Animal Husbandry, RLBs, etc.
		Establish district level knowledge network of climate change among education institutions establishing 12 district level knowledge groups	Process of establishment of knowledge network of climate change initiated	Institutions of six districts brought under networking  Establishment of Research Groups	Institutions of all districts in the state  Establishment of Research Groups	Education Department
		Knowledge generation for extremely/highly vulnerable village assessed as per climate change vulnerability analysis to enhance awareness of rural communities and stakeholders as well as for better policy inputs	Process of capacity building programme for legislators and policy makers initiated	Conduct 50 awareness camps	Conduct 500 awareness camps	HP Vidhan Sabha, Admin, district administration, RD, ULBs, RLBs, etc.
13.a	Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible	National Indicator not yet developed		Three proposals to Green Climate Fund prepared and submitted	At least 10 Green Climate Fund proposals prepared	DEST
13.b	Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women	National Indicator not yet developed		Gender focused adaptation training programmes, in each block, in 78 camps	Gender focused adaptation training programmes in each panchayat of HP conducted	DEST



SDG15

PROTECT, RESTORE AND  
PROMOTE SUSTAINABLE USE OF  
TERRESTRIAL ECOSYSTEMS,  
SUSTAINABLY MANAGE  
FORESTS, COMBAT  
DESERTIFICATION, AND HALT  
AND REVERSE LAND  
DEGRADATION AND HALT  
BIODIVERSITY LOSS"



## Vision

The State will develop and implement adaptation and mitigation measures, which address the impact of climate change on forest ecosystems, biodiversity and natural resources for future generations.

## Himachal Pradesh today

- 26.4 percent of forest cover and 1.36 percent of tree cover, outside forests
- More than 120 lakh seedlings are planted in the State each year, to increase the forest and tree cover and to mitigate climate change
- The State has five National Parks (GHNP, Pin Valley, Khirganga, Inderkila and Simbalbara); 26 wildlife sanctuaries and three conservation reserves (Shili, Naina Devi and Darlaghat). Protected Area Network is 8,391.42 sq. kms
- Out of the total geographical area 55,673 sq. kms, the forest area is 37,033 sq. km, which is 66.52% of the total geographical area

## Focus for Tomorrow

- Increasing forest cover from the existing 26.4% of geographical area to 35%
- Increasing the dense forest cover from the existing 3,224sq. kms. to 3,624 sq. kms
- Increasing moderately dense forest cover from the existing 6,381 sq. kms to 6,581 sq. kms.
- Increasing open forest cover from the existing 5,095 sq. kms to 6,491 sq. kms
- Converting scrub forests from the existing 300 sq. kms to 375 sq. kms as open forests
- Rehabilitation of area (1,45,000 ha) infested with invasive alien species (lantana)
- Improved wildlife management by habitat improvement intervention, to increase bio diversity and reduce human-animal conflict
- Reduction in poaching/ wild life offences - 50%





The forests of Himachal Pradesh are known for their rich biodiversity and varied flora and fauna. The State has around 3,300 plant and 5,600 animal species, which are key to providing essential ecosystem services. They are presently under stress due to the impact of modernization, economic development and vagaries of nature caused by climate change.

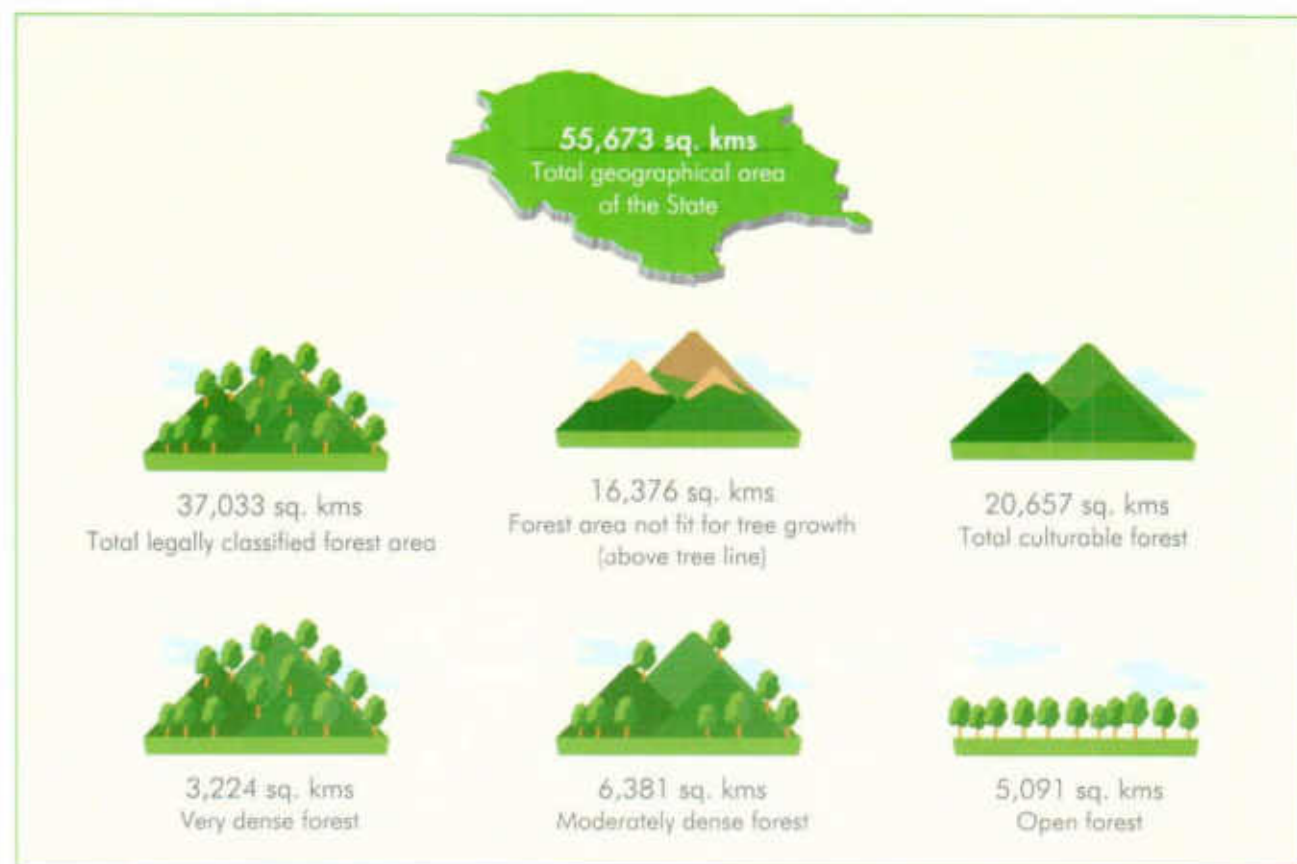
According to the National Forest Policy, 1988, in hill states such as Himachal Pradesh at least two-thirds i.e. 66 percent of the geographical area should be under forest cover. At present, only 26.4 percent of the total geographical area supports forest cover. Another 1.36 percent of the area outside forests is covered with trees.

The forests of the State can be broadly classified into coniferous and broad-leaved forests. The distribution of species follows fairly regular altitudinal stratification. The vegetation varies from dry scrub forests at lower altitudes to Alpine pastures at higher altitudes. In between these extremes, there are distinct vegetation zones of mixed deciduous forests, bamboo, chil, oak, deodar, kail, fir and

spruce. Of the 45,000 species found in the country as many as 3,295 species (7.32 percent) are reported in the State. More than 95 percent of the species are endemic to Himachal Pradesh and characteristic of Western Himalayan flora, while about 5 percent (150 species) are exotic, and have been introduced in the last 150 years.

The forests are also rich in fauna. The State is home to seven species of pheasants, of the 17 species that are found in India, including those that are comparatively rare. The best known among them are monal, kalijoklas, cheer pheasant, Indian peafowl, red jungle fowl and the tragopan. Till recently, the monal was the State bird; it has now been replaced with the tragopan, the (tragopan melanocephalus) locally called the 'jujurana' or the king of birds. There are a number of endangered animals that are found in the high mountains, such as the Himalayan tahr, Himalayan ibex, Himalayan blue sheep, antelopes, deer, Himalayan black bears and brown bears, common leopards and snow leopards.

**Figure 15.1 Area-wise distribution of forests in the State**



Source: Geographical distribution of forest (as per FSI Report 2015)



## Priority areas

- To promote the implementation of sustainable and scientific management of all types of forests, halt deforestation, restore degraded forests and substantially increase the forest area through afforestation and reforestation.
- To combat loss of soil fertility, restoring degraded lands and soil, including land affected by erosion, forest fires, drought and floods.
- Conservation of fragile mountain ecosystems, including their biodiversity, to enhance their capacity to provide benefits that are essential for sustainable development.
- Introduce measures to prevent the introduction and increasing infestation of invasive alien species and restore the biodiversity and economic potential of affected land and forest.
- To control and reduce the degradation of natural habitat, halt loss of biodiversity protect and prevent the extinction of threatened species. Control of poaching and trafficking of wildlife, conservation and management of wetlands.



### Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

Himachal Pradesh comprises of 1.69 percent of India's geographical area. As per the State of the Forest Report,

compiled by the Forest Survey of India (FSI), 20,657 sq. kms is available for cultivation and 16,376 sq. kms of land is permanent pasture and lies above the tree line.

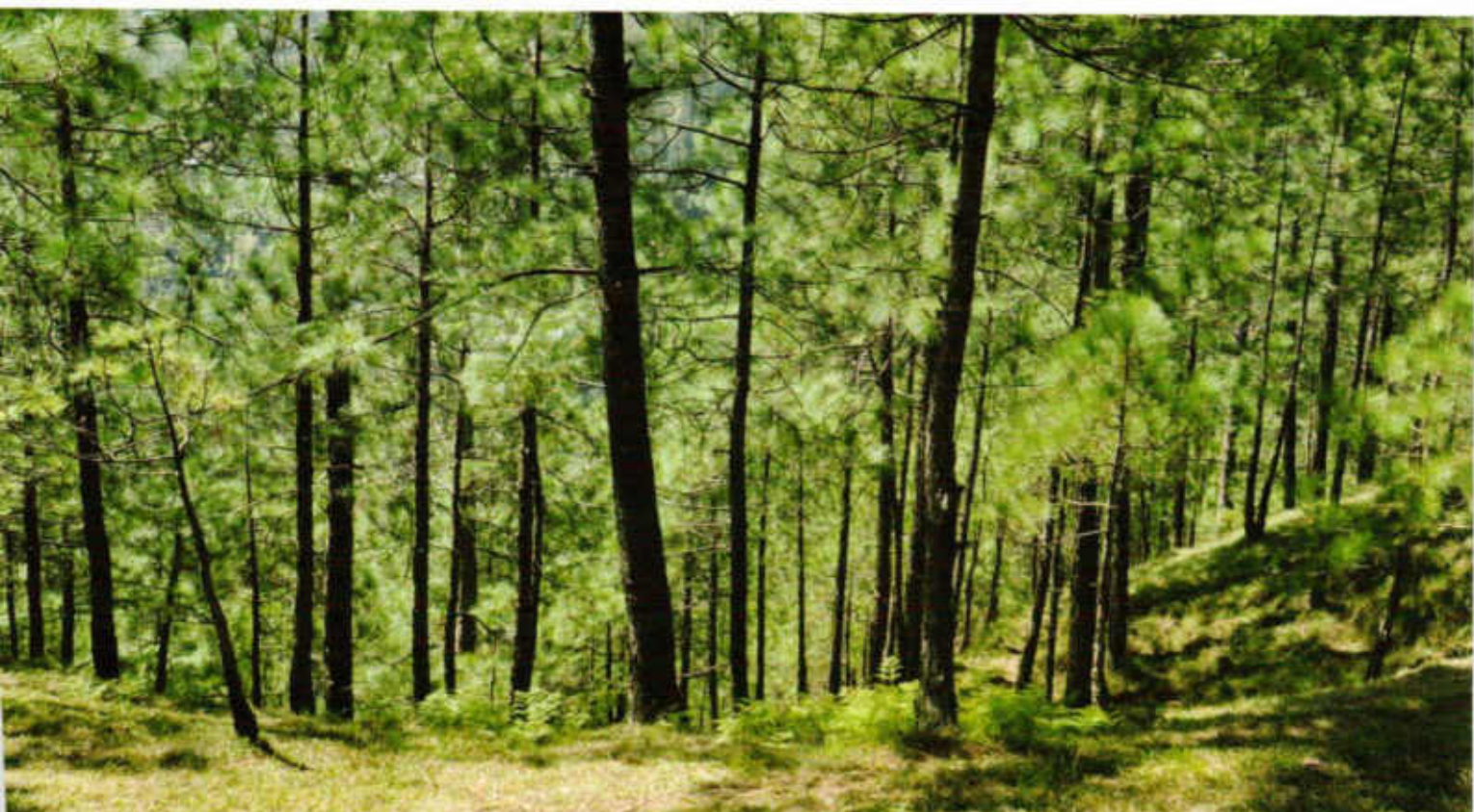
- Interventions to promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation

In Himachal Pradesh, 16,376 sq. kms of area lies above the tree line/ Alpine pastures. Degradation in these areas is due to natural causes. Another 5,091 sq. kms of area in the State is open forest (density 10 percent to 40 percent), and 301 sq. kms is scrub forests (density less than 10 percent). The Himachal Pradesh Forest Department (HPFD) has launched schemes to increase the forest cover and improve the quality of forests (low density to suitable high density). The schemes are described under 2.1.b (target-wise listing of on-going schemes and programmes).

- Interventions to prevent loss of soil fertility, restore degraded land and soils, including land affected by forest fires, drought and floods and strive to achieve a land degradation-neutral world

In Himachal Pradesh 11,000 sq. kms of area is under cold desert. Afforestation and soil and moisture conservation measures are taken up to restore degraded land and soil. The cold desert biosphere reserve programme is underway in the Spiti area.

- Conservation of fragile mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development





- Comprehensive base line data collection with respect to floral/ faunal diversity. Wildlife habitat enrichment by planting wild fruit trees in their habitat areas through a habitat enrichment scheme.
- Conservation of habitat of threatened species and management of protected areas, scientifically.
- Urgent and significant actions to reduce the degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threatened species.
- Control of poaching and the trafficking of wildlife.
- Conservation and management of wetlands.

About 15 percent of the geographical area of Himachal is under the 'protected area networks'. These include five national parks, 32 wildlife sanctuaries and three conservation reserves, to conserve the diversity of flora and fauna. Together, they contain approximately 3,295 species of flora, of which about 95 percent are endemic.

The schemes being implemented in the State are:

- I) Development of the Himalayan Zoological Park
  - II) Intensive Management of Wildlife Sanctuaries (renamed as Integrated Development of Wildlife Habitats)
  - III) Development of PIN Valley National Park - Management Action Plan for Cold Desert Biosphere Reserve
- Intervention to reduce impact of invasive alien species on forest land and water ecosystems and rejuvenate and restore the health of local productive species

At present 2,35,491 hectares of land is infested by invasive alien species (lantana). Schemes are underway for the eradication/removal of lantana. The target under the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in 2017-18 is 4,000 hectares. The target under the KfW funded project, in Kangra and Chamba districts, for eradication of lantana is 15,000 hectares. In 2017-18, approximately 4,000 hectares of area is expected to be cleared of lantana. Once cleared, the forest cover will be increased, through plantations, and this will improve the grazing potential of pastures.

### Target-wise listing of on-going schemes and programmes and their analysis

- As per the guidelines of National Forest Policy, 1988, in hills and mountainous regions, 66 percent of the total area should be under forest cover. Presently the following schemes are being implemented to meet this objective:-

- I) To increase the tree cover and density of forests schemes like Improvement of Tree Cover, National Afforestation Programme (CSS), CAMPA and externally aided Projects are being implemented. Under these schemes each year, about 12,000 hectares of area is brought under plantation, besides nursery raising for departmental use, public distribution and maintenance of old plantations.
- II) Alpine pastures and grazing lands are being developed under the scheme 'Development of pastures and grazing lands'
- III) To increase the forest cover outside the forest land, the National Agro Forestry scheme, the Bamboo Mission and the Sub-Mission on Agro forestry are being implemented
- IV) To check soil erosion and conservation of soil and water, activities like plantation and soil and moisture conservation works like gully plugs, check dams, contour trenches, retaining walls are being undertaken.

For the protection and management of forests, the following schemes are being implemented:-

- I) **Working Plan organization:** For scientific and systematic management of forests, revision and up-dating of working plans is in progress
  - II) **Consolidation and demarcation of forests:** Boundary pillars are being constructed and maintained to define the forest boundaries and to check encroachments and other forest offences.
  - III) **Integrated Forest Protection Scheme (renamed as Intensification of Forest Management):** Forest protection measures especially from forest fires are being undertaken such as engagement of forest watchers, maintenance of fire lines, construction of water harvesting structures and construction of boundary pillars.
- CAMPA: is an instrument to accelerate activities for compensatory afforestation, forest resource management, preservation of natural forests, management of wildlife, infrastructure development in the sector and allied works.

Its objectives are:-

- I) Afforestation, soil and water conservation
- II) Conservation, protection, regeneration and management of existing natural forests
- III) Compensatory afforestation and catchment area treatment
- IV) Eradication of lantana and other invasive alien species
- V) Research, training and capacity building
- VI) Environmental services

- About 15 percent of the geographical area of the State is under the protected area network management. This has resulted in an increase in the wildlife in the state. The incidence of attack on humans and cattle population has increased. To provide better habitat to wild animals and to mitigate man-animal conflict, the following schemes are being implemented:

I) **Wildlife preservation:** The objective is to pay relief on account of loss/injury to human life and loss of live stock by wild animals and to reduce man-animal conflict.

