

HARYANA EK  
HARYANVI EK



TRANSFORMING HARYANA - PROGRESSING HARYANA



Government  
of Haryana



SUSTAINABLE  
DEVELOPMENT  
GOALS



# GOVERNMENT OF HARYANA VISION 2030

2017



**HARYANA EK  
HARYANVI EK**



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**SUSTAINABLE  
DEVELOPMENT  
GOALS**

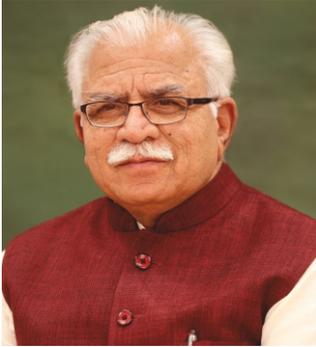
GOVERNMENT OF HARYANA  
**VISION 2030**  
2017



# Table of Contents

	I-IV	Messages
Executive Summary	1	
	18	Haryana SDG Vision 2030-Aligned with PM's Transformative 8-Point Agenda
SDG 1: No Poverty	20	
	31	SDG 2: Zero Hunger
SDG 3: Good Health and Well-Being	40	
	49	SDG 4: Quality Education
SDG 5: Gender Equality	57	
	62	SDG 6: Clean Water and Sanitation
SDG 7: Affordable and Clean Energy	66	
	71	SDG 8: Decent Work and Economic Growth
SDG 9: Industry, Innovation and Infrastructure	78	

	85	SDG 10: Reduced Inequalities
SDG 11: Sustainable Cities and Communities	94	
	103	SDG 12: Sustainable Consumption and Production
SDG 13 and 14: Climate Action; and Life Below Water	109	
	115	SDG 15: Life on Land
SDG 16: Peace, Justice and Strong Institutions	119	
	127	SDG 17: Partnerships for the Goals
Next Steps for Implementing Haryana SDG Vision 2030	134	
	135	Process and Methodology
Abbreviations	139	
	141	Annex 1
Annex 2	143	
	148	Annex 3
Annex 4	158	



## Message from

**SHRI MANOHAR LAL**  
Hon'ble Chief Minister of Haryana

It is heartening to share Haryana's Vision 2030 which incorporates the United Nations Sustainable Development Goals (SDGs) into its agenda for the future. Our government is committed to working with both internal and external stakeholders to promote sustainable and inclusive economic growth and social development along with environmental protection, to deliver long term benefits to all the residents of Haryana, including women, children, youth and future generations.

In September 2015, the UN General Assembly adopted 17 goals and 169 targets for sustainable development. These SDGs, also known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. These goals are interconnected, with numerous synergies and overlaps between the goals and targets.

Prime Minister, Shri Narendra Modi has been laying great emphasis on nation building. Flagship schemes like Make in India, Skilled India, Start-up India, *Beti Bachao Beti Padhao* and *Swachh Bharat* have unleashed youthful energy channelled to the task. Echoing his aspirations to secure a pride of place on the global map, we are committed to building Haryana as a vibrant, dynamic and resurgent unit of federal India. A state where farms overflow with produce; the wheels of industry grind uninterrupted; none feels deprived; people have a sense of fulfilment; the youth feels a sense of pride; women enjoy not only safety, security and equal opportunities but also feel empowered; and "Antyodaya" is a way of governance—these elements constitute the bedrock of our vision.

We are pursuing inclusive growth with the motto of *Sabka Saath-Sabka Vikas*. Consistent efforts are being made to ensure that the state scales new peaks of progress, reaching out to each and every urban and rural resident of Haryana, including those living in remote or vulnerable communities. This is in sync with the overarching imperative of the SDGs of leaving no one behind in achieving this ambitious and universal agenda.

I congratulate Shri Depinder Singh Dhesi, Chief Secretary, Government of Haryana and the Chairpersons of the seven working groups who have worked hard to finalize this document. I thank the United Nations Development Programme (UNDP) team and other UN agencies for providing immense support to the working groups.

I look forward to receiving feedback and inputs from various stakeholders including civil society, industry, schools, colleges, media, panchayats etc. on this initiative. Let us all come together and join hands to share the responsibility of working towards a glorious future of fast, inclusive and sustainable development.

Thank you,

Place : Chandigarh

Manohar Lal  
Chief Minister  
Haryana





## Message from

**CAPTAIN ABHIMANYU**  
Hon'ble Finance Minister of Haryana

It is a matter of great pride for Haryana to be amongst the foremost states in India to envision the future of the state, based on the United Nations Sustainable Development Goals (SDGs). The Government of Haryana fully commits to this dynamic agenda till 2030 and we shall leave no stone unturned to accomplish this.

The Ministry of Finance, Government of Haryana will ensure mobilization and allocation of adequate resources for economic growth, infrastructure development, social welfare, human development and protection of the environment. As stated in SDG 17, effective use of financing will pave the way for sustainable development and facilitate the realization of our core agenda of ensuring that “no one is left behind”. The ministry understands the importance and pertinence of this goal for the overall implementation of the ambitious agenda chartered out in the vision document and stands committed to providing strong financial support.

Since these 17 goals are interconnected, we will need to recognize the overlaps, gaps and synergies across these goals while formulating our budgets. This exercise will also require significant investment in data and monitoring systems so as to track progress and address deviations, if any. Going forward, our focus will be on reducing fiscal and revenue deficit in the state, increasing the share of capital expenditure and tapping into new and innovative sources of finance. The state is committed to increasing its tax base, forging public-private partnerships towards nation building, collaborating with the private sector in general as well as corporate social responsibility (CSR) initiatives in particular, to ensure effective alignment of existing efforts with the targets outlined in Vision 2030.

I would like to congratulate the Department of Finance and Department of Planning, Government of Haryana, which in partnership with UNDP Haryana, have worked tirelessly towards the formulation of Vision 2030 and have coordinated extensively with the concerned departments and their representatives to achieve this great milestone.

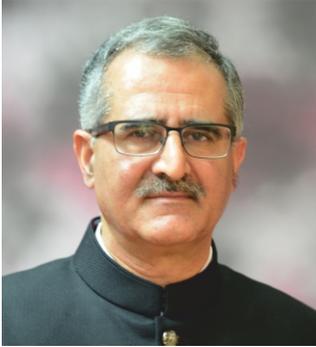
I hope all the residents and organizations in the state will lend their full support to the grand vision of the honourable Chief Minister towards making Haryana a state at par with the developed countries of the world.

Thank you,

Place : Chandigarh

Capt. Abhimanyu  
Finance Minister  
Haryana





## Message from

**SHRI DS DHESI**

Hon'ble Chief Secretary of Haryana

I am extremely happy to share that Haryana has successfully formulated its Vision document highlighting key focus areas, current interventions and pertinent milestones to be achieved by 2030. This document is based on the 17 SDGs that were adopted by the United Nations General Assembly in 2015 and are of critical importance for humanity and the planet.

Through this initiative, seven inter-departmental working groups were constituted in July 2016, to take forward this agenda. The 17 SDGs were thematically clustered around the seven working groups, to lead the process of consultation and coordination with various administrative departments represented in each working group. These working groups have brainstormed on all SDGs and formulated their vision statements, keeping in view not only the current flagship schemes but also a number of new schemes that can be implemented for each SDG, along with comprehensive strategies and targets for the next 15 years. These groups have also highlighted the keys challenges that are currently being faced in the pursuit of the SDGs. As a next step, aggressive efforts will be made by the state to design a detailed action plan in order to develop programmes to meet the SDGs, allocate resources and monitor programme implementation through a comprehensive list of global as well as national indicators.

I would like to congratulate the Chairpersons of the seven working groups for their hard work and dedication. Over 60 meetings were conducted in the course of drafting this elaborate and descriptive Vision and I would like to commend each department for its immense contribution towards this initiative. I would also like to thank the UNDP, Haryana team for spearheading this initiative and providing guidance and support to the working groups.

Haryana is already implementing a number of successful schemes to improve economic, social as well as environmental indicators in the state. Through the Vision 2030 document, we aim to further enhance our policies and programmes in the state and look forward to working with all our stakeholders to accomplish this ambitious agenda.

Thank You,

Place : Chandigarh

D.S.Dhesi  
Chief Secretary  
Haryana





## Acknowledgments by

### **SHRI P. RAGHAVENDRA RAO**

Additional Chief Secretary to Government, Department of Finance and Department of Planning, Government of Haryana

On behalf of the Government of Haryana, I am very happy to present this important document enumerating the state's vision of achieving the SDGs by 2030. This extensive and participative exercise has been in the making since July 2016 and it would not have been possible without the detailed presentations and group work of various government departments.

We are grateful to all departments for their active participation in the successful completion of this document. We would like to acknowledge and thank the Chairpersons of the seven working groups which have contributed in making this a reality under the able leadership of Shri D.S. Dhese, Chief Secretary, Government of Haryana—Shri Rajan Gupta, Additional Chief Secretary, Health Department; Smt. Navraj Sandhu, Additional Chief Secretary Development and Panchayats; Shri P.K Mahapatra, Additional Chief Secretary, Women and Child Development; Shri P.K. Das, Additional Chief Secretary, School Education Department; Shri Devender Singh, Principal Secretary, Industries Department; Shri Anurag Rastogi, Principal Secretary, Power Department; and Shri Shrikant Walgad, Principal Secretary, Environment Department.

Our special thanks to the Honourable Chief Minister and Finance Minister of Haryana for their guidance, encouragement and constant support to the team.

We would like to thank the UNDP, Haryana team which has been instrumental in conceptualizing and developing this document and coordinating inputs from other UN agencies. The team was ably led by Shri Vikas Verma, Head of the State Office, UNDP Haryana, along with Ms Suman Singh, Communication and Coordination Specialist, Ms Cyandra Carvalho, Documentation Consultant and Ms Sharan Suri, Programme Associate, UNDP.

We would also like to thank officials of the Government of Haryana, in particular, the personnel of the Planning Department for their active participation in this initiative. The successful completion of this document would not have been possible without their collaborative efforts.

In addition, we convey our gratitude to all those who have, in some way or the other, contributed to this document which provides strategic direction for Haryana. It has been a great experience for the entire team to work on this ambitious agenda and pave the way for Haryana towards greater success and growth.

Thank You,

Place : Chandigarh

P. Raghavendra Rao  
Additional Chief Secretary to  
Government, Department of  
Finance and Department of  
Planning, Government of Haryana





**VISION  
2030  
FOR HARYANA**

**We envisage Haryana as a vibrant, dynamic and resurgent unit of federal India. A state where farms overflow with produce; the wheels of industry grind uninterrupted; none feels deprived; people have a sense of fulfilment, the youth sense of pride, and women enjoy not only safety, security and equal opportunities but also feel empowered. "Antyodaya", minimum government and maximum governance, and making the state a better place to live in, constitute the bedrock of our vision.**

# Executive Summary: Haryana SDG Vision 2030

## Haryana Today

Haryana is a land locked state in northern India that lies between 27°39 N and 30°35 N and between 74°28 E and 77°36 E. The altitude of Haryana varies between 700 ft and 3,600 ft above sea level.<sup>1</sup> At 44,212 sq km, Haryana covers 1.34% of India's geographical area and is home to 2.53 crore people—that is, 48.58 lakh households (30.44 lakh rural plus 18.14 lakh urban)—comprising 2.9% of India's population.<sup>2</sup> The population density of the state is 573 persons per sq km with a sex ratio of 879 females per 1,000 males. Though Haryana has witnessed gradual urbanization since 2001, as per the Census of 2011,<sup>3</sup> 65.1% of its population (1.65 crore persons) still lives in rural areas—a drop of 6 percentage points from 71.1% recorded in the Census of 2001. Haryana is divided into six administrative divisions and has 22 districts<sup>4</sup> constituted by 140 blocks, 154 towns and 6,841 villages.<sup>5</sup>

With the fast-paced economic growth of India, Haryana too has witnessed healthy growth in its gross state domestic product (GSDP) averaging 8.6% per annum since 2004-05 making it a significant contributor to the national growth story.

Since 2004-05, Haryana has outperformed the national GSDP growth rate for 9 out of the 13 years (Figure E.1).

In 2016-17, Haryana reported a per capita income of ₹1,80,174 per annum as compared to the national average of ₹1,03,818 (Figure E.2).<sup>6</sup>

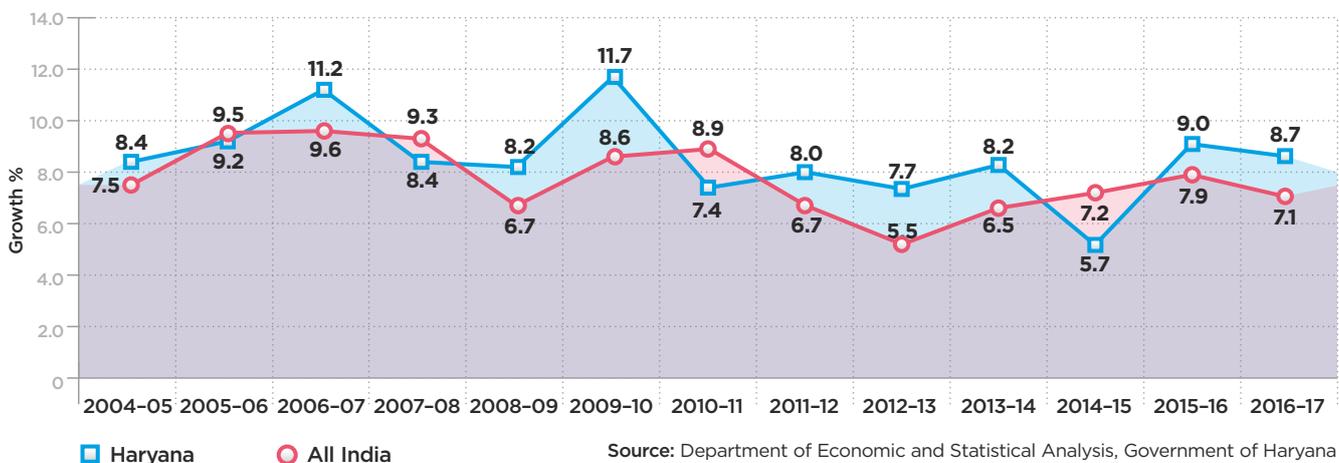
**Figure E.2: Per Capita Income (₹) of Haryana and India (2004-05 to 2016-17)**

Year	Haryana	All India
2004-05	37,972	24,143
2005-06	42,309	27,131
2006-07	49,261	31,206
2007-08	56,917	35,825
2008-09	67,405	40,775
2009-10	82,037	46,249
2010-11	93,852	54,021
2011-12	1,06,085	63,460
2012-13	1,21,269	71,011
2013-14	1,38,300	79,146
2014-15	1,48,485	86,513
2015-16	1,62,034	94,178
2016-17	1,80,174	1,03,818

Source: Department of Economic and Statistical Analysis, Government of Haryana; Central Statistics Office, New Delhi

Similar to national poverty trends, Haryana too witnessed rapid decline in income poverty with the estimated percentage of people living below the poverty line within Haryana halving from

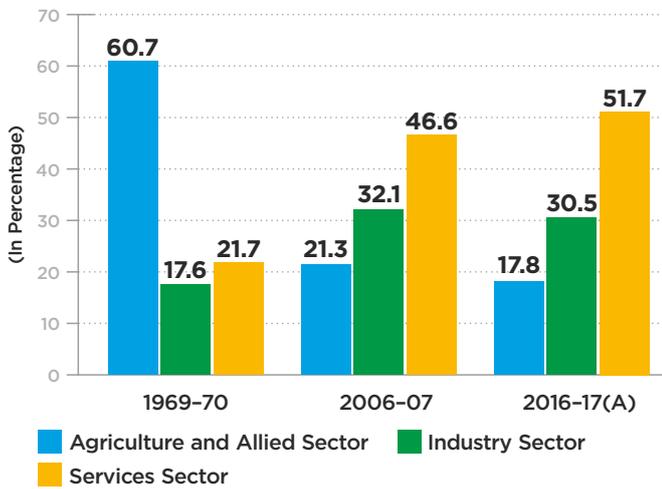
**Figure E.1: GSDP/GDP Growth Rate of Haryana and India (at constant prices)**



1. *Economic Survey of Haryana 2015-16*, <http://esaharyana.gov.in/Default.aspx?PName=Economic%20Survey%20of%20Haryana>  
 2. *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.  
 3. *Ibid.*  
 4. Ambala, Bhiwani, Dadri, Faridabad, Fatehabad, Gurugram, Hissar, Jhajjar, Jind, Kaithal, Karnal, Kurukshetra, Mahendragarh, Mewat, Palwal, Panchkula, Panipat, Rewari, Rohtak, Sirsa, Sonapat and Yamunanagar.  
 5. *Statistical Handbook of Haryana, 2015-16*, Department of Economic and Statistical Analysis, Government of Haryana  
 6. Department of Economic and Statistical Analysis, Government of Haryana

24% in 2004-05 to 11.20% in 2010-11.<sup>7</sup> This was accompanied and supported by the changing sectoral composition of Haryana's economy

**Figure E.3: Changing Sectoral Composition of GSDVA in Haryana**

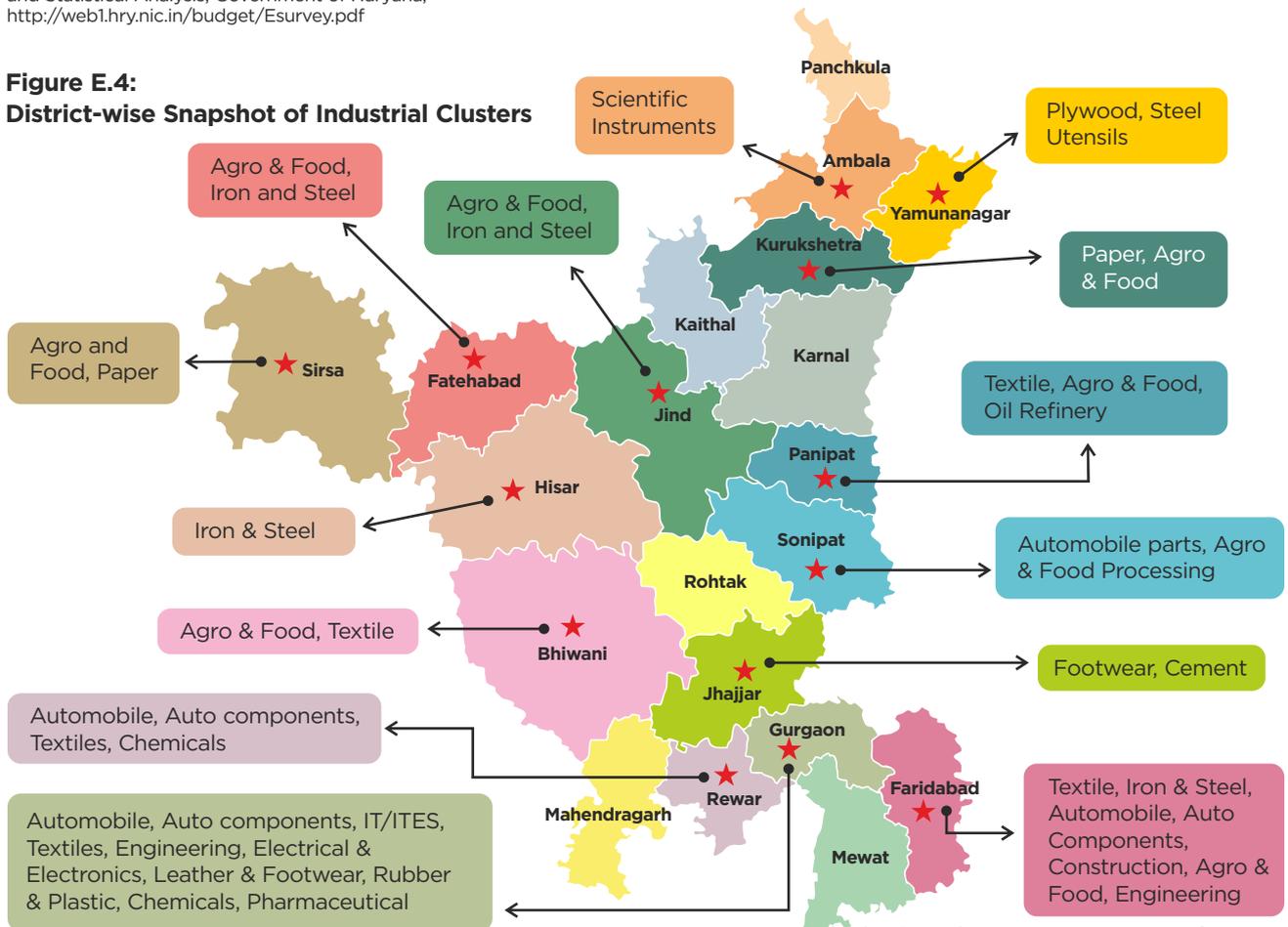


Source: *Economic Survey of Haryana, 2016-17*, Department of Economic and Statistical Analysis, Government of Haryana, <http://web1.hry.nic.in/budget/Esurvey.pdf>

(Figure E.3). Tertiary, that is, the services sector, employs 67.6% of the urban workforce at present and contributes 51.7% of the GSDP. In contrast, primary, that is, the agriculture and allied sector, employs 51.3% of the total (urban plus rural) workforce though it contributes only 17.8% of the GSDP.<sup>8,9</sup> Thus, the majority of the rural population which is employed in the primary sector has only a slim share in the GSDP and therefore not able to come out of poverty easily. It is a well known fact that 85% of poverty reduction in India is owed to the expansion of the tertiary and secondary sectors and 80% of the total drop in poverty may be attributed to urban growth alone, spurred by tertiary activities.<sup>10</sup>

The defining success of Haryana lies in the strides it has taken in the growing manufacturing and tertiary activities facilitated by large infrastructural investments in the state. In 2015, Haryana ranked

**Figure E.4: District-wise Snapshot of Industrial Clusters**



Source: Department of Industries and Commerce, Government of Haryana.

7. Tendulkar Methodology, Report of the Expert Group to Review the Methodology for Measurement of Poverty, Planning Commission, Government of India, June 2014. [http://planningcommission.nic.in/reports/genrep/pov\\_rep0707.pdf](http://planningcommission.nic.in/reports/genrep/pov_rep0707.pdf)  
 8. Data on GSDP is sourced from *Economic Survey of Haryana, 2016-17*, Department of Economic and Statistical Analysis, Government of Haryana, <http://web1.hry.nic.in/budget/Esurvey.pdf>.  
 9. Data on workforce distribution is sourced from <http://haryanacmoffice.gov.in/themes/backend/uploads/DOCUMENTS/WHITE%20PAPER-PART%201.pdf>, page 9  
 10. [www.nber.org/papers/w21983.pdf](http://www.nber.org/papers/w21983.pdf)

fourth on India's Infrastructure Index.<sup>11</sup> It is amongst the few states in India to have almost 100% metalled road connectivity with rural areas.<sup>12</sup>

Haryana has 10 notified brownfield electronics manufacturing clusters and auto clusters that produce 50% of the cars and motorcycles in India (Figure E.4).

Gurugram in Haryana is a significant IT-ITeS cluster which is the business process management (BPM) capital of the world employing 5% of the global BPM workforce.<sup>13</sup>

Haryana is the food bowl of India; with high productivity, it enjoys a surplus in food grain production and contributes about 15% of the central pool of food grains, despite constituting only 1.34% of the national landmass. In 2015-16, Haryana produced 3,761 kg food grain per hectare as compared to the national food grain productivity of 2,070 kg per hectare.<sup>14</sup> Since 1970-71 Haryana has witnessed an increase of 242% in food grain productivity as compared to a 40% increase nationally.<sup>15</sup> Similarly, Haryana has a

higher freshwater fish yield (6,800 kg per hectare per annum) than India as a whole (2,900 kg per hectare per annum).<sup>16</sup> Similar patterns are manifested in the availability of milk (835 g of milk per capita per day) and eggs (179 eggs per capita per annum) in Haryana as compared to India (309 g of milk per capita per day and 64 eggs per capita per annum).<sup>17</sup>

Haryana has recorded progress along many non-income dimensions of well-being too. Between 2010-11 and 2015-16, for instance, the proportion of underweight children below 5 years fell by almost 10%<sup>18</sup> and under-5 mortality rate (U5MR) declined from 55 per 1,000 live births in 2010<sup>19</sup> to 43 in 2015.<sup>20</sup> Maternal mortality rate (MMR) in Haryana declined by 59 points from 186 maternal deaths per 1,00,000 live births in 2004-06 to 127 maternal deaths per 1,00,000 live births in 2011-13.<sup>21</sup> Improvement was also reported in the proportion of stunted children below five years; the proportion of population with access to safe sanitation; and the proportion of population with access to piped water on premises.

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11. <http://timesofindia.indiatimes.com/india/Haryana-jumps-3-places-is-4th-in-education-index/articleshow/5489460.cms>

12. <http://niti.gov.in/content/maternal-mortality-ratio-mmr-100000-live-births>

13. Department of Industries and Commerce, Government of Haryana

14. Department of Agriculture and Farmers' Welfare, Government of Haryana

15. Ibid.

16. Ibid.

17. Data on milk yield was sourced from the Statistics of the Technical Committee on Direction for Improvement of Animal Husbandry and Dairying, Animal Husbandry and Dairying Department, Government of Haryana and Department of Animal Husbandry, Dairying and Fisheries, the Ministry of Agriculture and Farmers' Welfare, Government of India. Data on eggs was provided by the Department of Agriculture, Government of Haryana.

18. National Family Health Survey, Round 4, conducted in 2014-15 and data made public in 2015-16.

19. [http://censusindia.gov.in/vital\\_statistics/srs/Chap\\_4\\_-\\_2010.pdf](http://censusindia.gov.in/vital_statistics/srs/Chap_4_-_2010.pdf)

20. Sample Registration Survey (2015), Office of the Registrar General and Census Commissioner, India, Ministry of Home Affairs, Government of India, [http://www.censusindia.gov.in/vital\\_statistics/SRS\\_Reports\\_2015.html](http://www.censusindia.gov.in/vital_statistics/SRS_Reports_2015.html)

21. *Sample Registration Survey Report, 2011-2013*. [http://www.censusindia.gov.in/vital\\_statistics/mmr\\_bulletin\\_2011-13.pdf](http://www.censusindia.gov.in/vital_statistics/mmr_bulletin_2011-13.pdf)

# Haryana: Human Development Index

The last released *India Human Development Report* in 2011 points out that Haryana has several areas of improvement charted out in its human development agenda.<sup>22</sup>

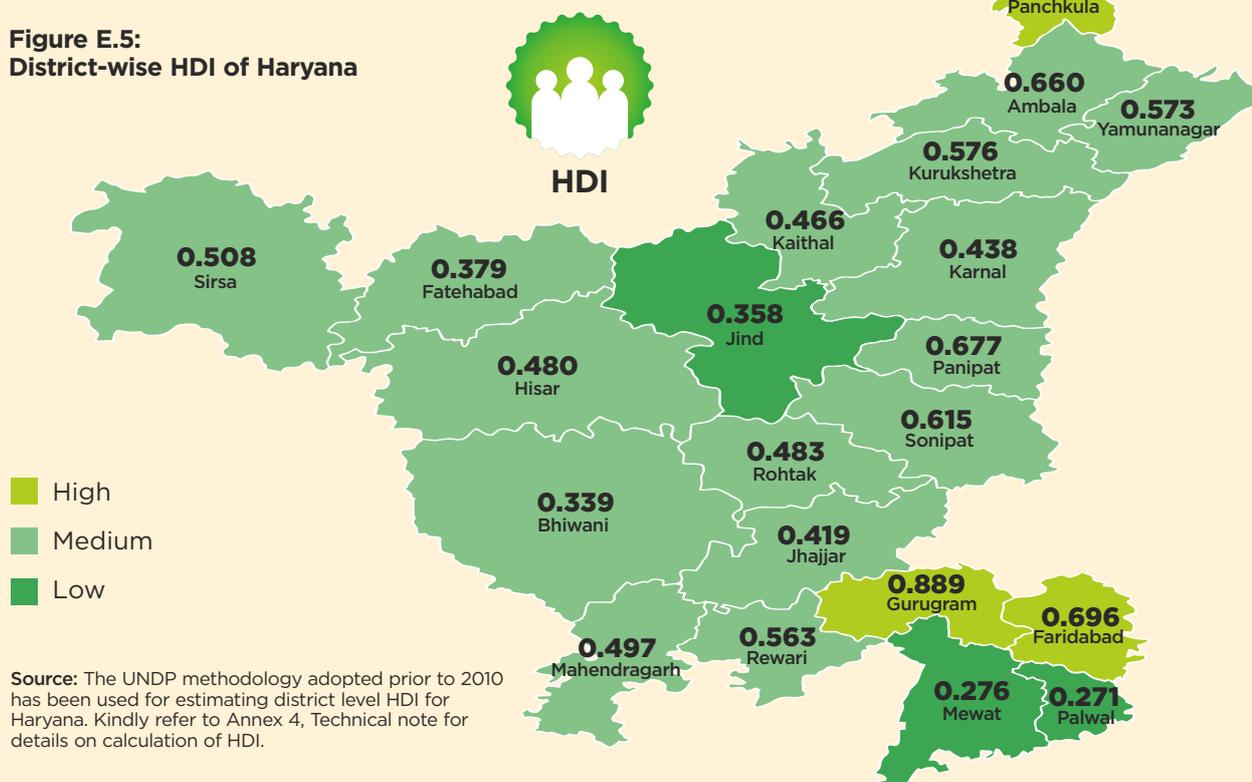
The state has witnessed a concentration of poverty in its rural areas with deeper poverty in low-income districts. The per capita income of the richest district of Haryana was 3.7 times that of its poorest district in 2004–05, a ratio that jumped to 8.6 in 2013–14, showing a sharp increase in inter-district income differentials.<sup>23</sup> A typical household in Gurugram (a prosperous and largely urban district) consumes on average ₹33,881 per month versus ₹5,097 in Mewat (a poor and largely rural district).<sup>24</sup>

Since Haryana is contiguous with the northern, western and southern borders of Delhi, a large area of Haryana is included in the National Capital Region (NCR) and the some districts in the NCR have been able to leverage this proximity to

become more developed in comparison to other parts of the state (Figure E.5).<sup>25</sup> Considering all parameters, the district of Gurugram tops the HDI at 0.889, followed by Panchkula at 0.777 and Faridabad at 0.696. The districts with mid-range HDI scores are Sirsa at 0.508, Mahendragarh at 0.497 and Rohtak at 0.483. In comparison, the districts with low HDI scores are Bhiwani at 0.339, Mewat at 0.276 and Palwal at 0.271.

Bhiwani, Mewat and Palwal fared poorly across all three indicators of human development, health, education and per capita income. They face challenges related to the lack of infrastructure including schools, colleges, hospitals and roads, as well as unbalanced development, leading to low income generation. Therefore, the Government of Haryana should focus on improving the socio-economic indicators in these districts by introducing new schemes and allocating sufficient funds for their implementation.