II) **Development of Himalayan Zoological Park:** For the conservation of endemic western tragopan, a breeding programme at Sarahan Pheasantry Zoological Park has been established. The funds under this scheme are meant for repair of existing enclosures, provision of small equipment and feeding of birds, feeding for captive animals and treatment of ailing wildlife and monkey sterilization, etc.

III) **Intensive Management of Wildlife Sanctuaries (renamed as Integrated Development of Wildlife Habitats):** Activities like protection, development and scientific management of wildlife in protected areas; protection of wildlife habitat outside the protected areas, carry out conservation breeding and rehabilitation of endangered species, creation of nature awareness amongst local people specially among the youth and the propagation of eco-tourism.

IV) **Development of Pin Valley National Park:** The Pin valley National Park supports unique flora of the cold desert eco-system. The snow leopard, a highly endangered species is also found here. The development of infrastructure, water harvesting, habitat improvement, fire protection measures, soil conservation works and study and research work are the main activities being undertaken under this initiative.

V) **Expenditure on management action plan for Cold Desert Biosphere Reserve (CDBR):** Under this scheme, activities like awareness and capacity building of local communities and staff, habitat restoration and biodiversity conservation, protection of habitat and reducing human-animal conflict, enhancing and conservation of natural resources and watershed management, reducing human dependency on CDBR by socio economic development, strengthening of institutions and research and studies are being undertaken.

- Agriculture Research and Education – New nursery and plantation technologies are being developed by forest organizations and training, skill up-gradation of staff is being carried out.

I) **Externally Aided Projects:** The recently closed Externally Aided Projects H.P. Mid Himalayan Watershed Development Project (World Bank aided) and Integrated Watershed Development Project (JICA) have been implemented in the State and there are other on-going projects that aim to reduce forest degradation, increase biodiversity, enhance income for forest-dependent communities in vulnerable landscapes, increased availability of spring water in treated spring catchment areas and sustainable management of forests in the project area. The on-going HP Forest Eco-systems Climate Proofing Project (KfW Assisted) for Chamba and Kangra districts has a similar objective of increasing forest cover through lantana eradication.

Projects posed to external agencies are

- HP Forest Ecosystem Management and Livelihood Improvement Project (JICA)
  - HP Forests for Prosperity (World Bank)
  - Integrated Development Project for Source Sustainability and Climate Resilient Rained Agriculture: (World Bank)
- HP Climate Resilient Forest Management Green Climate Fund (NABARD)



## Challenges in achieving the targets

While measures have been taken to protect and conserve the natural environment there are challenges due to increasing demand for better infrastructure, hydro-power/development projects, natural calamities like landslides, fires, etc.





Target	Challenges
 <p>To increase forest cover and improve the biodiversity and productivity of existing forests</p>	<ul style="list-style-type: none"> <li>• Lack of budget</li> <li>• Biotic Pressure: dependence of people on forest resources</li> <li>• Developmental Activities: Hydro power projects, roads, irrigation and drinking water schemes.</li> <li>• Climate change</li> <li>• Technical: Non implementation of working plan prescription due to ban on green felling. Forests infested with invasive alien species</li> <li>• Training: Inadequate research and training activities</li> <li>• Insufficient manpower</li> <li>• Fire hazards</li> </ul>
 <p>Rehabilitation of areas infested with invasive alien species</p>	<ul style="list-style-type: none"> <li>• Model scientific method to be developed for lantana eradication.</li> <li>• Inadequate research and training activities</li> <li>• No cost effective technology for alternate use of lantana plants</li> </ul>
 <p>Improvement in eco-system services from the forest of the State</p>	<ul style="list-style-type: none"> <li>• Inadequate methods to measure eco-system services</li> <li>• Change focus from tree-centric to integrated ecosystem centric approach</li> <li>• Inadequate research and training activities</li> <li>• Dependence of people on forest resources</li> <li>• No long term ecological monitoring</li> </ul>
 <p>Improved wildlife management by suitable habitat provision, interventions to increase biodiversity and reduce human – animal conflict.</p>	<ul style="list-style-type: none"> <li>• No regular census of wild animals and birds</li> <li>• Inadequate research and training activities</li> <li>• Threat to faunal diversity due to human interference</li> <li>• Burgeoning human/cattle population and human-animal conflict</li> <li>• Inadequate conservation breeding programme</li> </ul>
 <p>Reduction in poaching/ wildlife offences</p>	<ul style="list-style-type: none"> <li>• Lack of modern equipments/weapons to control illegal poaching/smuggling</li> </ul>

## Identification of gaps

- Insufficient manpower
- Technology not available to monitor the forests
- Poor mobility/communication
- Compensation to the hill states for preserving the green cover is not provided
- No international body for forestry sector to exchange ideas, technologies and experiences
- No global network/organizations for funding forestry activities or a forum for sharing/ exchange of data for countries with similar geographical conditions.
- Non-digitization of forest boundaries on GIS platform
- Chit zone prone to fire in the summer months
- Non-implementation of working plan prescriptions, in toto due to ban on green felling
- Dependence of people on forest resources
- Burgeoning human/cattle population and man-animal conflict
- Threat to faunal diversity due to human interference
- Inadequate research and training activities
- Inadequate conservation breeding programme
- Lack of modern equipments/weapons to control illegal poaching/ smuggling
- Forests infected with invasive alien species

## Challenges in achievement of targets by analysing the trends

- Forest degradation due to pressure on forests for grazing, logging, etc.
- Increasing demand for better infrastructure, hydro-power/development projects etc.
- The climate change i.e. unpredictable pattern of rain/snowfall leading to adverse impacts in terms of shifting tree line/species, triggering forest fires, etc.
- Depletion of aquatic habitat, deterioration/ decrease of water quality/ quantity due to silting and inflow of biological and non-biological waste and the impact on aquatic flora and fauna
- Little intervention is possible in 14,136 sq. kms of area, which is above the tree line and Alpine pastures
- 2,240 sq. kms of Alpine area is highly prone to erosion on account of scanty vegetation
- Open forest and scrub forests (5,091 sq. km+ 301 sq. km) are heavily burdened with demands for various eco-system services as also for competing land use
- Area having forests with density > 40% is susceptible to degradation due to forest offences and increasing demand of infrastructure

- Smuggling of threatened plant species especially medicinal and aromatic plants
- Lack of proper silvi-culture prescriptions as per working plan due to complete ban on green felling
- Lack of technology and unscientific salvage removal
- Encroachment of forest land
- Productive capacity of forests adversely affected due to colonization of pasture lands/ forest floor by invasive species especially lantana. This has led to problems like loss of grass/ grazing potential, increased vulnerability to fire, loss of food base to wild animals. As per the 2015 assessment, 2, 35,491 hectares of forest area was infested with lantana and other invasive species, like eupatorium, ageratum and parthenium.

## Identifying enabling factors

Massive afforestation drive, better survival rate of plantations, improving tree cover within as well as outside the forest area, increase the quality of forests (densification) and bringing those areas under tree cover which can support tree growth but are presently devoid of tree cover (afforestation)

- Increasing tree cover outside the forest area, and on private lands for meeting day to day needs of the people
- Management of pasture and grazing lands, removal of weeds from forests and wetlands
- Treatment of catchment areas for flood control, check soil erosion reduction of silt load by dredging and de-silting
- Fauna/ migratory birds census
- Environmental education and awareness campaign
- Research and monitoring
- Defining/ digitization of forest boundaries and construction of boundary pillars
- Speedy removal of already detected encroachments, restrict further encroachment and rehabilitation of evicted areas
- Check on forest offences
- Safeguarding forests from fires
- Management of forests as per approved working plans
- Habitat enrichment, conservation of habitats for threatened species (critical habitats)
- Checking spread of diseases from domestic to wild animals
- Establishment of Wildlife Crime Control Unit
- Increasing information sharing with neighbouring states and countries



- Planting wild fruit trees
- Conservation breeding programme
- Reverting red-data list species from critically endangered/endangered to lower category (white backed vulture species for example are critically endangered)
- Control of feral (grown wild) animals
- Checking poaching/wildlife offences
- Ensuring community participation
- Strengthening research, education and awareness
- To increase the productive potential of forest lands to make available the various eco-system services so that the degradation on account of increased demand is checked
- Improving socio-economic status of people and providing alternate livelihood opportunities

## 2 Strategies for success

To achieve the targets of SDG 15, the State plans to implement a framework of activities for sustainable use, management and protection of terrestrial ecosystems, forests, combating land degradation and enhancing biodiversity.

### Strategy linked to each target

To increase forest cover and improve the quality of existing forests

- To improve tree cover in areas with less than 0.4 canopy density (open forest) and in degraded areas various activities like assisted natural regeneration, enrichment planting, re-afforestation of scrub areas, afforestation and compensatory afforestation will be taken up
- To meet the requirement of fodder, alpine pastures and low lying grazing lands will be developed by raising local grass species/fodder plants. There will be an emphasis on raising fodder plants and involving local people in the sub-mission on agro forestry to reduce dependency upon forests
- For soil and water conservation, important activities like protective afforestation through soil binding/colonizing /legume/grass species for stabilization of hill slopes in the hilly eco-system and to reduce/stop soil erosion. Besides planting, soil and water conservation measures in the form of engineering works such as gully plugging, check dams, contour trenches, retaining walls; Van Sarovars are taken up in the areas prone to soil erosion. Catchment areas are being treated under CAMPA

- The forests are treated as open property and are prone to encroachment. The department will be following a strategy to demarcate forestland and fix boundary pillars. Similarly forests especially chil forests are prone to fire. Fire protection measures and interventions like engagement of firewatchers, maintenance of fire lines and construction of water harvesting structures and awareness creation will be taken up.

### Rehabilitation of areas infested with invasive alien species

Exotic weeds have taken over 2,64,407 hectares of forestland, 2,35,491 hectares is affected by lantana alone, eupatorium has taken over 2,248 hectares, ageratum covers 20,343 hectares and parthenium another 6,325 hectares. Due to this, the productive capacity of forests has been affected adversely. Invasive alien species are obnoxious in nature; and complete eradication is not possible.

### Improvement of wildlife management by suitable habitat improvement, intervention to increase biodiversity and reduce human-animal conflict

- To protect and conserve the biodiversity, five National Parks; 26 Wildlife Sanctuaries and three Conservation Reserves have been established. The area under the Protective Area Network is 8,391.42 sq. kms. Activities like habitat enrichment, improving biodiversity, population management of wild animals, conservation breeding and rehabilitation of endangered species, creation of nature awareness amongst local people specially youth and propagate eco-tourism, etc. are being undertaken to protect and conserve biodiversity.



### Improvement in eco-system services from the forests of the State

- Training and capacity building workshops will be organized for executive, ministerial staff and other stakeholder departments and communities for skill up-gradation and to expose the staff to the new emerging issues/trends in the forestry sector such as GIS, MIS and remote sensing to expose them to the eco-system services being generated by the forests and their rational use.

### New schemes to achieve targets

- Multi layered plantation scheme
  - Regeneration of forests by closure scheme
- Special scheme for cold deserts to increase the vegetation cover especially in Spiti and Poo sub divisions
  - Integrated development of water catchments (under CAMPA) assisted natural regeneration
- Identifying areas for private sector partnership
- Efforts will be made to rope in the private sector to carry out captive plantations on their own land, and for funding the activities of the department as part of their corporate social responsibility functions.
- Identifying areas for community partnership

### Communities/people are being actively involved in the implementation of the following projects/schemes:

- Different Externally Aided Projects
- Centrally Sponsored Schemes (CSS) such as National Afforestation Programme, National Bamboo Mission, Sub-Mission on Agro Forestry, Amrita Van Yojana, etc. Many of these works are being executed through Joint Forest Management Committees (JFMCs) constituted across the State.
- School children and college students and Eco-Clubs

are being associated with afforestation drives. Awareness towards forestry and the environment is enlisted through celebration of Van Mahotsavas, involving all stakeholders in the process.

- People are being encouraged to raise medicinal plants on their lands to supplement their incomes, with financial assistance from the National Medicinal Plants Board.
- Participatory forest management is being implemented, with particular emphasis on National Afforestation Project (NAP).

### Policy changes required to meet the targets

With the passage of time, people's participation in the management of forests has reduced, as the people have got alienated from the forests. The forest department is now reseeking people's participation in management by modifying/ amending the rules, especially the Participatory Forest Management (PFM) rules to provide legal sanctity for the benefit sharing mechanisms. It will also lift the of ban imposed on green felling, for carrying out silvi-culture operations for better management of forests and to add to the State exchequer.

### Summary of the strategy

To achieve the objectives of the SDG 15, the department will focus upon massive afforestation, protection and management of forests, wetlands, reduction of silt loads in catchment areas, sustainable management of natural resources, control and spread of invasive alien species, protection and conservation of biodiversity and ecosystem by carrying out different activities, within the funds provided under State plan schemes, CSS, CAMPA, on-going EAPs and by preparing/ planning new EAPs.





## Indicator statement for monitoring the progress

SDG	Targets	Indicators	Current status	Target by 2022	Target by 2030	Data Source
15.1	By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and dry lands, in line with obligations under international agreements	Forest area as a proportion of total land area.	The geographical area of the State is 55,673 sq. kms. The forest area is 37,033 sq. km, 66.52% of the geographical area	Plantation over 48,000 hectares of land	Plantation over 2,00,000 hectares of land	Forest Department & reports of the Forest Survey of India
		Percentage of trees outside forest (TOF) in total forest cover	Through the agro forestry scheme. Increase tree cover over private land.			Reports of Forest Survey of India
15.2	By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.	Percent change in forest area coverage.	Forest cover is 26.4%. Annual plantation targets for 2017-18 is 12,500 hectares	To increase forest cover from 26.4% by plantation over 48,000 hectares	To increase forest cover from 26.4% to 30% through plantation over 2,00,000 hectares of land	Forest Department Reports of the Forest Survey of India. Himachal Pradesh Forest department (HPFD) will evolve its own protocol to measure changes in the forest cover at the micro level
		Area covered under afforestation schemes	Improvement of tree cover = 8,000 hectares CAMPA = 3,000 hectares EAPs = 1500 hectares	Plantation over 48,000 hectares of land area	Plantation over 2,00,000 hectares	Forest Department. HPFD will evolve a system to measure the silt load at the micro water shed level
		Total tree cover achieved outside forest area	1.36% of total geographical area is under tree cover outside forests.	Agro-forestry - Centrally Sponsored Scheme to improve tree cover outside forest		
		Number of nagar van and Central Department & Model Nurseries created	Establishment of central & model nurseries created	One in each circle	One in each division	CAMPA reports of the Department
15.3	By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world	Percentage of restoration of degraded areas.	Reduction in silt loads in river and streams by treating the concerned catchment area	To bring the area under vegetation in cold deserts by planting 600 hectares of trees 1100 hectares Shrubs and 600 hectares of herbs/grasses SSO/Treatment of waste land- 7,710 hectares, construction of water harvesting structures (WHS) and crate and wire structures (CWS)	To bring area under vegetation in cold deserts by planting 3,000 hectares of trees 5,000 hectares of shrubs and 3,000 hectares of herbs/grasses and construction of WHS & CWS	CAMPA reports of the Department, silt observatory units of other departments
		Increased tree/ forest cover in degraded areas	Thorough protection of existing forest cover and plantation	Afforestation of 40,000 hectares of area	Afforestation/ plantation of 2,00,000 hectares area. Enrichment of 60,000 hectares of area	Annual, biannual report of Himachal Pradesh Forest department. FSI reports
		Percentage of net sown area increased		To be estimated	To be estimated	

## Indicators statement for monitoring the progress

SDG	Targets	Indicators	Current status	Target by 2022	Target by 2030	Data Source
15.4	By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development	1) Increase in forest/vegetative cover, density, frequency and importance value index (IVI) in mountain areas. 2) Biodiversity index of Himachal Pradesh forest-genetic, species and community/ ecosystem 3) Red list index of endemic species-IUCN	Improvement of Alpine pasture and grazing lands  2) Rs 2.4 lakhs per hectare (2014)	Development of 1000 hectares of area under improvement of Alpine pasture and grazing lands  3) Rs 4. lakh per hectare	Development of 30,000 hectares of area under improvement of Alpine pasture and grazing lands  3) Rs. 7 lakh per hectare	Forest Department HPFD will evolve a system of capturing the monetizing difference in eco-system services
		Restoration of water bodies/streams in mountain areas		Wet lands= 3 Traditional Water Resources = 10	Wet lands= 10 Traditional Water Resources = 50	Reports of Wildlife Wing Forest Department
		Conservation of local wild life species	Census of faunal/migratory birds started.	Through habitat improvement	Through habitat improvement	Reports of Wildlife Wing Forest Department
		Improvement of local livelihoods	Enhance milk production/ livelihood/ income generation/ strengthening economy	Development of 1000 hectares of area under improvement of Alpine pasture and grazing lands livelihood activities through EAPs	Development of 30,000 hectares of area under improvement of alpine pasture and grazing lands livelihood activities through EAPs	M&E Reports of Forest Department
		Increase in per capita income of mountain dwellers		Improvement of eco-systems services will increase the income	Improvement of eco-systems services will increase the income.	Reports of Wildlife Wing Forest Department
15.5	Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	Proportional increase in density, frequency and Importance Value Index (IVI) of the species	Habitat improvement programme going on	Habitat enrichment through EAPs	Habitat enrichment through EAPs	Reports of results of long term ecological monitoring
		A number of programmes for captive breeding and released	Captive breeding and release programme for chir pheasant, monal and jhurana is underway	Base line data will be prepared. Similar programme for brown bear to be started shortly	Similar programmes for others species to be under taken	Reports of Wildlife Wing Forest Department
		Proportion increase in population of species	Data on quantity, about present population status	National Parks-2 Wildlife Sanctuaries - 5	National Parks -4 Wildlife Sanctuaries- 15	Reports of Wildlife Wing Forest Department
15.6	Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed.	Number of access and benefit-sharing agreements signed				
		No. of Societies/VFDC/FDA constituted	25. FDAs are working today, and 963 JFMCs under FDAs	Number of FDAs VFDCs and JFMCs will increase	Number of FDAs, VFDCs and JFMCs will increase	Reports of Forest Department
15.7	Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products	Reduction in traded wildlife that was poached or illicitly trafficked		Improving the database of wildlife offences and trading. Reduction in wildlife poaching and offences by 20%	Reduction in wildlife poaching and offences by 50%	Reports of the Wildlife Wing Forest Department
15.8	By 2030, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species	1)Area under infestation 2) Contain future spread 3) Use of only native species for rehabilitation of infested area	2, 64,407 hectares of forest area is under lantana and other species 2, 35,000 hectares forest area under lantana Eupatorium = 2,248 hectares Ageratum = 20,343 hectares	1) Rehabilitation of 16,000 hectares of lantana infested area	1)Rehabilitation of 1,45,000 hectares area infested from invasive alien species	Reports of CAMPA Forest Department