**Figure E.5:**  
District-wise HDI of Haryana



**Source:** The UNDP methodology adopted prior to 2010 has been used for estimating district level HDI for Haryana. Kindly refer to Annex 4, Technical note for details on calculation of HDI.

22. Institute of Applied Manpower Research (2011), *India Human Development Report 2011*, developed by the Institute of Applied Manpower Research, New Delhi with support from UNDP India, at the behest of the Planning Commission, Government of India, and published by Oxford University Press India, New Delhi.

23. Department of Economic and Statistical Analysis, Government of Haryana

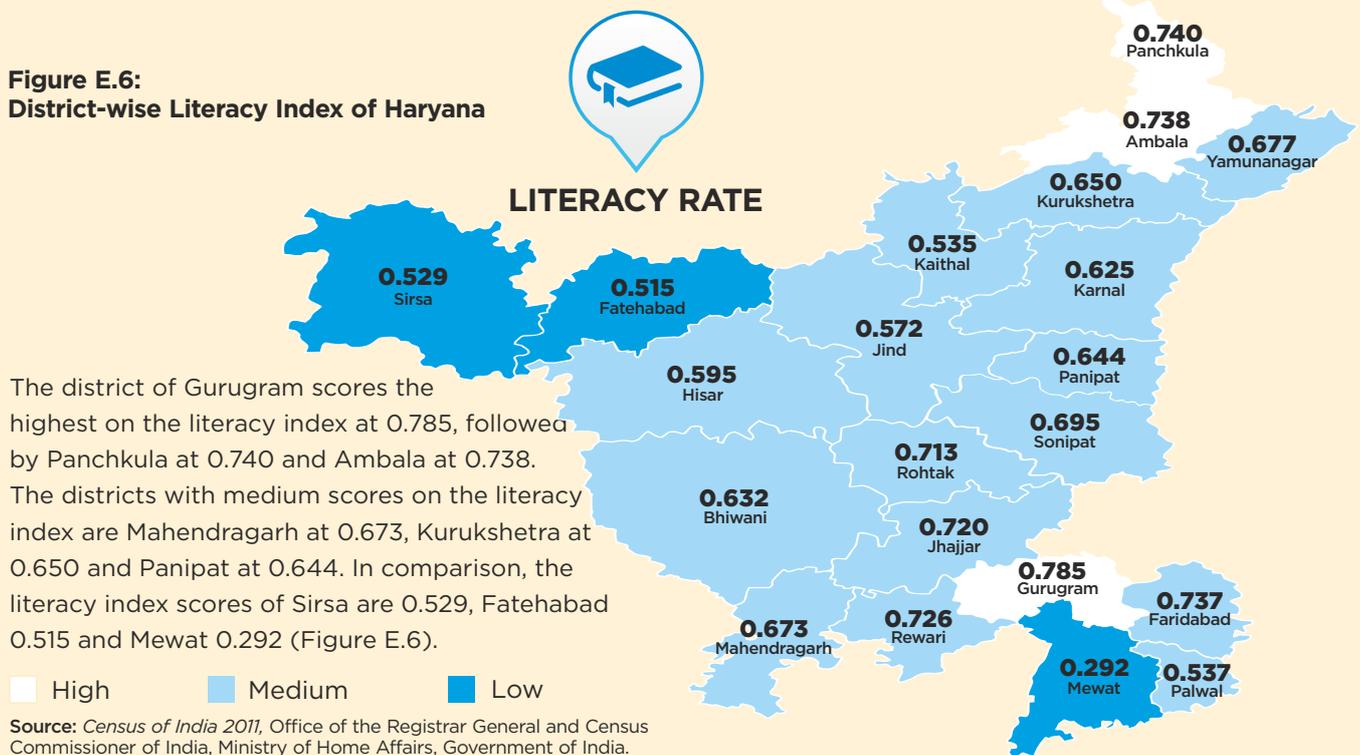
24. Ibid.

25. The National Capital Region (NCR) is a coordinated planning region centred upon the National Capital Territory of Delhi in India. It encompasses the entire NCT of Delhi and 22 districts surrounding it from the states of Haryana, Uttar Pradesh and Rajasthan. Districts of Haryana in the NCR include Faridabad, Gurgaon, Mewat, Rohtak, Sonipat, Rewari, Jhajjar, Panipat, Palwal, Bhiwani, Mahendragarh, Jind and Karnal.

**About Human Development Index:** The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: experiencing a long and healthy life, being knowledgeable and enjoying a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions. The health dimension is assessed by life expectancy at birth, the education dimension is measured by mean of years of schooling for adults aged 25 years and above and expected years of schooling for children of school entering age.

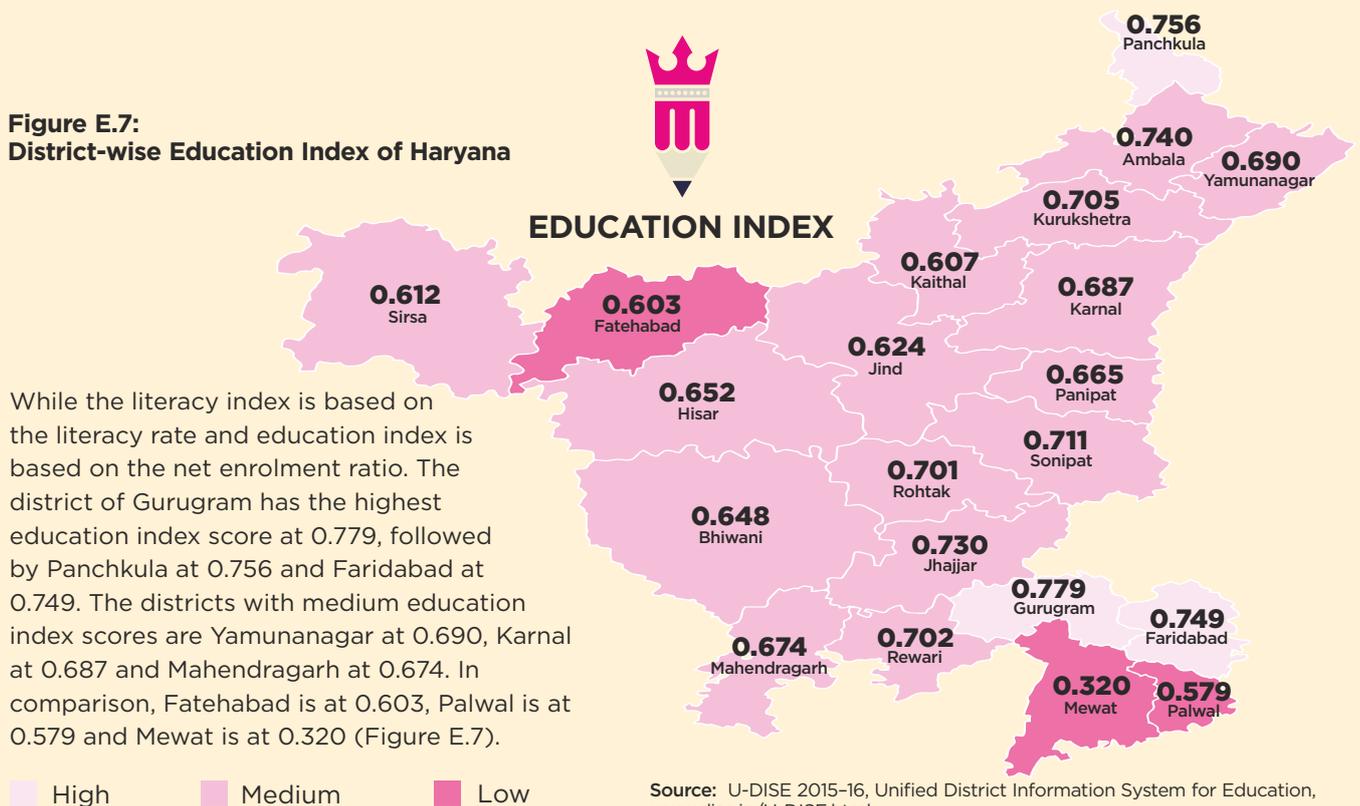
The standard of living dimension is measured by gross national income per capita. It is important to note however, that the HDI simplifies and captures only part of what human development entails. It does not reflect inequalities, human security, empowerment, etc.

**Figure E.6:**  
**District-wise Literacy Index of Haryana**



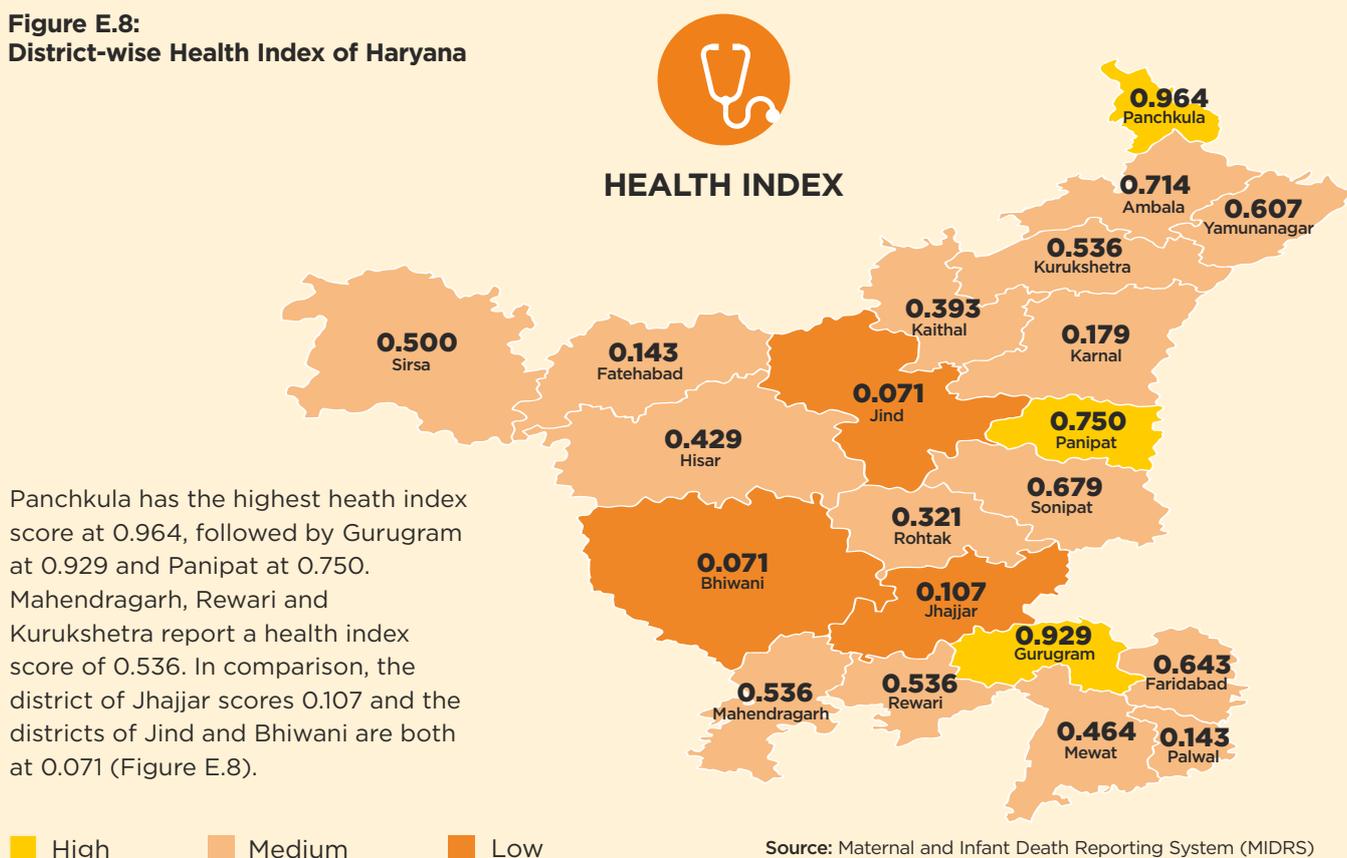
The district of Gurugram scores the highest on the literacy index at 0.785, followed by Panchkula at 0.740 and Ambala at 0.738. The districts with medium scores on the literacy index are Mahendragarh at 0.673, Kurukshetra at 0.650 and Panipat at 0.644. In comparison, the literacy index scores of Sirsa are 0.529, Fatehabad 0.515 and Mewat 0.292 (Figure E.6).

**Figure E.7:**  
**District-wise Education Index of Haryana**



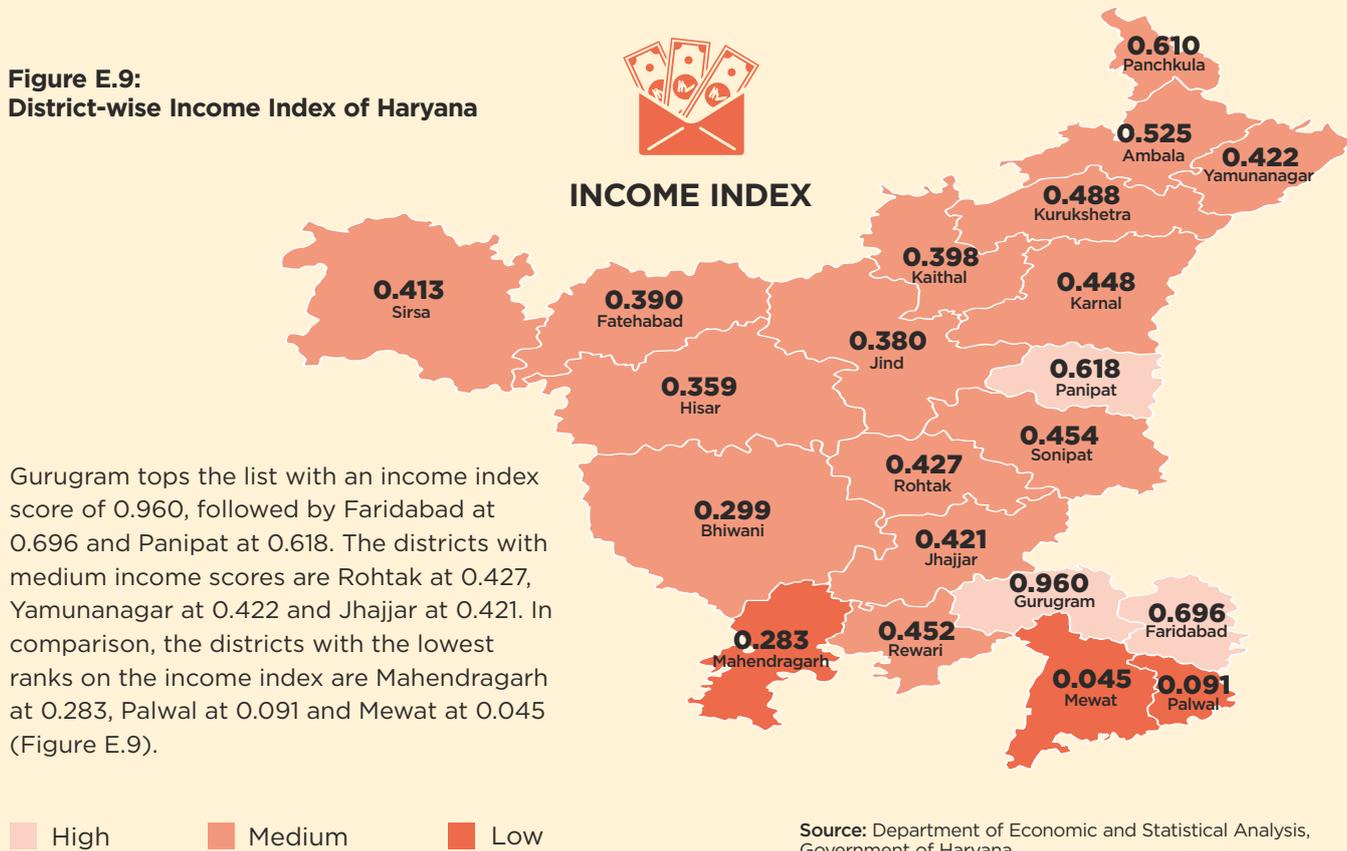
While the literacy index is based on the literacy rate and education index is based on the net enrolment ratio. The district of Gurugram has the highest education index score at 0.779, followed by Panchkula at 0.756 and Faridabad at 0.749. The districts with medium education index scores are Yamunanagar at 0.690, Karnal at 0.687 and Mahendragarh at 0.674. In comparison, Fatehabad is at 0.603, Palwal is at 0.579 and Mewat is at 0.320 (Figure E.7).

**Figure E.8:**  
District-wise Health Index of Haryana



Panchkula has the highest health index score at 0.964, followed by Gurugram at 0.929 and Panipat at 0.750. Mahendragarh, Rewari and Kurukshetra report a health index score of 0.536. In comparison, the district of Jhajjar scores 0.107 and the districts of Jind and Bhiwani are both at 0.071 (Figure E.8).

**Figure E.9:**  
District-wise Income Index of Haryana



Gurugram tops the list with an income index score of 0.960, followed by Faridabad at 0.696 and Panipat at 0.618. The districts with medium income scores are Rohtak at 0.427, Yamunanagar at 0.422 and Jhajjar at 0.421. In comparison, the districts with the lowest ranks on the income index are Mahendragarh at 0.283, Palwal at 0.091 and Mewat at 0.045 (Figure E.9).

## The Challenges

Though Haryana has consistently outperformed other states in terms of economic and agriculture growth, it ranks poorly on key human development indicators, which suggests the need for renewed and focussed efforts to achieve its full potential (Figure E.10).

**Figure E.10: Ranking of States according to HDI Value**

State	HDI 1999-2000	HDI 2007-08	Rank 1999-2000	Rank 2007-08
Kerala	0.677	0.790	2	1
Delhi	0.783	0.750	1	2
Himachal Pradesh	0.581	0.652	4	3
Goa	0.595	0.617	3	4
Punjab	0.543	0.605	5	5
NE (Excluding Assam)	0.473	0.573	9	6
Maharashtra	0.501	0.572	6	7
Tamil Nadu	0.480	0.570	8	8
<b>Haryana</b>	<b>0.501</b>	<b>0.552</b>	<b>7</b>	<b>9</b>
Jammu & Kashmir	0.465	0.529	11	10
Gujarat	0.466	0.527	10	11

**Note:** States are arranged according to 2007-08 rank

**Source:** Institute of Applied Manpower Research (2011), *India Human Development Report 2011*, developed by the Institute of Applied Manpower Research, New Delhi with support from UNDP India, at the behest of the Planning Commission, Government of India, and published by Oxford University Press India, New Delhi.

Despite high productivity in agriculture, malnutrition and other deprivations including challenges related to the health and nutrition of children remain widespread. For example, 34% of children under five years of age are presently stunted (height for age);<sup>26</sup> 29.4% are underweight (weight for age)<sup>27</sup> and 21.2% are wasted (weight for height).<sup>28</sup> Although mortality among newborns (NMR) is 24 per 1,000 live births as compared to 25

nationally, more than half the infant deaths and under-5 child deaths occur during the neonatal period.<sup>29</sup>

Large gaps remain in the genuine social and economic integration of women. Child sex ratio in Haryana was the lowest in India at 834 girls per 1,000 boys as per the *Census of India 2011*.<sup>30</sup> However, some improvement has been visible in the recent past and quick estimates for 2016 suggest that the figure has increased to 900 girls per 1,000 boys.<sup>31</sup> Of all cases relating to the Pre-Natal Diagnostic Techniques Act, Regulation and Prevention of Misuse (PCPNDT) 1994, in India, 26% convictions were reported in Haryana (as of December 2014).<sup>32</sup>

There has been a rise in violence against women and girls. Between 2011 and 2015, 259% increase in kidnappings and 382% increase in molestation cases was registered.<sup>33</sup> Between 2005 and 2015, spousal violence has increased from 27.3% to 32% among women who have ever been married.<sup>34</sup>

At the present, only 23.66% of Haryana's workforce consists of women.<sup>35</sup>

Literacy rate of school-aged girls is 56.65% (2015-16)<sup>36</sup> and the number of girls attending higher or professional education is still very low.

Prosperity has not been shared equitably. Prominent amongst them are: Dalits, orphans, manual scavengers, migrant workers, minority communities and displaced populations. Also vulnerable are persons with disabilities, Scheduled Tribes, the elderly, street children, sex workers, persons living with HIV/AIDS and the transgender community. Particularly affected are women and children across most of these groups.

26. National Family Health Survey Round 4, conducted in 2014-15 and data released by the Ministry of Health and Family Welfare, Government of India in 2015-16

27. Ibid.

28. Ibid.

29. Sample Registration Survey (2015), Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India, [http://www.censusindia.gov.in/vital\\_statistics/SRS\\_Reports\\_2015.html](http://www.censusindia.gov.in/vital_statistics/SRS_Reports_2015.html)

30. *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India

31. Estimate provided by the Registrar of Births and Deaths, Government of Haryana

32. <http://pib.nic.in/newsite/PrintRelease.aspx?relid=116303>

33. Data provided by the Home Department, Government of Haryana

34. National Family Health Survey Round 4, conducted in 2014-15 and data released by the Ministry of Health and Family Welfare, Government of India in 2015-16

35. *Statistical Abstract of Haryana 2015-16*, Department of Economic and Statistical Analysis, Government of Haryana, [esaharyana.gov.in](http://esaharyana.gov.in) (page no. 66). Data in the statistical abstract is based on Census 2011.

36. Ibid.

Though urban India contributes close to 60% of India's GDP, fast paced urbanization comes for a price.<sup>37</sup> Haryana has seen a 45% growth in the urban population from 2001 to 2011<sup>38</sup> and as of 2015-16, 34.9% of its population resides in urban spaces.<sup>39</sup> Urban poverty is ubiquitous, manifest in the growth of unregulated slums with attendant challenges related to safe housing, drinking water, sanitation and health care provisioning. The fallout of rapid and unplanned urbanization is evident in the grossly inadequate urban transport infrastructure and services both in quantity and quality, increase in urban air and water pollution and emission levels, inadequate and unaffordable housing in cities and towns, and deficit of urban infrastructure. Solid and liquid waste management issues are humongous and will pose a serious threat to safe city life in the very near future.

Haryana also faces the environment constraints of a land locked state. Between June 1974 and June 2015, Haryana witnessed a decline of 8.56m in its water table.<sup>40</sup> Haryana contributes nearly 2% of the national emission of greenhouse gases and the state has experienced a maximum and minimum temperature increase of about 1°C to 1.2°C.<sup>41</sup> Implementing State Action Plan for Climate Change (SAPCC) formulated in 2011 is key to environmental sustainability of the state.

## Focus for Tomorrow

### 1. Ensuring that economic growth is accompanied by commensurate employment growth

#### a. Creating more jobs

The unemployment rate of Haryana is reported to be more than the national unemployment rate (Figure E.11). It is especially high for the urban women pointing towards the fact that the industrial and GSDP growth did not spur commensurate employment growth, especially for the urban female population.

**Figure E.11: Unemployment Rate (% , 2015-16)**

Description	Men	Women	Transgenders	All
<b>Haryana</b>				
Rural	4.0	6.1	0	4.3
Urban	3.7	18.6	0	5.7
Total	3.9	9.3	0	4.7
<b>India</b>				
Rural	4.2	7.8	2.1	5.1
Urban	3.3	12.1	10.3	4.9
Total	4.0	8.7	4.3	5.0

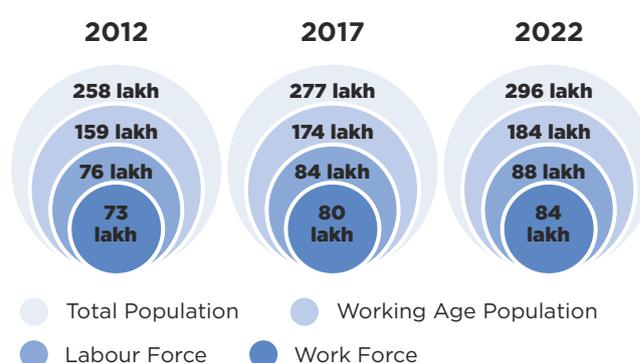
Source: Fifth Annual Employment & Unemployment Survey Report, 2015-16, Labour Bureau, Government of India.

#### b. Taking cognizance of the demographic window in policy making and implementation

Haryana will experience a huge bulge in its working-age population between 2012 to 2022, which represents an opportunity for the state to take advantage of this demographic indicator.

To sustain current levels of worker participation rates, there is a need to create additional jobs in the state. To realize the additional employment opportunities over the next decade, incremental labour force must be equipped with specific skills suited to the needs of the industry generating employment.

**Figure E.12: Expected Demographic Transformation in Haryana from 2012 to 2022**



Source: KPMG analysis; Office of the Registrar General and Census Commissioner of India (2006), *Population Projection for India and States 2007-26*, Ministry of Home Affairs, Government of India; National Commission on Population, Government of India

37. <http://www.livemint.com/Opinion/Z3wxhbTwwSHYrJCM3Ugp3M/Indias-growth-engines-and-gateways.html>

38. *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India

39. *Economic Survey of Haryana 2015-16*, <http://esaharyana.gov.in/Default2.aspx?PName=Economic%20Survey%20of%20Haryana>

40. Department of Agriculture, Government of Haryana; [http://agriharyana.nic.in/gwc\\_fluctuations.htm](http://agriharyana.nic.in/gwc_fluctuations.htm)

41. State Action Plan on Climate Change (SAPCC), Government of Haryana, 2011

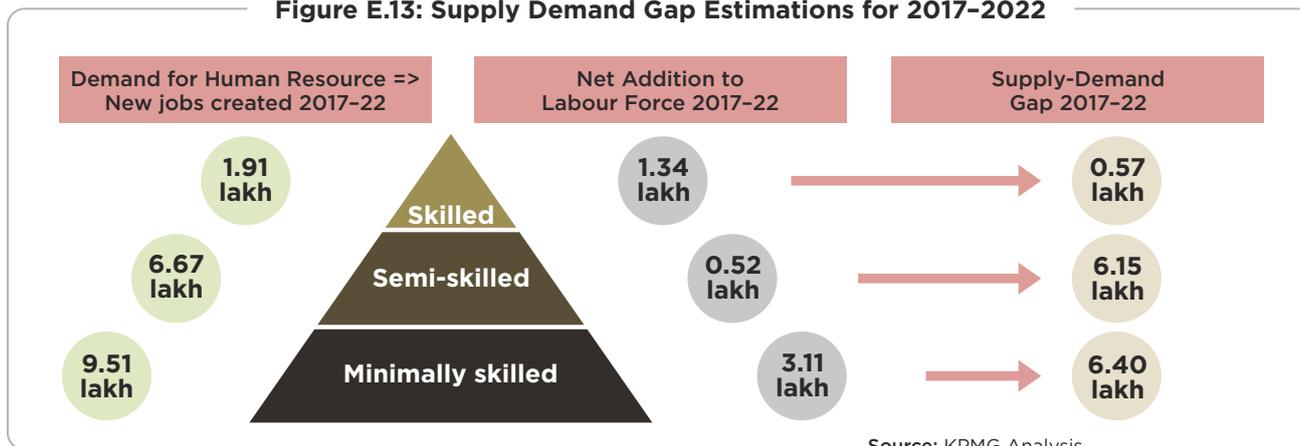
**c. Addressing the shortage of skilled labour**

Haryana needs to fill the gap of 13 lakh skilled, semi-skilled and minimally skilled workers in next six years (Figure E.13).<sup>42</sup> If the state does not succeed in skilling its own working population adequately within this time, the skilled personnel will come in from other states and capture the gains from the opportunities

50.44% of males participate. Over the last decade, women's participation in India's workforce has declined and women-owned businesses account for only 20% of registered businesses in the country. However, India's GDP could leapfrog 27% if as many women as men participated.<sup>46</sup>

According to a McKinsey study published in

**Figure E.13: Supply Demand Gap Estimations for 2017-2022**



offered by the growth of Haryana. Haryana will experience a huge bulge in its working age population between the years 2012 and 2022. This makes the task of skilling even more important and challenging to reap benefits of the state's demographic dividend.

**d. Improving women's participation in the workforce**

Amongst emerging and developing economies, India reports one of the lowest female labour force participation (FLFP) rates. At around 22.5% at the national level in 2012,<sup>43</sup> India's FLFP rate is well below the global average of around 50% and East Asia average of around 63%.<sup>44</sup> Moreover, India's gender gap in workforce participation is the one of the widest amongst G-20 economies at 50%.<sup>45</sup> Census 2011 shows that only 17.79% of females in Haryana are included in the workforce, while

2015, Indian women contributed just 17% of national GDP, which is less than half the global average of 37%. The study points out that India could boost its GDP by \$0.7 trillion in 2025 or an incremental GDP growth of 1.4% per year.<sup>47</sup> Haryana faces the same challenge and needs to look at enhancing women's participation in labour force to augment its GSDP.

**2. Improving access to education**

**a. Ensuring that children enjoy universal access to quality education; improving on the learning levels which are currently low**

According to the Annual Status of Education Report (ASER) 2014, during the study, only 23.6% of children in Haryana studying in Class III, could successfully read Class II text. In mathematics, similarly, only 60% of students in Class III could recognize numbers up to 100.<sup>48</sup>

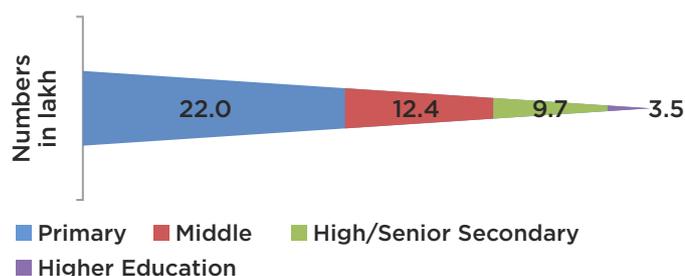
42. KPMG analysis from the National Skill Development Corporation Report on District wise Skill Gap Study for the State of Haryana (2012-17,2017-22).  
 43. [http://niti.gov.in/writereaddata/files/document\\_publication/Decline%20in%20Rural%20Female%20Labour%20Force%20Participation%20in%20India.pdf](http://niti.gov.in/writereaddata/files/document_publication/Decline%20in%20Rural%20Female%20Labour%20Force%20Participation%20in%20India.pdf)  
 44. <https://www.imf.org/external/pubs/ft/wp/2015/wp1555.pdf>  
 45. Ibid.  
 46. [http://www.in.undp.org/content/india/en/home/operations/projects/poverty\\_reduction/creating-employment-and-entrepreneurship-opportunities-for-women/call-to-action.html](http://www.in.undp.org/content/india/en/home/operations/projects/poverty_reduction/creating-employment-and-entrepreneurship-opportunities-for-women/call-to-action.html)  
 47. The Power of Parity: Advancing Women's Equality in India, McKinsey, November 2015  
[http://www.mckinsey.com/-/media/mckinsey/global%20themes/employment%20and%20growth/the%20power%20of%20parity%20advancing%20womens%20equality%20in%20india/mgi%20india%20parity\\_full%20report\\_november%202015.ashx](http://www.mckinsey.com/-/media/mckinsey/global%20themes/employment%20and%20growth/the%20power%20of%20parity%20advancing%20womens%20equality%20in%20india/mgi%20india%20parity_full%20report_november%202015.ashx)  
 48. <http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%202014/National%20PPTs/aser2014indiaenglish.pdf>

Similar findings have emerged regarding students in middle school and Class VIII presents an equally discouraging picture. ASER 2014 also reports that the performance of Haryana in this context is well below the national average. More parents are opting to send their children to private schools which are witnessing an increase in enrolment. Consequently, the enrolment in government schools is declining, specifically in rural areas.

#### b. Reducing student dropout rates at every level

Along with a significant gap between rural literacy (71.42%) and urban literacy (83.14%),<sup>49</sup> Haryana also reports high student dropout rates at higher levels of education which demands special attention (Figure E.14). The

**Figure E.14: Progression of Education in Haryana (2011-12, enrolment in lakh at each level)**



Source: *Statistical Abstract of Haryana 2011-12*, Department of Economic and Statistical Analysis, Government of Haryana, esaharyana.gov.in

main reasons for the high dropout rate in Haryana are limited access to higher educational institutes and poor quality of the colleges in the state.

#### 3. Improving access to basic services for general population

While efforts are being made at the policy level to increase access to basic services for extra-vulnerable persons, implementation remains a significant issue. Low availability of potable water in areas like Mewat, Palwal and Gurugram continues due to lack of water resources and inadequate infrastructure. Leakages within the water distribution system, depletion of existing water resources and poor quality of water compound this issue, making it hard to increase the access of persons living below the poverty line to water.

In urban areas, continuous migration is leading to an increase in slum settlements, wherein the poor have no entitlement to dwelling units. This high rate of migration makes it difficult for housing programmes to effectively reach the urban poor. Universal access to food and nutrition remains unfulfilled because of systemic weaknesses though many programmes are under implementation to tackle this. Ration distribution channels are often plagued by inefficiency.

Lack of awareness about official processes contributes to inability of beneficiaries to access what is due to them.

#### 4. Enhancing state capacity in terms of quality and number of human resources, improving monitoring and evaluation capacity and ensuring a secure environment

a. **Capacity of human resources (quantity and quality):** Capacity is constrained especially in health and education as also at the lower tiers of governance. With increasing devolution of responsibility to state governments, capacity constraints at lower tiers pose serious implementation challenges.

b. **Limited monitoring and evaluation capacity:** Absence of disaggregated data makes tracking progress of groups left behind virtually impossible. Limited evaluation capacities pose challenges to learning and accountability.

c. **Unsafe and insecure environment:** Acute shortage of staff (in terms of quantity as well as quality) both in the police force as well as in the Forensics Science Laboratories and inadequate number of police stations especially in view of the burgeoning population and growing economic prosperity is not helping the state create a safe and secure environment for women and children in the state.

#### 5. Improving investments in the social sector which have suffered due to debt burden and uneven revenue growth

At present, Haryana bears a large debt burden,

49. *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.

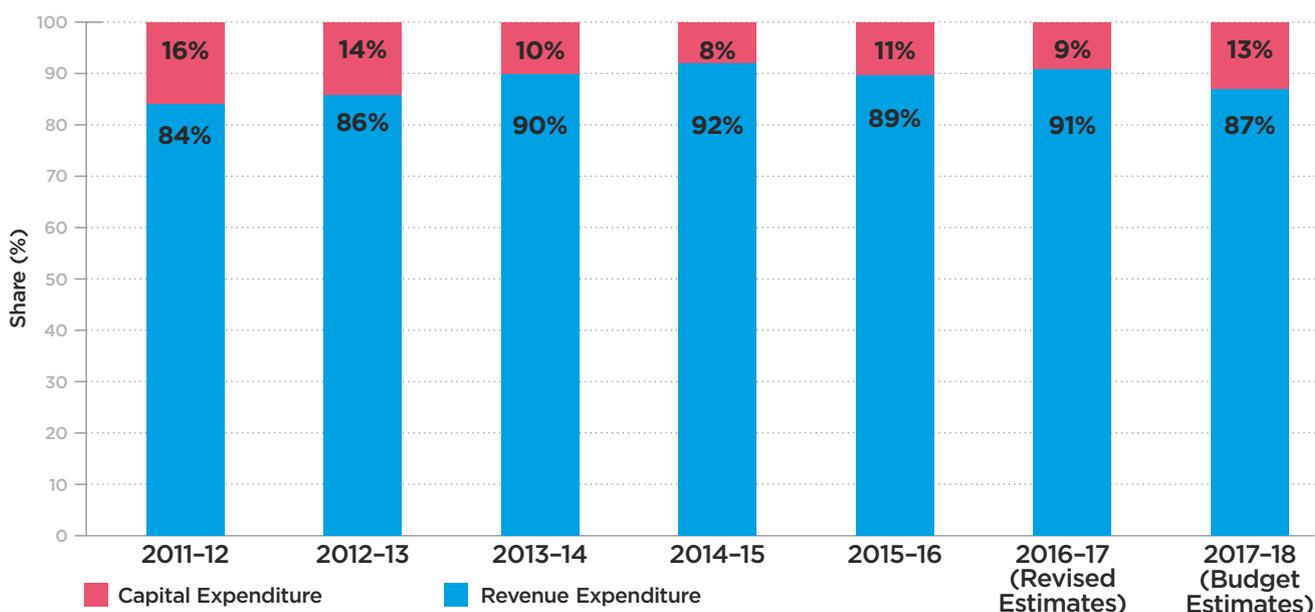
which has contributed to both, fiscal and revenue deficit. As a result, only limited funds are available for capital expenditure which is the primary source of state-based resource dedicated to infrastructure, social programming and development interventions (Figure E.15). Financial constraints have thus hampered the ability of the state to invest further in development projects, impeding the growth and scope of existing efforts, while stunting any possibility for new interventions.

For a developing economy like Haryana, capital formation is of central importance. Considerable economic growth can be achieved by concentrating on not just the physical but also

social infrastructural development. In the coming years, it intends to increase expenditure on the social sector but for that it needs to tackle the low growth of the agriculture sector on one hand and arrest the decline of the manufacturing sector on the other.

Diversification of agriculture and improving the productivity of the workforce engaged in the primary sector need urgent focus as also leveraging the locational advantage of the state to give fresh impetus to the lagging industrial sector. The growth rates in both the primary and secondary sectors need to be accelerated to harness the full potential of these sectors to meet the state's economic and social targets.

**Figure E.15: Share% of Revenue Expenditure and Capital Expenditure in State Expenditure (2011-12 to 2016-17)**

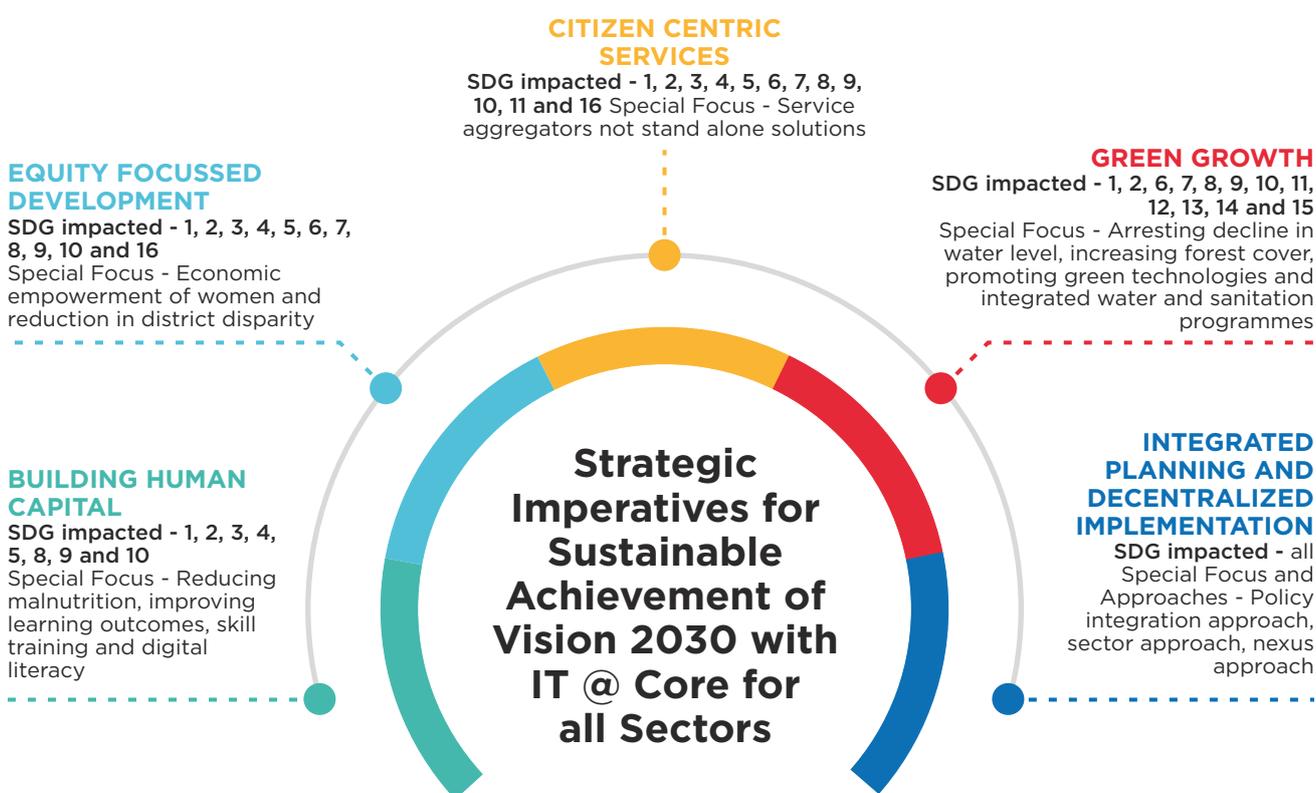


# Strategic Imperatives for Sustainable Achievement of the Vision 2030

The ambitious targets set for 2030 call for a new way of governance instead of the business-as-usual approach. Haryana must upgrade to a modern digital state with information technology at the core for all sectors (Figure E.16). The sustainable development of Haryana is only possible if the state follows five principles in the new way of governance. These are

1. Integrated planning and decentralized implementation instead of the business-as-usual route of working in silos.
2. Focusing on equitable development instead of the business-as-usual scenario of gender-biased and regional imbalance.
3. Building human capital through educational attainment and skill enhancement instead of the business-as-usual promotion of economic growth sans job growth.
4. Citizen-centric services promoting rule of law, transparency and accountability, instead of the business-as-usual scenario where the ordinary citizen finds it difficult to access essential services.
5. Green growth instead of the business-as-usual approach of promoting infrastructural and physical growth with scant regard for the environmental implications and natural resources depletion.

**Figure E.16:**  
**Strategic Imperatives for Sustainable Achievement of Vision 2030 with IT@Core for all Sectors**



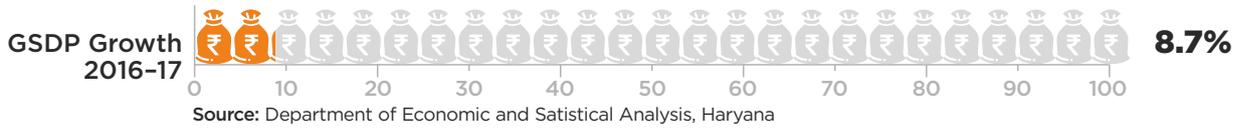
## Conclusion

Haryana is well placed to be one of the most developed states of India by 2030 and aims to ensure through its vigorous integrated approach

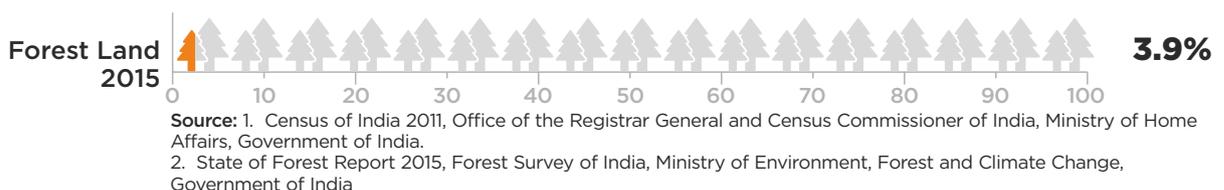
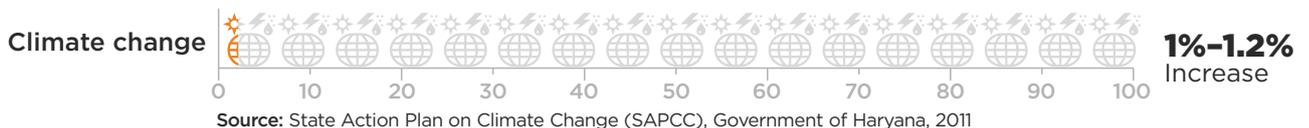
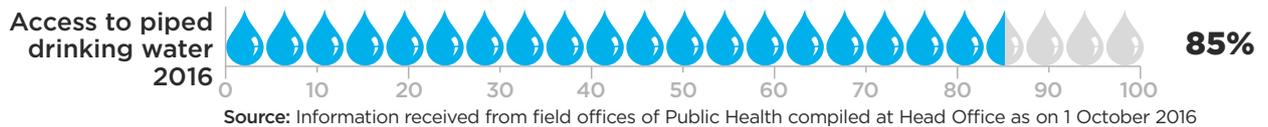
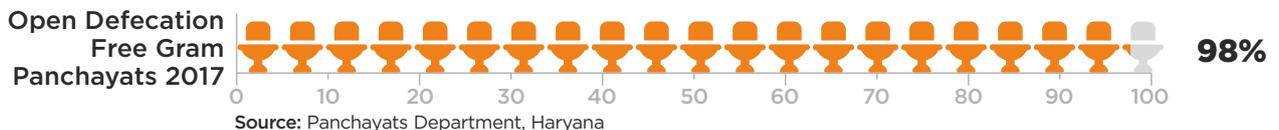
to development, that none of its residents is left poor, uneducated, undernourished and uncared for by 2030.

# Haryana Today - Indicators

## Economic

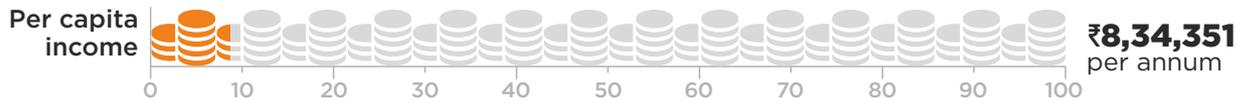


## Environmental



# Haryana 2030 - Indicators

## Economic



**Industrial Development**  Committed to **district wise** industrial cluster development



**Generate Jobs**  **18 lakh**

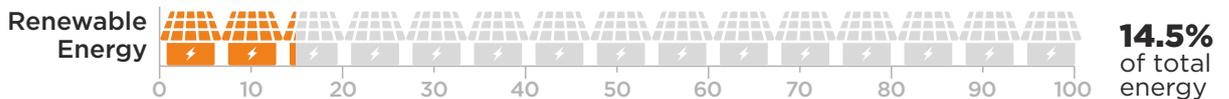
**Power to all**  **24 X 7**

**Skilled Labour Force**  **5,00,000** persons

## Environmental

**Target-100%**  Waste & Garbage Collection +  Toilets +  Sewerage system

**SWM Plants**  **20** e-waste and solid waste management (SWM) plants



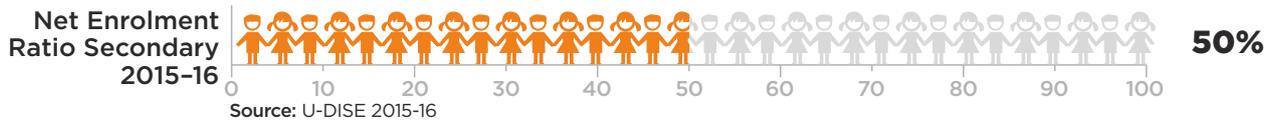
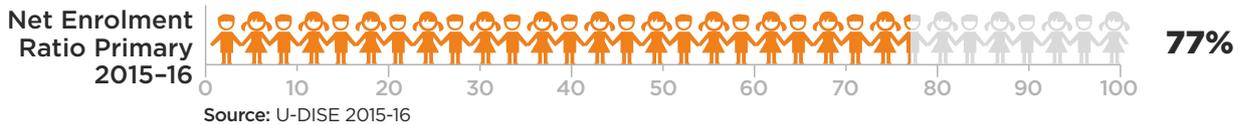
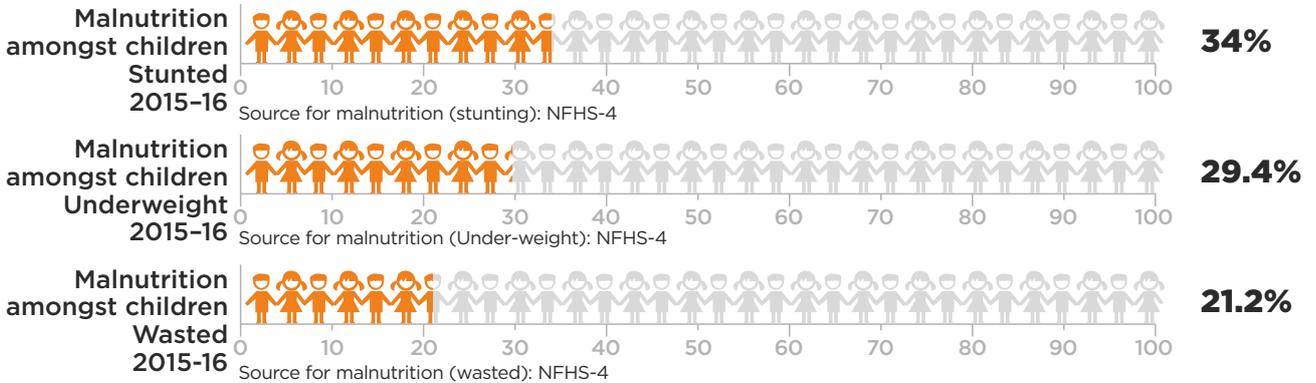
**Stubble Burning**  Eliminate stubble burning

**Climate Smart Villages**  **Establish 400** Climate Smart Villages

**Water Table**  Stop decline in water level

# Haryana Today - Indicators

## Social



# Haryana 2030 - Indicators

## Social

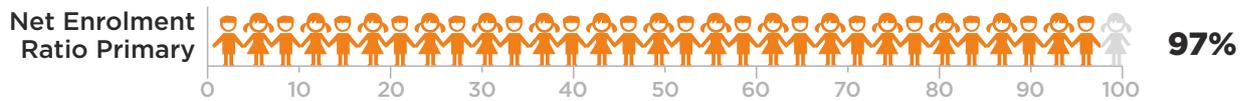
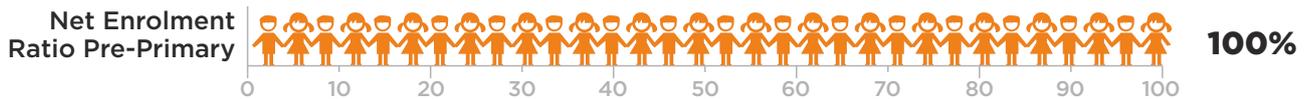
Malnutrition  No malnutrition amongst children

Housing  Housing for all

Maternal Mortality Rate  **70** per **1,00,000** live births

Neonatal Mortality Rate  **12** per **1,000** live births

Under5 Mortality Rate  **25** per **1,000** live births



Dropout Rate  Nil

Sex Ratio  Gender parity in birth ratio

Crime against women  Reduced crime against women

# HARYANA SDG VISION 2030

**Aligned to Prime Minister's 15-year Long-term Vision for India from 2017-18 to 2031-32**

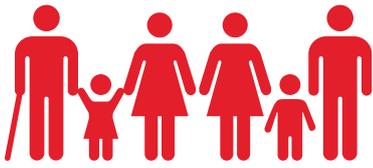
*(Based on the Third Governing Council Meeting of NITI Aayog on 23 April 2017)*

Honourable Prime Minister of India Shri Narendra Modi has spelt out his vision to transform India into a prosperous, highly educated, healthy, secure, corruption-free, energy abundant, environmentally clean and globally influential nation by 2031-32.

In line with the strategies and focus areas laid out in this Vision document, based on the United Nations Sustainable Goals for 2030, Government of Haryana embraces the PM's Transformative 8-point Agenda as enumerated in the table below:

<b>PM's Transformative Agenda</b>	<b>Haryana SDG 2030 Vision</b>	<b>Haryana Targets 2030</b>
<b>Prosperity not Poverty</b>	<b>SDG 1</b> No Poverty <b>SDG 2</b> Zero Hunger	<ul style="list-style-type: none"> <li>✓ Eradicate extreme poverty</li> <li>✓ Housing for all</li> <li>✓ 100% Open Defecation Free Status in rural and urban areas</li> <li>✓ Reduce the percentage of underweight and wasted children to nil</li> <li>✓ Per capita availability of milk to be greater than 1,250g per day</li> </ul>
<b>Equality not Discrimination</b>	<b>SDG 4</b> Quality Education <b>SDG 5</b> Gender Equality <b>SDG 8</b> Decent Work and Economic Growth <b>SDG 10</b> Reduced Inequalities <b>SDG 11</b> Sustainable Cities and Communities	<ul style="list-style-type: none"> <li>✓ Net enrolment ratio at pre-primary level 100%; primary level 97%; upper primary level 95%</li> <li>✓ Attain sex ratio of 1,000 girls per 1,000 boys for children aged 0-6 years</li> <li>✓ Decrease the unemployment gap between men and women to 0%</li> <li>✓ Reduce the proportion of crime against women to total crime to 12%</li> <li>✓ Lower the rate of domestic violence among partners to 17%</li> <li>✓ Diversify industrial growth to emerging sectors to generate employment to the tune of 18 lakh</li> <li>✓ Increase the number of houses constructed under affordable housing schemes to 6.65 lakh</li> </ul>
<b>Justice not Injustice</b>	<b>SDG 10</b> Reduced Inequalities <b>SDG 16</b> Peace, Justice and Strong Institutions	<ul style="list-style-type: none"> <li>✓ 50,000 persons with disabilities to undergo skill development and job training</li> <li>✓ 40,000 soft loans to be provided to scheduled castes and 20,000 to backward classes for income generating schemes</li> <li>✓ Increase the number of police stations to 500</li> <li>✓ Increase the percentage of women in the police force to 20%</li> </ul>
<b>Cleanliness not Impurity</b>	<b>SDG 6</b> Clean Water and Sanitation <b>SDG 12</b> Sustainable Consumption and Production	<ul style="list-style-type: none"> <li>✓ 100% drinking water for rural and urban areas</li> <li>✓ 100% sewerage system coverage in urban areas</li> <li>✓ Increase the solar renewable energy purchase obligation to 5000MW</li> <li>✓ Reduce the quantity of total pesticides used in agriculture by 18.30MT</li> </ul>
<b>Transparency not Corruption</b>	<b>SDG 9</b> Industry, Innovation and Infrastructure <b>SDG 16</b> Peace, Justice and Strong Institutions <b>SDG 17</b> Partnerships for the Goals	<ul style="list-style-type: none"> <li>✓ Increase the number of police stations to 500</li> <li>✓ A State Resident Database (SRDB) is being built to drive direct benefits transfer schemes across departments and weed out ghost beneficiaries</li> <li>✓ Delivery of G2C e-services through Atal Seva Kendras (ASKs) is in progress</li> <li>✓ 100% Aadhaar saturation to be obtained in the State</li> <li>✓ Haryana is the first state to start the use of Aadhaar Enabled Biometric Attendance System (AEBS) for government employees</li> </ul>

PM's Transformative Agenda	Haryana SDG 2030 Vision	Haryana Targets 2030
		<ul style="list-style-type: none"> <li>✓ The state government has already implemented an Integrated Financial Management System and most of the payments from the state treasury are being made through electronic mode</li> <li>✓ Facility has been provided to pay online state taxes using payment aggregator</li> <li>✓ The government has signed an MOU with the State Bank of India to install 3,000 POS machines at various state government offices.</li> <li>✓ Instructions have been issued to all state government departments to encourage receipt of payments of more than ₹5,000 only through cashless methods</li> <li>✓ 100% Pradhan Mantri Jan Dhan Yojana (PMJDY) accounts seeded by Aadhaar</li> </ul>
Employment not Unemployment	<b>SDG 4</b> Quality Education <b>SDG 5</b> Gender Equality <b>SDG 8</b> Decent Work and Economic Growth	<ul style="list-style-type: none"> <li>✓ 95% students in Grades I-V to be at grade level competencies in 5 years; 95% students in Grades VI-VIII to be at grade level competencies in 7 years</li> <li>✓ All secondary and senior secondary schools to provide skills education</li> <li>✓ Decrease the unemployment gap between men and women to 0%</li> <li>✓ Diversify industrial growth to emerging sectors to generate employment to the tune of 18 lakh</li> <li>✓ Create 252 training facilities in the state</li> </ul>
Respect for Women Not Atrocities against Women	<b>SDG 3</b> Good Health and Well-Being <b>SDG 4</b> Quality Education <b>SDG 5</b> Gender Equality	<ul style="list-style-type: none"> <li>✓ Reduce maternal mortality rate to 70 per 1,00,000 live births, under 5 mortality rate to 25 per 1,000 live births and neonatal mortality rate to 12 per 1,000 live births</li> <li>✓ Net enrolment ratio at pre-primary level 100%; primary level 97%; upper primary level 95%</li> <li>✓ 95% students in Grades I-V to be at grade level competencies in 5 years; 95% students in Grades VI-VIII to be at grade level competencies in 7 years</li> <li>✓ Attain sex ratio of 1,000 girls per 1,000 boys for children aged 0-6 years</li> <li>✓ Decrease the unemployment gap between men and women to 0%</li> <li>✓ Reduce the proportion of crime against women to total crime to 12%</li> <li>✓ Lower the rate of domestic violence among partners to 17%</li> </ul>
Hope not Despondency	<b>SDG 3</b> Good Health and Well-Being <b>SDG 4</b> Quality Education <b>SDG 7</b> Affordable and Clean Energy <b>SDG 13 &amp; 14</b> Climate Action & Life Below Water <b>SDG 15</b> Life on Land	<ul style="list-style-type: none"> <li>✓ Reduce maternal mortality rate to 70 per 1,00,000 live births, under 5 mortality rate to 25 per 1,000 live births and neonatal mortality rate to 12 per 1,000 live births</li> <li>✓ 24 * 7 power for all</li> <li>✓ 100% coverage of energy efficient domestic and street lighting</li> <li>✓ 100% elimination of stubble burning</li> <li>✓ Establish 400 climate smart villages</li> <li>✓ Increase tree cover by 10% (of gross area)</li> </ul>



# SDG 1 | No Poverty

End poverty in all its forms everywhere

## Vision

To ensure livelihoods and income opportunities to all vulnerable people living in poverty in all its dimensions; and to provide easy access to health, education, housing, basic services and social protection as well as risk mitigation across the state.

## Haryana Today

- The annual per capita income of Haryana is ₹1,80,174 as compared to the national average of ₹1,03,818.
- The estimated percentage of people living below the poverty line within Haryana has halved from 24% in 2004-05 to 11.20% in 2010-11.
- Of Haryana's workforce, only 23.66% comprise of women.
- While the literacy rate is 5.6% in Haryana overall, the literacy rate of school-aged girls is currently 56.65%.
- In Haryana, 1.56 lakh rural and 2.67 lakh urban households lack pucca houses.

## Focus for Tomorrow

- Ensure livelihoods and income opportunities to all vulnerable people living in poverty in all its dimensions.
- Provide easy access to health, education, housing and basic services.
- Enable social protection and risk mitigation.

**HARYANA**  
**2030**  
Targets

- ✓ To eradicate extreme poverty by 2030
- ✓ To double agricultural incomes by 2022
- ✓ To enhance employability and opportunities of non-farm labour through skill development
- ✓ To increase ease of access to government services/schemes
- ✓ To ensure gender equality with regard to access to basic resources
- ✓ To ensure health, education and housing for all by 2030
- ✓ To develop a risk mitigation plan for health risks, droughts and floods
- ✓ To sanction drinking water connections for 31 lakh rural and 11 lakh urban households

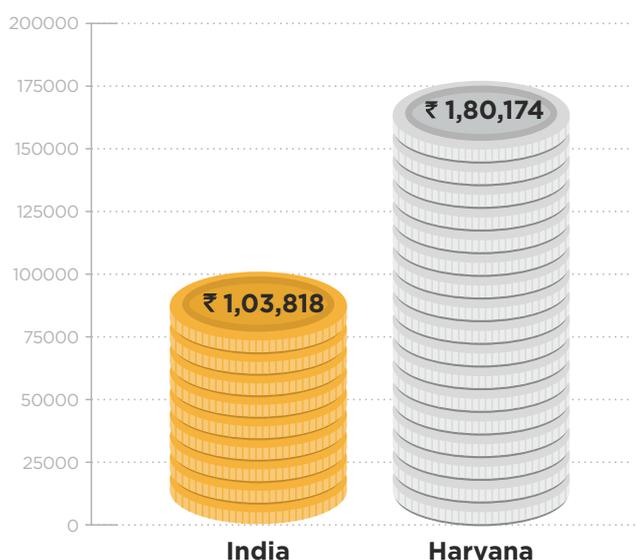
## Current Interventions

### Ensure livelihoods and income opportunities to all vulnerable people living in poverty in all its dimensions

Leveraging Haryana's progressive agricultural sector, expanding industry and services and strategic location, the Government of Haryana has been making consistent efforts to reduce the level of poverty in the state.

Haryana, created on 1 November 1966, accounts for only 1.3% of the country's total area and 2.09% of the Indian population. As per the 2011 census, 65% of its population is rural and 35% lives in urban areas.<sup>1</sup> Haryana's contribution to the national gross domestic product at constant (2011-12) prices has been estimated to be 3.6% as per the Advance Estimates of 2016-17.<sup>2</sup>

**Figure 1.1:**  
Annual Per Capita Income of Haryana (2016-17)



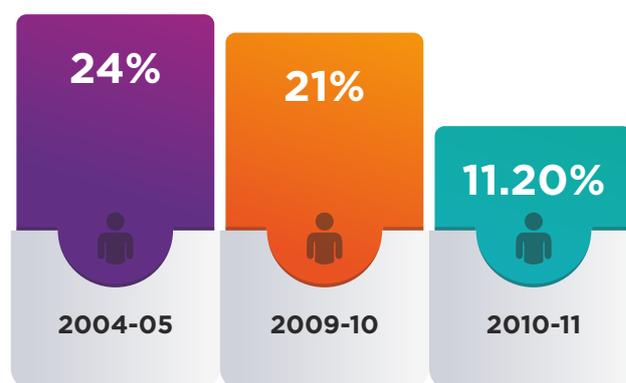
Source: Department of Economic and Statistical Analysis, Government of Haryana

Within Haryana, the government defines poverty caps and ceilings based on the national definitions of poverty, poverty index and methodology, as set by the Government of India on an annual basis. Of the 30 lakh deprived households in the state as per existing norms, 9.97 lakh are rural. The per capita

income of Haryana is ₹1,80,174 per annum (Figure 1.1). Among these deprived households, the Hashim Committee has defined some households as socially, occupationally, or residentially vulnerable.