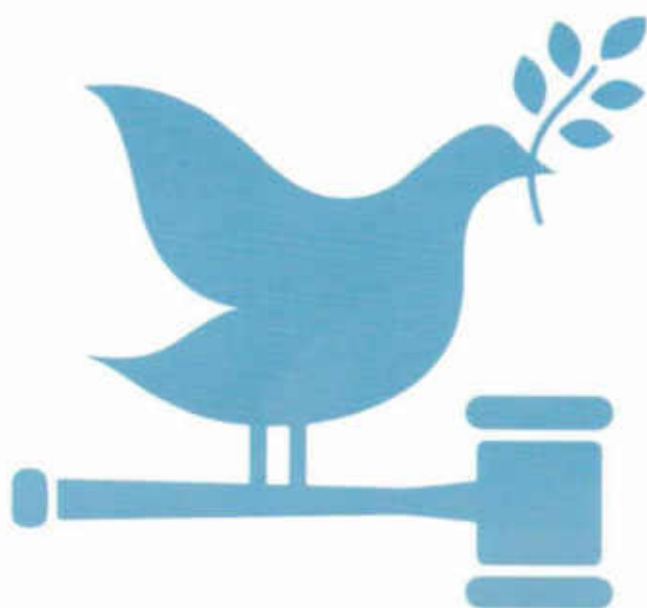
## Indicators statement for monitoring the progress

SDG	Targets	Indicators	Current status	Target by 2022	Target by 2030	Data Source
			<p>Parthenium = 6,325 hectares</p> <p>Total = 2, 64,407 hectares</p> <p>Rehabilitation of 4,000 hectares of lantana infested area</p> <p>2) Record the area not infested by invasive species in the affected districts</p> <p>3) Selective rehabilitation of most infested area to be accorded priority</p>	<p>2) Check the growth in area by invasive species</p> <p>3) learn from the experience and move forward</p>	<p>2) Reclaim the area infested by at least 50%</p> <p>3) completely eradicate invasive species</p>	
15.9	By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.	Inventory of Biodiversity and ecosystem services	No valuation of ecosystem services at present	Assess the value of ecosystem services by progressing towards preparation of green accounts		Reports of Forest Department
15.a	Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.	Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystem	Three new projects submitted to externally aided agencies	Convergence of financial resources and establishment of linkages with other agencies for sustainable forests management, livelihood, payment for ecosystem services	Convergence of financial resources and establishment of linkages with other agencies for sustainable forests management, livelihood, payment for ecosystem services	Reports of Forest Department
15.b	Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to advance such management, including for conservation and reforestation.	Percentage of fund utilized for environmental conservation		Creation of natural / Global Bank for funding forestry projects based on eco-systems approach	Creation of natural / Global Bank for funding forestry projects based on eco-systems approach	Reports of Forest Department
15.c	Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities.	Number of detection and prevention of traded wildlife that was poached or illicitly trafficked		Reduction in wildlife crime 25%	Reduction in wildlife crime 50%	Reports of Wildlife Wing Forest Department



SDG16

PROMOTE PEACEFUL AND  
INCLUSIVE SOCIETIES FOR  
SUSTAINABLE  
DEVELOPMENT, PROVIDE  
ACCESS TO JUSTICE FOR  
ALL AND BUILD EFFECTIVE,  
ACCOUNTABLE AND  
INCLUSIVE INSTITUTIONS  
AT ALL LEVELS







## Vision

Strengthening existing institutional infrastructure with commensurate accountability, to promote a society with equal rights and access to justice, for the peaceful co-existence of all sections of people irrespective of gender, caste and religion.

## Himachal Pradesh today

- There are 129 police stations, including (two railways & two CID police stations), 107 police posts including (two railway and two CID police posts) and 31 temporary police posts. These are the core institutional units to maintain law and order.
- 100 No. is available to public for police assistance number. There is a centralized SMS, an online complaint service that receives complaints and disseminates them to the concerned executing agency within 10 minutes. Online complaints can be sent through e-mail, web portals and the e-Samadhan system.
- 4 Anti Human Trafficking Units (AHTU) are functioning in Shimla, Kangra, Kullu and Sirmour districts
- Police population ratio per 100,000 population in the state is 278 which is higher than the national average of 180.59
- Women in the Armed Police Force in 2014: (20.19%), and strength of women in the un-Armed Police Force in 2014: (6.29%)

## Focus for Tomorrow

- Providing state-of-the-art Centralized Emergency Response System facility
- Revision of strength of police stations and posts making them more people friendly and improving police-citizen interface
- Reduce public space violence, disorder and antisocial behaviour through effective deployment of resources
- Reduce the harm caused by private space violence, disorder and anti-social behaviour
- Establishment of Special Action Groups and Anti Human Trafficking units in every district
- Strengthening of state, district, taluka level legal aid authorities and implement legal aid initiatives using technology tele-law
- Strengthening of units dealing with violence against children and women. Challenge negative attitudes to sexual crime through joint partner campaigns and encourage confidence to report
- Counselling centres for victims of violent crimes, crimes against children and one stop crisis centres (medical, legal, psychological counselling) for victims of crime against women
- Reduction in road casualties; by influencing driver and road user behaviour. High security features such as micro-chip or tagging, to be done in all registration certificates of vehicles as well as in driving licenses
- Training on soft skilling/attitudinal change in the police

## Himachal Pradesh law and order situation:

Goal 16 is dedicated to the promotion of peaceful and inclusive societies for sustainable development, the provision of access to justice for all, and building of accountable institutions at all levels. In Himachal Pradesh, several parameters pertaining to law and order, trial in courts, functioning of institutions (information commission, human rights commission etc.) grievance redressal system at various level, 100% civil registration, which is a first step towards safeguarding individual rights, has been better than the may states. The State government is striving to ensure more accountable, transparent and effective,

**Figure 16.1 Heinous crime<sup>1</sup> cases**



## Non-heinous crime cases<sup>2</sup>



including local governance, police and judicial systems, which are critical for protecting the rights of citizens, law and order, and security. As per the CMS-India Corruption Study 2017, Himachal Pradesh has been adjudged as the least corrupt State

## Share of public expenditure on courts and prosecution system

The budget allocated for the Judiciary and Prosecution during 2017-18 is about 0.54 percent of the budget of the State. There are approximately 23 judges (including High Court, District and Civil Judges) per 10, 00,000 people. The average time taken to dispose off a case was four to eight years for civil cases and three to five years for criminal cases, in the High Court. For Division Benches, the period varied between three to seven years.

Arrest and filing of chargesheet within 90 days, as per the provisions of the Code of Criminal Procedure (Cr. PC), where the investigation relates to an offence punishable with death, imprisonment for life or imprisonment for a term of not less than 10 years. Charge sheets are filed within 60 days, where the investigation relates to any other offence, like section 306 of the Indian Penal Code (IPC). In 2017, charge sheets were filed within 30 days in case of road accidents; 60 days in SC/ ST cases and 90 days in special report cases. The time period was 180 days in other cases. In 2017, two deaths occurred in police custody (one each in district Shimla and Kullu). There was one case each in Shimla and Kullu districts, which was formally investigated for physical/non-physical abuse or crime (including torture and disproportionate use of force). From January 2017 to October 2017, 80 departmental cases were initiated. Of these, 48 were disposed off and punishment was awarded in 23 cases, which accounts for 47.91 percent of the cases initiated. Similarly acquittal was granted in 52.08 percent of the cases. In 2017, 45 police officials were trained for handling cases of violence against women.

Under the Juvenile Courts and pendency of cases, 179 cases were registered, in 2017. Of these, 53 cases were PI and 24 cases were PC. In addition to this, 226 children were interviewed in 2017 and 51 children were found to be in conflict with the law. The State Commission for Women is headed by a Chairperson, four non-official members, two official members and a full time Member Secretary. There were 862 complaints pending in the State Women's Commission at the end of December 2014. During the year, 434 complaints were disposed off and 356 new complaints were received. In 2017, in addition to this, the State Women's Commission dismissed 24 cases; acquittals were given in 13 cases, while convictions were awarded in 16 cases. The State Security Commission is yet to be constituted. The Police Establishment Board was constituted in 2006 to regulate transfers, postings and promotions. A Police Complaints Authority is yet to be constituted.

<sup>1</sup> Murder, culpable homicide, attempt to murder, dacoity, robbery, rape, kidnapping and abduction, dowry death, burglary, theft and under ND&PS Act.

<sup>2</sup> Cruelty to women, molestation, hurt, rioting, accident and other IPC offences, Excise Act, PCR Act, SC/ST Act, Forest Act and other local & special laws.



In 2017, one notice/summon was received in Kullu from the National Human Rights Commission or the Himachal Pradesh State Human Rights Commission in reference to intimidation about a custodial death, a case in which the police officers/officials were exonerated. No attacks on journalists, trade unionists and human rights advocates including women's rights advocates and RTI applicants were reported in 2017. In 2017, 4,333 Right to Information requests were received with respect to functioning of the police, judiciary and other law and order and justice mechanisms. Of these, 4,289 were addressed at the Public Information Officer (PIO) level; 144 were addressed at the Authority level; and four RTI applications were taken over by the State Information Commission.



### Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

#### Target 16.1 Significantly reduce all forms of violence and related death rates everywhere

##### Current situation

- HP Police ensures safety and security of all citizens
- A Road Accident Database Management System (RADMS) has been established to maintain and analyse accident related information
- SC/ST Cell has been established
- Five all-Women Police Stations in Baddi, Shimla, Mandi, Kangra (Dharamshala) and Kullu are functioning in the state.

##### Analysis

Additional manpower, modern technology and mobility are needed, as is regular training. Policing needs to be community oriented and respect the rights of people.

#### Target 16.2 End abuse, exploitation, trafficking and all forms of violence against the torture of children

##### Current Situation

- Special juvenile police units have been established in all police stations.
- The Station House Officer of each police station has been designated as the Child Welfare Officer
- Operation Smile and Muskaan are in operation to search for missing children
- Four Anti Human Trafficking units in Shimla, Kangra, Kullu and Sirmour have been established



##### Analysis

The staff for juvenile police units has been posted from the current strength of the police station. Dedicated trained staff for this purpose and regular specialized trainings are required for better efficacy. Counselling is needed for victims and for the staff.

#### Target 16.3 Promote the 'Rule of Law' and ensure equal justice for all

##### Current Situation

The rule of law is the bedrock upon which a State is built; it is fundamental to peace and stability. All citizens are expected to be subject to laws and to be equal before them. Working to ensure this basic principle is the essence of HP Police to promote the rule of law. It includes building the capacity of police, judiciary, legal aid institutions and working with community and civil society in empowering people through access to justice, ensuring oversight mechanisms for the police and respecting human rights especially those of vulnerable sections including women and children.

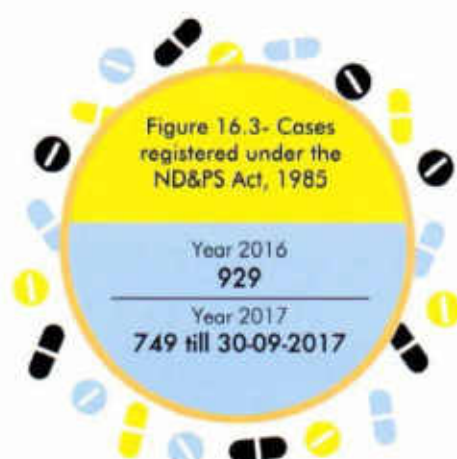
##### Analysis:

HP Police treats its citizens fairly. Awareness campaigns on police functioning, rights of the community vis-a-vis the police, rights of victims and rights of persons in police custody need to be run on regular basis. A healthy police - community partnership is essential for enforcing the rule of law. Police oversight mechanisms need to be transparent and reports should be shared with the community.

#### Target 16.4 Reduce illicit financial and arms flows and strengthen the recovery of stolen assets and combat all forms of organized crime

##### Current Situation

At present, cases registered under Narcotic Drugs and Psychotropic Substances (ND & PS) Act form a major share of serious and organized crime. The HP Police is working to apprehend accused persons smuggling drugs and other psychotropic substances.



- Prevent harm caused by serious organized crime (SOC) by disrupting the sale and supply of controlled drugs and psychotropic substances (NPS)
- Prevent harm to our communities by targeting the criminal use of and distribution of firearms (though it is negligible)
- Enhance our understanding and response to cyber threats and internet enabled crime.
- All arms licenses to be recorded/registered with Sashtro software of the district authorities and should be linked to the respective police stations
- Prevent harm by supporting victims of human trafficking and target those who abuse, exploit and coerce victims into trafficking
- Four anti human trafficking units in Shimla, Kangra, Kullu and Sirmour have been established.

### Analysis

Dedicated units to deal with different types of SOC need to be established at district headquarters. Specialized trainings need to be organized to motivate police officers and policemen to apprehend criminals and ensure that they are convicted.



### Challenges in achieving the targets

- Population-wise insufficiency of police
- Response time of the police to the public must be reduced
- Strength of police stations needs to be enhanced
- Inadequate infrastructure, lack of advanced training, equipment and technology, which are essential to monitor security in public places
- Monitoring inter-state movement of vehicles
- Linking of 'Sashtro' with police stations
- Database of stolen property
- Lack of awareness among the public

- Capacity building of Investigating Officers
- Set up Centralized Emergency Response System
- Lack of resources and specialized manpower
- Facilities for police service need to be built including the provisioning of welfare activities and stress management programmes for better nurturing of human resources
- High pendency of cases in courts



### Strategies for success

#### Target 16.1 Significantly reduce all forms of violence and related death rates everywhere

Strengthening of Centralized Emergency Response System and increase the number of police stations and police posts in the state, locating them at a distance of between 15 to 20 kms, so that there is a service delivery mechanism within reach of the population.

#### On-going schemes/ proposals

- Three new all-women police stations in Bilaspur, Una and Sirmour to be established
- Quick reaction teams in all 13 districts & Battalion Headquarters, disaster rescue equipment available with system services teams to be updated
- Handheld devices data connected with Vahan Seva, to verify RC, number plate and registration number of vehicles entering the State. SIMs/data packs to be provided to each PS/PPs so as to run RADMS smoothly
- Mobility to be enhanced
- Trainings in investigations using scientific technology, use of modern weapons, forensic science to be imparted
- Specialized HR
- Need for HR and inventory data base
- Strengthening a) training & R & D; b) Forensic Science Laboratory (FSL) & finger prints science with IT, c) crime investigation and crime scene/ field visits management with computer management as well as with Crime and Criminal Tracking Network Systems (CCTNS)





- On-line traffic ticket issue and compounding
- On-line traffic investigation with scientific investigation modules that reduce overlap and long drawn processes of repetitive writing
- Separate crime investigation and law and order units providing 24x7 services to community in three shifts a day
- Accountable response time to reach the victims of crime/SOS through NERS/Central Emergency Response System
- Reshaping of community policing scheme and revival of beat police scheme
- Strengthening of disaster management teams
- Quick Reaction Teams (QRT) headed by GO/ NGO constituted at the district level
- Defined career growth path that reward performance
- Building institutions with more technological substance, to improve the delivery system and continuation of modernization initiatives to boost e-governance to reach all citizens
- Ensure best practices are used to prevent and investigate sexual crimes and target those who pose the greatest risk (persons with criminal records, drug addicts, anti-social elements, etc.)
- Continue to work with partners to provide support to victims and build their confidence to report sexual crimes
- Dedicated traffic and tourist police wing for the entire State

### Action plan

- Providing Centralized Emergency Response System facility
- Making the police more responsive to emergency calls/situations
- Rationalization of the strength of every police station and police post
- Establishment of Special Action Groups in every district
- Modern weaponry
- Establishment of Anti Human Trafficking units in every district
- Establishment of counselling centres
- Upgrading forensic facilities and regular trainings in using these techniques

### Target 16.2 End abuse, exploitation, trafficking and all forms of violence against the torture of children

The police will coordinate with the Women and Child Development department to establish a sufficient number of counselling centres for children.