Through consistent poverty reduction efforts over the past 30 years, the government has been able to reduce poverty levels in rural areas from 42% in 1984 to 27% in 2007. In urban areas, however, in spite of significant efforts, poverty has grown from 25.68% in 1997 to 37.40% in 2007.<sup>3</sup> Factors involved in this increase are wide ranging, including migration and changes in criteria used to define poverty over the years. Overall, the estimated percentage of people living below the poverty line (BPL) within Haryana was 24% in 2004-05, 21% in 2009-10 and 11.20% in 2010-11 (Figure 1.2).<sup>4</sup>

**Figure 1.2: Households Living Below the Poverty Line, Haryana (Estimated)**



Source: The Tendulkar Methodology, Report of the Expert Group to Review the Methodology for Measurement of Poverty, Planning Commission, Government of India, June, 2014; [http://planningcommission.nic.in/reports/genrep/pov\\_rep0707.pdf](http://planningcommission.nic.in/reports/genrep/pov_rep0707.pdf)

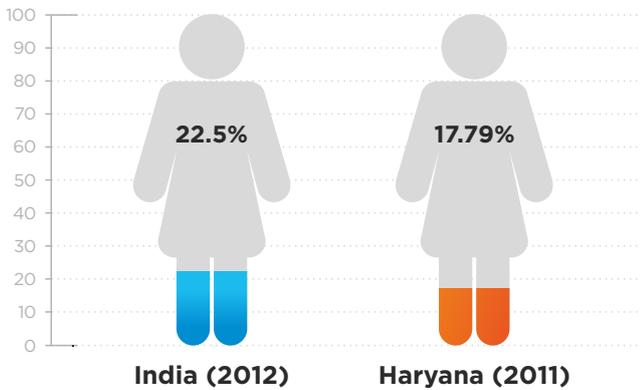
As per Census 2011, Haryana's workforce comprises 35.2% of its population. Of this workforce, only 23.66% consist of women. Of the female population of Haryana, 17.79% participate in the workforce, a number that is lower than the national figure of 22.5% (Figure 1.3). According to Socio-Economic Caste Census (SECC), 2011, 8 lakh households are presently dependent on manual labour in rural areas.<sup>5</sup>

As Haryana is predominantly an agricultural state,

1. ORGI (2011), *Census of India 2011*, Office of the Registrar General of India and the Census Commissioner, Ministry of Home Affairs, Government of India.
2. *Economic Survey of Haryana, 2015-16*, [web1.hry.nic.in/budget/Esurvey.pdf](http://web1.hry.nic.in/budget/Esurvey.pdf)
3. Below Poverty Line Survey conducted in the year 2007-08 by the Department of Rural Development, Government of Haryana. This was a full enumeration undertaken in compliance with the requirements of the Planning Commission
4. The Tendulkar Methodology, Report of the Expert Group to Review the Methodology for Measurement of Poverty, Planning Commission, Government of India, June, 2014; [http://planningcommission.nic.in/reports/genrep/pov\\_rep0707.pdf](http://planningcommission.nic.in/reports/genrep/pov_rep0707.pdf)

livelihood opportunities are largely limited to the agriculture sector, with the exception of areas

**Figure 1.3: Participation of Women in the Workforce (as % of female population)**



**Source:** Data for India is sourced from [http://niti.gov.in/writereaddata/files/document\\_publication/Decline%20in%20Rural%20Female%20Labour%20Force%20Participation%20in%20India.pdf](http://niti.gov.in/writereaddata/files/document_publication/Decline%20in%20Rural%20Female%20Labour%20Force%20Participation%20in%20India.pdf). This Niti Aayog document quotes NSSO 68th Round data. The data from Haryana is drawn from Census of India 2011, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.

proximate to the National Capital Region (NCR) which host some industries. Efforts to expand livelihoods and sources of income within Haryana have been wide-reaching. The Government of Haryana has been working in partnership with the Government of India on national schemes, in addition to many state-based schemes. Within Haryana, the following programmes promoting livelihood opportunities have met with success.

1. *Mahatma Gandhi National Rural Employment Guarantee Scheme:* This scheme under the National Rural Employment Guarantee Act, 2005 enhances livelihood security in rural areas by providing at least 100 days of wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work. It aims to guarantee the right to work. Through this programme, 711.35 lakh workdays have been generated in the state, 39% for women, against the national figure of 54.06%.<sup>5</sup>
2. *Urban Wage Employment Programme:* Under this programme 5.95 lakh workdays of employment have been generated in 2015-16 in Haryana.

In addition to these efforts, the Government of Haryana has designed specific programmes and schemes which focus on enhancing industrial production and creation of more jobs and livelihoods within the state. In addition to a number of programmes such as VISTAAR and PRANETA, which work towards the growth of the state's micro, small and medium enterprises (MSMEs) and promoting entrepreneurship throughout the state, the following programmes are also under way:

3. *Pradhan Mantri Mudra Yojana* The Government of India commenced the Pradhan Mantri Mudra Yojana in April 2015 under which, banks provide funding to the non-corporate small business sector. Loans worth approximately ₹34 crore have been sanctioned to small entrepreneurs in Haryana as against the national figure of ₹1.52 lakh crore.<sup>7</sup> Furthermore, 72,237 accounts have been opened and a total loan amount of ₹84,213.13 lakh disbursed under this scheme in Haryana. The details of the loans disbursed are as below:
  - Shishu account: Number of loans 51,376 and total loan amount ₹13,648.91 lakh
  - Kishore account: Number of loans 15,746 and total loan amount ₹31,978.35 lakh
  - Tarun account: Number of loans 5,116 and total loan amount ₹38,585.80 lakh
4. *National Rural Livelihood Mission:* This scheme is focussed on promoting self-employment and facilitating micro-finance amongst rural poor workers. The basic idea behind this programme is to organize the poor into self-help groups (SHGs) and make them capable of self-employment. There are more than 4,500 SHGs in Haryana.
 

The Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDUGKY) focuses on skill development of youth in rural areas and 39,330 youth have been trained under this scheme.
5. *Pradhan Mantri Jan Dhan Yojana:* As on 30 September 2016, a total of 5,398,669 bank

5. The Ministry of Rural Development, Government of India, commenced the Socio Economic and Caste Census (SECC) 2011, in June 2011 through a comprehensive door-to-door enumeration across the country. SECC is conducted through a comprehensive programme involving the Ministry of Rural Development, Ministry of Housing and Urban Poverty Alleviation, The Office of the Registrar General and Census Commissioner of India and the state governments. <http://secc.gov.in/>

6. Physical Report/MIS Report (Person-Days Generation Report) available with Rural Development Department, Government of Haryana.

7. <http://www.mudra.org.in/>

accounts have been opened in Haryana, of which 75% are seeded with Aadhar.

6. Improve Productivity and Income from Agriculture: All efforts are being made to improve productivity and net income from agriculture. This is being done through supply of better seeds, soil health programmes, crop diversification, post-harvest management, easy credit supply to farmers, provision of monetary support, etc. Some of these schemes include Pradhan Mantri Fasal Bima Yojana, Rashtriya Krishi Vikas Yojana, National Livestock Mission, Soil Health Card Scheme and National Food Security Mission.
7. New Industrial Regulation by Automatic Approvals and Delegation in Haryana (NIRBAADH): The NIRBAADH scheme focuses on improving time-bound approvals and clearances, as well as self-certification and third party verification.
8. Financial Incentives and No Enhancements (FINE): The FINE scheme was introduced to reduce the cost of doing business through a suite of incentives and the enforcement of a clause regarding zero enhancement in the cost of plots which have been allotted by the Haryana State Industrial and Infrastructure Development Corporation (HSIIDC). In addition to this, an employment generation subsidy up to ₹36,000 per year is being provided to industries which employ local youth.
9. Information, Education and Communication (IEC) activities: All government schemes now include an IEC component, which aims to spread awareness about government programmes among residents of Haryana through bulk SMS services.
10. Gram Sachivalaya: Through this scheme, the Government of Haryana established a Gram Sachivalaya across Cluster Head Gram Panchayats in the state. These Gram Panchayats, in turn, have acted as a hub for all administrative work and as a mini-IT Centre in cooperation with the Citizen Service Centre. The residents of Haryana are able to access government services more directly, through such centres.

### **Provide easy access to food, health, education, housing and basic services**

In recognition of the multi-faceted nature of poverty, the Government of Haryana implements a number of cross-cutting programmes which target the divergent symptoms of poverty, primarily focusing on food security, basic health, access to education and shelter including basic amenities, as they represent key components of the poverty cycle.

Food: Under the Targeted Public Distribution Scheme (TPDS), 50% of the population is provided with some level of nutritional assistance. For example, at present, 11.06 lakh families receive sugar and pulses at a subsidized rate. Through the Antyodaya Anna Yojana Programme, eligible poor families are provided with food grains worth ₹705.50 per family per month across the state. These efforts by the state government are further supported through the National Food Security Act 2013, which ensures a basic level of nutritional coverage.

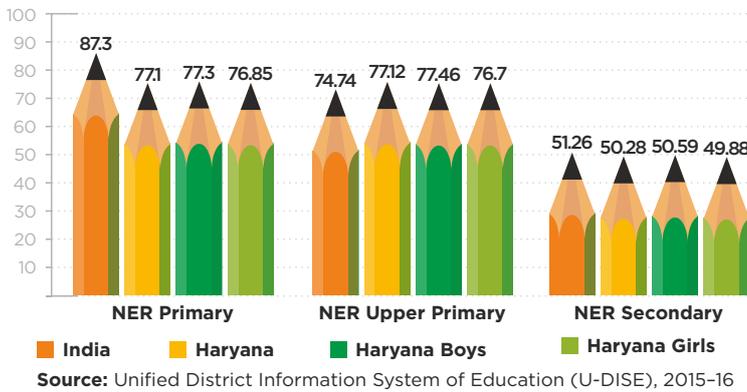
Health: The Government of Haryana has been making consistent efforts to make health care affordable and accessible across the state, through the establishment of a vast infrastructure of health facilities with 2,630 sub-centres, 468 primary health centres (PHCs), 94 community health centres (CHCs) and 57 general hospitals.<sup>8</sup>

In addition, the Government of Haryana, in cooperation with the Government of India, also provides health care through numerous programmes geared towards ensuring that BPL families are able to maintain their basic health and well-being. These programmes include the following interventions:

- Mukhyamantri Muft Ilaaj Yojana: Through this programme, the Government of Haryana provides free medicines, diagnosis and treatment facilities in primary and secondary health care centres.
- National Health Mission: The aim of this scheme is to provide basic health care and preventive health care in the rural areas, while focusing on reduction in Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR) and population growth.

8. As per NSSO data received from Haryana State Health Resource Centre

**Figure 1.4: State versus National Gross Enrolment Ratios (2015-16)**



**Education:** At present, there are 9,603 primary, 4,051 middle and 7,571 secondary high schools in the state. Figure 1.4 presents the status of school enrolment in Haryana vis-a-vis India. Though the state does not compare too badly with national figures up to the middle school, at the senior secondary level it lags behind. Figure 1.5 shows that in terms of literacy, Haryana is at par with the country average.

As the Government of Haryana has identified a significant gap in skill development of its 1.87 lakh populace, the state has focused on providing education to Scheduled Caste (SC) and Other Backward Class (OBC) students by giving pre- and post-education scholarships through various schemes. These interventions are in addition to free education which is guaranteed across the state until Class VIII, through the Right to Education Act, 2009. The Government of Haryana,

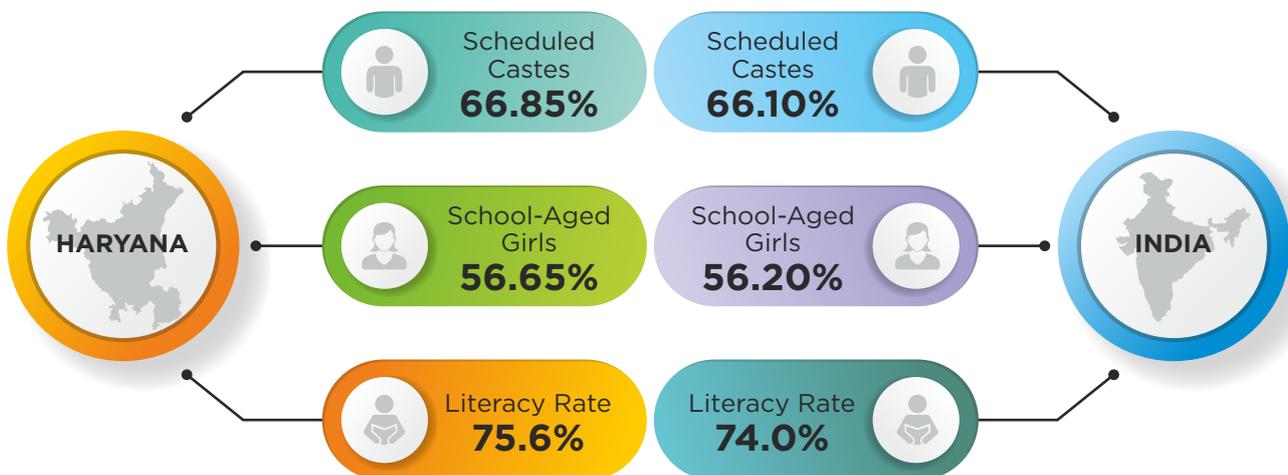
in cooperation with the Government of India, has established a fund of ₹1,500 crore under the Deen Dayal Upadhyaya Grameen Rural Kaushalya Yojana programme to address skill development needs throughout the state, particularly for the 15-35 years age group. Under this programme, disbursements through a digital voucher system will directly be made into the rural youth's bank accounts.

**Housing:** Thus far, 2.37 lakh BPL households have been assisted with the construction of houses. As per the Socio Economic Caste Census (SECC) 2011, in rural areas there are

1.56 lakh families without shelter/ pucca houses, which will be covered under the Mission Housing For All or the Pradhan Mantri Awas Yojana (PMAY). In urban areas too, 2.67 lakh households are without pucca houses as per SECC data.<sup>9</sup> The Government of Haryana is currently subsidizing housing through various schemes and programmes including slum development under the Rajiv Awas Yojana. In addition to this intervention, the Housing Board and HUDA are providing special schemes for low cost housing, such as the Pradhan Mantri Gramin Awaas Yojana, for the rural poor in order for them to upgrade or construct dwelling units of an acceptable quality.

**Basic Services:** To consider all aspects of poverty, the state also invests in the provision of basic services to BPL families. These basic services include the provision of drinking water and sanitation. To this end, drinking water facilities are

**Figure 1.5: State versus National Literacy Rate**



Source: Statistical Abstract Haryana 2015-16, Department of Economic and Statistical Analysis, Government of Haryana; esaharyana.gov.in.

9. secc.gov.in

being provided at each doorstep at minimal charges, which helps to reduce poverty through its impact on both hunger and water borne disease.

At present, Haryana provides drinking water at a rate of 70 litres per capita per day in the areas covered by the Drought Development Programme and 55 litres per capita per day in areas not covered by it. Individual household connections are encouraged in rural areas to help save and conserve this precious resource, while simultaneously reducing time and risk otherwise involved in water collection. At present, 90% of the urban population is already within the potable drinking water state supply network whereas the national average is 96%.

Under sanitation services, sewerage pipelines are available in most of the towns. Out of 80 towns, 75 are covered, either fully or partially, with a sewerage system along with sewage treatment plants.

In urban areas, municipal committees and corporations are responsible for garbage collection and sanitation. The coverage of sewerage facilities is about 75% in urban areas. The Department of Public Health, urban local bodies (ULBs) and Haryana Urban Development Authority (HUDA) are actively engaged in establishing the sewerage and sanitation network across the state.

Interventions for the provision of basic services include the following:

- Under the National Rural Drinking Water Supply Programme (NRDWP), the Public Health Engineering Department is responsible for providing drinking water supply in both, rural and urban areas, as well as maintaining sewerage and storm water systems in urban areas.
- Raw water listing schemes from assured sources of surface water have been framed which will help create a list of all available sources of raw surface water that can be potentially utilized for drinking and sanitation purposes.
- The National River Conservation Directorate (NRCD) in the Ministry of Environment, Forest and Climate Change, Government of India is

implementing a centrally sponsored scheme of the National River Conservation Plan (NRCP) and National Plan for Conservation of Aquatic Eco-systems (NPCA) for the conservation of rivers, lakes and wetlands in the country.

- The Swachh Bharat Mission aims to eradicate open defecation by 2019. Under this initiative, 6,096 Gram Panchayats (GPs) out of 6,205 GPs have become Open Defecation Free (ODF) as on 30 April 2017. In rural areas, 18 districts have become ODF and all rural areas are likely to become ODF by June 2017. Two cities have become ODF till date and all cities are likely to become ODF by October 2017.<sup>10</sup>
- Major initiatives have also been taken by the government to set up solid and liquid waste management (SLWM) systems. In Haryana, 1,302 SLWM projects have been sanctioned and about 260 projects have been completed.<sup>11</sup>

### **Social protection and risk mitigation**

The state government is making efforts to provide social protection to vulnerable sections of society such as the aged, widows, destitute persons and persons with disabilities through various schemes (Figure 1.6).

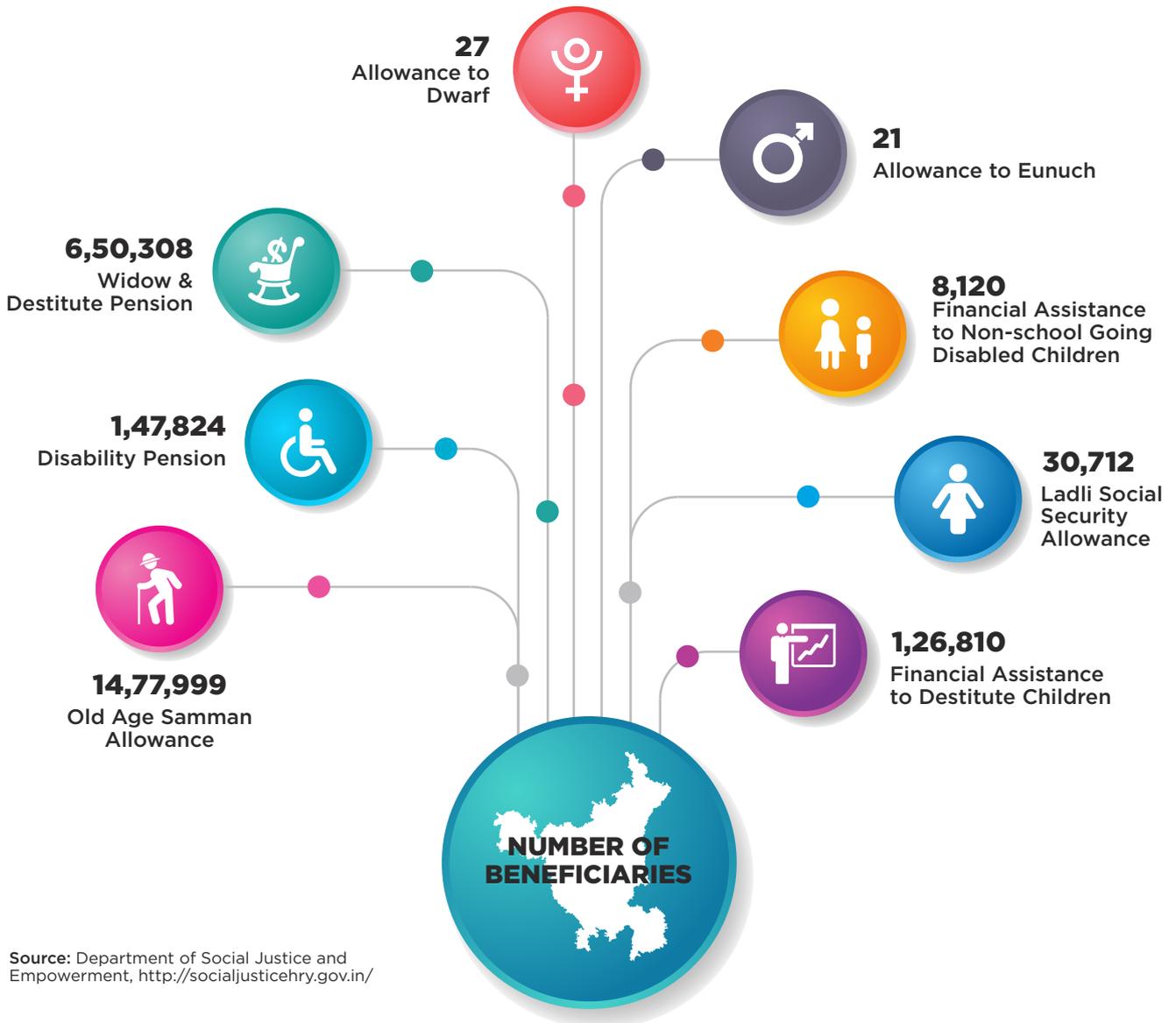
Haryana has put in place a comprehensive legislative framework for providing social security to SCs based on the Protection of Civil Rights Act, 1955 and the Prevention of Atrocities Act, 1989. In order to cover the risk of falling into poverty due to financial difficulties arising out of caste conflicts, physical calamities, or significant expenditures on marriage or health care, the Government of Haryana has provided financial assistance to extra-vulnerable persons. In addition to monetary relief to victims of caste atrocities under these Acts, incentives are also provided to Village Panchayats for “Outstanding Work Done on the Welfare of Scheduled Castes”.

The state government has provisioned for disaster management funds to assist disaster affected persons. As part of this initiative, the Government of Haryana has provided compensation of approximately ₹1,200 crore to farmers who have suffered severe crop losses due to droughts and floods in the last two years. Similarly, compensation of approximately ₹85 crore was paid

10. Panchayats Department, Government of Haryana

11. Ibid.

**Figure 1.6: Social Protection in Haryana (2016-17)**



Source: Department of Social Justice and Empowerment, <http://socialjusticehry.gov.in/>

to persons affected in the Jat reservation agitation in 2016.

The state has also worked to build risk mitigation through insurance schemes such as the Pradhan Mantri Jan Dhan Yojana (PMJDY), the Pradhan Mantri Fasal Bima Yojana (PMFBY) and the Rashtriya Swasthya Bima Yojana (RSBY). Besides these, the Government of Haryana has been implementing the Rajiv Gandhi Pariwar Bima Yojana, which covers deaths due to accidents. Haryana has special schemes in place for farmers and industrial labourers as well. The following programmes of the Government of Haryana have met with significant success:

- Pradhan Mantri Fasal Bima Yojana: As agriculture in India is highly susceptible to risks

like droughts and floods, this programme works to protect farmers from natural calamities and ensure their credit eligibility for the next season. For this purpose, the Government of India introduced the PMFBY to ensure a uniform premium of only 2% to be paid by farmers for kharif crops and 1.5% for rabi crops.

- Shivalik Development Board and Mewat Development Board: This programme delivers support to backward areas with a special emphasis on physical and social infrastructure.
- Mukhya Mantri Viwah Shaqun Yojana: This scheme aims to ensure that the marriages of girls from poor families and daughters of widows or destitute women and orphans can be funded and solemnized through ceremonies

that are aligned to accepted customs and traditions and they are able to transition to their marital homes with dignity.

- Legal Aid to Scheduled Castes and Vimukata Jatis: Under this scheme, aid is being provided to SCs and Vimukata Jatis for the defence and institution of legal cases.
- Old Age Samman Allowance: The Government of Haryana provides the highest rate of old age pension.<sup>12</sup>

## Challenges

### Livelihoods and income opportunities to all vulnerable people

Haryana's is an agro-based economy. About 65% of its population is rural and directly or indirectly dependent on the agricultural and allied sector for livelihood. The state farming sector, which can actually support meaningful and gainful employment of only about 10-20% of the state's population, engages a massive 16.17 lakh farmers. This dichotomy is leading to significant issues of disguised unemployment, seasonal employment, and a deficit in adequately remunerative employment opportunities. The lack of food processing and agri-processing industries further accentuates dependencies on agriculture and compounds the issue of low income sources. Overall, employability is a challenge, with a huge gap between the demand and supply of skilled manpower. Industry and service sector opportunities are both concentrated in a few areas, particularly around the National Capital Region (NCR), which contributes to the slower growth of livelihood opportunities in deeper Haryana, spurring rural-urban migration.

Accurate identification of beneficiaries/target groups (without errors of inclusion or exclusion) has suffered from methodological or process related issues. This has somewhat cramped the success of the programmes being implemented to tackle poverty and related challenges. Lack of awareness regarding rights and entitlements amongst the target groups of

various schemes hampers implementation and lowers the potential impact that these schemes can have. Despite best efforts, accessibility and efficiency of these programmes remain challenge areas.

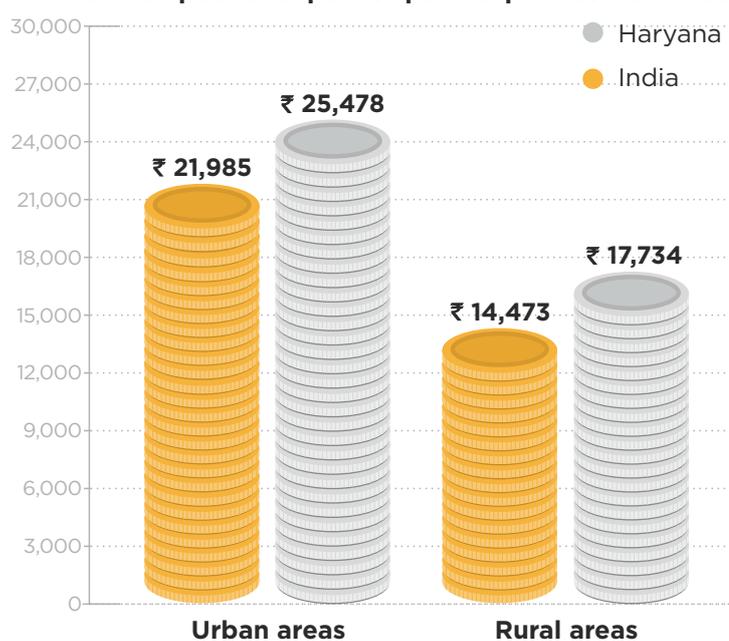
### Provide easy access to food, health, education, housing and basic services

While policies and programmes of the government are aimed at providing access to food, health care, education, housing and basic services for the extra-vulnerable sections of society, implementation is dogged by challenges.

Food: Universal access to food and nutrition as an objective remains unfulfilled because of systemic weaknesses such as inefficient distribution though many programmes are under implementation to tackle this.

Health: While the availability of health care professionals per 1,000 population in Haryana is better than the India average, it is not uniform across rural and urban parts of the state, precipitated not in small measure by the reluctance to serve in rural and remote areas. This has hampered efforts to increase access to affordable basic health services, retarding the growth of institutions and infrastructure in such areas. The out-of-pocket expenses per hospitalized case are higher in Haryana than India as a whole (Figure 1.7).

**Figure 1.7:**  
**Out-of-pocket Expenses per Hospitalized Case-2014**



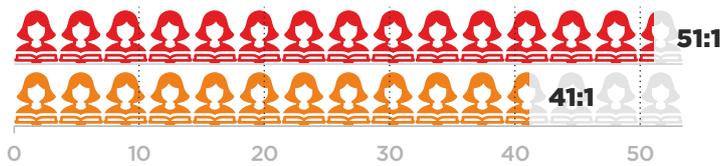
Source: As per NSSO round 71<sup>st</sup> data received from Haryana State Health Resource Centre

12. Department of Social Justice and Empowerment, Government of Haryana

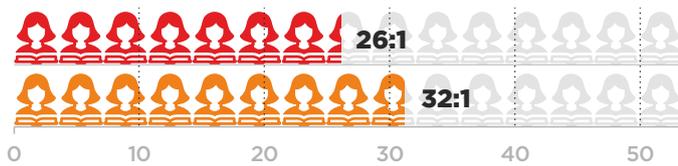
**Education:** While the pupil-teacher ratio in Haryana compares well with the all-India average, this statistic, like the case of health care professionals, conceals significant public-private and urban-rural differentials (Figure 1.8). Availability of teachers in rural areas is a significant challenge. State-run schools have a large proportion of vacancies and poor teaching

**Figure 1.8: Pupil-Teacher Ratio**

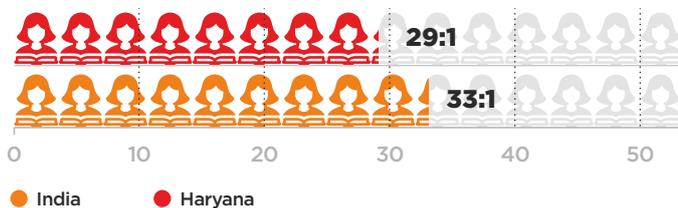
**Primary schools**



**High/Secondary schools**



**Intermediate/Senior secondary schools**



Source: <https://data.gov.in/resources/pupil-teacher-ratio-ptr-2011-12/download>

standards, leading even the economically weaker sections to seek private education at unsustainable costs. This factor may be contributing further to the high dropout rate among girls, in particular, members of SC communities.

**Housing:** Due to continuous migration, urban slums are on the rise, where the poor have no entitlement to dwelling units. This high rate of migration makes it difficult for Government of Haryana housing programmes to effectively reach the urban poor.

**Basic services:** Areas like Mewat, Palwal and Gurugram have insufficient water resources and water infrastructure for the populations they support. Leakages within the water distribution system, depletion of existing water resources and poor water quality compound this issue, making it hard for the BPL to access water.

**Social protection and risk mitigation**

In the area of social protection and risk mitigation, though the state government has been providing pension schemes, these are not enough to cover actual needs. Targeted population groups continue to struggle with overcoming poor access to insurance schemes, programmes and products which are designed for them. There are difficulties in claims and settlements in the case of insurance and lack of awareness around various schemes and entitlements.

 **Strategies for Success**

**Livelihoods and income opportunities to all vulnerable people**

Skill development initiatives coupled with easy access to institutional finance will encourage labour mobility from farm to non-farm sectors (including MSMEs and services). The agricultural sector will find synergies with the growth of food and agri-processing industries promoted through a variety of mechanisms. For example, the Government of Haryana 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 food producers, manufacturers, exporters and other participants in the agricultural market, through the use of modern technologies such as e-platforms like e-Kharid.

The Government of Haryana aims to increase the efficiency and effectiveness of existing schemes, such as Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) and Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) to ensure more accurate identification of sector and skill gaps amongst the poor and vulnerable to improve their employability. In addition, the Government of Haryana will implement new targeted approaches to employment generation (particularly for the BPL) within the livestock sector through capacity building and creating opportunities for self-employment supported by incentives, subsidies

and access to affordable formal credit. These efforts will be complemented by interventions which entrench awareness regarding the Haryana Right to Services Act 2014 and increase the ease of access to services through better implementation and use of e-Governance tools.

In an effort to ensure the integration of poverty reduction efforts with the state's overall environmental agenda, the Government of Haryana will raise awareness around sustainable and renewable energy options, such that communities living in poverty are better able to manage and respond to their own energy needs.

### **Provide easy access to food, health, education, housing and basic services**

Food: To ensure that all deprived persons have access to food, the Government of Haryana will work towards improving knowledge and awareness of beneficiaries about entitlements and improve distribution efficiencies through the use of technology.

Health: To improve health parameters of BPL households, the Government of Haryana will expand health infrastructure to improve ease of access in both rural areas and urban slums. At least 3% of the state health budget will be allocated to the provision of free medicine and consultations to the poor. This will allow the state to ensure the availability of doctors and technical staff in the remote parts of the state as well.

Education: The state shall also endeavour to ensure 100% enrolment of both boys and girls in educational facilities at all levels and reduce the dropout rate, by ensuring availability of teachers and better quality of education in government schools.

Housing: The state shall endeavour to provide housing for all by 2022 through efficient implementation of existing schemes, such as PMAY, Priyadarshani Awas Yojana (PAY) and Ashiyana.

Basic Services: The Government of Haryana will formulate policies and work with communities to implement better norms around water consumption and management so that communities are better equipped to cope with water shortages. Investments will be made to ensure provision of adequate potable water in deprived areas. Community mobilization

campaigns will aim to influence behaviour so as to ensure proper utilization and maintenance of community assets, environmental sustainability and judicious use of own resources.

The Government of Haryana will also invest in training of personnel for the provision and management of sanitation and sewerage facilities, to promote better health and hygiene, while ensuring community participation to achieve and maintain ODF villages and towns.

### **Social protection and risk mitigation**

The Government of Haryana shall strive to provide social protection and risk mitigation through easily accessible and effective insurance against damage of life, crops and other at-risk areas. This will reduce the exposure of extra-vulnerable persons, especially women, to economic, social and environmental shocks, allowing them to better cope with potential natural disasters and calamities.

### **Strategies for the future**

As SDG 1 is an umbrella goal which involves socio-economic, behavioural and political factors, an organic linkage of all departments, communities and leadership is required for any poverty eradication strategy to genuinely succeed. A reduction in poverty levels cannot take place without community involvement. Once sufficient awareness is created, the community will naturally demand and co-create assets in order to break the poverty cycle and generate sustainability. In this manner, the community can also act as a measure to monitor and ensure the effective implementation of various schemes of the government. *Therefore, an effective mechanism for partnership with community will need to be developed by the Government of Haryana.*

Current schemes of the Government of Haryana rolled out by different departments provide benefits and financial assistance to the poor, but operate in silos. Therefore, many times they lack synergy and are unable to deliver consolidated benefits to the target groups. *Moving forward, the Government of Haryana aims to develop a common matrix on a common technology platform for all the departments to converge on the plans and activities to maximize gains for the target beneficiaries.* The portal, based on the annual poverty index of the Government of India, would


**SDG 1**

provide real time updates on scheme utilization by beneficiaries, enabling departments to coordinate and avoid overlaps. This initiative would put information on scheme utilization in the public domain, which, along with the Aadhar-enabled direct benefit transfers and a robust citizens' database, would enhance transparency and accountability. It will also make target groups more aware of the available entitlements and promote understanding of the processes involved in accessing these benefits.

A targeted approach to poverty reduction would involve systematic identification and tracking of BPL households through an annual measurement index. The Government of Haryana would determine a basket of benefits, entitlements and

services to be given to the poor to enable them to come out of poverty. These would 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, production and marketing techniques. Schemes like the Swa-Prerit Adarsh Gram Yojana could be supported by interactive websites to elicit better participation from the people. It remains important to involve experts and institutions in the monitoring, evaluation and impact assessment of programmes.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
1	Eradicate extreme poverty	1,100 households	4,500 households	All “deprived households” in the state as per SECC criterion	Number of highly deprived households in Haryana is 10,781. Parameters are as below: 1. Households without shelter 2. Destitute persons living on alms 3. Manual scavengers 4. Primitive Tribal Groups 5. Legally released bonded labourers	SECC Data
1	Bring deprived rural and urban households out of poverty	1.60 lakh deprived households	2.63 lakh deprived households	All remaining deprived households in the state	There are 9.97 lakh rural and 5.61 lakh urban households in Haryana which are deprived.	SECC Data
1	Housing for all	Coverage of 50,500 households	Coverage of remaining households to achieve the goal of universal housing	–	In Haryana, 1.56 lakh rural and 1.02 lakh urban households lack pucca houses	SECC Data
1	100% ODF in rural and urban areas	100% individual toilets and ODF rural and urban areas	–	–	Under Swachh Bharat Mission about 26 lakh toilets have been constructed in rural Haryana (which has 30 lakh households). Further, 14.67 lakh toilets have been constructed in urban Haryana (which has 16.61 lakh households)	<a href="http://sbm.gov.in/sbm/">http://sbm.gov.in/sbm/</a>
1	Increase literacy rate	Reduce the illiteracy by 10%	Reduce the illiteracy rate by 30%	Reduce the illiteracy rate by 100%	With reference to SECC data, a total of 70.33 lakh (Rural: 54.98 lakh and Urban: 15.38 lakh) people out of a total population of 253.51 lakh are illiterate. This means about 35% of the total population are illiterate	SECC Data



## SDG 2 | Zero Hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

### Vision

Ensuring no malnutrition amongst children and adequate, safe and nutritious food for all residents of Haryana, particularly women of reproductive age, children and extra-vulnerable populations, by making farming efficient, economically viable, progressive, sustainable and climate resilient.

### Haryana Today

- 34% of children under 5 years of age are presently stunted (height for age), 29.4% are underweight (weight for age) and 21.2% are wasted (weight for height).
- 29.4 lakh people (belonging to Antyodaya Anna Yojana and Priority Household groups) out of the total population of 2.54 crore are supported by the state under the Targeted Public Distribution System (TPDS).
- Haryana enjoys a surplus in food grain production and contributes about 15% to the central pool of food grains, despite only constituting 1.34% of the national landmass.
- In 2015-16 food grain productivity ( kg/hectare) for Haryana was 3,761 as compared to 2,070 for India.

### Focus for Tomorrow

- Eliminating malnutrition in children and women.
- Providing access to safe, nutritious and adequate food for all.
- Increasing agricultural productivity through the development of all factors of production and value-chains, while also augmenting food processing.
- Ensuring sustainable food production, as well as maintaining and enhancing the agricultural ecosystem and genetic diversity.

**HARYANA**  
**2030**  
Targets

- ✓ Zero malnutrition amongst children and women
- ✓ Coverage of all Other Priority Household populations under National Food Security Act, 2013
- ✓ Increase of horticultural crop-dedicated areas to 15.11% from the existing 7.58% of total cultivated area
- ✓ Increase of milk processing from 20% to 40%

## Current Interventions

### Eliminating malnutrition in children and women

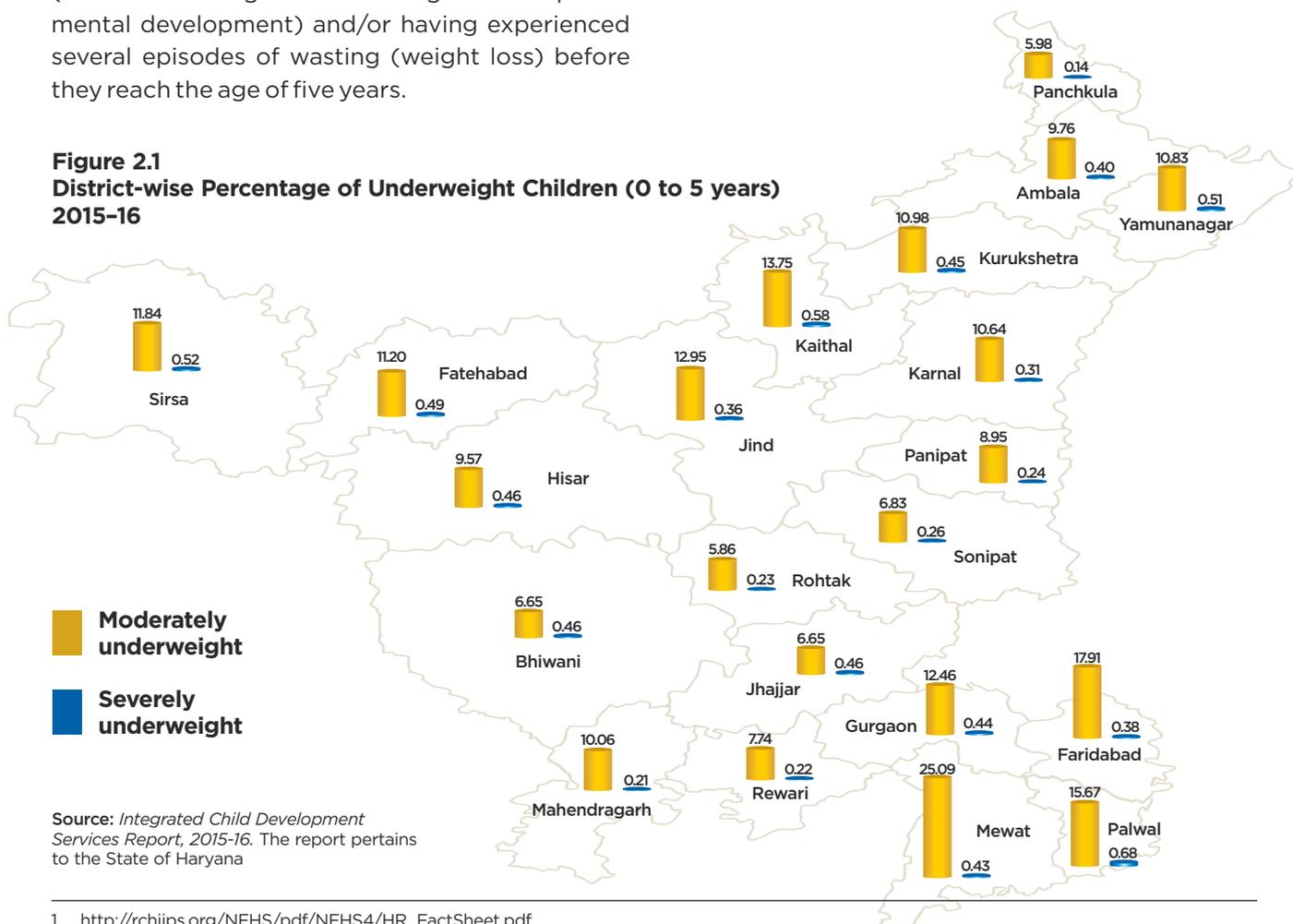
As per the fourth National Family Health Survey (NFHS-4), (2015-16), 34% of children under five years of age are presently stunted (height for age), 29.4% are underweight (weight for age) and 21.2% are wasted (weight for height). Although the occurrence of stunted children has decreased by 11.7% and underweight children by 10.2% over the past 10 years, the percentage of wasted children has increased by 2.2% over the same period.<sup>1</sup> The proportion of severely wasted children has similarly increased from 5% to 9% (Figure 2.1).

Haryana faces a challenge given that the World Health Organization considers poor nutrition the single most important threat to the world's health. It is the underlying cause of at least one third of all child deaths in many developing countries and contributes to 20% of maternal mortality every year. Even in cases where children survive in spite of malnutrition, they are likely to grow up stunted (with a low height for their age and impaired mental development) and/or having experienced several episodes of wasting (weight loss) before they reach the age of five years.

Malnutrition also compounds issues related to poverty, trapping individuals in its vicious cycle. Impoverished children are likely to be malnourished, with low immunity and chronic health problems, making them susceptible to disease, with adverse consequences for both, attendance and performance in school. Further on in life, these factors contribute to unemployability and heightened medical costs, hindering an individual's capacity to lead a full and productive life, or to break free of the poverty cycle.

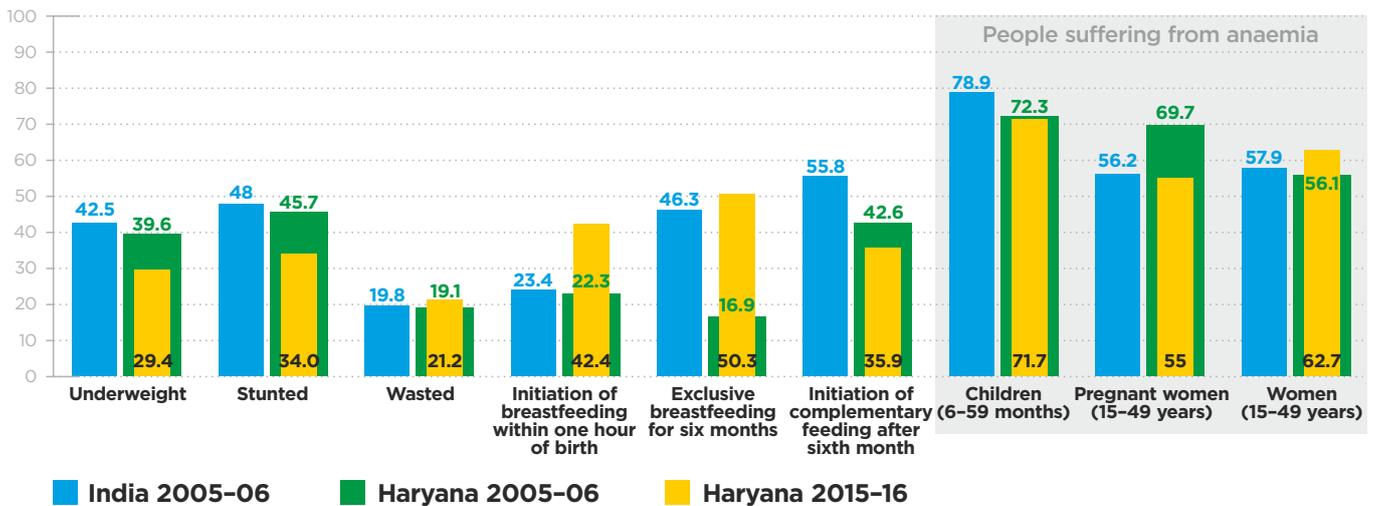
This cycle becomes intergenerational, as the cycle repeats again for the children of these individuals. In fact, studies have shown that the risk of having a small baby is high for mothers who are underweight, stunted and/or anaemic. Iron deficiency, in particular, is considered a major nutritional problem for women. The first 1,000 days of a child's life are considered the most critical in preventing undernutrition and its consequences throughout adulthood.

**Figure 2.1**  
District-wise Percentage of Underweight Children (0 to 5 years) 2015-16



Source: Integrated Child Development Services Report, 2015-16. The report pertains to the State of Haryana

1. [http://rchiips.org/NFHS/pdf/NFHS4/HR\\_FactSheet.pdf](http://rchiips.org/NFHS/pdf/NFHS4/HR_FactSheet.pdf)

**Figure 2.2 Nutritional Status of Children (0 to 5 years)**


Source: National Family Health Survey Round 3 (2005-06) and Round 4 (2014-15).

In addition to putting excess strain on state health and social systems, malnutrition also impacts economic success at both the individual and societal level. Internationally, the economic costs of undernutrition have been estimated at 10% of individuals' lifetime earnings and 2% to 8% of the gross domestic product (GDP).

As per NFHS-3 (2005-06), feeding practices for infants and young children remain far from optimal, which indicates that early initiation of breastfeeding is only occurring in 22% of newborns and exclusive breastfeeding is occurring in only 17%. Further to this, the introduction of complementary feeding after 6 months of age is found to be only in 46% of the state (Figure 2.2).

In addition to flagship schemes which strive to improve infant and young child feeding and the Best Mother Award and Nutrition Award to incentivize healthy and nutritious feeding habits, malnutrition is also being addressed by the Government of Haryana through the following interventions:

**Integrated Child Development Services Scheme (ICDS):** This scheme is being facilitated through a network of 25,450 anganwadi centres and 512 mini-anganwadi centres.

**Supplementary Nutrition under ICDS:** Provision of hot meals and take-home rations to all children under six years of age, as well as pregnant and lactating mothers, in compliance to Sections 4 A, 5 A, 5 B and 6 of the National Food Security Act, 2013.

**Kishori Shakti Yojana Scheme:** Provides vocational

training and supplementary nutrition to adolescent girls in 15 districts throughout the state.

**Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA) Scheme:** Through this scheme, adolescent girls within the state receive nutrition provisions; iron and folic acid (IFA) supplements; medical check-ups and referral services; nutrition, life skills and health education; as well as counselling and guidance, among other benefits. This programme is currently ongoing in six districts of Haryana, namely: Ambala, Rewari, Hisar, Yamunanagar, Kaithal and Rohtak.

**Indira Gandhi Matritva Sahyog Yojana (Pilot project in the district of Panchkula):** Through this scheme, financial support is being provided to pregnant mothers from the 3rd trimester. Support is also extended to the mother after the baby is six months of age to ensure complementary feeding.

The Government of Haryana has also developed numerous programmes aimed at improving family health and welfare across the state, including:

- Micronutrient Supplementation Programme, including vitamin-A, deworming, iodine and IFA syrup
- Facility based management of Severe Acute Malnutrition (SAM) in selected districts
- Advocacy for food fortification
- Family planning
- Adolescent reproductive and sexual health (ARSH) and menstrual hygiene programme
- Rashtriya Bal Swasthya Karyakram (RBSK)
- State Incentive Scheme on Sanitation
- Mukhaya Mantri Anusuchit Jati Nirmal Basti Yojana

- Swachh Bharat Abhiyan
- Training of Panchayati Raj Institutions (PRIs)
- Food and supplies public distribution system
- Health and nutrition facilities at brick-kiln and construction sites

### Providing access to safe, nutritious and adequate food for all

Under TPDS, out of a total population of 2.54 crore persons in the state, approximately 2.6 lakh have been identified under the Antyodaya Anna Yojana (AAY) and a further 26.8 lakh have been identified under the Priority Households (PH) category through the National Food Security Act, 2013 (NFSA), as per the norms fixed by Government of India. As part of these interventions, food grains are being provided at the rate of 35 kg per month per family to AAY families at highly subsidized prices, such as ₹2 per kg for wheat, ₹1 per kg for coarse grains and ₹3 per kg for rice. Similarly, "Other Priority Households" are being provided with food grains at the rate of 5 kg per person per month through the same subsidization programme. In addition to these national schemes, the Government of Haryana presently contributes to hunger eradication through the following programmes:

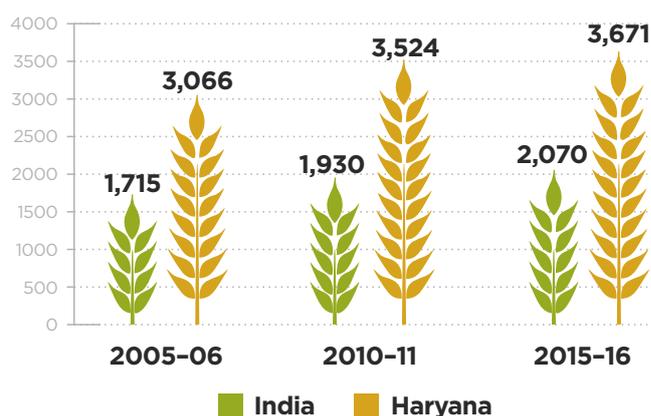
- Dal Roti Scheme: Through this programme, the Government of Haryana is providing pulses at the rate of 2.5 kg per family per month to AAY and BPL families at a cost of ₹20 per kg.
- National Programme of Nutritional Support to Primary Education: Through this programme, a midday meal is provided to approximately 2.1 crore children of primary classes (I-V) and upper primary classes (VI-VIII) in all government, local bodies and government-aided privately-managed primary schools. The Government of India started the Midday Meal Scheme to enhance school enrolment, retention and increased attendance while also improving nutritional levels among children. It also encourages children belonging to disadvantaged sections to attend school more regularly and help them concentrate on classroom activities.
- Integrated Development Services (ICDS) Scheme: This scheme provides supplementary nutrition to approximately 12.5 lakh persons considered part of vulnerable groups, including children in the age group of six months to six years, pregnant women and nursing mothers.

- National Food Security Act, 2013: Through this Act, highly subsidized food grains are provided to beneficiaries identified under TPDS which covers up to 50% of the population. Under this scheme the beneficiaries have been divided into two categories: AAY and PH (including BPL families).
- National Rural Employment Guarantee Scheme: This scheme has been implemented to enhance livelihood security in rural areas by providing at least 100 days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work. It also serves to meet the objective of creating durable assets in the village such as ponds, wells, roads, canals, etc.
- End-to-end computerization of the public distribution system (PDS): Under this scheme, data related to all the beneficiaries under NFSA/TPDS have been digitized in the Common Application Software (CAS) and put in the public domain for transparency and easy access. Further, transactions at fair price shops (FPS) are now online with the installation of point-of-sale (POS) devices for the distribution of food grains.

### Increasing agricultural productivity

Haryana's productivity in agriculture and allied sectors is amongst the highest in the country (Figures 2.3 and 2.4). It enjoys a surplus in food grain production and contributes about 15% to the central pool of food grains, despite only constituting 1.34% of the national landmass. At present, 65% of the state population resides in rural areas and is predominantly dependent on agriculture and allied activities. Majority of

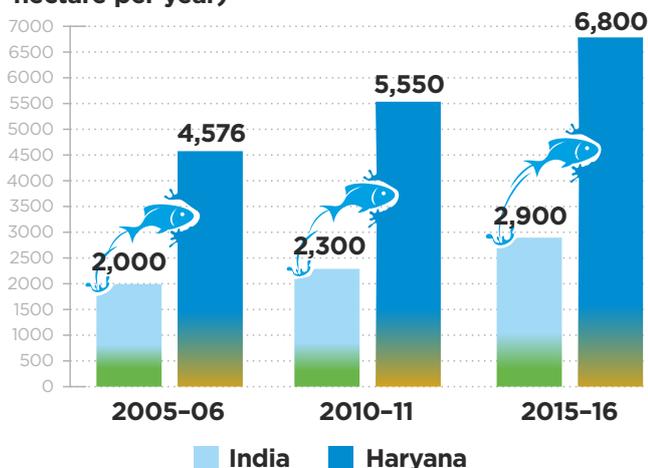
**Figure 2.3:**  
Food Grains Productivity (kg per hectare)



Source: Productivity calculated from crop cutting experiment conducted by Agriculture & Farmers Welfare Department, Government of Haryana

agricultural labour families are involved in land cultivation, helping them to meet their requirements of food grains to a large extent. Haryana's primary crops are sesame, groundnut, castor, mustard and sunflower. The state ranks second in the country in per hectare fish production. It has good water resources in the shape of rivers, canals, drains, natural and manmade lakes/reservoirs/micro-water sheds and village ponds to enable promotion of fisheries (Figure 2.4).

**Figure 2.4: Freshwater Fish Productivity (kg per hectare per year)**



Source: Department of Agriculture, Government of Haryana

The Government of Haryana in cooperation with the Government of India has established the following programmes towards increasing agricultural productivity within the state:

**Soil Health Card Scheme:** This scheme was launched to create mass awareness among the farming community for the balanced use of fertilizers and to sustain soil health. Thus far 4.17 lakh soil health cards (SHCs) have been distributed in the state. It is anticipated that SHCs will be distributed to all farmers in the state by March 2017.

**National Food Security Mission:** The main objective of the mission is to increase the production of wheat 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 and enhancing farm level economy and profits, expected to restore confidence amongst farmers, provides the main objective of this intervention.

**National Mission for Oilseed and Oil Palm:** To meet the requirement of edible vegetable oils, the Government of India launched the National Mission on Oilseeds and Oil- Palm Scheme in 2014-15. The

target of this mission is to increase the area, production, and productivity of oilseeds crops.

**Rashtriya Krishi Vikas Yojana (RKVY):** This intervention aimed at achieving and sustaining desired annual growth during the XIIth Plan period, by ensuring holistic development of agriculture and allied sectors. Under this scheme, central assistance is provided to the state in the State Plan Budget for agriculture and allied sectors. Eligibility of a state for the RKVY is contingent upon the state maintaining or increasing the State Plan expenditure for agriculture and allied sectors.

**National Mission on Agriculture Extension and Technology:** The main objective of this programme is to provide the latest technological innovations to farmers through training, exposure visits and kisan melas. In this manner, farmers are kept up-to-date with existing technology and are able to modernize production in a sustainable manner.

**Sub-Mission of Agricultural Mechanization:** The objective of this programme is to provide agricultural implements to small and marginal farmers on a custom-hiring basis. It also targets reducing the costs of cultivation by increasing the productivity of implements.

**Pradhan Mantri Fasal Bima Yojana:** The main objective of the scheme is to mitigate crop loss due to natural calamities and to encourage farmers to use new technologies. During the kharif season of 2016, 6.96 lakh farmers cultivating paddy, bajra, cotton and maize in Haryana were covered through this scheme. The Government of Haryana is presently trying to achieve 100% state coverage under this scheme.

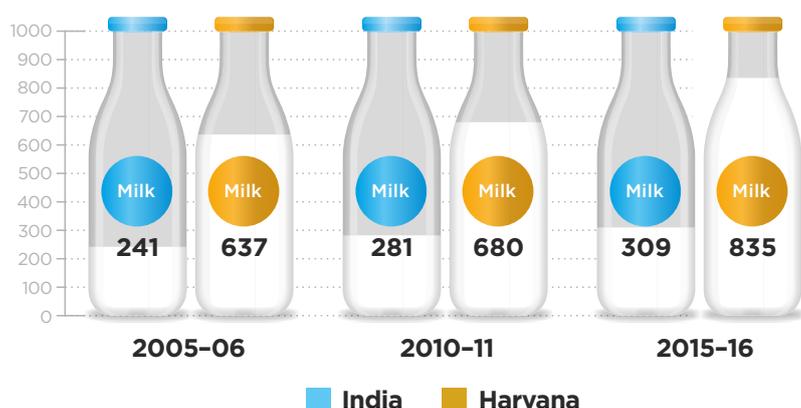
**Mission for Integrated Development of Horticulture:** This centrally sponsored scheme of ₹100 crore is meant for the holistic development of horticulture and specifically covers different components of production, including protected cultivation, creation of water sources and post-harvest management, area expansion, mechanization, bee keeping, etc.

**National Livestock Mission:** The Government of India launched this initiative for the sustainable growth and development of the livestock sector in a holistic manner. The mission covers components for improvement of livestock productivity, with special emphasis on small ruminants, increases in availability of feed and fodder and risk management.

### Sustainable food production, ecosystems and genetic diversity

Availability of sufficient food is not an issue in the state; in fact, per capita availability of milk and

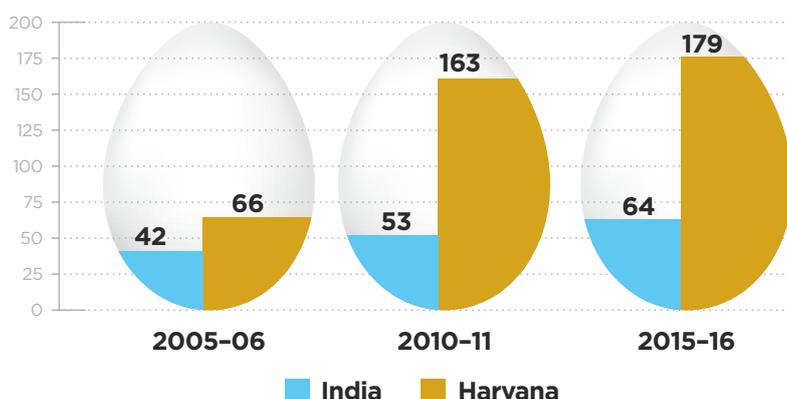
**Figure 2.5: Availability of Milk (gram per capita per day)**



Source: Animal Husbandry & Dairying Department, Government of Haryana; Ministry of Agriculture, Government of India; Department of Animal Husbandry, Dairying & Fisheries, Government of India; through Technical Committee on Direction for Improvement of Animal Husbandry & Dairying Statistics.

eggs in the state is almost three times the national average (Figures 2.5 and 2.6). However, food quality and accessibility present a challenge. There are issues of regional disparity and imbalance among different sections of society, as certain vulnerable groups do not have sufficient purchasing power to buy nutritious and quality food. In order to address these issues in a focused, scientific and holistic manner, various schemes are being implemented by the Government of Haryana particularly targeting disadvantaged and vulnerable sections of society. In order to address hunger in a genuine way, poverty reduction must take root.

**Figure 2.6: Availability of Eggs per Capita per Year**



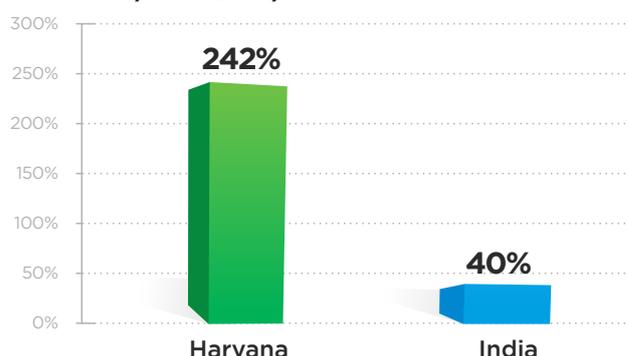
Source: Department of Agriculture, Government of Haryana

In addition to these interventions, the state has also made relative progress in the agricultural sector over the last few decades (Figure 2.7). **Cropping intensity and irrigation intensity are significantly high, at 182% and 188%, respectively.**<sup>2</sup> However,

further progress in this sector through horizontal expansion is no longer possible, as all cultivable area has already been cultivated. The focus therefore must now entirely be on productivity increases and diversification of income streams for the doubling of farm incomes by 2022. The Government of Haryana has determined that the best manner to pursue this is by reducing the cost of production and shifting to high-value farming. To this end, in addition to transparent and efficient distribution of rations, various schemes are

being implemented to increase the income of

**Figure 2.7: Percentage Growth in Food Production from 1970/71 to 2015/16**



Source: Department of Agriculture, Government of Haryana

disadvantaged sections of society, particularly within the rural sector, in order to improve their purchasing power.

The Government of Haryana in cooperation with the Government of India has established the following programmes to support and facilitate sustainable food production, ecosystems and genetic diversity.