### On-going schemes/ proposals

- Specialized training to be imparted to police officers /officials
- Counselling centres to be set up for traumatized children
- Investigate the abuse or neglect of children

### Action plan

- Special juvenile police units consisting of Additional Station House Officer of the police station, one lady constable and one constable belonging to that police station. The Station House Officer of the concerned police stations have been designated as Child Welfare Officers
- Operation Smile and Muskaan are in operation, to search for missing children
- Four Anti Human Trafficking units in Shimla, Kangra, Kullu and Sirmour have been established

### Target 16.3 Promote the 'Rule of Law' and ensure equal justice for all

The prime objective of the rule of law for the police organization, the executive, the prosecution and the judiciary is to reflect dedicated commitment, devotion and accountability between departments, and in this process the approach shall have to be improved and made service delivery oriented.

### On-going schemes/ proposals

- Building strong community partnerships
- Strengthening of an interactive mechanism under 'criminal justice chain administration' with partner working groups, to remove irritants that block/ delay service delivery
- Strong oversight mechanism for police
- Laying clear and transparent time lines, schedules and accountability processes

### Action plan

Increasing the number of women police in the force and ensuring capacity building through training and technological up gradation. This includes:

- Focus on a better equipped and responsive police force, augmenting the number of women in the force
- Training to sensitize and enable a quicker police response, provide Centralized Emergency Response System facility
- Making the police more responsive to emergency calls/ situations

- Revision of the strength of police stations and posts; establishment of Special Action Groups and Anti Human Trafficking units and counselling centres in every district
- Modern weaponry
- Awareness among the public about disasters; constitution of a disaster management force
- Standard operating drill
- Focus on capacity building, infrastructure, better equipment and responsive police

#### Target 16.4 Reduce illicit financial and arms flows and strengthen the recovery of stolen assets and combat all forms of organized crime

Monitoring of prominent public places by using latest technologies. The Investigating Officers will be trained and equipped with modern techniques of investigation, laptops; investigation kits and have access to the mobile forensic vans. All units /sub units will do nakabandi (check posts) during the day and night to detect NDPS cases and will be directed to use dog squads (narcotics) during nakabandi. Special directions will be given to the field staff and district SSPs regarding investigation of NDPS cases.

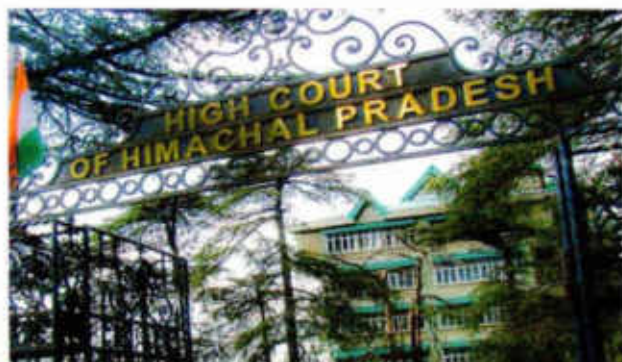
#### Action plan

- Co-ordinated use of modern technology to monitor public places. Strengthening of inter-state barriers by installing CCTV cameras and X-ray scanners, so that movement of illegal arms, financial and stolen property can be checked
- High security features such as micro-chip or tagging to be done in all registration certificates of vehicles as well as driving licenses, which will be effective in the recovery of stolen vehicles
- All arms licenses to be recorded /registered with 'Sashatra' software of district revenue authorities and linked to the respective police station
- Half yearly physical inspection of these weapons to be carried out

- Updation and detailed analysis of modus-operandi of burglary and theft cases
- A State level database of stolen property to be maintained and regularly updated, so that the recovery in other States may be facilitated
- Intelligence collection and co-ordination with neighbouring States to ascertain the whereabouts of illegal arms manufacturers
- GPS tagging of habitual offenders, so that they are under continuous surveillance of law enforcing agencies
- Specialized units to be created for the investigation of financial matters. These units will be trained specifically for the investigation of economic offences
- Strengthen and train the State Vigilance (SV) and Anti Corruption Bureau (ACB) units

#### Proposals relating to all the targets

- Modernization of the police force; its strength to be enhanced
- Providing Centralized Emergency Response System facility
- Regional control rooms for each police district headquarter
- Modern weaponry
- Infrastructure, training and equipment
- Establishment of an anti human trafficking unit in every district
- Monitoring of prominent public places by using modern technology
- Capacity building of investigating officers
- Provision of adequate housing for Police personnel
- Budget for community policing schemes
- Budget for operation Smile and Muskaan schemes





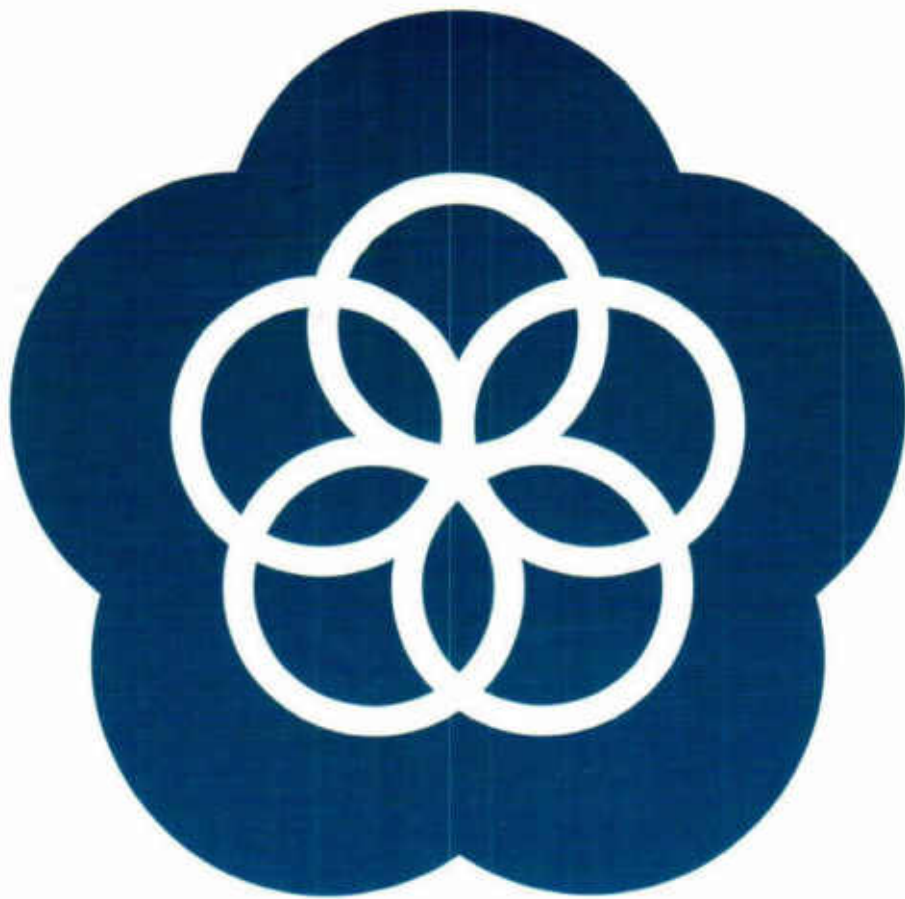
## Indicator statement for monitoring the progress

SDG	Targets	Indicators		Current Status	Target By 2022	Target By 2030	Data Source
		National Indicator	State Indicator				
16.1	Significantly reduce all forms of violence and related death rates everywhere	Number of victims of intentional homicide per 100,000 populations, by sex and age	For the year 2016				SCRB
			Murder	Murder-101	Minimizing ideally to zero	Minimizing ideally to zero	
			Culpable Homicide	Culpable Homicide-3	Minimizing ideally to zero	Minimizing ideally to zero	
			Dowry death	Dowry death-3	Minimizing ideally to zero	Minimizing ideally to zero	
16.2	End abuse, exploitation, trafficking and all forms of violence against the torture of children	Number of victims of human trafficking per 100,000 population by sex, age and form of exploitation	Establishment of Anti Human Trafficking Units (AHTU) in every district	4 AHTUs are functioning in Shimla, Kangra, Kullu and Sirmour districts	AHTUs will be established in every district except Kinnaur and Lahaul and Spiti		
		Proportion of Crime Committed against Children during the year. (per 100,000 children)					
16.3	Promote the rule of law and ensure equal access to justice for all	Number of police personnel per 100,000 population	No. of police personnel per 100,000 population	Police population ratio per 100,000 population in the State is 278 which is higher than the national average of 180.59	Maintaining the current level of police population ratio and strengthening the quality of policing by making investment on trainings, infrastructure and IT. Number of police personnel will be increased to keep pace with population growth	Maintaining the current level of police population ratio and strengthening the quality of policing by making investment on trainings, infrastructure and IT. Number of police personnel will be increased to keep pace with population growth	Bureau of Police Research & Development Report, M/o Home Affairs, GoI Data on police organization in India -2016, a report M/o Home Affairs, GoI
16.4	Reduce illicit financial and arms flows and strengthen the recovery of stolen assets and combat all forms of organized crime	Quantity of seizure under the Arms Act during year (State/UT wise)	Quantity of seizure under the Arms Act and value of stolen property	Database of stolen property from last year: Guns-2 Pistols-2 Desi kotte-33 Cartridge live-48 Cartridge empty-92 Gun powder-9 pkts Splints-4.5 pkts Value of stolen property -Rs.9,33,18,765/- Value of stolen property recovered= Rs.3,86,99,415/- Percentage of recovery- 41.47%	Continuous monitoring to minimize incidence on offences	Continuous monitoring to minimize incidence on offences	
		Value of property stolen & recovered and percentage recovery					
16.5	Substantially reduce corruption and bribery in all their forms	Persons arrested in total cognizable crime cases under offences under Prevention of corruption Act and related sections of IPC	Persons arrested in total cognizable crime cases under offences under Prevention of corruption Act and related sections of IPC	13,267	Strict enforcement with community participation so as to minimize offences	Strict enforcement with community participation so as to minimize offences	
16.6	Develop effective, accountable and transparent institutions at all levels						
16.7	Ensure responsive, inclusive, participatory and representative decision-making at all levels		Proportions of positions (by sex, age, persons who are differently abled and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions	1. Participation of women in Panchayati Raj Institutions is - 50.54%  2. Participation of women in State Legislative Assembly is 5.8%	To achieve parity in terms of equal representation of male and female	To achieve parity in terms of equal representation of male and female	

## Indicator statement for monitoring the progress

SDG	Targets	Indicators		Current Status	Target By 2022	Target By 2030	Data Source
		National Indicator	State Indicator				
			Proportions of positions (by sex, age, persons who are differently abled and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions.	3. Number of Judges by sex in High Court (as on April, 2014): Total 5, F-0, M-5 4. Women in the Armed Police Force in 2014: out of total 4505, number of females: 910 (20.19%) 5. Strength of women in the un-Armed Police Force in 2014: out of total 9563, the number of females: 602 (6.29%)	To achieve parity in terms of equal representation of males and females	To achieve parity in terms of equal representation of males and females	
16.8	Ensure responsive, inclusive, participatory and representative decision-making at all levels	National Indicator not yet developed					
16.9	By 2030, provide legal identity for all, including birth registration		i) No. of births registered ii) No. of persons with Aadhaar cards	i. 100% births are registered in the state ii. 100 % of the population has Aadhaar cards in the state	i) Universal coverage ii) Universal coverage	i) Universal coverage ii) Universal coverage	
16.10	Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements		*Crime reporting to the police *Police service to the community *Use of force to obtain confessions	<b>Public confidence:</b> assesses whether the public expresses confidence in the police, their competence and integrity, their concern for the well being of the community and their respect for human rights. <b>Integrity, transparency and accountability:</b> assess whether police violate human rights or abuse their power, and alleged incidents of police corruption, misconduct or lack of integrity are reported and investigated. <b>Transparency:</b> assesses whether relevant information on the activities, decision-making processes, decisions and use of resources by the police is publicly available	There shall be clear division of crime investigation & Law & Order to  Achieve dedicated & better service delivery with improved grievance redressed mechanism  Rural PS with high incidence of crime shall be provided with three shifts, on a 24x 7 basis  Specialized crime investigation capacity building shall be made available at PS level  Improved gender posting with 25% shall be achieved by 2023-24  For accountable, prompt and time bound accessible services deliver reach, National Emergency Response System (NERS) shall be made available in all PS by 2023-24		





SDG17

*STRENGTHEN THE MEANS OF  
IMPLEMENTATION AND  
REVITALIZE THE GLOBAL  
PARTNERSHIP FOR  
SUSTAINABLE DEVELOPMENT*

## Vision

Following a participatory and consultative approach that promotes partnerships at local, national and international levels for monitoring the development process and mobilization of required resources for bridging the gaps.

## Himachal Pradesh today

- The gross state domestic product (GSDP) of Himachal Pradesh was Rs.30,281 crores in 2006-07, which increased to Rs.1,10,511 crores in 2015-16, registering an increase of more than three and half times at current prices
- The GSDP increased 1.19 times between 2013-14 and 2015-16 whereas public expenditure increased 1.3 times over the same period, indicative of a slowing down of private investment
- During the period between 2006-07 and 2015-16, the ratio of non-tax revenue to GSDP declined from 4.42% to 1.66 percent, whereas the ratio of tax revenue to the GSDP increased from 5.5% to 6.4 percent. The increase in the tax revenue to the GSDP ratio indicates the positive impact of tax reforms in the state
- The decline in the ratio of total revenue to GSDP from 25.95% in 2006-07 to 21.21% in 2015-16 can be partly attributed to the decline in the non-tax revenue collections. The possible reason for decline in non-tax revenue is the fall in returns, as government investment in the power sector declined

## Focus for Tomorrow

- Decreasing share of central receipts to total receipts and limited tax base of the State, public private partnership will be redefined to address upcoming demands to meet the SDGs targets. Private sector and multilateral international development agencies will be engaged in different sectors of the State's economy
- The revenue expenditure, particularly that of a committed nature, in the form of the liabilities on account of salaries, pensions and interest will be curtailed to ensure availability of more funds on capital expenditure
- Tax reforms will be undertaken to broaden tax base and also to improve tax administration.
- To facilitate environment friendly industries in the State, taxes and fees will be reduced





## Current interventions and analysis of on-going schemes and programmes, and how they will help in achieving the defined targets

The concept of 'means of implementation' describes the interdependent mix of financial resources, innovations in technology development and transfer of technology, particularly, information and communication technology.

This goal further aims to strengthen capacity building for timely availability of reliable data, disaggregated by income, gender, age, caste, religion, disability, geographic location and other relevant characteristics that are relevant in the State context. It also targets to build an appropriate mechanism for monitoring of progress on SDGs. The State is committed to forge partnerships at all levels, including local, regional, national and international levels for achieving the SDGs, as implementation of SDGs agenda will require a meaningful partnership with all potential stakeholders, performing individually and collectively, to adopt policies and mobilize resources to advance equitable, human rights-based sustainable development.

### Target 17.1 Strengthen domestic resource mobilization, including through international support to improve capacity for tax and other revenue collection.

The state's economy has been constantly growing, as is indicated by the increased GSDP at current prices. The GSDP of Himachal Pradesh was Rs. 30,281 crores in 2006-07, which increased to Rs. 1,10,511 crores in 2015-16, registering an increase by more than three and half time in the GSDP at current prices. The public expenditure during this period has shown an increase of a little less than three times from Rs. 8,780 crores in 2006-07 to Rs. 25,630 crores in 2015-16. Out of the total public expenditure of Rs. 25,630 crores in 2015-16, an expenditure of Rs.3,327 crores was incurred on the capital account. Relatively greater expansion in the state's GSDP in comparison to that in public expenditure possibly indicates to greater increase in the private investment during this period. However, the State's GSDP has increased 1.19 times between 2013-14 and 2015-16, whereas the public expenditure has increased 1.3 times during the same time. This indicates a possible slowing down of private investment, which may be attributed to the withdrawal of industrial packages including tax exemptions by the Government of India.

During the period between 2006-07 and 2015-16, the ratio of non-tax revenue to the State's GSDP has declined from 4.42 percent to 1.66 percent whereas the ratio of tax revenue to the GSDP has increased from 5.5 percent to 6.4 percent. The decline in the ratio of total revenue to GSDP from 25.95 percent in 2006-07 to 21.21 percent in

2015-16 can be partially attributed to the decline in the non-tax revenue collection. The increase in the tax revenue to the GSDP ratio indicates to positive impact of tax reforms in the state. The possible reason for decline in non-tax revenue to GSDP ratio is a fall in returns as government investment in power sector.

Main sources of financing of the public expenditure in the State have been the State's own tax and non-tax revenue, share in central taxes, other grants from the Central Government including revenue deficit grants and grants in the form of external assistance. Historically, the State Government has been largely dependent on central grants and external assistance to meet its development expenditure related requirements due to small revenue base of the State. During 2015-16, out of the total receipts, 63.52 percent of the receipts are from the Central Government including the share in the central taxes. States' own tax revenue constituted only 28.54 percent of its total receipts. Non-tax revenue contributed 7.83 percent to the total receipts and the recovery of loans and advances including miscellaneous capital receipts contributed 0.001 percent of the total receipts during 2015-16.

Figure 17.1 Ratio of revenue (total/tax/non-tax) to GSDP, 2006-07- 2015-16



Source: Finance Department, Government of Himachal Pradesh

Figure 17.2 Total Revenue Receipts 2015-16



However, over the years, the share of central receipts to total receipt has declined as is clear from the figure 17.3.

Figure 17.3 Share of central receipts to total receipts



With the dwindling share of central receipts to total receipts and also keeping in view limited tax base of Himachal Pradesh, there is an immediate need to redefine the role of private sector in the development of the State. Private sector and multilateral international development agencies need to be engaged in different sectors of the State's economy. The revenue expenditure, particularly that of committed nature, in the form of the liabilities on account of salaries, pensions and interest also needs to be curtailed to ensure availability of more funds on the capital account. Some reforms are also required to broaden the tax base and to improve tax administration.

### Adopt and implement investment promotion regimes

Himachal Pradesh has witnessed an expansion in industrialization by capitalizing on the benefits of incentives provided by the Central and State Governments. These incentives attracted many public and private sector enterprises to the State. Many pro-active steps initiated by the State Government have encouraged the existing industries to expand their units. The State level Single Window Clearance and Monitoring Authority have facilitated time-bound approval to a number of proposals. The State Government has introduced a common application for seeking all approvals necessary for setting up industries in the State. Through this common application form approvals are accorded within a period of 45 days from the date of receipt of the application form.

The entrepreneurs in the State are being provided assistance under 'Chief Minister Start-up/New Industries Scheme', which has not only attracted new investments in the State, but has also motivated the entrepreneurs to expand their existing units. All the new enterprises in the State will now be required to submit only self-certified documents online or manually. All the departments will issue provisional registration within 15 days from submission of the documents. The process to simplify more procedures is underway with the aim to provide a quick pace to the process of industrialization in the State. Land will be provided at a concessional rate, in the Industrial Areas to the small industries or other industries providing employment up to 100 Himachalis. In a major move, the State Government has decided to establish Incubation Centres in premier Institutions in the State to support Start-ups. These Start-ups in the manufacturing sector will also be entitled for purchase preference by Government of Himachal Pradesh/Public Sector Undertakings. Apart from this, these units would be exempted from the 'prior experience/turnover requirement', provided they meet requisite quality standards.



In order to facilitate the setting up of environment friendly industries in the State, all industrial units will be categorized into green and orange category industries, as the case may be, depending on the pollution index, according to the listing suggested by the Ministry of Environment and Forests<sup>1</sup>. Environment clearances to different categories will be granted on self-certification without any prior inspection. In addition, the State Government has decided fees for consent to establish and also consent to renewal in case of green industry and orange industry will be reduced by 25 percent and 10 percent respectively.

Three new state-of-the-art areas are being developed at Pandoga in Una district, Kandrod in Kangra and Dhabota in Solan district. These would provide state-of-the-art infrastructure facilities to entrepreneurs.

The industrial investment in the State has been increasing over time. Plan investment in 2000-01 was Rs.1722.17 crores, which had increased to Rs.2700 crores in 2009-10<sup>2</sup>.

**Target 17.6 Enhance cooperation on and access to science, technology and innovation and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms and through a global technology facilitation mechanism,**

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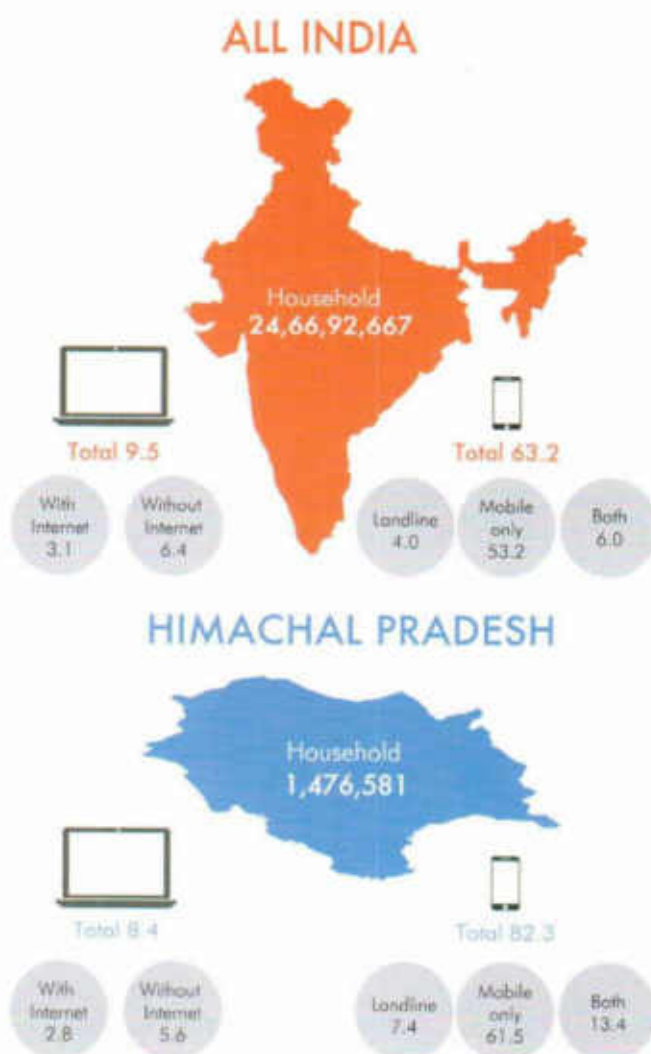
**Target 17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies,**

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**Target 17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism by 2017 and enhance the use of enabling technology, in particular information and communications technology.**

The Government of Himachal Pradesh has taken several initiatives to enhance use of Information Technology for simplifying processes, bringing in transparency, accountability, providing quality and timely information about the government services to all the citizens of the State. However, as table 17.1 indicates that there is substantial scope for expansion of information technologies, as only 8.4 percent households have computers/laptops, out of which only 2.8 percent have Internet connectivity, which is lower than the all India figure. The number of mobile and landline phone users is higher (82.3 percent) in comparison to the all India average (63.2 percent).

Figure 17.4 Status of households with access to computer, Internet and mobile phones



Source: Census 2011

The State Innovation Council was constituted in 2011 to promote innovation in the State. Innovations are an essential driver of economic growth and future competitiveness. A thriving innovation economy promotes economic growth, fosters new technologies and creates jobs that result in improvement in efficiency, effectiveness, quality or social outcomes/impacts.

With the objective to promote innovative projects, which have been initiated and completed by individuals/departments/institutes on their own and have potential for further replication, the State Innovation Award Scheme was started in 2014-15; to recognize these efforts and to motivate others.

1. See <http://envfor.nic.in/legis/ucp/ucpsch8.html> for a classification.

2. Source: Plan Investment in HP report 2000-01 & 2009-10

**Target 17.18** By 2020, enhance capacity-building support to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in the State/Nation contexts,

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**Target 17.19** By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product and support statistical capacity-building.

High-quality data disaggregated by income, gender, age, migratory status, SC/ST, disability, geographic location and other characteristics is critical for policy makers and implementers to understand the trends and dynamics of the progress of programmes/schemes. Regular monitoring is important, as are the associated analytics to assess programmes and enable corrective action.

The Economics and Statistics department (E & S dept.) has been collecting and validating data on many indicators on an annual basis. The State Government has been utilizing the above data/reports for review and necessary mid-course corrections in their programmes. However, the periodicity of the reports/data, by line departments and the extent of coverage can be improved. There is a need to strengthen the capacity of the E & S department and institutionalize the process of generation of disaggregated data, as this will help policy makers.

Efforts should be made to fast track the implementation of the projects being supported by the World Bank and UNDP for strengthening of the E & S dept. Design of these and other projects may need to be modified, keeping in mind the need to monitor the SDGs in the coming years.

There is a requirement to have mechanisms in place to ensure policy coherence and convergence between departments. A State level SDG monitoring framework will be developed and a State level monitoring committee established for concurrent and periodic monitoring of the SDGs. Working groups led by nodal departments have been constituted to prepare the vision; strategy and action plan for each SDG. The E & S department will provide data for monitoring of indicators. The State will secure technical support from appropriate organizations to develop a dashboard on SDGs, which will act as a data repository at the State level.



## Challenges in achieving targets

There has been some growth in the State over the last two years, but this has been accompanied by an increase in public expenditure and a slow-down in private investment. The tax base is limited and the State is largely dependent on Central assistance. There is an urgent need to redefine the role of the private sector, institute tax reforms and incentives and provide an investment friendly and secure business environment.

The State economy has been growing, as is indicated by the increased GSDP at current prices. However, the State's GSDP has increased at a slower pace than the public expenditure. There has been a slowing down of private investment, which may be attributed to the withdrawal of industrial package including tax exemptions by the Government of India to the State.



During the period between 2006-07 and 2015-16, the ratio of non-tax revenue to the State's GSDP declined from 4.42 percent to 1.66 percent. The decline in the ratio of total revenue to GSDP from 25.95 percent in 2006-07 to 21.21 percent in 2015-16 can be partially attributed to the decline in the non-tax revenue collection.

Historically, the State Government has been dependent on central grants and external assistance to meet its development expenditure related requirements, due to the small revenue base of the State. During 2015-16, out of the total receipts, 63.52 percent of the receipts were from the Central Government including the State's share of central taxes. There has been a decline in central assistance. With the declining share of central receipts, and limited tax base of the State, there is an immediate need to redefine the role of private sector in the development of State. Both the private sector and multilateral international development agencies need to be engaged in different sectors of the State's economy. Reforms are also required to broaden the tax base and to improve tax administration.

High-quality data disaggregated by income, gender, age, migratory status, SC/ST, disability, geographic location and other characteristics is critical for policy makers and implementers to understand the trends and monitor the progress of the programmes and schemes. The E & S dept. has been collecting and validating the data on a large number of indicators on an annual basis. There are some other publications, by other departments, but the quality of



the data and contents of these publications have been an issue of debate. Hence, there is urgent need to strengthen capacity of the E & S department and make institutional arrangements with capacity to generate the required disaggregated data at district / block and below block level, on a regular basis, to help policy makers to take necessary midcourse corrections in the implementing strategies, if required.



## Strategies for success

**Target 17.18** By 2020, enhance capacity-building support to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts,

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**Target 17.19** By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building.

### Baseline:

- Data/reports are generated on an annual basis
- Aggregated estimates are made available by the E & S department for review of programmes
- Quality of data / contents has been suboptimal

- Lack of consolidation of the data both within and between some key priority sectors is a constraint
- Due to the small size of the population, some State specific data is not captured in national surveys (NFHS/DLHS, etc.)

### Target:

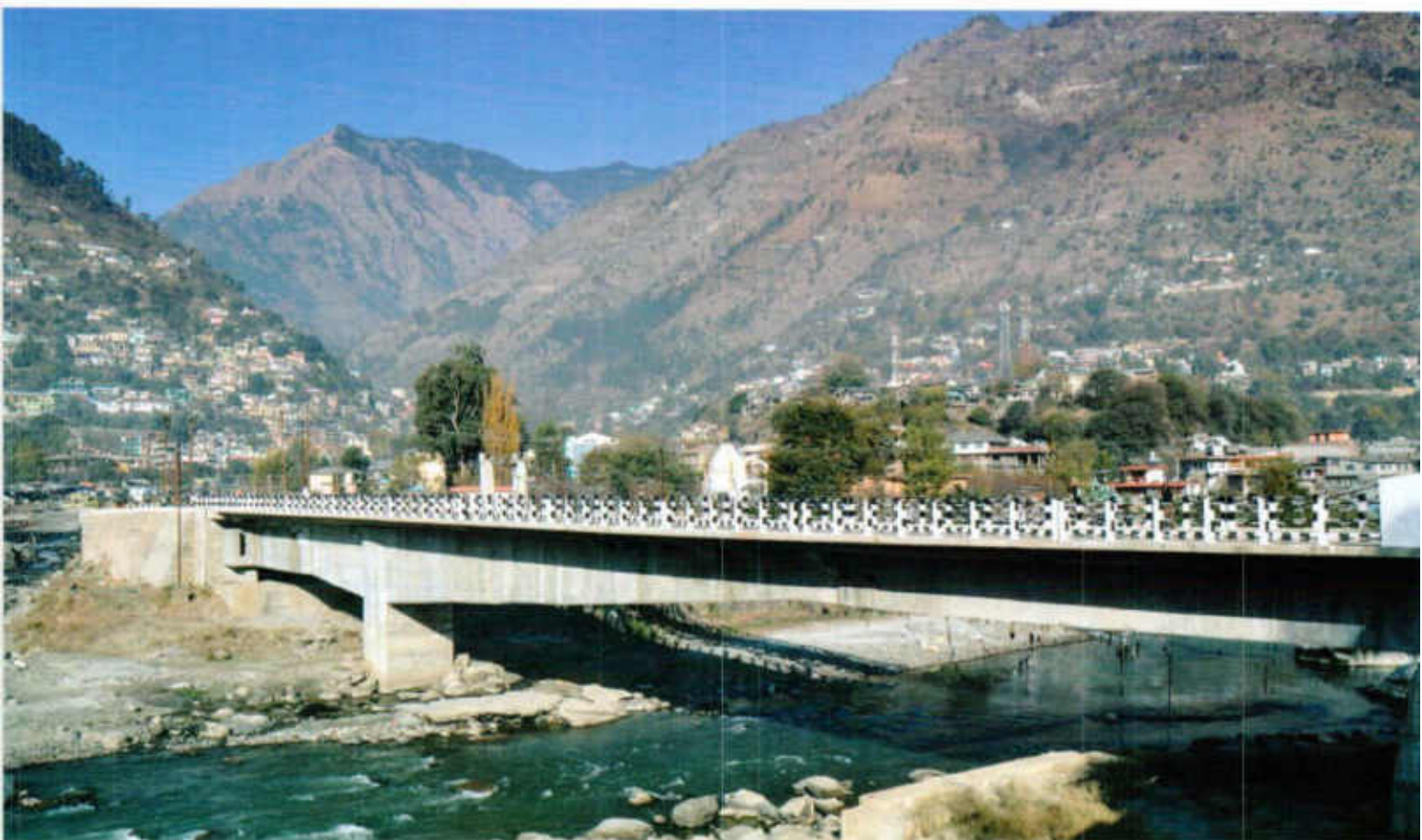
- Ensure availability of high-quality data disaggregated by income, gender, age, migratory status, SC/ST, disability, geographic location and other characteristics which are critical for policy makers and implementers
- Concentrating on gap areas with data

### Strategy:

- Strengthen capacity of E&S department and sensitize departments on the importance of periodicity and reliability of information being generated by them.

### Action plan:

- Fast-track implementation of World Bank and UNDP supported projects that aim to strengthen the capacity of the E&S department. Develop standard protocols for data collection and
- Develop a mechanism within the E&S department to generate dis-aggregated data at district/block and below block level, on a regular basis.



## Indicator statement for monitoring the progress

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicator	State indicators				
17.1	Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection	National Indicator not yet evolved	Enhance tax and non-tax revenue as a proportion of		Increase the ratio of tax and non-tax revenue collection from 21.21% to 25% of GDP	Increase the ratio of tax revenue and non-tax revenue collection to GDP from 21.21% to 30%	IF
17.2	Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7% of gross national income for official development assistance (ODA/GNI) to developing countries and 0.15 to 0.20% of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20% of ODA/GNI to least developed countries	National Indicator not yet evolved					
17.3	Mobilize additional financial resources for developing countries from multiple sources	National Indicator not yet evolved					
17.4	Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress	National Indicator not yet evolved					
17.5	Adopt and implement investment promotion regimes for least developed countries	National Indicator not yet evolved					



SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicator	State Indicator				
Technology							
17.6	Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism	National Indicator not yet evolved					
17.7	Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed	National Indicator not yet evolved					
17.8	Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology	National Indicator not yet evolved					
Capacity-building							
17.9	Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the SDGs, including through North-South, South-South and triangular cooperation	National Indicator not yet evolved					

SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicator	State Indicator				
Trade							
17.10	Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda	National Indicator not yet evolved					
17.11	Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020	National Indicator not yet evolved					
17.12	Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access	National Indicator not yet evolved					
Policy and Institutional Coherence							
17.13	Enhance global macroeconomic stability, including through policy coordination and policy coherence	National Indicator not yet evolved					
17.14	Enhance policy coherence for sustainable development	National Indicator not yet evolved					
17.15	Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development	National Indicator not yet evolved					









SDG	Targets	Indicators		Current status	Target by 2022	Target by 2030	Data Source
		National Indicator	State Indicator				
Multi-stakeholder partnerships							
17.16	Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the SDGs in all countries, in particular developing countries	National Indicator not yet evolved					
17.17	Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships	National Indicator not yet evolved					
Data, monitoring and accountability							
17.18	By 2020, enhance capacity- building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts	National Indicator not yet evolved	Ensure availability of disaggregated data by income, gender, age, migratory status, disability, geographic location and other characteristics relevant in State contexts	E & S department has been collecting the data on various indicators on annual basis. Data from national surveys is also available. However, the periodicity of the reports / data published by the various departments may serve the purpose of quality monitoring of the programmes / schemes	Ensure availability of high-quality data disaggregated by income, gender, age, migratory status, SC/ST, disability, geographic location and other characteristics which are critical for policy makers and implementers by concentrating on gap areas in data	Maintain the status	E&S dept.
17.19	By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity building in developing countries.	National Indicator not yet evolved					