National Rural Livelihoods Mission: This scheme aims at reducing poverty by building strong institutions, such as self-help groups (SHGs), village organizations and cluster level federations of the poor, particularly for women and enabling these institutions to access a range of financial and livelihoods services. It is anticipated

that 55,000 SHGs will be formed under this scheme by 2020-21.

2. Department of Agriculture, Government of Haryana

National Urban Livelihoods Mission: This programme focuses on assisting the urban poor in setting up small businesses and providing skills training to semi-skilled/unskilled urban poor so that they are able to secure jobs with better compensations. It also deals with street vending issues and provides shelter for the urban homeless.

National Mission on Sustainable Agriculture: This centrally sponsored scheme was established to enhance rain-fed area development through the adoption of an area-based approach for the development and conservation of natural resources along with farming systems. This programme consists of developing appropriate farming systems by integrating multiple components of agriculture such as horticulture, livestock, fishery, forestry with value addition through agro-based income generating activities and farm development activities. It also includes establishing new static soil testing labs and the strengthening of existing soil testing labs, as well as the purchase of 50 units of mini labs.



## Challenges

### Eliminating malnutrition in children and women

Malnutrition rates have been affected across the state by dietary inadequacies, diseases and illnesses. Household food insecurity due to poor access to food subsidies and poverty has led to low purchasing power, contributing further to food access issues.

Maternal undernutrition has resulted in low birth weights and undernutrition after early years, increasing susceptibility to further illness.

This trend is compounded by poor infant feeding and care, particularly in the first two years of life.

### Providing access to safe, nutritious and adequate food for all

While Haryana has taken significant steps towards providing safe, nutritious and adequate food for all, the Government of Haryana continues to face certain obstacles in achieving this goal. Inaccuracies in identification of beneficiaries/target groups has somewhat dampened the success of poverty alleviation programmes. Regional concentration of beneficiaries is seen amongst the rural landless households in Mewat.

### Increasing agricultural productivity

Efforts to increase agricultural productivity, have led to non-judicious use of fertilizers and pesticides throughout Haryana, resulting in the depletion of the soil's organic carbon levels. Inefficiencies in water use and the declining water table have also resulted in water scarcity, affecting agricultural yields at the ground level. Resource management issues have also had outcomes for other areas of agricultural productivity, with increases in the alkalinity and salinity of the soil. Due to the migratory nature of agricultural labour, productivity is also stunted by shortages in the labour market.

### Sustainable food production, ecosystems and genetic diversity

In food production and crop diversification, low shares of high-value agriculture have resulted in lower returns to farmers. Issues relating to the available quality of germplasm have also had an impact on productivity and sustainability. Agricultural marketing and management challenges besiege the processing of agriculture, livestock and fishery products and contribute additional risks and uncertainties to the sector.



## Strategies for Success

To help achieve broader success in this area and ensure consistency of efforts across all sectors, the Government of Haryana will establish a state level board for consultation and stronger development for all sections of production. Participation of the private sector will also be crucial in establishing value- chains, supply of hybrids, technology and contributing to research and development.

The participation of PRIs, civil society and the beneficiaries is desirable in bringing fairness and transparency in the distribution of rations to targeted groups.

### Eliminating malnutrition in children and women

A malnutrition-free state will be achieved through:

- improved inter-sectoral coordination;
- focus on monitoring, evaluation and learning (MIS, child tracking, etc.);
- mass mobilization including sustained behaviour change communication;
- capacity building of the frontline workers and functionaries of all line departments; and,
- partnerships and alliances.

For underweight and wasted children, a **State Nutrition Mission** will be set up as an independent body committed to bringing about a reduction in maternal and child undernutrition rates. The mission is expected to play a catalytic role in accelerating efforts towards reducing undernutrition amongst children and women by converging and collaborating with nodal departments and ensuring effective and quality implementation of nutrition interventions. Under the proposed State Nutrition Mission approximately 2 lakh severe acute malnourished (SAM) children will be covered throughout the state by 2020. These children will be provided with energy dense fortified food. The Nutrition Mission will direct interventions at maternal nutrition and the age group of 0-5 years.

Dietary inadequacy will be targeted through the ICDS Scheme; the recipes/food items will be improved through fortification. The State Department for Women and Child Development has been distributing *panjiri*<sup>3</sup> among children in the 6-18 months age group through ICDS. It is now planning to distribute fortified *panjiri* produced in its plants among severely underweight children up to six years of age. Efforts will be made to ensure that all eligible beneficiaries, especially severely malnourished children in slum areas, are provided supplementary food.

These efforts will be supported through a framework of additional interventions aimed at lowering malnutrition, such as: identification/screening of SAM children bi-annually; provision of home-based high energy/therapeutic food to SAM children; counselling of caregivers during home visits, Village Health and Nutrition Day (VHND) and centre based activities; training of ICDS functionaries by women and child development (WCD) master trainers on use of Mid-Upper Arm Circumference (MUAC) tape, growth monitoring through weight for height method; and the development of IEC and counselling material for anganwadi centres.

### **Providing access to safe, nutritious and adequate food for all**

To secure better access to sustainable and equitable sources of food for all, the Government of Haryana will invest in procurement of food grains and distribution to fair price shops for

further distribution to targeted beneficiaries, while checking for leakages in TPDS, through the use of new and innovative technologies. In this manner the Government of Haryana will be better able to harness new and evolving technology to streamline TPDS distribution losses and develop healthier linkages with producers, food processors and traders.

### **Agricultural productivity**

The Government of Haryana will issue SHCs to farmers to better enforce more judicious use of fertilizers, in addition to other interventions aimed at changing agricultural production norms. For example, the Government of Haryana will run campaigns which promote the use of water saving technologies such as underground pipelines and sprinkler and drip irrigation systems, which increase the productivity of crops, especially horticulture and pulses. To support the growth of this industry, the state will also develop a micro-finance facility, which will be made available to farmers.

Beyond these interventions, the Government of Haryana will seek to increase environmental sustainability through the use of green fodder. The annual requirement of compounded (balanced) cattle feed in the state is about 20 lakh ton, which will significantly increase to 70 lakh ton as the production of milk goes up. The total fodder demand of Haryana suggests that while the state is surplus with reference to cereal crop residues being used as dry fodder, it has a 40% shortfall in green fodder which amounts to nearly 2.7 crore ton. A focused strategy will be drawn up to bridge the gap of green fodder by increasing the area under fodder crops through various incentives, promotional schemes and assured economic returns. Promoting fodder banking, silage making and distribution of mineral mixture will be accorded top priority.

### **Sustainable food production**

Through the promotion of resource conserving technologies such as zero-till seed drills, direct seeding of rice, happy seeders, straw reapers and straw balers, the state will move towards greater sustainability in food production. The Government of Haryana will strive to promote protected cultivation, farmer producer organizations and the

3. Panjiri is an Indian seasonal staple treated as a nutritional supplement. It is made from whole-wheat flour fried in sugar and ghee, heavily laced with dried fruits and herbal gums

cultivation of fruits and vegetables and crops requiring less water. In view of building the value of Haryana's crops, the state will develop a strong framework for post-harvest management and increase the proportion and reproductive capacity of milch animals through improved animal health care, animal identification and increased feed and fodder availability. This framework of interventions will include:

**Improvement in quality of milk products:** Ideally, a minimum of 60% of the bovine population should be in milk production at any given point of time, as against only 31.9% in Haryana at present. To achieve this target, 28 lakh additional animals will be brought into the production cycle. Efforts shall be made to enhance the productivity of indigenous cattle from 5.52 to 7.75 kg per day, crossbred cattle from 8.96 to 13.10 kg per day and buffaloes, from 7.50 to 11.50 kg per day.

**Animal health care:** The success story of The Foot and Mouth Disease Control Programme will be replicated for hemorrhagic septicaemia. Control and eradication of important zoonotic diseases such as brucellosis, rabies and gastro-intestinal

infestations shall be targeted. Therefore, the Government of Haryana shall provide veterinary and breeding services through its existing government veterinary hospitals, government veterinary dispensaries and mobile veterinary diagnostic clinics at the doorstep of livestock owners. In addition, new government veterinary hospitals and government veterinary dispensaries will be established in villages which meet the standards and regulations of the Government of Haryana. For providing specialized services, veterinary polyclinics will be established in each district.

**Animal identification and use of information technology:** For comprehensive and holistic planning, animal identification and use of information technology are of prime importance. The Management Information System (MIS) of the Department of Animal Husbandry and Dairying will be developed for efficient functioning and planning of activities. Animals will be identified in a phased manner by tagging through the Information Network for Animal Productivity & Health (INAPH) system and the issuance of unique identity numbers.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
2	Underweight	20%	10%	0%	Reduction in percentage of underweight and wasted children	ICDS and NFHS reports
2	Wasting	14%	7%	0%		
2	Children with anaemia	50%	25%	0%	Reduction in the percentage of anaemic children and women	Health Reports and NFHS Report
2	Women with anaemia	42%	21%	0%		
2	Production of milk	100 lakh tons	112 lakh tons	145 lakh tons	Total milk production	<i>Annual Administrative Report</i> , Department of Animal Husbandry and Dairy, Government of Haryana
2	Availability of milk per capita	>955 gram	>1,040 gram	>1,250 gram	Per capita per day availability	<i>Annual Administrative Report</i> , Department of Animal Husbandry and Dairy, Government of Haryana
2	Number of new commercial dairies	1,500	1,800	2,200	Establishment of new commercial dairies	<i>Annual Administrative Report</i> , Department of Animal Husbandry and Dairy, Government of Haryana
2	Egg production	550	600	750	Poultry egg production (crore)	<i>Annual Administrative Report</i> , Department of Animal Husbandry and Dairy, Government of Haryana
2	Fish production	8,200 kg	10,000 kg	16,000 kg	Fish productivity (kg per hectare/year)	Fisheries Department, Government of Haryana
2	Increased production of horticulture crops	110.81	139.23	207.43	Total production (lakh MT)	Department of Horticulture, Government of Haryana



SDG **3**

# Good Health and Well-Being

Ensure healthy lives and promote well-being for all at all ages

## Vision

The Government of Haryana shall strive to provide access to easy and affordable health care to all its residents to ensure reduction in maternal and neonatal deaths as well as incidence of communicable and non-communicable diseases.

## Haryana Today

- In 2011-13, Haryana's maternal mortality rate (MMR) per 1,00,000 live births per annum was 127, compared with the national average of 167.
- In 2015, Haryana's neonatal mortality rate (NMR) per 1,000 live births was 24, compared with the national average of 25, while the state under-5 mortality per 1,000 live births (U5MR) was equal to the national average at 43.
- State HIV prevalence is 0.13%.
- In 2015, annual parasitic incidence (API) of malaria in Mewat was approximately 5.07, as compared to an average of 0.34 across all districts of Haryana.

## Focus for Tomorrow

- Reducing infant mortality rate (IMR) and MMR.
- Reducing deaths due to non-communicable diseases.
- Reducing the burden of communicable diseases, particularly AIDS and tuberculosis.

**HARYANA**  
**2030**  
Targets

- ✓ Maternal mortality rate reduced from 127 to 70 per 100,000 live births
- ✓ Neonatal mortality rate reduced from 24 to 12 per 1,000 live births
- ✓ Under-5 mortality rate reduced from 43 to 25 per 1,000 live births
- ✓ Adult HIV prevalence reduced from 0.13% to 0.05%
- ✓ Maintain 'No Malaria' status for the state

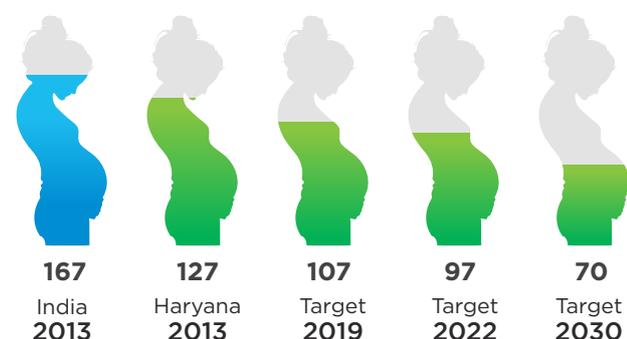
## Reducing IMR and MMR

### Current approach and interventions to reduce the IMR and MMR

Haryana has introduced a number of interventions towards **reducing maternal mortality** (Figure 3.1).

- **Strengthening the system:** Institutional deliveries have been promoted through the strengthening and rationalizing of 24x7 delivery points at 74% of state health facilities. These deliveries have increased from 43.3% in 2005 to 92.1% in 2016 with an increase in government institutional deliveries from 16.30% in 2006 to 52.1% in 2016.<sup>1</sup>
- **Implementing policies:** A High Risk Pregnancy Policy has been implemented across the state for the timely identification and referral of high risk pregnancy cases to specialized health facilities (First Referral Units) for management and treatment by specialists. Further efforts

**Figure 3.1: Maternal Mortality per 1,00,000 Live Births**



Source: Sample Registration Survey Report 2011-2013, [http://www.censusindia.gov.in/vital\\_statistics/mmr\\_bulletin\\_2011-13.pdf](http://www.censusindia.gov.in/vital_statistics/mmr_bulletin_2011-13.pdf)

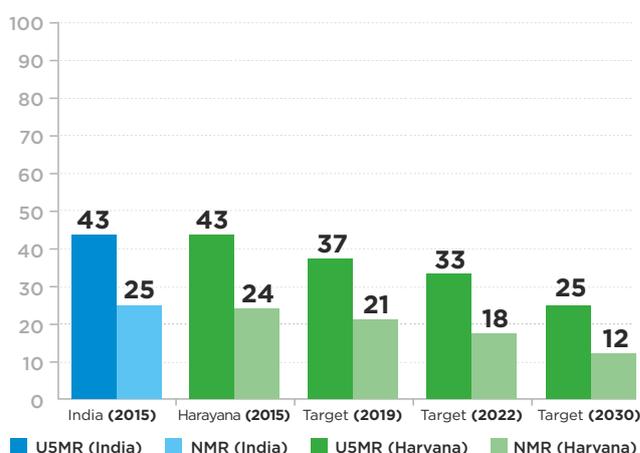
have been made to ensure thorough implementation of national schemes such as the Janani Shishu Suraksha Karyakram (JSSK), Janani Suraksha Yojana (JSY) and Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA).

- **Interventions at health facilities:** Injectable iron sucrose is now being used and has been included in the state's essential drug list up to PHC level for the management of severe anaemia cases. Various interventions have been initiated for identifying and rectifying gaps for improving quality of intra partum and immediate post-natal services in labour rooms.

Nearly 100% of labour rooms have been upgraded to ensure they are well equipped, have adequate facilities and are able to implement best practices.<sup>2</sup>

Efforts to **reduce NMR and U5MR** have also been extensively adopted throughout the state (Figure 3.2).

**Figure 3.2: Under-5 Mortality and Neonatal Mortality per 1,000 Live Births**



Source: Sample Registration Survey (2015), Office of the Registrar General & Census Commissioner of India, Ministry of Home Affairs, Government of India, [http://www.censusindia.gov.in/vital\\_statistics/SRS\\_Reports\\_2015.html](http://www.censusindia.gov.in/vital_statistics/SRS_Reports_2015.html)

- **Strengthening the system:** All 22 district hospitals and one sub-divisional hospital in Bahadurgarh house functional Special Newborn Care Units.<sup>3</sup> Building on this, efforts are being made to improve the functionality of Newborn Stabilization Units across the state.
- **Implementing policies:** The state has implemented the Mothers' Absolute Affection (MAA) programme and the Infant and Young Child Feeding Practices (IYCF) programme to promote breastfeeding in general, with a special focus on exclusive breastfeeding for the first six months. The state has maintained a focus on home-based post-natal care, Integrated Management of Neonatal and Childhood Illness (IMNCI) and facility-based IMNCI. In an effort to develop a comprehensive focus on infant well-being, the state has implemented many additional schemes, such as the strengthening of routine immunizations

1. Civil Registration System (CRS) data provided by National Health Mission, Haryana  
 2. District Reports (2016), Health Department, Government of Haryana  
 3. National Health Mission, Haryana

and introduction of the newer vaccine rotavirus; Mission Indradhanush, an intense immunization drive of seven days to cover all the unimmunized and partially immunized children and pregnant women; a surveillance of Vaccine-Preventable Diseases (VPDs); and Adverse Event Following Immunization (AEFI).

- ***Interventions in facilities:*** Kangaroo Mother Care Units are being set up in all district hospitals with Special Newborn Care Units and 318 Newborn Care Corners have been established to provide resuscitation services.<sup>4</sup> Diarrhoea management is being targeted through the Intensified Diarrhoea Control Fortnight (IDCF) Programme, whereas Micronutrient Malnutrition Control is being done through the Micronutrient Supplementation Programme.

### Challenges related to IMR and MMR

***Lack of human resources:*** There has been an increasing incidence of home deliveries in both Mewat District and Hathin Block in Palwal due to non-availability of human resources, particularly women medical officers. Many regular posts of staff nurses and auxiliary nurse midwives are vacant in these areas. First trimester antenatal registration is low. The non-availability of the triad of doctors—gynaecologists, anaesthetists and paediatricians—especially at first referral units, has led to the sub-optimal quality of delivery care services and more out-of-state referrals.

***Regional disparity is accentuated by cultural makeup and geographic inaccessibility:*** Currently, only 37.7% of all deliveries at Mewat and 56.3% at Palwal are institutional. These districts are characterized by poor access, low connectivity and minimal private sector health care provisioning to a largely conservative and poor Muslim populace.<sup>5</sup>

***Low state-wide provision of full antenatal care and cultural norms:*** These factors lead to low rates of early initiation of breastfeeding, exclusive breastfeeding and complementary feeding, therefore contributing to high NMR and U5MR rates. Delays in the referral of high risk mothers and newborns to specialist facilities will need to be addressed in order to increase survival rates in high

risk cases. At present, the full immunization rate of Haryana is 62.2%, which is particularly low in high risk areas.<sup>6</sup>

***Malnutrition:*** Malnutrition too, contributes to the NMR and U5MR, as Haryana suffers from a high prevalence of low birth weight. Currently, almost 20.9% of children in Haryana are born with a low birth weight, as opposed to 18.6% at the national level.<sup>7</sup> Early diagnosis and prompt referral of the high risk newborn at the community level could make a huge impact.

### Future strategies to reduce IMR and MMR

***Focus on increasing institutional deliveries and post-delivery services:*** The primary focus of these strategies will be to increase institutional deliveries to 95% in 2019 and to 98% by 2023 with a greater share of government facilities and increase first trimester registration from 62% (as per Health Management Information System or HMIS data) to 70% by 2019 and 85% 2023. Strengthening of all delivery points within the state will include efforts to ensure 100% maternal death audits, allowing the state to better identify gaps in maternal care and address them.<sup>8</sup>

Strengthening of post-delivery services, includes follow up on cases with low birth weight and premature birth and strengthening infrastructure for 48-hour stays in government health facilities following delivery. In the case of low birth weight babies, hospital discharge will only occur once the child is able to breastfeed.

***Strengthening the system in specific districts:*** To offset the high rate of home deliveries in Mewat and Palwal, delivery points will be strengthened, particularly with respect to availability and training of human resources, enhancing logistics and upgrading facilities, including labour rooms. In addition to training of personnel, increasing the number of ambulances in these areas will help ensure that babies across the state are delivered in a manner that is safe and healthy.

***Strengthening policy implementation:*** The Government of Haryana will focus on implementing best practices like Active Management of the Third Stage of Labour (AMTSL) and infection prevention practices in

4. National Health Mission, Haryana

5. Civil Registration System (CRS), 2013

6. National Family Health Survey, Round 4, 2014-15.

7. Rapid Survey on Children (RSOC-14)

8. District Reports (2016), Health Department, Government of Haryana

labour rooms across the state, pushing prenatal health to the top of the Health Department's priority list. To ensure quality antenatal care services at sub-centre level, the state will work toward full implementation and further strengthening of existing policies on timely identification, referral and management of high-risk pregnancy cases. The state will also work towards 100% implementation of national schemes such as JSY, JSSK and PMSMA.

**Specific planned interventions:** Strengthening of the Anaemia Control Programme among pregnant and lactating women will reduce the incidence of anaemia from 70.6% to 50% by 2019 and 40% by 2023. In addition, programmes such as the Injectable Iron Programme will make injectable iron, iron tablets, albendazole and folic acid more easily available to pregnant and lactating mothers.<sup>9</sup>

Overall, state-based programming and schemes will be significantly strengthened and more comprehensive implementation will be effected. This includes newborn stabilization units, Kangaroo Mother Care Units, newborn transport ambulances, pre-conception care packages and human milk banks. Working together, these programmes will reduce adverse outcomes for both mothers and infants.

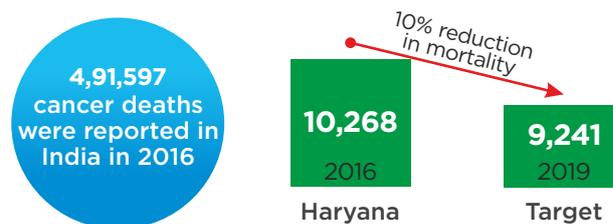
**New vaccinations:** Lastly, the introduction of the pneumococcal vaccine will also have a significant impact on U5MR, as pneumonia is presently the primary cause of death among children under the age of five years.

## Reducing deaths due to non-communicable diseases (cancer, mental disorders, drug abuse) and improving family welfare

### Current approach and interventions for reducing non-communicable diseases

Haryana's efforts toward reducing Non-Communicable Diseases (NCDs) have centred on managing cancer, mental health challenges, drug abuse and improving family welfare.

Figure 3.3: Number of deaths due to Cancer



Source: Data sourced from Indian Council of Medical Research. Analysis is based on cancer incidence cases and Pooled M/I Ratio of Mumbai (2009–2011).

**Strengthening the system:** The *Haryana Cancer Atlas Project* has been launched to improve the understanding of cancer prevalence within the state. Through the Cancer Atlas, all cancer cases diagnosed or registered in and around government or private hospitals are logged online into the Haryana Cancer Atlas Programme. The programme has accordingly tracked all cancer cases in the state since December 2015. Haryana is also investing in combating drug abuse in the state. At present, the *Drug Abuse Monitoring System (DAMS)* has been digitized and consolidated. The Health Department is in the process of corresponding with all licensed de-addiction centres to standardize reporting mechanisms.

**Implementing policy:** In addition to these efforts, the expansion of the National Programme for the Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke has begun in 13 districts and will be rolled out in a phased manner. The Government of Haryana has also begun to investigate the need for a separate de-addiction cell.

**Interventions in facilities:** State interventions to improve mental health are being spearheaded by the Department of Psychiatry, PGIMS Rohtak, which has been designated as a Centre of Excellence under the Mental Health Programme.

Through the department adequate funds have been provided by the Government of India for personnel training. In the context of family planning and welfare, the *Salamat* Project currently being implemented in the Mewat and Palwal districts aims to reduce the total fertility rate in these two districts. The launch of injectable contraceptives in the two districts has played a significant role in improving family planning services.

9. National Health Mission, Haryana, Anaemia Tracking Module (ATM)

### Challenges related to NCDs

- **Mapping:** As a starting point, the Government of Haryana will need to develop clear and accurate mapping of NCDs throughout the state to help formulate prevention and control strategies. The focus until now has been around investigation and safeguarding against communicable disease through provisioning of reproductive and child health services and controlling the spread of communicable diseases.
- **Lack of trained staff:** In the provisioning of mental health care, the state faces a dearth of trained professionals including psychiatrists, clinical psychologists, psychiatric social workers and psychiatric nurses. The current level of efforts is inadequate for the development of mental health care professionals in sufficient numbers in the state. It is necessary to build a State Mental Health and De-Addiction Cell (as part of the Directorate General Health Services) which has not received the priority it deserves.
- **Regional disparity in family planning:** The total fertility rate in Mewat and Palwal remains, high with a large unmet need for contraception services.

### Future strategies to reduce NCDs

**Planned approach to tackle NCDs:** For a clearer picture of NCDs within Haryana by 2019, the Government of Haryana will conduct a risk factor assessment of the population living with NCDs. Using this assessment, the Government of Haryana will identify priority NCDs and areas for involvement of civil society and the private sector within the broader strategy for health promotion. It will build capacity for the screening of common NCDs and focus on prevention and early detection to limit the impact of NCDs on the population. By 2030, the Government of Haryana will have built renewed health capacity and strengthened health facilities, in order to provide timely, affordable and accurate diagnostics, as well as access to affordable treatment of NCDs.

**Increased awareness around mental health and drug addiction issues:** The Government of Haryana aims to reduce morbidity and mortality from diseases related to mental health and de-addiction and to create awareness regarding mental health

issues while reducing the stigma associated with these conditions. By 2019, the Government of Haryana aims to develop adequate manpower to provide mental health and de-addiction services in each district of the state. It will promote mental health and bring to light issues related to it. It will develop child psychology services for early diagnosis and intervention. On the whole, the Government of Haryana will work to ensure that, by 2030, Haryana's mental health indicators are at par with countries which have achieved the highest levels of mental health and well-being.

**Strengthening family planning services:** The Government of Haryana is organizing regular sterilization camps in health facilities. Medical officers/staff nurses are being trained to counsel new mothers to accept post-partum intra-uterine contraceptive devices for better spacing of children. The distribution of contraceptives will be increased and promotional campaigns to delay the attainment of first pregnancy to the age of 24 years as well as spacing of 3 to 5 years between pregnancies will also be launched.



## Reducing the burden of communicable diseases

### Current approach and interventions on reducing communicable diseases

In the area of communicable diseases, Haryana has focused its efforts on HIV/AIDS, tuberculosis and malaria (Figures 3.4 a,b and c).

As of 2015, Haryana reported an HIV prevalence rate of 0.13% as compared to 0.26% nationally. By 2030 it aims to reduce the HIV prevalence rate to 0.05%. The state reported 1,706 cases of tuberculosis as of 2015 and aims to reduce the same to 427 cases by 2030.

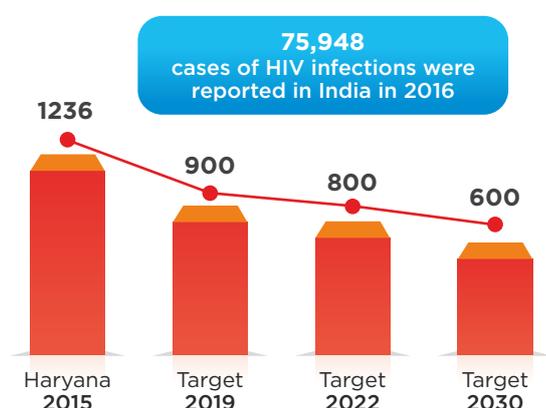
In 2015, Haryana reported 0.29 annual parasitic incidence (API) per 1,000 population per year. But there are still some pockets of Mewat District which need attention, as they have an API of more than 1 case per 1,000 population. The focus for the health authorities is that by 2019 they will ensure that all PHCs and sub-centres have less than 1 case per 1,000 population per year and zero indigenous

**Figure 3.4a: HIV Prevalence (as a percentage of adult population)**



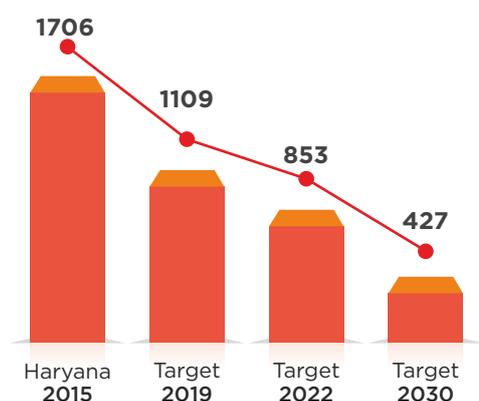
Source: India HIV Estimations 2015: Technical Report of NACO

**Figure 3.4b: Estimated Number of Annual New HIV Infections**



Source: India HIV Estimations 2015: Technical Report of National Aids Control Organisation (NACO)

**Figure 3.4c: Deaths due to Tuberculosis**



Source: State Outcome Report, 2015

cases and deaths due to malaria is attained in the state by 2022.<sup>10</sup>

**Strengthening the system:** Designated clinics for dealing with sexually transmitted infections (STIs) and reproductive tract infections (RTIs) have been established in 31 district hospitals, medical

colleges and a few sub-district health facilities of Haryana, which are providing free treatment, counselling and testing for STIs.<sup>11</sup> The Government of Haryana has also worked towards increasing access to information, education and communication regarding HIV and AIDS. Changing knowledge, attitudes and behaviour as a prevention strategy of HIV and AIDS has continued to be a key feature of the AIDS Control Programme. In the area of tuberculosis reduction, Designated Microscopy Centres have been established throughout the state and universal culture and drug sensitivity testing will be done for all tuberculosis patients. These, along with Directly Observed Treatment Centres, will also be established in slum areas. In the district of Mewat, malaria-related interventions are being emphasized and developed and the Government of Haryana is presently in the process of filling up vacant posts within the Multi-Purpose Health Worker (MPHW) programme.

**Implementing policies:** Within these focus areas, efforts to combat the spread of HIV and AIDS to ensure effective treatment of patients have been most comprehensive. To boost the care, support and treatment of those living with HIV/AIDS, the Government of Haryana has developed interventions such as the dispensation of Anti-Retroviral Treatment (ART), management of opportunistic infections, facilitation of social protection through linkages with concerned departments and ministries and introduction of activities to reduce stigma and discrimination against people living with HIV, particularly in health care settings. In the area of tuberculosis and malaria prevention and treatment, interventions have been planned under each priority area. Within each district, drug resistant tuberculosis centres will be made functional for the treatment of multi-drug resistant tuberculosis patients. HIV testing is presently being done for all tuberculosis patients; diabetes testing has also been incorporated.

**Interventions in facilities:** The Government of Haryana has established 99 integrated counselling and testing centres and 160 facility integrated counselling and testing centres, to provide free HIV testing along with pre- and post-test counselling, as well as prevention of parent-to-child

10. Data source for HIV, India HIV Estimations 2015, Technical Report of National Aids Control Organisation (NACO), <http://www.naco.gov.in/sites/default/files/India%20HIV%20Estimations%202015.pdf>. Data source for tuberculosis, State Outcome Report, 2015. Data source for malaria, reports received from the civil surgeons of the districts.

11. National Aids Control Organization, Strategic Information Management Systems (Haryana State Aids Control Society)

transmission services. Interventions have also been developed to enhance the quality of blood transfusion services and guarantee the provision of safe and quality blood. Through the establishment of 91 licensed blood banks, the Government of Haryana is working to promote voluntary blood donation, provide safer alternatives and strengthen component separation units.<sup>12</sup> Targeted interventions have also been developed to increase safe practices, testing and counselling and adherence to treatment, including the promotion and provision of condoms to high risk groups to promote their use in each sexual encounter. Also, referrals for, or provision of, STI services including counselling at service provision centres have increased patient compliance to treatment. Risk reduction counselling with a focus on partner referral and management, needle and syringe exchange for injectable drug users and Opioid Substitution Therapy (OST) are being provided.