# Himachal Pradesh Sustainable Development Vision 2022 and 2030

SDG	Himachal SDG vision 2030	Target to be achieved by 2022	Target to be achieved by 2030
<p>01</p> <p>End poverty in all its forms everywhere in the State</p> 	<p>The development of capacities and skills of the socially and economically disadvantaged population in the State, so as to enable them to overcome all kinds of deprivations and avail of additionally created opportunities.</p>	<ul style="list-style-type: none"> <li>Reduction in the percentage of population living below poverty line, from the existing 8 percent to 2 percent</li> <li>100% households will be covered under health insurance</li> <li>8.14 lakh beneficiaries (children, pregnant and lactating women) will be covered under ICDS</li> <li>Setting up 20,000 Self Help Groups with Rs. 1,750 cr bank credit</li> <li>Universal coverage of eligible population under Maternity benefit</li> <li>All senior citizens will have institutional assistance funded by the Government</li> <li>100 percent of the rural population will have access to drinking water (@ 70 LPCD (National standard) from improved sources</li> <li>Open Defecation Free (ODF) status to be maintained</li> <li>30 percent of the urban population will have access @ 135 lpcd (CPHEEO standard) drinking water from improved sources</li> <li>90 percent of the urban population will have managed sewerage services</li> <li>24x7 power supply for all with required voltage will be ensured (the State has already achieved 100 percent electrification long back)</li> <li>100 percent population will have access to housing with basic amenities</li> <li>100 percent households have already been linked with banks and this status will be maintained</li> <li>100 percent population will have access to telephone</li> <li>(Mobile/landlines) with improved access to internet</li> <li>Minimizing the casualties, preferably no casualties, due to climate-related extreme events and other economic, social and environmental shocks and disasters</li> <li>Out of total government spending, 38 percent is being spent on essential services (education, health and social protection). The current level of spending will be maintained with improved service quality</li> </ul>	<ul style="list-style-type: none"> <li>Total elimination of poverty in the State</li> <li>All households will have health insurance</li> <li>Universal coverage of eligible beneficiaries (children, pregnant and lactating women) under ICDS</li> <li>Universal coverage of all eligible persons under MGNREGA</li> <li>All willing and needy persons will be covered and bank credit will be arranged</li> <li>Open Defecation Free (ODF) status will be maintained</li> <li>100 percent of the urban population will have access @ 135lpcd (CPHEEO standard)</li> <li>100 percent of the urban population will have access to managed sewerage services</li> <li>Minimizing the casualties, preferably no casualties due to climate-related extreme events and other economic, social and environmental shocks and disasters</li> <li>Public services delivery to the expectations of people</li> </ul>
<p>02</p> <p>End hunger, achieve food security and improved nutrition and promote sustainable agriculture</p> 	<p>To eliminate all manifestations of malnutrition by adopting robust, resilient and sustainable agricultural practices that make farmers more economically prosperous and socially empowered.</p>	<ul style="list-style-type: none"> <li>Reduction of stunting to 15.78 percent and reduction of wasting to 8.22 percent among children under 5 years</li> <li>Reduction of anaemia to 30.12 percent percentage in pregnant women aged 15-49 years and reduction of anaemia to 32.2 percent in children aged 6-59 months</li> <li>Enhancing agricultural productivity of food grains to 2.4MT/ha; vegetables to 24MT/ha; and fruits to 15 MT/ha; from the current level.</li> <li>100 percent of the farmers will have Soil Health Cards</li> <li>22,000 ha. area will be brought under Organic Farming</li> <li>18 lakh Sq. m. area will be under protected cultivation (crop resilient agriculture)</li> <li>The current level of expenditure (2 percent share of Plan expenditure) on R&amp;D will be maintained with an objective of improving the quality of research</li> <li>70 percent of the total Mandis will be enrolled in e-Market</li> </ul>	<ul style="list-style-type: none"> <li>Total elimination of stunting and wasting</li> <li>Total elimination of anaemia among pregnant women (15-49 years) and children (6-59 months)</li> <li>Increasing the agricultural productivity of food grains to 2.8MT/ha; vegetables to 27MT/ha; and fruits to 25 MT/ha.</li> <li>30,000 ha. area will be brought under Organic farming</li> <li>23 lakh Sq. m. area to be brought under protected cultivation (crop resilient agriculture)</li> <li>100 percent of the total Mandis will be enrolled in e-Market and the status would be maintained</li> </ul>



SDG	Himachal SDG vision 2030	Target to be achieved by 2022	Target to be achieved by 2030
<b>03</b> <b>Ensuring healthy lives and promote well being for all at all ages</b> 	<p>Ensure accessible, affordable and quality health care to all, especially the vulnerable sections of the State and providing universal health coverage.</p>	<ul style="list-style-type: none"> <li>• Reduction in maternal deaths in the absolute numbers to &lt;40</li> <li>• 100 percent institutional deliveries</li> <li>• Reduction in Infant Mortality Rate to 23 from the existing level</li> <li>• Zero transmission of HIV from mother to child</li> <li>• Reduce TB incidence to &lt;70/lakh</li> <li>• Reduced prevalence of NCD risk factors by 1/3</li> <li>• Dedicated trauma care services up to PHC level</li> <li>• Reduction in unmet need by 8 percent</li> <li>• 100 percent immunization</li> <li>• 100 percent coverage of the entire population under Health Insurance scheme</li> <li>• Reduction in tobacco use among aged 15 yrs and older from current level (22 percent) to 17 percent</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction in maternal deaths in the absolute numbers to 25</li> <li>• Reduction in Infant Mortality rate to &lt;10</li> <li>• Reduce TB incidence and bring it down to &lt;20/lakh</li> <li>• Achieve proportional reduction in NCDs mortality by 1/3</li> <li>• Reduction in unmet need &lt;5 percent</li> <li>• 100 percent protection against catastrophic</li> <li>• Reduction in tobacco use among aged 15 yrs and older to &lt;5 percent</li> </ul>
<b>04</b> <b>By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes</b> 	<p>To ensure inclusive, equitable, affordable and quality education at all levels including computer literacy and vocational training for all and promoting lifelong learning opportunities.</p>	<ul style="list-style-type: none"> <li>• Maintaining 100 percent Net Enrolment Ratio at primary and upper primary levels.</li> <li>• Increasing Net Enrolment Ratio to 70 percent at Secondary and to 80 percent at Higher Secondary level</li> <li>• Enhance proportion of female-male enrolment in higher education from current level to 40 percent, and 100 percent in vocational education</li> <li>• Enhance Gross Enrolment Ratio for tertiary education to 37 percent from the current level</li> <li>• 100 percent enrolment ratio of children with disability</li> <li>• Enhance computer use for pedagogical purpose 25 percent at Primary, 30 percent at Upper primary, 100 percent at Secondary, and 100 percent at Sr. Secondary level</li> <li>• Enhance internet use for pedagogical purpose 70 percent at Secondary, and Sr. Secondary level</li> <li>• Enhance availability of toilets for Children with Special Needs to 50 percent from the current level</li> </ul>	<ul style="list-style-type: none"> <li>• Achieve 100 percent Net Enrolment Ratio at both Secondary and Higher Secondary level</li> <li>• Enhance proportion of female-male enrolment in higher education from current level to 50 percent</li> <li>• Enhance Gross Enrolment Ratio for tertiary education to 40 percent from the current level</li> <li>• 100 percent computer use for pedagogical purpose at all levels i.e. Primary, Upper primary, Secondary, and Sr. Secondary level</li> <li>• Enhance internet use for pedagogical purpose 90 percent at Secondary, and Sr. Secondary level</li> <li>• 100 percent availability of toilets for Children With Special Needs at all levels</li> </ul>
<b>05</b> <b>Achieve Gender Equality and empower all women and girls</b> 	<p>Achieving gender equality and empowering all women and girls, and enabling them to participate in the decision making and development process.</p>	<ul style="list-style-type: none"> <li>• Amendments in customary laws to ensure property Rights to all Women and girls</li> <li>• 190 days maternity benefit to all women in organized and unorganized sectors and 90 days paternity Leaves</li> <li>• Women's Helpline and One Stop Centres in three more districts for women who are victims of violence</li> <li>• 100 percent enrolment and retentions of girls in schools at elementary level</li> <li>• Increase Child Sex Ratio (0-6) to 915 per 1000 male child</li> <li>• Women police stations in all the districts</li> <li>• Increase in number of women drivers and conductors in HRTC buses to 3 percent</li> <li>• 100 percent night buses with CCTV cameras</li> <li>• Except Kinnaur, Lahaul &amp; Spiti, operational Anti Human Trafficking Units in all the districts</li> <li>• Increase the number of women representatives in the State Legislative Assembly</li> </ul>	<ul style="list-style-type: none"> <li>• Fully operational Women's Helpline and One Stop Centres in all districts for women who are victims of violence</li> <li>• Increase the Child Sex Ratio (0-6) to 950 per 1000 male child</li> <li>• Increase in the number of women drivers and conductor in HRTC buses beyond 3 percent</li> <li>• Increase the number of women representatives in the State Legislative Assembly</li> </ul>



SDG	Himachal SDG vision 2030	Target to be achieved by 2022	Target to be achieved by 2030
<b>06</b> <b>Ensure availability and sustainable management of water and sanitation for all</b> 	Providing adequate, safe and wholesome water and sanitation services through building partnerships with communities at the local levels and experts at the national and international levels, in order to increase water use efficiency and ensure sustainable use of water resources and waste management.	<ul style="list-style-type: none"> <li>30 percent of the urban population will have access to drinking water @ 135lpcd (CPHEEO standard) from improved sources and 70 percent households will have piped water supply</li> <li>100 percent of the rural population will have access to water @ 70 LPCD (National standard) from improved sources and 100 percent rural households will have connections</li> <li>90 percent of urban population (ULBs) will be using safely managed sewerage services</li> <li>70 percent of waste water generated by households and economic activities in the urban areas will be safely treated</li> <li>44 percent of total solid waste will be managed scientifically in all ULBs of the State</li> <li>All 3,226 Gram Panchayats will be free of solid-liquid waste</li> <li>70 percent connections on volumetric tariff in urban areas Reduced water losses in irrigation sector to 25 percent from the current level</li> <li>Data and delineation of aquifers used for regulation and control of extraction of ground water</li> <li>Completion of 5 Wetlands under the National Wetland Conservation &amp; Management Program (NWCMP) for development</li> </ul>	<ul style="list-style-type: none"> <li>100 percent urban population will have access to drinking water @ 135lpcd (CPHEEO standard) from improved sources and 100 percent households will have access to piped water supply</li> <li>100 percent of urban population (ULBs) will be using safely managed sewerage services</li> <li>100 percent of waste water generated by households and economic activities in the urban areas will be safely treated</li> <li>100 percent of solid waste will be managed scientifically in all ULBs of the State</li> <li>100 percent connections on volumetric tariff in urban areas</li> <li>Reduced water losses in irrigation sector to 15 percent from the current level</li> <li>Development of required numbers of wetlands as per National Wetland Conservation &amp; Management Programme (NWCMP)</li> </ul>
<b>07</b> <b>Ensure access to affordable, reliable, sustainable and modern energy for all</b> 	Ensuring quality and affordable 24x7 power supply for all, with an emphasis on exploitation of existing hydropower potential and additions to solar energy production.	<ul style="list-style-type: none"> <li>24x7 power for all with required quality voltage</li> <li>Bring down T&amp;D losses to 11.4 percent from the current level</li> <li>18.9 percent capacity addition through Hydro Power from the current level of 10,400 MW</li> <li>100 percent use of energy efficient domestic bulbs</li> <li>30 percent energy efficient equipment penetration</li> </ul>	<ul style="list-style-type: none"> <li>Bring down T&amp;D losses to 9.80 percent from the current level</li> <li>60 percent energy efficient equipment penetration</li> <li>121.15 percent capacity addition through Hydro Power from the current level of 10,400 MW</li> </ul>
<b>08</b> <b>Promote Sustained, Inclusive and Sustainable Economic Growth, full and productive employment and decent work for all</b> 	To achieve and sustain double-digit economic growth with higher levels of economic productivity through diversification, technological up-gradation and innovation, to promote entrepreneurship, create more employment opportunities and ensure decent work for all.	<ul style="list-style-type: none"> <li>Increase annual growth rate of GSDP to 8.5 percent</li> <li>Increase per capita real GSDP per employed person to 8 percent</li> <li>Enhance Gross value added (GVA) by 8 percent from the current level of 7.1 percent</li> <li>Increase Labour Force Participation Rate (LFPR) for persons aged 15 years and above up to 50 percent</li> <li>Reduce total unemployment rate of the State below 6 percent from the current level of 10.6 percent</li> <li>Reduction in CO<sub>2</sub> emission by 10 percent of 2012 levels</li> <li>Increase Workforce Participation Ratio (WPR) of women to 30 percent</li> <li>Increase workers population of persons with disability up to 60 percent from the current level of 44.37 percent</li> <li>100 percent elimination of all kind of human trafficking</li> <li>Elimination of all forms of child labour practiced in the State and same will be sustained by effective enforcement of laws</li> <li>10 percent increase in the tourists (Indian &amp; Foreigners) from the current level</li> <li>Increase employment in the tourism sector to 12 percent of the total employment generation in the State</li> <li>Increase the tourism share to the State GSDP to 8.5 percent</li> <li>100 percent coverage under PMJDY and 100 percent households linked with banks</li> </ul>	<ul style="list-style-type: none"> <li>Double digit annual growth and sustain the same</li> <li>Increase per capita real GSDP per employed person to 9.5 percent</li> <li>Achieve and sustain two digit Gross value added (GVA)</li> <li>Increase the women Labour Force Participation Rate (LFPR) to achieve parity with men</li> <li>Reduce unemployment to below 3.5 percent</li> <li>Reduction in CO<sub>2</sub> emission by 20 percent of 2012 levels</li> <li>Increase Workforce Participation Ratio (WPR) of women to 45 percent</li> <li>Increase workers population of persons with disability up to 80 percent</li> <li>15 percent increase in the tourists (Indian &amp; Foreigners) from the current level</li> <li>Increase employment in the tourism sector to 20 percent of the total employment generation in the State</li> <li>Increase or at least and sustain double digit tourism share in the GSDP</li> </ul>



SDG	Himachal SDG vision 2030	Target to be achieved by 2022	Target to be achieved by 2030
<b>09</b> <b>Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</b> 	Providing an enabling environment, supported by robust and resilient infrastructure, a simplification of procedures and investment friendly policies, for the promotion of industrialization and to generate employment opportunities for the local youth.	<ul style="list-style-type: none"> <li>4.40 percent enhancement in rural road connectivity for the population who live within 2 km of an all-season road from the current level</li> <li>16 percent increase in passenger buses and 14.9 percent increase in goods carriages from the current level</li> <li>30 percent increase in employment in MSME and in L&amp;M</li> <li>20 percent growth in development of additional Marketing Yards from current level</li> <li>67.64 percent increase in banks financing/loans to small-scale industries from the current level</li> <li>25 percent reduction in CO<sub>2</sub> emission from the current level</li> <li>30 percent reduction in discharge of industrial effluence</li> <li>0.5 percent to total GSDP as expenditure in R&amp;D</li> <li>5.58 percent increase in broadband users from the current level</li> </ul>	<ul style="list-style-type: none"> <li>100 percent road connectivity for rural population who live within 2 km of an all-season road</li> <li>44.19 percent increase in passenger buses and 29.9 percent increase in goods carriages from the current level</li> <li>100 percent increase in employment in MSME and L&amp;M from the current level</li> <li>50 percent growth in development of additional Marketing Yards from current level</li> <li>135.29 percent increase in banks financing / loans to small-scale industries from the current level</li> <li>50 percent reduction in CO<sub>2</sub> emission from the current level</li> <li>0.5 percent to total GSDP as expenditure in R&amp;D</li> <li>100 percent availability of broadband</li> </ul>
<b>10</b> <b>Reduce inequalities within the State</b> 	To ensure equal rights and equal access to available opportunities for all, along with freedom to exercise choice, irrespective of gender and class.	<ul style="list-style-type: none"> <li>Redistribution of income in favour of the poorer segments of the population and bringing the Gini Coefficient down by at least 0.150 percentage points</li> <li>Increase sex ratio to 980/1000 from 972 (census 2011)</li> <li>5 points improvement in overall gender parity index and greater improvement in sex ratio in 0-6 years</li> <li>Reduce the crime against women to 25 percent from the current level</li> <li>Reduce the rate of crimes against Scheduled Castes (SCs) to the minimum level, preferably at zero level</li> <li>Reduce poverty among SCs population in rural areas to 2 percent</li> <li>Amendments in the provisions of discriminatory laws, policies and practices and schemes pertaining to SCs/STs/women and introduce more relevant provisions</li> <li>Increase rural Labour Force Participation Rate (LFPR) to more than 75 percent and Urban LFPR up to 65 percent</li> </ul>	<ul style="list-style-type: none"> <li>Redistribution of income in favour of the poorer segments of the population and bringing the Gini Coefficient down by at least 0.050 percent points</li> <li>Increase and sustain sex ratio to 990/1000 from 972 (census 2011)</li> <li>10 points improvement in overall gender parity index and greater improvement in sex ratio in 0-6 years</li> <li>Total elimination of crimes against women</li> <li>End the crimes committed against Scheduled Castes</li> <li>End poverty among SCs population in rural areas</li> <li>Increase and sustain rural Labour Force Participation Rate (LFPR) to more than 80 percent and Urban LFPR up to 70 percent</li> </ul>
<b>11</b> <b>Make cities and human settlements inclusive, safe, resilient and sustainable</b> 	Developing a reliable and efficient urban transport system and eliminating all deprivations of urban populations by striking a balance between consumption and production patterns to make sustainable urban development a reality.	<ul style="list-style-type: none"> <li>55 percent of slums/economically weaker sections (EWS) households covered through formal/affordable housing</li> <li>65 percent of the Slum Area covered by basic services</li> <li>Bring down the proportion of the urban population living in slums, informal settlements or inadequate housing to 6 percent from the current level</li> <li>80 percent cities with integrated development plans</li> </ul>	<ul style="list-style-type: none"> <li>100 percent of slums/EWS households covered through formal/affordable housing</li> <li>100 percent of Slum Area Covered with basic services</li> <li>Bring down the proportion of urban population living in slums, informal settlements or inadequate housing to 1 percent from the current level</li> <li>All the cities equipped with efficient urban mobility and public transport</li> <li>100 percent cities with integrated development plans</li> </ul>

SDG	Himachal SDG vision 2030	Target to be achieved by 2022	Target to be achieved by 2030
<b>12</b> <b>Ensure sustainable consumption and production patterns</b> 	<p>Increasing resource efficiency for overall improvement in the quality of life. The State shall endeavour to enhance net welfare from those economic activities that use limited resources and cause less degradation and pollution during their entire life cycle.</p>	<ul style="list-style-type: none"> <li>Reduction in CO<sub>2</sub> emission by 10 percent of 2012 levels</li> <li>Increase LPG (Liquid Petroleum Gas) users by 10 percent of 2012 levels</li> <li>Increase 10 percent of solar-wind renewable energy production and consumption from the current level</li> <li>10 percent growth in hydropower harness capacity from the current level</li> <li>Soil testing labs at district level for the promotion and adoption of organic farming</li> <li>10 percent reduction in pesticides used in agriculture/horticulture</li> <li>10 percent increase in covered storage for food grains at the micro level</li> <li>Setup 30 FPOs (Farmer Produce Organization)</li> <li>Produce ~5 MW of energy from Municipal waste</li> <li>Increase wastewater recycling in industrial areas by 10 percent from 2012 levels</li> <li>Updated education curriculum for dissemination of information about sustainable development and lifestyles in harmony with nature</li> <li>Build model green roads of 10 km length</li> <li>Develop training modules for green jobs and traditional knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Reduction in CO<sub>2</sub> emission by 20 percent of 2012 levels</li> <li>Increase LPG users by 30 percent from 2012 levels</li> <li>Increase 60 percent of solar-wind renewable energy production and consumption from the current level</li> <li>30 percent growth in hydropower harness capacity from the current level</li> <li>Soil testing labs at district level for promotion and adoption of organic farming</li> <li>30 percent reduction in pesticides used in agriculture/horticulture</li> <li>40 percent increase in covered storage for food grains at the micro level</li> <li>Setup 78 FPOs (Farmer Produce Organization)</li> <li>Produce ~20 MW of energy from Municipal waste</li> <li>Increase wastewater recycling in industrial areas by 50 percent from 2012 levels</li> <li>Build model green roads in all districts</li> <li>Conduct 1,000 trainings for green jobs and traditional knowledge</li> </ul>
<b>13</b> <b>Take Urgent Action to Combat Climate Change and its Impacts</b> 	<p>In consonance with the State Action Plan on Climate Change (SAPCC), the State will strive to increase resilience, spread climate change knowledge and awareness, and improve the adaptive capacity of the people towards changing climate, especially in the extremely vulnerable areas.</p>	<ul style="list-style-type: none"> <li>Climate Change Vulnerability Assessment (CCVA) of all villages of the six districts with Hydrological modelling</li> <li>Implementation of climate smart eco-villages guidelines in 5 villages of the state</li> <li>1,000 water harvesting structures made functional and restoration of 500 natural springs</li> <li>One lakh farmers covered under climate resilient livelihoods technologies</li> <li>Flood prone villages of Kullu district situated along Beas and Parvati Rivers to be equipped with early warning systems</li> <li>Implementation of recommendations of SAPCC (State Action Plan for Climate Change) in all upcoming developmental schemes of State and Centre</li> <li>Gender focused adaptation training programs in each block in 78 camps</li> </ul>	<ul style="list-style-type: none"> <li>Complete CCVA of the State</li> <li>Implementation of climate smart eco-villages guidelines in at least one village of each 78 blocks</li> <li>3,226 water harvesting structures made functional and revive 3,000 natural springs</li> <li>Five lakh farmers covered under climate resilient livelihoods technologies</li> <li>Flood prone villages situated around all river basins of the state will be equipped with early warning system</li> <li>Implementation of recommendations of SAPCC in all developmental schemes</li> <li>Knowledge network of climate change initiated in institutions of all districts in the State</li> <li>Conduct gender focused Adaptation training programs in all panchayats of the State</li> </ul>
<b>15</b> <b>Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</b> 	<p>The State will develop and implement adaptation and mitigation measures, which address the impact of climate change on forest ecosystems, biodiversity and natural resources for future generations.</p>	<ul style="list-style-type: none"> <li>Plantation over 48,000 hectares land</li> <li>Set up central &amp; model nurseries, one in each circle</li> <li>Reduction in silt loads in river and streams by bringing the catchment area under vegetation in cold desert by planting trees, shrubs herbs/grasses</li> <li>Development of 1,000 ha. area under improvement of alpine pasture and grazing lands</li> <li>Restoration of 3 wet-lands and 10 traditional water resources in mountain areas</li> <li>Development of 2 National Parks and 5 Wildlife Sanctuaries to increase the population of species</li> <li>Rehabilitation of 16,000 hectares of area infested with invasive alien species</li> <li>25 percent reduction in wildlife poaching and offences from the current level</li> </ul>	<ul style="list-style-type: none"> <li>Plantation over 2,00,000 hectares land</li> <li>Increase forests cover from 26.4 percent to 30 percent</li> <li>Set up central &amp; model nurseries of Divisional levels</li> <li>Substantial reduction in silt loads in river and streams by bringing the catchment area under vegetation in cold desert by planting trees, shrubs herbs/grasses</li> <li>Development of 30,000 ha. area under improvement of alpine pasture and grazing lands</li> <li>Restoration of 10 wet-lands and 50 traditional water resources in mountain areas</li> <li>Development of 4 National Parks and 15 Wildlife Sanctuaries to increase in population of species</li> <li>Rehabilitation of 1,45,000 hectares area infested with invasive alien species</li> <li>50 percent reduction in wildlife poaching and offences from the current level</li> </ul>



SDG	Himachal SDG vision 2030	Target to be achieved by 2022	Target to be achieved by 2030
<b>16</b> Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels 	Strengthening existing institutional infrastructure with commensurate accountability, to promote a society with equal rights and access to justice, for the peaceful co-existence of all sections of people irrespective of gender, caste and religion.	<ul style="list-style-type: none"> <li>• Anti Human Trafficking Units (AHTU) functional in all the district except Kinnaur, Lahaul &amp; Spiti districts</li> <li>• Maintaining the current level of police population ratio (278/1,00,000) and strengthening the quality of policing by making investments on trainings, infrastructure and IT</li> <li>• Achieve parity in terms of equal representation of male and females in police force</li> <li>• Concurrent monitoring to minimize incidence on offences</li> <li>• Universal coverage of civil registration</li> </ul>	<ul style="list-style-type: none"> <li>• Anti Human Trafficking Units (AHTU) functional in all the districts</li> <li>• Maintaining the current level of police population ratio (278/1,00,000) and strengthening the quality of policing by making investments on trainings, infrastructure and IT</li> </ul>
<b>17</b> Strengthen the means of implementation and Revitalize the Global Partnership for Sustainable Development 	Following a participatory and consultative approach that promotes partnerships at local, national and international levels for monitoring the development process and mobilization of required resources for bridging the gaps.	<ul style="list-style-type: none"> <li>• Increase ratio of tax revenue and non-tax revenue collection to 25 percent from the current level of 21.21 percent</li> <li>• Availability of high-quality data disaggregated by income, gender, age, migratory status, SC/ST, disability, geographic locations</li> </ul>	<ul style="list-style-type: none"> <li>• Increase ratio of tax revenue and non-tax revenue collection to 30 percent</li> </ul>

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## SDG 7

## Annexure 1: The status of hydro potential in Himachal Pradesh

Status of hydro potential in Himachal Pradesh(as on 1st Aug 2017)													
Sr. No	Sector	Commissioned		Under Construction		At Various Stages of Clearance & Investigation		Disputed/Cancelled		Foregone		Grand Total	
		No. of HEPs	Cap. in MW	No. of HEPs	Cap. in MW	No. of HEPs	Cap. in MW	No. of HEPs	Cap. in MW	No. of HEPs	Cap. in MW	No. of HEPs	Cap. in MW
1	Himurja State	10	2.37	0	0.00	8	34	0	0.00	0	0.00	18	36.37
	Himurja Private	76	286.65	41	135.24	644	1370.58	0	0.00	0	0.00	761	1792.47
2	HPSEBL	23	487.55	1	100.00	7	92.00	0	0.00	0	0.00	31	679.55
3	HPPCL	1	65.00	4	791.00	17	2300.00	0	0.00	0	20.00	22	3176.00
4	Central & Joint	12	7457.73	1	800.00	4	956.00	0	0.00	0	0.00	17	9213.73
5	Yamuna Projects (Himachal Share)		131.57									0	131.57
	Ranjeet Sagar Dam (Himachal Share)		27.60									0	27.60
	Kishau Dam(660 MW) (Himachal Share)						324.00					0	324.00
6	Private	20	1942.40	22	686.60	56	3897.20	7	576.50	6	735.00	111	7837.70
Total Allotted		142	10400.87	69	2512.84	736	8973.78	7	576.50	6	755.00	960	23218.99
Total Identified Hydro Power Potential in the State													27436.00

## Annexure 2: Category wise growth in consumers 2002-03 to 2008-09

Category/Year	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Domestic	1363129	1411742	1462387	1497084	1531613	1565173	1591315
NDNC	8887	9776	10890	13266	14209	15516	16475
NRS	171404	181352	191941	197963	203135	208568	212102
Industrial	30865	31760	32565	32392	33198	33602	33400
WIP and LWSS	2103	2223	2506	3101	3176	3560	3917
Public Lighting	514	514	527	529	551	592	598
Agriculture	7532	8327	9186	10010	11487	12361	13732
Bulk	124	127	127	139	147	161	173
Temporary	571	647	689	1267	1756	2162	2602
<b>Total</b>	<b>1585129</b>	<b>1646468</b>	<b>1710818</b>	<b>1755751</b>	<b>1799272</b>	<b>1841695</b>	<b>1874314</b>

Category/Year	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Domestic	1625869	1668261	1719673	1767611	1811320	1858099	1904362
NDNC	17436	18278	19312	22120	23769	25521	26481
NRS	216688	222936	226911	232723	238424	244969	252686
Industrial	34182	34171	34366	34499	34442	35153	34637
WIP and LWSS	4193	4483	4790	5197	5531	6262	6121
Public Lighting	641	702	756	889	896	1117	842
Agriculture	15204	16861	18190	19946	21630	23357	25441
Bulk	295	325	244	261	250	313	287
Temporary	3181	3380	3728	4358	4723	5179	6109
<b>Total</b>	<b>1917689</b>	<b>1969397</b>	<b>2027970</b>	<b>2087604</b>	<b>2140985</b>	<b>2199970</b>	<b>2256966</b>



## SDG 9

**Annexure 3: Expenditure on Schemes, 2015-16, 2016-17 and Budget 2017-18 (Rs. in crores)**

Name of Scheme	Actual Expenditure 2015-16	Actual Expenditure 2016-17	Sanctioned Budget for 2017-18
1. Dev. Of Indl. Areas/ Estates	39.83	15.89	22.07
2. Creation of state- of-the-art Indl. Areas/ IIUS	25.00	48.45	49.85
3. Baddi Barotiwala Nalagarh Dev. Authority (BBNDA)	20.55	36.09	36.59
4. Rural Engineering Based Training (REBT)	0.90	0.55	0.60
5. Rural Industrial Programme/ Rural Artisan Programme (RIP/RAP)	1.55	1.60	1.42
6. Industrial Promotion and Training	0.36	0.86	0.25
7. National Handloom Dev. Programme	0.66	0.84	1.60
8. State Mission for Food Processing Industries	1.20	9.77	10.00
9. State Catalytic Dev. Programme	0	2.02	0.75
10. Rashtriya Krishi Vikas Yojna (RKVY)	0.67	1.50	1.50
11. CM Start-up Scheme	0	6.60	7.00
12. Investment Promotion Scheme	0.10	0.09	0.25
13. Development of Sericulture Industries	1.61	2.01	1.70
14. Grants to Development of Handloom Industries	2.46	2.67	3.01
15. Grants to Development of Khadi Industries	5.13	4.55	3.80
16. Disaster Risk Reduction (DRR)	0.01	0.02	2.00
<b>Grand Total</b>	<b>100.03</b>	<b>133.51</b>	<b>142.39</b>

**Annexure 4: Number of Enterprises in Himachal Pradesh**

Year	Small Scale Sector			Large & Medium Sector			Total SSI & Large Medium Sector		
	Number of enterprises	Investment in (Rs crores)	Employment (number)	Number of enterprises	Investment in (Rs crores)	Employment (number)	Number of enterprises	Investment in (Rs crores)	Employment (number)
Upto 1990-91	20545	150.54	86227	110	200.84	15125	20655	351.38	101352
1991-92	973	71.84	3770	2	23.16	155	975	95.00	3925
1992-93	922	66.90	3580	2	41.00	467	924	107.90	4047
1993-94	825	60.92	3202	7	139.33	2077	832	200.25	5279
1994-95	856	62.20	3340	8	356.95	1869	864	419.15	5209
1995-96	724	52.70	3150	18	686.13	2774	742	738.83	5924
1996-97	772	20.25	3396	13	148.26	1428	785	168.51	4824
1997-98	761	33.44	3447	13	435.48	2093	774	468.92	5540
1998-99	875	45.65	4379	1	54.27	115	876	99.92	4494
1999-00	792	49.13	5127	8	203.08	2627	800	252.22	7954
2000-01	686	29.94	3127	6	22.03	117	692	51.97	3244
2001-02	748	41.97	3849	5	64.06	655	753	106.03	4504
2002-03	697	24.29	3277	3	3.48	121	700	27.77	3398
2003-04	663	37.08	3769	15	34.94	762	678	72.02	4531
2004-05	913	88.91	6412	35	302.87	3473	948	391.78	9885
2005-06	914	122.17	6611	64	501.59	4606	978	623.77	11217
2006-07	952	452.73	10665	46	615.26	4568	998	1067.99	15233
2007-08	842	706.37	11302	19	482.64	1923	861	1189.01	13225
2008-09	909	737.95	10939	46	1141.03	4225	955	1878.99	15164
2009-10	1032	753.20	10011	23	1343.82	2703	1055	2097.02	12714
2010-11	963	965.39	10002	27	2118.33	3740	990	3083.73	13742
2011-12	856	619.09	7732	16	1879.29	2981	872	2498.39	10713
2012-13	798	963.32	9298	7	211.69	339	805	1175.01	9637
2013-14	630	374.19	5230	3	161.21	784	633	535.40	6014
2014-15	380	542.17	2989	6	141.56	981	386	683.73	3970
2015-16	122	91.98	1058	2	566.86	132	124	658.84	1190
<b>G. Total</b>	<b>40150</b>	<b>7164.3</b>	<b>225889</b>	<b>505</b>	<b>11879.16</b>	<b>61040</b>	<b>40655</b>	<b>19043.51</b>	<b>286929</b>

The data on manufacturing employment as a percentage of total employment is not available.