### Challenges regarding communicable diseases

- Low HIV awareness leads to stigma and discrimination: With regard to combating the spread of HIV and AIDS, Haryana shares borders with many other states with comparatively high HIV prevalence, such as Punjab, Delhi and Rajasthan. This influx of migrants from different states of India makes Haryana extra-vulnerable to HIV. Stigma and discrimination against persons living with HIV contributes to poor treatment access and low awareness. In particular, women sex workers, men having sex with men, injectable drug users, migrants and truckers continue to be in situations of greatest risk.
- Vacant posts and low engagement of private sector health facilities lead to tuberculosis defaulters:
  - With a 24% incidence of relapse in tuberculosis cases in 2013, Haryana has reported the third highest number in the country. Districts have reported high default rates ranging from 5% to 25% among tuberculosis patients. The number of District Tuberculosis Officers who have spent a reasonable length of time in the said posts is

inadequate. As a result, mandates and responsibilities keep shifting from officer to officer, resulting in poor supervision and monitoring.

- The Revised National Tuberculosis Control Programme (RNTCP) Partnership guidelines are yet to be implemented. NGOs and private health facilities will be engaged in public-private partnerships through RNTCP. This has resulted in many tuberculosis cases within the private sector not being reported under RNTCP, due to lack of knowledge among private providers and low involvement of medical bodies such as the Indian Medical Association, Indian Association of Paediatrics and the Federation of Obstetric and Gynaecological Societies of India. Vacant posts of RNTCP contractual staff at all levels (state, district, sub-district and medical colleges) are adding to this challenge, with nearly 40% of contractual RNTCP posts currently vacant. This has led to poor monitoring of patients.<sup>13</sup>
- Compounding this issue is the lack of implementation of any social or nutritional support schemes for patients suffering from tuberculosis in general, or that of the multi-drug resistant type in particular, thereby adversely affecting their ability to cope with the disease. In contrast, Kerala and Himachal Pradesh are providing nutritional supplements for improving treatment adherence.
- The state also suffers from a lack of expertise in using available equipment, such as GeneXpert machines. All 12 newly installed machines are currently performing less than 100 tests per month against the expected 200 tests, despite clear instructions on effective utilization.<sup>14</sup> State-based funding is also a key concern; while global funds are currently supporting urban slum intervention activities under RNTCP, the state is yet to initiate the process of slum intervention in coordination with the National Urban Health Mission (NHUM). Implementation of airborne infection controls as per the 2010 guidelines is yet to be completed.

12. Data provided by the State Drug Controller, Haryana

13. Project Implementation Plan, RNTCP (2016-17)

14. Intermediate Reference Laboratory Reports

- Malaria prevention is riddled with systemic issues and vacancies: State efforts towards eradicating malaria have similarly suffered from systemic issues. A large number of MPHWS vacancies have hampered efforts to reduce cases of malaria throughout the state. The district of Mewat continues to suffer from lack of awareness about malaria, preventive measures and methods of controlling the spread of the disease. It is believed that education levels of the district population may be a factor in the saturation of existing campaigns on prevention and the need for completing treatment. Further, poor hygiene and lack of cleanliness hamper progress in controlling the spread of malaria. Due to poor water supply, people tend to store water for longer periods of time, leading to more breeding sites of mosquitoes in human dwelling areas. The Ujina drain is also a huge source of mosquito breeding in the district of Mewat.

### Future strategies for the reduction of communicable diseases

The Government of Haryana is concentrating its efforts towards the reduction of tuberculosis and malaria.

Efforts around tuberculosis reduction will see an increase in training, capacity and protocol. One trained programme manager (Deputy Civil Surgeon, Tuberculosis) has been assigned in each district to manage and review the RNTCP. The district will also review, each month, the performance of the RNTCP, especially with regard to private sector involvement and patient outcomes. The 2014 RNTCP Partnership Guideline and Schedule H1 Drug Protocol will be implemented with a focus on tuberculosis case notification from the private sector and improving diagnostic access within the private sector for tuberculosis patients. Through these measures, the state will reduce the catastrophic burden of expense on the patients.

A review will be conducted to identify areas for private sector engagement at every level, particularly in the area of tuberculosis notifications. For example, if standardized, the NIKSHAY portal (a web based solution for monitoring of TB patients) will be able to provide case details on all private notified tuberculosis

patients at the click of a button. Through coordination between the National Urban Health Mission and RNTCP, slums for targeted intervention and screening have been identified. These efforts will improve awareness rates among poor and marginalized populations and promote regular screening of slum residents for tuberculosis and other communicable diseases.

Efforts will also focus on improving those human resources which are dedicated to tuberculosis reduction. This includes filling vacant posts of contractual staff under RNTCP to strengthen tuberculosis control efforts, as well as supervision and monitoring and efforts to reduce default rates among all patients to less than 3%. Filling vacant posts within medical colleges and the opening of a drug resistant tuberculosis ward in all district hospitals will also contribute to improving case detection and patient care. GeneXpert testing will be offered to all eligible patients and the state will move towards universal drug susceptibility testing by 2018.

Innovative solutions to system-based issues will also be investigated, such as the provision of nutritional support to all multi-drug resistant tuberculosis patients, giving them access to free travel and medicine in any part of the state to avail necessary health services.

Lastly, efforts will be made to form committees in all hospitals and health care facilities to implement the End Tuberculosis Strategy, including infection control measures, vigorous monitoring and supervision at the district level and reducing transmission within health care settings.

The Government of Haryana strategy to combat malaria is equally comprehensive and similarly relies on more integrated engagement with the private sector, civil society organizations and private medical institutions, as well as addressing sectoral issues such as building capacity and sufficient human resources. The state will focus on creating more MPHWS posts, filling existing vacancies for biologists, insect collectors and field workers. Vector control will be strengthened through the establishment of entomological zones. Through these initiatives and the rapid development of the education system in areas like Mewat, the state will progress towards becoming a Malaria Free State by the year 2022.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
3	A 57 point reduction in MMR to 70	107 MMR	97 MMR	70 MMR	State MMR	Sample Registration Survey (SRS) and National Family Health Survey (NFHS)
3	Reduce NMR to 12 and U5MR to 25	21 NMR 37 U5MR	18 NMR 33 U5MR	12 NMR 25 U5MR	State NMR and U5MR	SRS
3	Reduce the number of deaths due to tuberculosis by 75%	35% reduction	50% reduction	75% reduction	Total number of deaths due to tuberculosis	Quarterly Report - RNTCP
3	Reduce the prevalence of tuberculosis by 50%	20% reduction	35% reduction	50% reduction	Total number of tuberculosis cases	Quarterly Report - RNTCP



## SDG 4 | Quality Education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

### Vision

By 2030, eliminate gender and other disparities at all levels in education and ensure equal access to affordable and quality education and vocational training for all.

### Haryana Today

- 61.4% of children aged 4–5 years are presently enrolled in anganwadi centres and schools.
- Haryana is below the national average in learning outcomes. Only 23.6% of children presently in Class III, can successfully read a Class II text. Only 60% of students in Class III can recognize numbers up to 100. Similar findings are there for Classes V and VIII.
- The gender gap between boys and girls in Haryana in the age group 4–5 years as per *Census of India 2011* is 9.61%. However, as per the Department of Women and Child Development and U-DISE 2015–16, the gender gap reduces to 7.52% in the same age group, at the time of enrolment in primary schools and anganwadi centres.
- Haryana has taken a lead by introducing two trade skills in approximately 50% government senior secondary schools.

### Focus for Tomorrow

- Pre-school education.
- Quality education linked with enhancing learning outcomes.
- Removing gender disparity in accessing school education.
- Skills in education and employability after education.

**HARYANA**  
**2030**  
Targets

- ✓ 100% of children enrolled in pre-primary education
- ✓ Achieve a net enrolment ratio (NER) of 97 at the primary level and 95 at the upper primary level
- ✓ 95% of students from Classes I–VIII to be at grade level competencies
- ✓ Increase the transition rate from Class V to Class VI to 100% for both, girls and boys
- ✓ Provision of skills in education and employability through all senior secondary schools and secondary schools

## Current Interventions

Haryana, with a literacy rate of 76.6%, ranks 22nd amongst all Indian states.<sup>1</sup>

### Pre-school education

Bearing in mind that early childhood years are of critical importance and signify the period when a child's mental and physical development is the highest, the Government of Haryana is convinced of the importance of investing in pre-school education. While at present, government schools do not provide pre- primary education, the Government of Haryana has begun work on the development of an early childhood education programme.

In an effort towards early childhood development, the Government of Haryana has established 25,692 anganwadi centres; however, this level of coverage is not adequate to meet state needs.<sup>2</sup> While the anganwadi centres enrol children between 6 months to 5 years and offer some basic elements of pre-school, the level of services offered and curriculum used are in no way equivalent to an acceptable standard. This large gap continues to be unmet and the need for pre-school education which is established as an integral part of the school education system is still felt throughout the state. Pre-school education needs to be addressed within the state through new schemes and programmes focussed on it.

### Quality education linked with enhancing learning outcomes

In elementary education, poor learning outcomes continue to be a matter of serious concern. Studies have shown that while children may be attending schools, their comprehension levels and ability to perform basic skills in the areas of reading, writing and arithmetic remain low. For example, data emerging from the Annual Status of Education Report (ASER) 2014 Survey Report for Haryana<sup>3</sup> shows that only 23.6% of children in Class III could successfully read a Class II text. In the area of mathematics, similarly, only 60% of students in Class III could recognize numbers up to 100. Similar

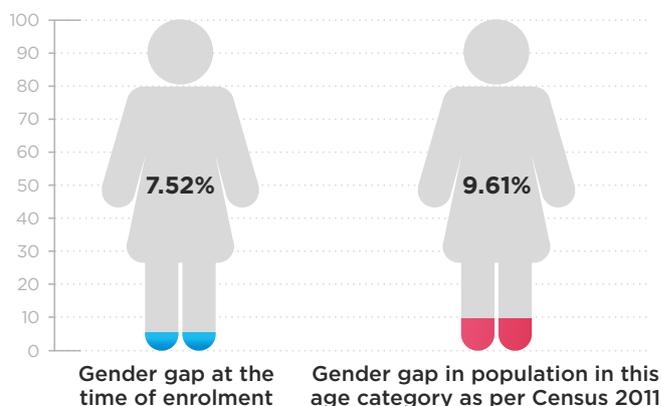
findings also extend to students in Classes V and VIII. With respect to Haryana's success rate within education outcomes, the case for improvement is clear: **Haryana is below the national average** and must improve.

It is a key priority for the Government of Haryana to improve learning outcomes of school-going children and secure high quality of elementary education. The present government initiatives focus on defining and increasing learning outcomes, enhancing early grade reading, writing, comprehension and mathematics programmes. Along with implementing the centrally sponsored Sarva Shiksha Abhiyan and Rashtriya Madhyamik Shiksha Abhiyan, the Government of Haryana is investing in teacher training, remedial teaching, Kasturba Gandhi Balika Vidyalyayas (KGBVs), Inclusive Education for Disabled (IED) and IED Secondary Stage (IED-SS), Information and Communication Technology (ICT), Rashtriya Aavishkar Abhiyan, girls' hostels and model schools.

### Removing gender disparities in access to school education

The gender gap between boys and girls in Haryana in the age group 4-5 years as per *Census of India 2011* is 9.61%. However, as per the Department of

**Figure 4.1: Gender Gap in Education**  
(4-5 years age group)



#### Source

1. *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.
2. Department of Women and Child Development, Government of Haryana.
3. <http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%202014/National%20PPTs/aser2014indiaenglish.pdf>

1. *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.

2. Data provided by the Department of Women and Child Development, Government of Haryana.

3. <http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%202014/National%20PPTs/aser2014indiaenglish.pdf>

Women and Child Development and U-DISE 2015-16, the gender gap reduces to 7.52% in the same age group, at the time of enrolment in primary schools and anganwadi centres (Figure 4.1).

However, access to education should not be interpreted within Haryana as a strictly spatial or distance-oriented concept, but rather in terms of the educational needs and socio-economic context of those categories of girls who are traditionally excluded from the education system. By focusing on these extra-vulnerable groups, the Government of Haryana can ensure that social, regional and gender gaps in education are eliminated and that gender equality as well as girls' and women's empowerment are promoted throughout the education system.

Gender is a critical cross-cutting equity issue and efforts are required not only towards enabling the enrolment of girls enrolled throughout the educational system, but to also to improve their long-term learning outcomes and provide them with equal opportunities throughout their schooling. For example, decisive changes within the National Policy on Education 1986/92 could have a ripple effect and a significant impact on the status of women more broadly within the state. This focus will be a key priority within the review of the National Policy on Education, as it is implemented within Haryana.

As can be seen from Figure 4.2, 2001 to 2011 saw a 10.21% increase in the literacy rate of females within Haryana. However, even as this increase surpassed the literacy growth rate of males by nearly 5%, a gap of 8.12% still remains between male and female literacy rates within the state. Though efforts have brought Haryana's female literacy rate to a level

**Figure 4.2 Literacy Rate**

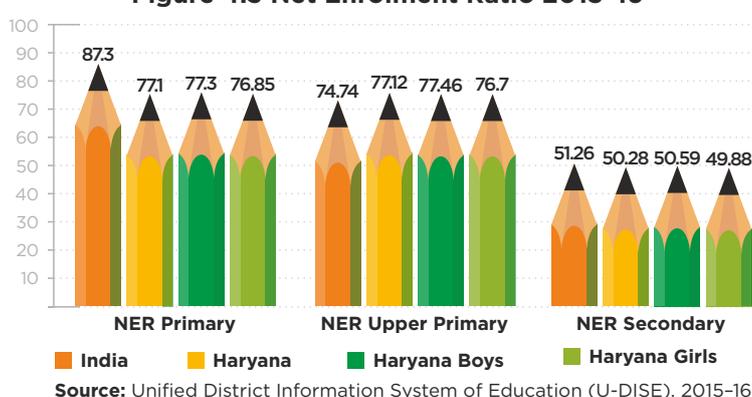
Literacy Rate %	Haryana 2001	Haryana 2011	India 2011
<b>Females</b>	<b>55.73</b>	<b>65.94</b>	<b>65.46</b>
<b>Males</b>	<b>78.49</b>	<b>84.06</b>	<b>82.14</b>
<b>Total</b>	<b>67.91</b>	<b>75.55</b>	<b>74.04</b>

Source: Census of India (various years), Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.

higher than the national average, significantly more work is needed for long-term, sustainable changes, which can genuinely impact the overall gender disparity within the state.

For example, the child sex ratio increased from 819 in 2001 to 834 in 2011.<sup>4</sup> While this is an improvement, there is still a long way to go before Haryana can achieve child sex parity, which will in turn impact gender equality within the school system. In addition to this, girls continue to drop out of school earlier than boys, resulting in a larger gender gap at the secondary schooling level as well (Figure 4.3).

**Figure 4.3 Net Enrolment Ratio 2015-16**



Currently, the transition rate of girls at all levels is lower than that of boys. This shows that girls are more prone than boys to dropping out of school after they have completed a certain grade, say, Class V or Class VIII.

The Government of Haryana has launched a number of campaigns aimed at promoting education of the girl child as a cornerstone of both family and society. To this end, the **Beti Bachao Beti Padhao** scheme has successfully been implemented in the state. **Balika Manch** Programmes have been set up in all schools to enable girls' empowerment. Activities conducted under Balika Manch aim to fill the skills gap that school-going girls may have, through activities that emphasize leadership qualities, teamwork, knowledge and confidence building. **Gender sensitization workshops** are being held in the state to sensitize parents towards barriers in the way of girls' education and strategies to overcome them. Workshops have been organized in schools to motivate young girls to continue their education

4. Census of India 2011, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.

until at least the senior secondary level through interaction with various role models. **Self defence training** has also been organized for girls at the secondary and senior secondary levels.

In addition to these direct interventions, the state is operating programmes which will have a systemic impact on the accessibility of education for girls throughout Haryana. The Government of Haryana has opened **28 KGBVs**, which focus on girls' education at the upper primary level.<sup>5</sup> Some KGBVs also provide education up to secondary level. In the Mewat area, where education of girls continues to be a major issue, five KGBVs are operational to address the issue.

Schools throughout the state have been given specific instructions to re-admit girls who were unable to pass their board examinations in Classes X and XII. Furthermore, National Cadet Corps, National Service Scheme and Scout & Guide students have been recruited to help identify out-of-school girls and motivate them to rejoin. Additional programmes, such as Mera Pehla Gantantra Diwas and *Kanya Janam Utsav* have been put in place to celebrate education of the girl child and promote healthy learning relationships.

Social barriers to education are also being considered in educational programme planning. For example, the Government of Haryana is establishing **girls' hostels** in 36 educationally backward blocks of the state. Efforts to control absenteeism and dropouts related to menstruation has led to research on building facilities for the provision and safe disposal of sanitary napkins.

Lastly, the state has expanded vocational education courses in all girls secondary and senior secondary schools in an effort to enhance the long-term learning outcomes of school-going girls, slowly changing social and cultural norms around the utility of educating the girl child.

### Skills in education and employability

The Government of Haryana realizes that there is a significant need to impart skills which are well-integrated within the academic curriculum, such that education offers to students both horizontal

and vertical mobility and enhances employability of youth.

*Introduction of trade skills:* Haryana has introduced two trade skills in 990 out of 1,867 government senior secondary schools.<sup>6</sup> At present, skill-based programming under the **centrally sponsored scheme of vocationalization** provides for skill training for a select number of students per school, starting at level-1 in Class IX and ending with level-4 in Class XII.

*ICT as an important education tool:* The Government of Haryana is also emphasizing the integration of ICT within learning, as these skills are increasingly necessary in a modern workforce. For example, ICT as a part of computer awareness is one of the national flagship programmes under which all government secondary schools have been covered.

In addition to this, possibilities are being explored for the use of information technology in different ways, not only to manage the sector, but also, to directly assist in enhancing the quality of teaching and learning, expansion of education opportunities and improvement of educational planning and management. The Government of Haryana is also looking at harnessing ICT tools for enhancing remedial education, training of teachers, adult literacy programmes, skill education and learning tools and for the governance and management of the education system at large. IT-based applications for monitoring the performance of students and schools, as well as for school management, are currently being used in the state.



## Challenges

### Pre-school education

Challenges to the implementation of pre-school education fall under two major brackets. First, the existing system of anganwadi centres is not meeting the needs of the population, both in terms of quantity and quality of education. Second, the

5. Unified District Information System of Education (U-DISE), 2016-17

6. National Skill Qualification Framework (NSQF) Cell, Haryana School Shiksha Pariyojna Parishad (HSSPP), Panchkula

facilities and human resources needed to build a new system of pre-schooling education are difficult to obtain.

On the first issue, the number of existing anganwadi centres is not sufficient to respond to the needs of the 995,603 children in Haryana who at present are 4 to 5 years old.<sup>7</sup>

Furthermore, the capacity of anganwadi workers and the equipment and training available to them are not adequate for addressing the needs of the pre-schoolers. In addition, anganwadi workers are engaged in many other tasks, leaving them with less time for pre-primary teaching.

On the second issue, pre-school education is currently not covered under the government schooling system and a number of challenges systemically arise from this fact. For example, the absence of a well-defined curriculum and activity-based material which facilitates the early learning of children in this age group are symptoms of a broader issue. Given the poor job prospects in this field of pre-school education, there is an absence of people who are trained in this area and the state lacks an independent cadre of pre-school education teachers. Lack of coordination, regulation and monitoring systems to govern and manage both public and privately run preschools emerges as an ancillary problem.

### **Quality education linked with enhancing learning outcomes**

As previously noted, the state struggles to improve the long term learning outcomes of its students. At the elementary level, an overhaul of the pre-service and in-service training programmes is desperately needed. Training for teachers needs to better reflect the realities of a classroom, as there is a significant mismatch between these two, which has resulted in teacher absenteeism, low teacher accountability and little involvement of teachers in extracurricular activities. Lack of effective leadership, motivation and modernization of teaching skills among teachers have also contributed to declining academic standards and lowered incentive for new recruits to enter the teaching field. Lack of community involvement, in effective management, overall inadequate state-level infrastructure have led to the mushrooming of sub-standard, privately-managed teacher training institutes.

### **Removing gender disparity in access to school education**

While the enrolment of girls in schools appears to be satisfactory, when compared with the existing gender gap, as reflected by the sex ratio, gender disparities within the educational system go far beyond simple enrolment. Attendance, longevity, long term outcomes, all contribute to girls' educational experience within the state.

Factors contributing to the quality of girls' educational experience within the state are varied. Lower child sex ratios translate into enrolment gaps within primary and secondary schooling. Gender biases in society mean that many parents may not consider sending their daughters to neighbouring localities to complete their senior secondary education, in the absence of a local school. Social norms dictating that only girls should attend to domestic work and act as caregivers for siblings and family members mean that once again, this high dropout rate is compounded. Lower graduation rates for girls mean that there are fewer women teachers and fewer women role models for the girl child. The ripple effect of gender parity in this regard cannot be underestimated. For gender equality to take root, education must be the first step.

### **Skills in education and employability**

While the state has invested in the development of an academic curriculum, the need for skill development and entrepreneurship has not been supported as strongly. At the elementary level, the cultivation of hobbies as a source of skill development and aptitude development at the secondary and senior secondary levels are often neglected. The skills programme requires significant reorientation to allow students to dip into a wider range of talents, while also inculcating entrepreneurship as a valuable skill set. Absence of multi-skilling up to secondary level and the fostering of specialized skills at higher secondary level are necessary to meet the need for a multifaceted modern workforce. Educational curriculums must shift to accommodate this changing nature of the workforce. More targeted interventions are needed to link up students with specialized skills to relevant industries and apprenticeships. Interventions such as skill matching and skill gap analysis could help build

7. *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.

better vertical and horizontal mobility for students once they enter the workforce.

## Strategies for Success

Overall, the Government of Haryana is working towards building a system which ensures that education programmes are made accessible, inclusive and responsive to the needs of diverse groups of children and young people, with a special focus on students from disadvantaged population groups. It will ensure that social, regional and gender gaps in education are eliminated and that gender equality and girls' and women's empowerment are promoted throughout the education system. By expanding opportunities for skill development and ensuring acquisition by young people and adults of the skills and competencies for life and work, Haryana will benefit from a population with an increased skill capacity that is better able to embrace the modern economy. To implement this kind of educational system, the Government of Haryana needs to invest further in systems for teacher development and management, so that they are better able to respond to regional needs concerning quantity and quality. It also aims at institutionalizing a responsive, participatory and accountable system of educational planning, governance and management.

To implement this kind of broad foundational change, the Government of Haryana may establish an Interdepartmental Steering Coordination Committee headed by the Administrative Secretary and comprised of departmental heads in collaboration with resource groups constituted by experts and academics from the education community.

### **Pre-school education: Enrolment of all children in pre-schools**

In the realm of introducing pre-schooling at the state level, the Government of Haryana will prioritize the implementation of the following policy initiatives:

- A programme for pre-school education of children aged 4 to 5 years will be implemented in coordination with Integrated Child Development Services of the Women and Child Development Department.

- Steps will be taken in consultation with states to frame curricula and develop learning materials, within a year, to strengthen the existing framework of pre-school education within anganwadis and provide training to anganwadi workers.
- The Education Department will invest in the training and certification of pre-primary teachers and create necessary facilities for their pre- and in-service training. This will act as a first step towards transitioning the state from anganwadi to pre-primary school in a gradual and seamless manner.
- In due course, all primary schools will cover pre-primary education. For this, efforts will be made to locate all anganwadis either in the school premises, or as close to them as possible.
- Appropriate regulatory and monitoring rules and mechanisms will be designed for private pre-schools. Proper rules for age appropriate enrolment in schools will be imposed on all schools imparting pre-school education. Data for each student can be collected from all the pre-schools. Directions for appointing trained staff will be issued to these schools and it will be ensured that guidelines are followed.

### **Quality education linked with enhancing learning outcomes: Ensuring the learning outcomes of children reach 95%**

*Improving learning outcomes:* The state will work towards a 95% success rate of students of Class I-VIII achieving grade level competencies. In order to achieve this, the Government of Haryana will focus better on the implementation of existing infrastructural norms within the Right to Education Act 2009 and will develop norms for learning outcomes which will be applied uniformly to both private and government schools. Students struggling academically will be identified based on the Comprehensive Continuous Evaluation (CCE) system followed by schools and 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.

*Filling vacancies:* At the systemic level, greater attention will be paid to cultivating a strong human resources capacity. All vacancies in educational

institutions and all positions of head teachers and principals will be filled through either fresh recruitment or deputation. In addition to this, leadership training for head teachers and 16 principals will be made compulsory. Fair, equitable and transparent norms developed for the deployment of teachers will be made available in the public domain for greater systemic transparency. For remote and difficult areas, efforts will be made to recruit teachers locally.

*Strategies for enhancing the capacity of the teaching faculty:*

- Interventions to curb teacher absenteeism and teacher vacancies, as well as efforts for enhancing accountability of teachers will be developed alongside strong political consensus. Disciplinary powers will be vested in School Management Committees (SMCs) in the case of primary schools, and head teachers/principals in the case of upper primary and secondary schools, for the enforcement of policies on absenteeism and indiscipline. These measures will be strengthened with technological tools for recording attendance through mobile phones and biometric devices.
- 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 their existing limitations. A Teacher Education University will be set up to address various aspects of teacher education and faculty development. The State Council of Educational Research & Training (SCERT) will be developed and converted to an additional Teacher Education University.
- It will be made mandatory for all teacher education institutions (private and government), such as District Institutes of Education and Training, B.Ed. Colleges, etc., to be accredited. Benchmarking standards will be laid down for block resource centres.
- Teacher development programmes will have components to help teachers appreciate the importance of co-scholastic activities, especially life skills, ethical education, physical

education and arts and crafts and introduce these effectively into the teaching-learning process in schools.

- Programmes for enhancing the capacity, motivation and accountability of teachers to deliver quality education and improvements in learning outcomes of students will be accorded priority. It will be made mandatory for all in-service teachers to participate in training/professional development programmes once in every three years. The Education Department and SCERT will make adequate arrangements to train all in-service teachers within a period of three years by leveraging technological tools.
- Periodic assessment of teachers in government and private schools will be made mandatory and linked to their future promotions and release of increments, as applicable. They will have to appear and clear an assessment test every five years, which will assess their pedagogic skills and subject knowledge.

**Removing gender disparity in access to school education**

The Government of Haryana will work with all departments to ensure that the cross-cutting nature of gender issues is addressed, beginning with education. The Government of Haryana is dedicated to eliminating gender disparity in schools and ensuring a 97% net enrolment ratio (NER) at the primary level and 95% at the upper primary level. Gender sensitization of parents will be a key factor in addressing this issue.

In an effort to lower barriers to education among girls, the Government of Haryana will provide transportation for school-going girls to increase the access and reach of education. Curriculum and school materials will be designed in a manner which will inculcate norms of mutual respect between the sexes.

Government schools will better enforce the reservation of 33% of positions for women teachers in recruitment. To that end, a standing panel of women teachers will be developed to fill vacancies in lieu of long leave periods, such as child care leave and maternity leave. A policy on menstruation and personal hygiene in schools will be developed and implemented, in addition to establishing guidance counsellors and counselling centres in senior secondary schools, in coordination with the Health Department.

### Skills in education and employability

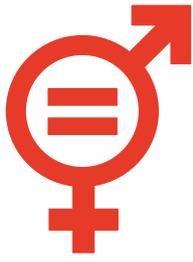
To better foster skill development throughout Haryana, existing programmes within the school system will be reoriented not only for gainful employment of students, but also to help them develop entrepreneurial skills. All government senior secondary and secondary students will be trained in at least one trade skill. As envisaged in the National Skill Development and Entrepreneurship Policy 2015, skill development programmes will be integrated in 25% schools. A detailed plan for the creation of skill-based trade

schools will be prepared, to improve employment opportunities for secondary school students, with special focus on districts with greater 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, a credit bank system and institutional collaborations for credit transfers.

### Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
4	Pre-school education	NER at pre-primary 70%	85%	100%	NER	U-DISE data and anganwadi enrolment from the Department of Women and Child Development, Government of Haryana
4	Quality education linked with enhancing learning outcomes	70% students in grades I-V to be at grade level competencies in 5 years; 70% students in grades VI-VIII to be at grade level competencies in 7 years	85% students in grades I-V to be at grade level competencies in 5 years; 85% students in grades VI-VIII to be at grade level competencies in 7 years	95% students in grades I-V to be at grade level competencies in 5 years; 95% students in grades VI-VIII to be at grade level competencies in 7 years	Student learning assessment score	State achievement test and National Achievement Survey (NAS) and ASER reports
4	Removing gender disparity in access to school education	Removing gender disparity in school education and making all girls attend schools at elementary level	NER of 95% (primary level); NER of 93% (upper primary); Transition rate (TR) of 98% (Class V to Class VI)	NER of 97% (primary level); NER of 95% (upper primary). Transition rate of 100% (Class V to Class VI)	NER and TR	U-DISE data and census age-specific population data
4	Skills in education and employability	Priority-IV 65% coverage of senior secondary schools	All senior secondary schools	All senior secondary schools and secondary schools	% coverage of schools	U-DISE



SDG 5

# Gender Equality

Achieve gender equality and empower all women and girls

## Vision

The Government of Haryana envisions women as fully economically empowered in a secure environment by 2030, with wide-ranging implications for all social indicators linked to education, health and nutrition and especially in achieving parity in infant and child sex ratios.

## Haryana Today

- Female participation in the workforce is at 17.79%, as compared to a 50.44% male participation rate.
- A 259% increase in kidnappings and 382% increase in molestation cases registered during 2011–2015.
- As per Census 2011, Haryana has the lowest child sex ratio in India with 834 girls for 1,000 boys.

## Focus for Tomorrow

- Economic empowerment of women.
- Ensure a safe, secure and positive environment for women inside and outside the home.
- Achieve parity in infant and child sex ratios.