Source: Directorate of Industries, GoHP

## SDG 9

### Annexure 5: Emissions from the Industry Sector

A. Industry				
<b>Mineral</b>				
Cement production	5310.93	--	--	5310.93
Glass production	0.89226	--	--	0.89226
<b>Chemical</b>				
Carbide production	19.884	--	--	19.884
Methanol	3.979	0.001366	0.00659	6.0510
<b>Metal</b>				
Ferro-alloys	61.950	0.002985	--	62.0130
Aluminium	148.880	0.000545	--	148.891
Lead (secondary production)	22.142	--	--	22.142
Zinc production	0.0025	--	--	0.0025
<b>Other Industries</b>				
Pulp & paper	0.02173	0.00000021	0.000000314	0.02180
Textiles & leather	0.01336	0.00000072	0.00000053	0.01350
Food Processing	0.04097	0.00000036	0.000000084	0.04102
Mining & quarrying	0.0023	--	--	0.0023
<b>Total B</b>	<b>5568.73812</b>	<b>0.004897</b>	<b>0.0065957</b>	<b>5570.88438</b>

## SDG 11

### Annexure 6: Number of lives lost due to disasters

No of lives lost due to various disasters								
District	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
BILASPUR	90	222	106	105	99	197	80	117
CHAMBA	136	416	51	296	18	1	47	125
HAMIRPUR	62	66	222	37	40	72	82	81
KANGRA	216	248	134	207	311	293	227	315
KINNAUR	163	98	407	111	96	155	64	120
KULLU	137	127	24	101	147	124	103	117
L&S	25	23	102	16	10	15	22	36
MANDI	180	303	242	162	204	256	294	277
SHIMLA	233	253	434	326	193	256	243	243
SIRMAUR	221	156	115	106	179	93	101	154
SOLAN	84	113	169	132	79	50	96	175
UNA	0	3	24	68	24	64	0	55
<b>HP</b>	<b>1547</b>	<b>2028</b>	<b>2030</b>	<b>1667</b>	<b>1400</b>	<b>1576</b>	<b>1359</b>	<b>1990</b>

(Source: Disaster Analysis & Management (2016), Economics and Statistics department, Govt. of Himachal Pradesh)



## Annexure 7: Waste generated per day in Himachal Pradesh (ULBs)

PER DAY WASTE GENERATION IN ULBs			
Name of ULB	Est. waste generation (Tonnes per day (TPD))	Name of ULB	Est. waste generation (TPD)
M. Corp. Shimla	90.00	NP Sujaspur	1.90
MC Rampur	4.50	NP Bhota	0.80
MC Theog	1.80	M. Corp. Dharamsala	18.00
NP Narkanda	0.80	MC Kangra	6.00
NP Suli	0.60	MC Palampur	1.50
NP Chopal	0.40	MC Nurpur	4.00
NP Kotkhai	0.45	NP Dehra	1.80
NP Jubbal	0.30	NP Nagrota	4.00
NP Rahroo	1.00	NP Jawalamukhi	2.10
MC Solan	20.00	NP Jiwali	5.20
MC Nalagarh	3.00	NP BajinathPaprata	7.80
MC Parwanoo	2.50	MC Chamba	8.50
NP Arki	1.50	MC Dalhousie	2.50
NP Baddi	12.00	NP Chowari	0.30
MC Nahan	10.00	MC Mandi	23.00
MC Paonta	9.00	MC Sundernagar	13.50
NP Rajgarh	1.00	MC NerChawk	8.20
MC Bilaspur	4.50	NP Sarkaghat	1.50
MC Naina Devi Ji	1.00	NP Jagindernagar	1.20
NP Ghumarwin	3.00	NP Rewlaar	0.60
NP Talai	0.60	NP Karsog	1.00
MC Una	6.00	MC Kullu	10.00
NP Gagret	2.10	MC Manali	12.00
NP Daulatpur	2.00	NP Bhuntar	2.50
NP Mehatpur	4.00	NP Banjar	0.50
NP Santokhgarh	4.50	Total	342.35
NP Tahlial	1.80		
MC Hamirpur	15.00		
NP Nadaun	0.70		

Source: Municipal Solid Waste Action Plan/Strategy (2017) prepared by Directorate of Urban Development, Government of Himachal Pradesh

## Annexure 8: Annual mean levels of fine particulate matter (e.g. PM 2.5 and PM10) in cities (population weighted)

Annual average level of ambient air quality in the State during 2015-16 & 2016-17											
S.No	City/Town	Monitoring Location	Standards (In µg/m3)			Annual Average 2015-16			Annual Average 2016-17		
			SO2	NOx	RSPM Pm10	SO2	NOx	RSPM Pm10	SO2	NOx	RSPM Pm10
1	Shimla	Tacca Bench	50.0	40.0	60.0	2.0	11.0	41.2	2.0	15.0	41.5
2		Bus Stand Shimla	50.0	40.0	60.0	2.0	16.0	68.3	2.0	20.9	61.9
3	Parwanoo	Sec-4 Parwanoo	50	40	60.0	2.0	11.3	57.8	2.0	9.9	64.6
4		Sec-1 Parwanoo	50.0	40.0	60.0	2.0	11.1	67.2	2.0	9.3	74.5
5	Baddi	DIC Baddi	50	40	60.0	2.0	29.8	157.4	2.0	30.2	154.6
6		AHC, Barotiwala	50.0	40.0	60.0	2.0	18.1	108.3	2.0	16.8	101.0
7		H.B.Nalagarh	50.0	40.0	60.0	2.0	19.2	103.3	2.0	22.0	119.7
8		MC Nalagarh	50.0	40.0	60.0	2.0	22.4	104.1	2.0	21.9	109.8
9	Darmtal	R.O. Darmtal	50	40	60.0	2.0	12.4	77.0	2.0	12.0	97.3
10		Ram Gopal Mandir, Darmtal	50.0	40.0	60.0	2.0	15.4	106.5	2.0	10.2	72.1

Annual average level of ambient air quality in the State during 2015-16 & 2016-17											
S.No	City/Town	Monitoring Location	Standards (In µg/m3)			Annual Average 2015-16			Annual Average 2016-17		
			SO <sub>2</sub>	NO <sub>x</sub>	RSPM Pm10	SO <sub>2</sub>	NO <sub>x</sub>	RSPM Pm10	SO <sub>2</sub>	NO <sub>x</sub>	RSPM Pm10
11	Paonta Sahib	Paonta	50	40	60.0	2.7	13.4	90.7	2.6	12.9	79.6
12		Gondpur				3.2	14.6	160.1	3.2	14.4	136.4
13	Kala Amb	Kala Amb	50	40	60.0	3.5	13.6	139.4	3.3	14.5	161.6
14		Trilokpur	50	40	60.0	2.7	13.2	78.5	2.7	13.0	90.2
15	Una	R.O. Una	50	40	60.0	2.0	5.5	77.6	2.1	5.0	61.8
16		DIC Mehatpur	50	40	60.0	2.0	6.2	83.3	2.1	5.3	72.7
17	Sunder Nagar	Office Building Sunder Nagar	50	40	60.0	2.0	9.4	77.7	2.0	9.4	73.4
18		MC Office Sundernagar	50	40	60.0	2.1	14.6	94.8	2.0	12.9	89.6
19	Manali	Station No.1 ,Nehru Park	50	40	60.0	2.1	13.5	54.9	2.0	10.8	58.0
20		Station No. 2, Hadimba Road	50	40	60.0	2.1	5.7	38.9	2.0	5.4	41.5
21	Dharmshala	Kotwali Bazar	50	40	60.0	2.0	9.2	32.3	2.0	9.0	40.3
22		Residential Building, Daari	50	40	60.0	2.0	7.0	40.9	2.0	6.7	40.7

(Source: Annual Report 2016-17, Himachal Pradesh State Pollution Control Board)

## Annexure 9: Calculation details

### Cost of each Dwelling Unit as per Plinth area SoR of PWD, GoHP

Construction of individual Dwelling Unit @ Rs.24,436/sq.mt; so for 30 sq.metres construction =24,436\*30=Rs.7,33,080/DU.

(1) Gol+GoHP subsidy for in situ is Rs. 1,00,000/per DU+Rs. 10,000/per DU=1,10,000 /per DU (Total). Cost to be borne by poor beneficiaries is Rs. 7,33,080-1,10,000= 6,23,080.

(2) Gol Interest subsidy subvention for this Central Sector "Credit Linked Subsidy" scheme has to be tune of Rs. 2,20,000/per DU.

(3) Cost to be borne by poor beneficiaries is Rs. 7,33,080-2,20,000= 5,13,080.

(4) Gol+GoHP subsidy for "Affordable Housing in Partnership" (AHP) is Rs. 1,50,000/per DU+Rs. 15,000/per DU=1,65,000 /per DU (Total). Cost to be borne by poor beneficiaries is Rs. 7,33,080-1,65,000= 5,68,080.

(5) Gol+GoHP subsidy for "Beneficiary Led construction" is Rs. 1,50,000/per DU+Rs. 15,000/per DU=1,65,000 /per DU (Total). Cost to be borne by poor beneficiaries is Rs. 7,33,080-1,65,000= 5,68,080.

## Annexure 10: Beneficiaries identified in 13 towns, GOI subsidies and funding gaps

HFA Components	Beneficiaries identified in 13 Towns	Subsidy by Gol/GoHP	Gap in Funding
In Situ Slum Redevelopment @1 lakh subsidy/DU	354	1.10 Lakh*354 = 3.89 Cr	6,23,080*354 = 22.06 CR
Credit Linked Subsidy Scheme (1) New	307	2.20 Lakh*307 = 6.75 Cr	5,13,080*307 = 15.75 CR
Enhancement	479	As per actual demand	
<b>Sub-Total</b>	<b>786</b>		
Affordable Housing in Partnership	6183	1.65 Lakh*6,183 = 102.02 Cr	6,23,080*6,183 = 385.25 Cr
<b>Beneficiaries Led Construction</b>			
New	1923	1.65 Lakh*1,923 = 31.73 Cr	5,68,080*1,923 = 109.24 Cr
(2) Enhancement	3628	As per actual demand	
<b>Sub-Total</b>	<b>5551</b>		
<b>GRAND TOTAL</b>	<b>12874</b>		<b>532.30 Cr</b>



## Annexure 12

Table 12.1: Generation and consumption of energy in Himachal Pradesh

Type	Quantity	
	2008-09	2011-2012
Total generation (Hydro Power only)	6419 MWh	7957.29MWh
Captive generation and consumption	~ 100 MWh	~68MWh
Electricity purchased from Bhikhra Beas Management Board (BBMB)& other states	6047.497MUh	7957.290 MUh
<b>Energy consumed by the state:</b>	<b>6958.716MU</b>	<b>6633.045MU</b>
(a) Domestic	1089.118	1578.482
(b) Non domestic&non-commercial	80.585	103.924
(c) Commercial	274.663	398.971
(d) Public lighting	13.013	13.602
(e) Agriculture	28.738	45.050
(f) Industries	3385.303	3852.340
(g) Govt. irrigation & water supply scheme	389.331	447.328
(h) Temporary supply	22.705	23.918
(i) Bulk & Misc.-Tourism	1675.26	167.591
(a) Diesel *	~530400 KL	~5,41,112 KL
(b) Petrol*	~244800 KL	~272073 KL
(c) Kerosene*	~86000KL	~65324 KL
*As per total sale/ consumption in Himachal Pradesh		
Transport (Vehicles registered) + Tourist Taxis.	~5,38,341	~5,87,122
<b>LPG (Liquid Petroleum Gas) (including DBG) Approx.</b>		
Indian Oil Corpn.	~76,800MT/annum	~782,123 MT
Hindustan Petroleum	~56,100MT/annum	~572,013 MT

Source: HP Statistics Department, Indian Oil Corpn, HP Oil Corpn, and Transport, Department.<sup>2</sup>

Table 12.2: Land Use Change Matrix of Himachal Pradesh

Land Use	Sub Category	Area ha 2007	Area ha 2011	Change in area ha
Forest	Very dense	3,22,400	3,22,400	.
	Moderately dense	6,38,300	6,38,100	(-)200
	Open	5,06,100	5,07,400	(+)1300
Crop Land	Net sown area	54,300	53,950	(-)350
	Fallow	7,360	7,920	(+)520
Grass Land	Grazing land and pastures	1,50,100	1,70,620	(+)20,520
	Scrubs	32,700	33,100	(+)400
Other Land	Other land	38,56,000	38,33,710	(-)22,290

Table 12.3 Gross State Domestic Product at factor cost (At current prices)

Year	Agriculture forestry & logging, fishing, mining & quarrying	Manufacturing, construction, electricity, gas & water supply	Transport communication & trade	Banking & insurance real estate & ownership of dwelling business services	Public administration, defense & services	Gross Value Added at Basic	Plus Product Taxless Subsidies	Gross Domestic Product at factor cost
1.	2.	3.	4.	5.	6.	7.	8.	9.
1950	19	2	2	2	2	--	--	27
1960	30	5	3	3	7	--	--	48
1966	104	24	1	6	21	--	--	171
1970	131	37	1	9	28	--	--	223
(Base								
1980	376	156	6	79	116	--	--	794
1981	448	178	7	90	130	--	--	925
1982	437	206	8	103	156	--	--	987
1983	525	220	10	111	169	--	--	1127
1984	489	224	10	121	200	--	--	1139
1985	576	312	12	132	228	--	--	1371
1986	615	339	14	150	268	--	--	1517
1987	627	416	16	162	349	--	--	1722
1988	781	549	20	196	427	--	--	2157
1989	895	568	22	237	506	--	--	2435
1990	987	746	26	266	556	--	--	2815
1991	1243	841	31	301	616	--	--	3317
1992	1368	1014	37	371	693	--	--	3824
(Base								
1993	1567	1313	56	502	831	--	--	4782
1994	1802	1875	68	570	895	--	--	5825
1995	1979	2246	78	622	1068	--	--	6698
1996	2229	2690	90	696	1231	--	--	7755
1997	2488	2958	111	727	1548	--	--	8837
1998	2930	3560	130	858	2045	--	--	10696
(Base								
1999	3265	5162	173	1286	2662	--	--	14112
2000	3954	5602	205	1365	2684	--	--	15661
2001	4442	6095	230	1552	2754	--	--	17148
2002	4657	6867	274	1678	2961	--	--	18905
2003	5194	7468	288	2042	3129	--	--	20721
(Base								
2004	6197	9176	346	1767	3469	--	--	24077
2005	6858	10373	400	1918	3971	--	--	27127
2006	7010	12101	423	2177	4758	--	--	30281
2007	7887	13507	502	2405	5137	--	--	33963
2008	8316	17848	614	2778	6400	--	--	41483
2009	9166	20679	747	3268	7605	--	--	48189
2010	10914	24040	834	3672	10007	--	--	56980
New Series								
(Base								
2011	11913	30405	757	9622	9887	69	331	72720
2012	13443	33935	866	11346	11524	78	391	82820
2013	15262	38440	1028	13002	12369	89	540	94764
2014	15734	41314	1177	15008	13991	97	636	104177
2015	15779	43572	1280	16823	16945	105	774	113667

Source:-Economics & Statistics Department.

Note:- \* Net State Domestic Product.



## SDG 16

### Annexure 14: Head-wise crime in H.P. for 2015 and 2016

Head of Crime (a) IPC Crime	2015	2016	Percentage change
Murder	106	101	-4.71%
Culpable homicide	7	03	-57.14%
Attempt to murder	64	66	+3.12%
Dacoity	1	03	+200%
Robbery	5	11	+120%
Rape	244	253	+3.68%
Kidnapping & abduction	327	290	-11.31%
Dowry deaths	2	03	+50%
Cruelty to women	226	214	-5.30%
Molestation	433	410	-5.31%
Hurt	654	539	-17.58%
Rioting	420	431	+2.61%
Accident	3010	3153	+4.75%
Burglary	627	510	-18.66%
Theft	550	481	-12.54%
Other IPC offences	7332	6917	-5.66%
<b>Total</b>	<b>16023</b>	<b>13385</b>	<b>-4.44%</b>
<b>Local &amp; Special Laws</b>			
ND & PS Act	622	929	+49.35%
Excise Act	1738	2047	+17.77%
PCR Act	3	01	-66.66%
SC/ST Act	80	102	+27.05%
Forest Act	101	157	+55.44%
Other L & S Laws	669	628	-6.12%
<b>Total</b>	<b>3213</b>	<b>3864</b>	<b>+20.26%</b>
<b>Grand total</b>	<b>17221</b>	<b>17249</b>	<b>+0.16%</b>

Source: National Crime Records Bureau 2015 & 2016

### Annexure 15: Average time taken for disposal of various categories of Civil and Criminal Cases in the High Court. \*

Nature of the case	Average time taken
Civil	(4 to 8 years)
Criminal	(3 to 5 years)

### Annexure 16: Average time taken for disposal of various categories of Civil and Criminal cases\*

Division	Average time taken (years)	
	Civil cases	Criminal cases
Shimla	3-4(district courts) – 5-7(subordinate courts)	2-3(district courts) – 6-7(subordinate courts)
Kinnaur	1-6	1-5
Bilaspur	1-5	1-4
Hamirpur	1-4	1-4
Una	2-3(district court) – 5-7(subordinate court)	1-2(district court) – 6-7(subordinate court)
Mandi	1	1
Kullu	2-5	2-5
Kangra	1-5	1-4
Chamba	1-5	1-6
Solan	1-6	1-5
Sirmaur	1-6	1-4

### Annexure 17: Category-wise Institution, Disposal and Pendency of Cases in High Court\*

Category Of Cases	Pendency as on 01.04.2017	Institution of cases during the financial year, 2017-2018	Disposal of cases during the financial year, 2017-2018	Pendency as on 30.06.2017
Civil	19931	2240	2220	19951
Criminal	5505	875	760	5620
<b>Total</b>	<b>25436</b>	<b>3115</b>	<b>2980</b>	<b>25571</b>

### Annexure 18: Category wise institution, disposal and pendency of cases in respect of all Civil and Sessions Divisions up to 30.06.2017\*

Division	Opening Balance as on 01.04.2017			Institution		
	Civil	Criminal	Total	Civil	Criminal	Total
Shimla	10531	37377	47908	2320	13659	15979
Kinnaur	2431	5284	7715	520	3174	3694
Bilaspur	6621	7715	14336	1456	2012	3468
Hamirpur	11063	7594	18657	1501	2547	4048
Una	11812	8386	20198	1863	4370	6233
Mandi	11108	19171	30279	2109	10453	12562
Kullu	4792	10687	15479	840	7241	8081
Kangra	23699	16195	39894	2820	6801	9621
Chamba	3842	4820	8662	737	2291	3028
Solan	11515	15655	27170	1760	5175	6935
Sirmaur	5638	6126	11764	1161	2271	3432
<b>Total</b>	<b>103052</b>	<b>139010</b>	<b>242062</b>	<b>17087</b>	<b>59994</b>	<b>77081</b>

Division	Disposal			Pendency as on 30.06.2017		
	Civil	Criminal	Total	Civil	Criminal	Total
Shimla	2,063	15,265	17,328	10,788	35,771	46,559
Kinnaur	424	3,181	3,605	2,527	5,277	7,804
Bilaspur	1,131	1,689	2,820	6,946	8,038	14,984
Hamirpur	1,150	1,924	3,074	11,414	8,217	19,631
Una	1,659	4,054	5,713	12,016	8,702	20,718
Mandi	1,842	10,229	12,071	11,375	19,395	30,770
Kullu	629	6,731	7,360	5,003	11,197	16,200
Kangra	2,457	6,389	8,846	24,062	16,607	40,669
Chamba	633	2,622	3,255	3,946	4,489	8,435
Solan	1,472	3,922	5,394	11,803	16,908	28,711
Sirmaur	1,179	2,015	3,194	5,620	6,382	12,002
<b>Total</b>	<b>14,639</b>	<b>58,021</b>	<b>72,660</b>	<b>1,05,500</b>	<b>1,40,983</b>	<b>2,46,483</b>

Source: Annual Report of High Court of HP, <http://hphighcourt.nic.in/>



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