**HARYANA**  
**2030**  
Targets



- ✓ Eliminate the unemployment gap between men and women
- ✓ Reduce crimes against women to 12%
- ✓ Achieve total gender parity in the birth ratio



## Current Interventions

As per Census 2011, Haryana had the lowest child sex ratio in the country, at 834 girls to 1,000 boys and an overall sex ratio of 879 females to 1,000 males (Figure 5.1). Many steps have been taken by the government in the last few years to improve the sex ratio in the state. As a result of various interventions, the child sex ratio as of 2016, as per the Registrar of Births & Deaths, Haryana, stands at 900 girls to 1,000 boys. Of all cases relating to the contravention of the Pre-Natal Diagnostic Techniques Act, Regulation and Prevention of Misuse (PCPNDT), 1994 in India, 26% convictions were reported in Haryana (as of December 2014). From 2005 to 2015, as per the National Family Health Survey, Round 4, spousal violence in Haryana has increased from 27.3% to 32% among women who have ever been married (Figures 5.2a and b provide information on crime against women in Haryana).<sup>1</sup> Notably, women, including pregnant women, in rural areas face a greater risk of domestic violence than those in urban areas. Within the state, Hisar, Karnal and Sirsa have the highest reported incidences of domestic violence. In the realm of women's economic empowerment, the rate of women's participation in the workforce is a matter of concern. While the national average of female participation in the workforce is approximately 31% (of all females) versus 56% for males, Census 2011 data shows that only 17.79% of females in Haryana are part of the workforce, while 50.44% of the males participate.<sup>2</sup>

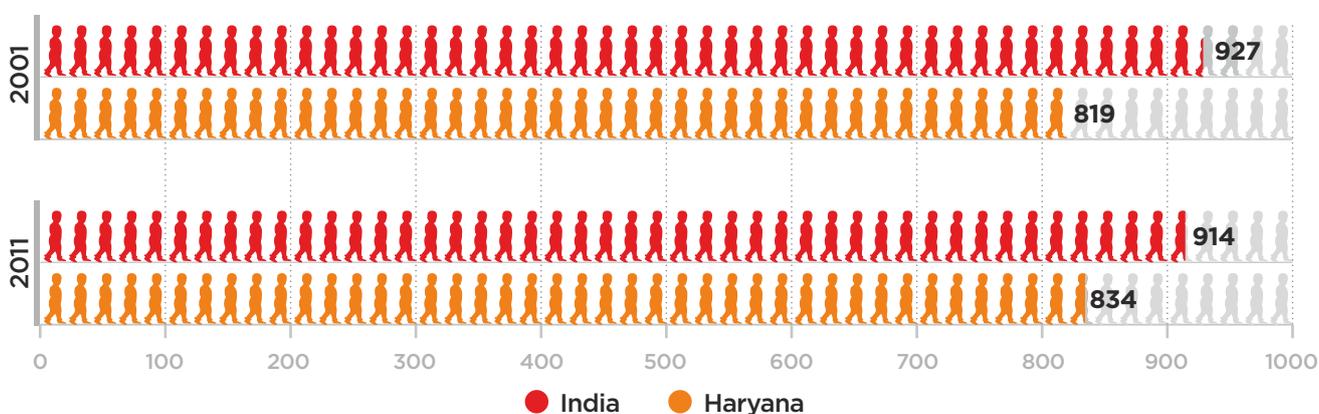
### Interventions related to the girl child

Towards enhancing gender parity at birth, the Government of Haryana has taken the following steps: implemented an awards system for improvements to the sex ratio at both the district and Panchayat levels; endeavoured to ensure the strict implementation of the Pre-Natal Diagnostic Techniques Act, Regulation and Prevention of Misuse (PCPNDT) 1994 and Medical Termination of Pregnancy Act, 1971; organized awareness raising camps; and provided incentives to families of the girl child. To combat adverse sex ratios, the Government of Haryana has implemented a number of programmes, including Beti Bachao Beti Padhao, its flagship programme; as well as Ladli/Aapki Beti Hamari Beti, Ladli pension scheme, widow pension scheme, education loans, awards to rural adolescent girls pursuing higher education, gender sensitization programme and a rebate programme for deeds registered in a woman's name. These efforts have contributed to improving the sex ratio at birth from 834 in 2011 to 900 in 2016.<sup>3</sup>

### Safety and security interventions

With reference to improving safety and security for women, several national and state-based initiatives have been launched in Haryana to protect and promote the rights of women. Over the years, several crucial laws have been amended and new laws introduced, resulting in a strong legal

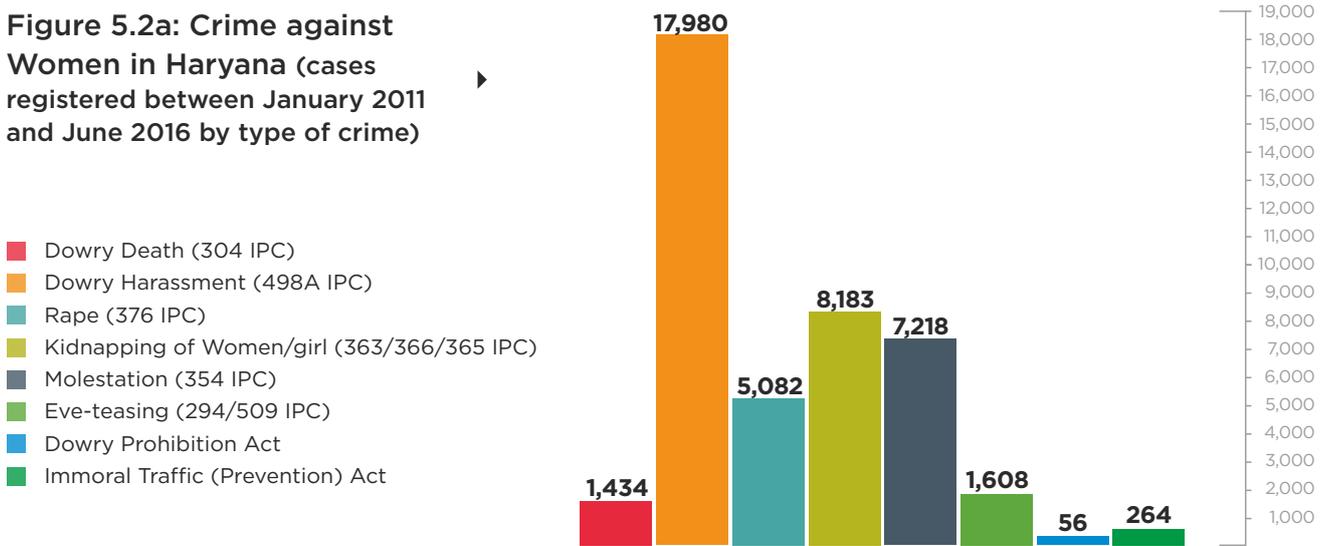
**Figure 5.1: Child Sex Ratio (girls to 1,000 boys; 2001 versus 2011)**



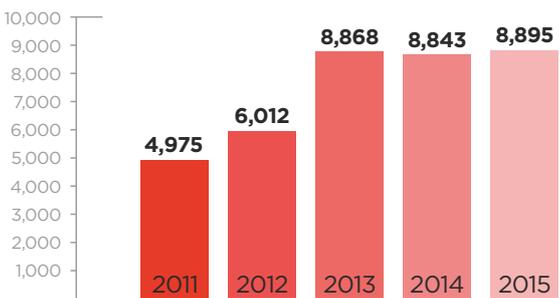
Source: Census of India 2001 and 2011, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.

1. <http://pib.nic.in/newsite/PrintRelease.aspx?relid=116303>.
2. Census of India 2011, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.
3. Data for 2011 is sourced from the Census of India 2011. Data for 2016 is sourced from the Registrar of Births & Deaths, Haryana

**Figure 5.2a: Crime against Women in Haryana (cases registered between January 2011 and June 2016 by type of crime)**



**Figure 5.2b: Crime against Women in Haryana (number of cases registered annually between 2011 and 2015)**



Source : Data provided by Home Department, Government of Haryana

framework for the protection of women. This framework includes: The Prohibition of Child Marriage Act, 2006, the Dowry Prohibition (Amendment) Act, 1984, The Immoral Traffic (Prevention) Act, 1986, the Sexual Harassment of Women in the Workplace Act (Prevention, Prohibition and Redressal) 2013. Building on this national framework, Haryana has taken further steps to promote women’s empowerment throughout the state. Haryana is the first state to have formulated a scheme for women who are victims of acid attack, including free medical treatment, 100% medical reimbursement and ad-hoc relief of ₹1 lakh.

A One Stop Centre has been set up in Karnal for women facing physical, sexual, emotional, psychological and economic abuse. There are plans to set up such a centre in each district of the state. A separate Mahila Thana has also been established in each district. In addition to these

interventions, a working women’s hostel, an after care home for girls and a home for widows and destitute women have been established as well.

**Interventions to promote the economic empowerment of women**

Given the need for economic empowerment as a foundational aspect of overall development, Haryana has adopted a number of strategies towards enhancing women’s economic standing, both within the home and in society at large. The state is presently working to create equal opportunities for employment and equal remuneration for women, as well as safe working environments and control of resources by women. These interventions include: the establishment of a Skill Development University in Faridabad; reservation of one third of local Panchayat seats for women; provision of one year of training for stitching and tailoring for Scheduled Castes and Other Backward Classes as well as widows and destitute women and girls; establishment of education loan and individual loan schemes to encourage higher education among women; as well as assistance to employed women as part of MNREGA and the State Rural Livelihood Mission.

 **Challenges**

Any effort made around upholding women’s rights within the state requires the implementation and enforcement of law at all levels, as well as improved access to justice, particularly for impoverished,

marginalized and slum-dwelling women. It also requires the promotion of gender- based analysis throughout policy making and taking cognizance of the gender impact of every law, policy and programme.

For example, the Government of Haryana amended the Panchayati Raj Act in 2014, introducing a minimum educational requirement for contesting local body elections as a step towards better quality governance. However, given the gender gap in education in Haryana, this step has adverse implications for potential women candidates. Many who aspire to drive change through political participation are rendered ineligible to stand for local body elections simply because they were not able to gain timely access to education in their childhood. In fact, across India, Haryana ranks 24th in female literacy. This points to the urgent need to strengthen the participation of girls in the education system, to improve access, ensure retention and provide a special focus on the education of the girl child. Presently, Haryana's girls suffer from a marked low literacy rate of 66.8%, as opposed to 85.4% for boys. In the case of adult females, this figure drops even lower, to 60%.<sup>4</sup> As the minimal qualifications required for participating in both the workforce and civic engagement rise, women will continue to be left behind if they are unable to attain the same educational levels as men.

Even in the areas of child marriage, early motherhood and overall health, investment in education and literacy continues to show maximum impact. While marriages before the age 18 years have halved in the last decade, one in every five girls is still getting married before the age of 18 years. This affects both maternal mortality rate and overall health of women. Strategic action to achieve women's equal participation in the economy by the state must address women's access to education as a key cornerstone of change.

## Strategies for Success

With numerous global campaigns around the world highlighting the importance of women as the keystone of all development regimes, the need to

build gender-inclusive efforts at every level of implementation is readily apparent.

Haryana strives towards being a state in which women are engaged as fully functioning members of society at every level—politically, within the workforce, at school and in the home as well. Girls and women form the primary focus of Haryana's development and are considered not just as a "niche target group" but indeed, as the primary clients of Haryana's development frameworks.

### Integrating gender equality at the structural level:

Building on the success of present interventions such as Beti Bachao Beti Padhao, Sex Ratio Awards and the Education Loan Programme, Haryana will further strengthen its efforts towards integrating gender equality at the structural level by establishing a gender budgeting cell in every department to incorporate a gender perspective at all levels and stages of the budgetary process. This measure will ensure that gender targets are supported through budgetary and financial means.

One Stop Centres for women will be established in each district to contribute to the overall safety and security of women in the state. Special cells to tackle domestic violence cases will be established in each block and awareness-building efforts will be made. In addition, Women's Helplines will be integrated into one easily accessible number to support victims of violence, both mental and physical.

### Special steps towards economic empowerment:

The Government of Haryana is committed to enhancing women's economic empowerment across all sectors of the state.

- To drive women's participation in the workforce, the state will ensure that more working women hostels are constructed, with easy access to public transportation.
- Awareness about skill development opportunities will be generated through publicity material. Awareness camps about women's programmes, the importance of financial inclusion, accessibility of banks and the value of unpaid work will be held. The education loan scheme will help to motivate young girls to pursue higher education.
- Reservations for women trainees will be made within state police training academies.

4. All data related to literacy is sourced from the *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India

## SDG 5

Programmes to sensitize the Police Department and the Labour Department of the Government of Haryana about issues which impair women's ability to safely participate in the workforce will be run. A reservation of 33% for women in the Vidhan Sabha as well as awareness and capacity building of women Panchayati Raj Institutions will ensure women's civic engagement and visibility in decisions regarding the local economy.

- By 2021 all Gram Panchayats of the state will have formed sustainable Self-Help Groups for women through the National Rural Livelihood Mission. Issues affecting employability, such as accessibility and affordability of mobile phones will be identified and addressed. Women will also be further economically empowered through easy access to micro-finance.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
5	Decrease the unemployment gap between men and women	25%	10%	0%	Unemployment gap/ Workforce participation rates for men and women	Census of India (years as applicable)
5	Increase the proportion of women police officers	15%	25%	35%	Total number of women police officers	Home Department, Government of Haryana
5	Increase the proportion of women judges in Haryana's High Court	18%	22%	30%	Total number of women judges in High Court	Haryana's High Court Website
5	Percentage of women who own a home or land	40%	50%	60%	Total number of land and home holdings owned by women	Land Registry
5	Proportion of women who own a mobile phone	75%	100%	100%	Total number of women who own mobile phones	National Family Health Survey, Round 4, 2015/16 (NFHS-4)
5	Proportion of crime against women to total crime	25%	21%	12%	Proportion of crime against women to total crime	NFHS-4
5	Lower the rate of domestic violence among partners	27%	23%	17%	Proportion of ever-partnered women and girls aged 15+ subjected to physical, sexual, or psychological violence by a current or former intimate partner in the previous 12 months	National Family Health Survey, Round 4, 2015/16 (NFHS-4)
5	Proportion of women aged 20-24 years who are married, or in a union, before the age of 15 or 18	19%	9%	0%	Proportion of women aged 20-24 years who were married, or in a union, before the age of 15 or 18	National Family Health Survey, Round 4, 2015/16 (NFHS-4)
5	Increase the proportion of women in government ministerial positions	20%	25%	40%	Total number of women in government ministerial positions	Employment Department, Government of Haryana
5	Proportion of seats held by women in Vidhan Sabha	20%	25%	35%	Proportion of seats held by women in Vidhan Sabha	Election Commission Reports
5	Parity within the sex ratio of children aged 0-6 years	950 girls 1000 boys	975 girls 1000 boys	1000 girls 1000 boys	Parity within the sex ratio of children aged 0-6 years	Registrar: Deaths and Births
5	Proportion of institutional deliveries	97%	100%	100%	Proportion of institutional deliveries	Directorate General of Health, Government of Haryana



SDG 6

# Clean Water and Sanitation

Ensure availability and sustainable management of water and sanitation for all

## Vision

The Government of Haryana commits to providing basic services and facilities for clean drinking water and sanitation in rural and urban areas to ensure a better quality of life for all its residents.

## Haryana Today

- 94.3% of habitations in the state are covered as part of the National Rural Drinking Water Supply Programme.
- 85% of the urban population presently has access to potable drinking water.
- 75 out of 80 towns are covered, either fully or partially, with a sewerage system along with sewage treatment plants.
- Out of 6,205 Gram Panchayats (GPs), 6,096 have achieved Open Defecation Free (ODF) status.

## Focus for Tomorrow

- Safe and adequate drinking water for all, at all times, in rural and urban areas.
- Providing sewerage system in all villages of over 10,000 persons.
- To achieve 100% coverage of urban areas with sewerage systems, as well as sewage treatment plants for the treatment of waste water.

**HARYANA**  
**2030**  
Targets

- ✓ Achieve 100% coverage of sewerage systems in urban areas throughout the state
- ✓ Achieve 100% individual household connections for potable drinking water across the state
- ✓ Reduce incidence of water wastage to less than 7% in rural areas and 5% in urban areas
- ✓ Achieve state-wide ODF status

## Current Interventions

Within the Government of Haryana the Public Health and Engineering Department (PHED) works to ensure that residents of Haryana have access to reliable water supply in both urban and rural areas, sewerage and storm water systems in urban areas and drinking water facilities at the doorstep of each house at a minimal charge, all of which contribute to lowering poverty, hunger and waterborne diseases (Figure 6.1).

**Figure 6.1: Water Supply** (in litres per capita per day or lpcd)



Source: Based on information received from field offices on Public Health and compiled at the Head Office as on 1 October 2016.

### Interventions in drinking water

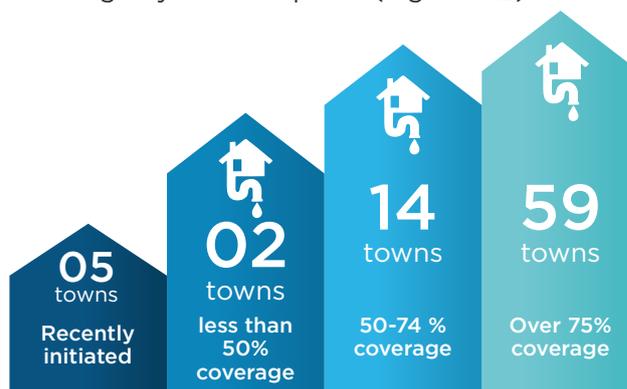
At present, 94.3% of habitations in the state are fully covered, 3.1% are partially covered and 2.6% categorized as quality affected under the National Rural Drinking Water Supply Programme.<sup>1</sup> The state has worked to provide a minimum of 70 litres of drinking water per capita daily (lpcd) in areas under the Desert Development Programme (DDP) and 55 lpcd in non-DDP areas. Currently, this water is being supplied through 1,599 canal-based water supply schemes and 8,314 deep tube wells installed in the state. In urban areas, 85% of the population has access to potable drinking water.<sup>2</sup> To

encourage individual household connections in rural regions and fill existing gaps in the water supply, the Government of Haryana has implemented a number of programmes. These interventions include raw water lifting schemes from assured sources, multiple habitation schemes and surface water based schemes to generate greater volumes of drinking water.

Awareness activities have also conducted through various means and water conservation techniques have been implemented.

### Interventions in sewerage

Currently, approximately 80 towns and cities throughout the state have both water supply and sewerage systems in place (Figure 6.2).<sup>3</sup> Out of



**Figure 6.2 Percentage Area Covered with Sewerage System**

Source: Based on information received from field offices on Public Health and compiled at Head Office as on 1 October 2016.

these 80 towns, sewage treatment plants (STPs) are functional in 62 towns.<sup>4</sup> Construction of STPs in the remaining 18 towns is in progress.<sup>5</sup> Haryana boasts a total of 8,83,603 water connections and 4,94,889 sewer connections, primarily in the towns.<sup>6</sup> The state is yet to develop a policy to provide sewerage systems in rural areas; urban sewerage is prioritized, owing to higher population density. Old poly vinyl chloride (PVC) lines in various towns have led to water contamination in some areas of the state and work has commenced to replace these old lines with new ductile iron (DI)

1. Based on information received from field offices on Public Health and compiled at Head Office as on 1 October 2016  
 2. Ibid.  
 3. Ibid.  
 4. Ibid.  
 5. Ibid.  
 6. Ibid.

pipelines, which are more resistant to contamination.

### Interventions in sanitation

Recognizing the importance of behavioural changes in influencing sanitation levels within the state, the Government of Haryana has focused its efforts on measures which promote and incentivize the adoption of new sanitation norms. Individual water connections are being encouraged by the state in rural and urban areas to facilitate both drinking water and latrine functions. To motivate Panchayats and accelerate the achievement of an ODF state, financial incentives have been established through Haryana's *Gramin Swachchhta Puraskar Programme*. Through this mechanism, incentives of ₹1 lakh, ₹5 lakh and ₹20 lakh have been announced on achievement of ODF status at the GP, block and district levels, respectively.

The *Swaran Jayanti Award* for Sanitation scheme has also seen success through the establishment of incentives in encouraging GPs to ensure cleanliness in villages and has fostered a sense of competition between villages in this regard.

Through the programme, awards are given on a monthly basis at the rate of ₹1 lakh to the best GP in each block, ₹1 lakh to the best GP at the district level and ₹10,000 to the best public toilet facility/ community service centre at the district level.



## Challenges

The availability of surface water is reducing day by day due to less rainfall and global warming. This has caused shifts in the canal networks, resulting in lower availability of surface-based water and the failure of surface-based water supply programmes, particularly in southern Haryana's DDP districts. A dip in the water table and non-availability of surface water have led to the over-exploitation of existing groundwater sources in the districts of Mewat, Palwal and Gurugram. Continuous extraction of water for irrigation activities in the districts of Jind and Kaithal have also caused deterioration of the groundwater quality in these regions. In contrast, in Jhajjar,

Bhiwani and Rohtak, though the water table is high, the groundwater is brackish and hence not potable. Lack of awareness among the general public regarding water conservation techniques and the need for judicious use of water has led to significant wastage of this precious resource.

### Challenges to sewerage and sanitation

Among the various programmes being run by the state, the primary challenge has been education and awareness generation. For example, although the importance of improving sanitary conditions and having sewer connections at the household level has been communicated to the public, awareness has yet to saturate at the individual level or translate into action. The provision of sewerage systems in slum areas to lower the rate of open defecation has faced similar challenges in implementation. Individual households still require education to set up Solid Liquid Waste Management Projects in order for the state to maintain its ODF status. Sustaining the ODF status of villages/ GPs has been a key challenge.



## Strategies for Success

The Government of Haryana is working towards ensuring that every person living in Haryana has sufficient safe water for drinking, cooking, raising livestock and other domestic needs throughout the year. This vision takes into account times of natural disasters and covers both rural and urban areas. Throughout the state, in villages with a population of less than 10,000 persons, each person will have access to 85 lpcd, while in villages with a population of over 10,000 persons, each person will have access to 135 lpcd within their household premises or at a horizontal or vertical distance of not more than 50 metres from their household, without facing barriers of social or financial discrimination. As a part of this vision, the Government of Haryana will further strengthen the distribution system, construct boosting stations, install tube wells and construct new water works. Piped drinking water and private water connections shall be made available to each household in the state.

Populations dependent on water sources with arsenic or fluoride contamination (as identified by the 2013 survey of the Haryana Public Health Engineering Department) shall be provided with alternate safe drinking water in both rural and urban areas.

To help achieve these key focus areas within the SDGs, Haryana will implement a framework of activities within the purview of the Department of Public Health Engineering, working closely with other state and central departments and agencies, such as the National Bank of Agriculture and Rural Development, National Capital Region Planning Board and the National River Conservation Programme. Working with these departments, the Public Health Engineering Department will ensure that each household is covered with a sanctioned water connection. The Government of Haryana will also target interventions which generate consumer awareness about the responsibility of conserving water, as well as water conservation techniques and work towards optimal utilization of available water resources while ensuring that unaccounted water consumption is minimized. Sewerage facilities shall be constructed in all villages with a population of over 10,000 persons and 100% of urban areas will have sewerage system coverage

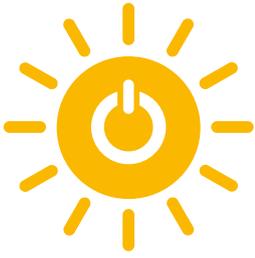
and STPs. The department will also work towards empowering communities as stewards of water resources within their regions and enforcers for revenue collection and programme utilization.

Various information, education and communication (IEC) activities geared towards triggering behavioural changes are being undertaken throughout the state, with significant involvement from NGOs and other stakeholders, such as GPs, villagers, students, teachers, anganwadi workers and ASHA workers to generate and inculcate awareness on ground.

A cluster-based approach is being adopted by the Government of Haryana to achieve complete ODF status by 2019. This approach will see the state form clusters of approximately four or five GPs, comprising 2,000 households. Each cluster will engage a team of four motivators, with the guidance and support of a block coordinator, to achieve ODF status within a four-week period, after which the team will move to another cluster. Two teams will be deputed in each block. Incentives for these teams will be linked with the outcomes of the cluster vis-a-vis achievement and maintenance of ODF status, as well as strategies to maintain the status going forward.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
6	Drinking water for rural areas	70%	90%	100%	Sanctioned individual households	PHED
6	Drinking water for urban areas	90%	95%	100%	Sanctioned individual households	PHED
6	Sewerage systems for urban areas	80%	90%	100%	Sanctioned individual households	PHED
6	Freedom from open defecation in rural areas	Status achieved	Status Maintained	Status Maintained	Reduction in cases of diarrhoeal diseases	Development & Panchayats Department and Health Department, Government of Haryana
6	Water wastage in rural areas	23%	15%	7%	Sanctioned individual households	PHED
6	Reduction in water wastage in urban areas	15%	10%	5%	Sanctioned individual households	PHED



SDG 7

# Affordable and Clean Energy

Ensure access to affordable, reliable, sustainable and modern energy for all

## Vision

Haryana will focus its efforts on providing universal access to 24X7 affordable, reliable and modern energy; substantially increasing the share of clean/renewable energy; and increasing energy efficiency.

## Haryana Today

- Rural power consumption within Haryana is 2.24 KWh per household per day while urban consumption is 6.14 KWh per household per day.
- Currently, the state demands 53,000 MUs of power and has the capacity to produce 312.42 MW of renewable energy.
- The present level of energy efficient lighting use is approximated at 10% and energy efficient equipment use is less than 5%.

## Focus for Tomorrow

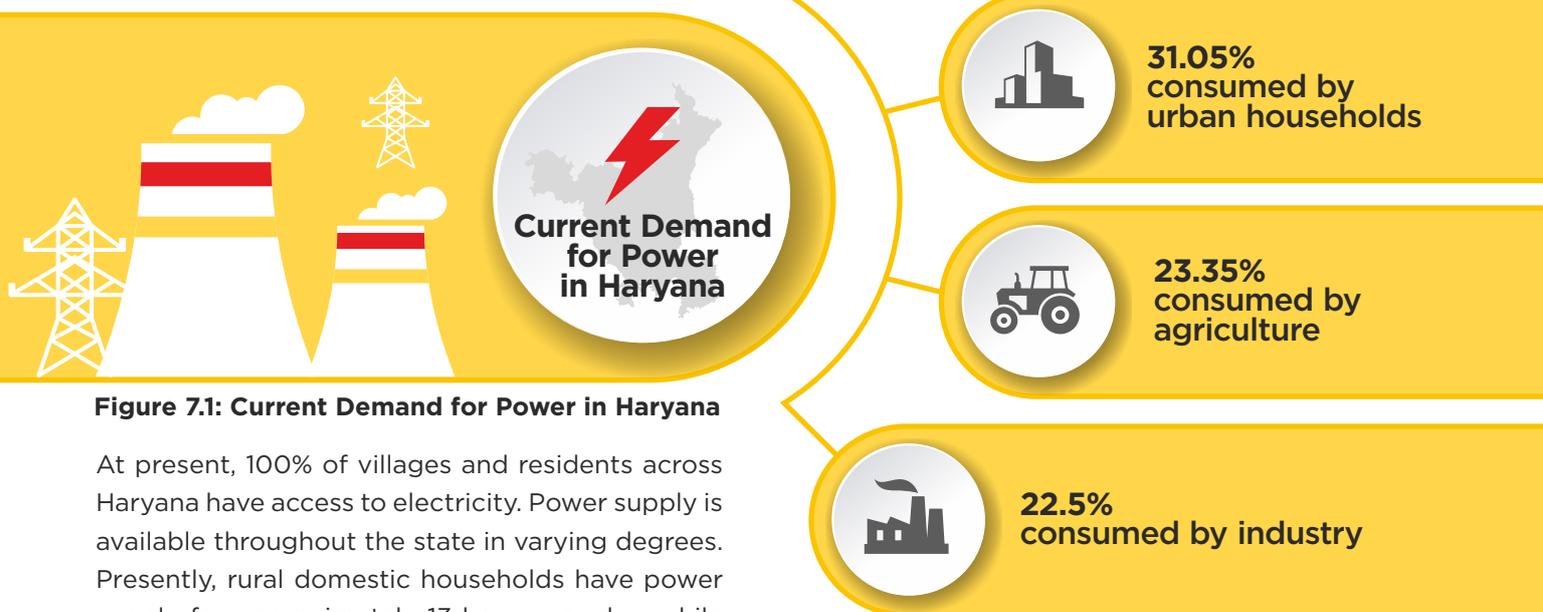
- Universal access to 24X7 affordable, reliable and modern energy
- Substantially increase the share of clean energy
- Increase the rate of improvement of energy efficiency

**HARYANA**  
**2030**  
Targets

- ✓ Provide statewide 24x7 power for all
- ✓ Reduce Aggregate Technical & Commercial (AT&C) loss levels in energy distribution companies to 10%
- ✓ Increase renewable energy (solar, wind, hydropower, geothermal) to 14.5% of Haryana's total energy grid
- ✓ Build 100% energy efficient communities
- ✓ Ensure adoption of energy efficient lighting across 100% and energy efficient equipment across 75% of Haryana

## Current Interventions

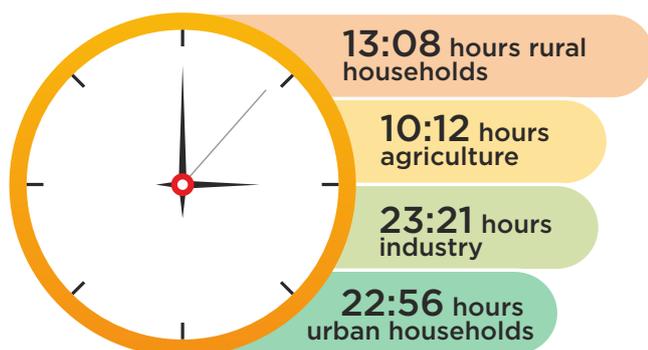
The total current demand for power in Haryana is 53,000 MU, of which rural domestic demand comprises 23.04%, urban use constitutes 31.05%, agriculture utilizes 23.35% and industry accounts for 22.5% (Figure 7.1).



**Figure 7.1: Current Demand for Power in Haryana**

At present, 100% of villages and residents across Haryana have access to electricity. Power supply is available throughout the state in varying degrees. Presently, rural domestic households have power supply for approximately 13 hours per day, while the agricultural sector has it for approximately 10 hours per day. In contrast, industrial and urban areas both enjoy power supply for approximately 23 hours per day (Figure 7.2). As per the 24x7 Power For All programme developed by the Government of Haryana in collaboration with the distribution companies (DISCOMS) in Haryana with support from the Union Power Ministry, the annual per household rural power consumption within the state is estimated at 819 KWh, while urban consumption is around 2,243 KWh per

**Figure 7.2: Daily Power Supply**



household per year. This amounts to a consumption of 2.24 KWh per day per rural household and 6.14 KWh per day per urban household.<sup>1</sup> In spite of such access, however, some residents continue to use carbon fuels such as wood, coal, or kerosene, particularly in rural areas which suffer from markedly fewer hours of power supply.

### Interventions for clean energy

Presently, Haryana's power generation mix is comprised of 75% thermal, 15.9% hydro, 6.1% gas, 1.28% non-solar renewable, 0.9% nuclear and 0.49% solar energy (Figure 7.3). The state has the capacity to produce 312.42 MW of renewable energy, against the current demand at 53,000 MU (Figure 7.4).

The Government of Haryana is working towards increasing the provision of clean energy within Haryana through a number of key programmes and policies, such as the Haryana Solar Policy 2016. The

1. [http://powermin.nic.in/sites/default/files/uploads/joint\\_initiative\\_of\\_govt\\_of\\_india\\_and\\_haryana.pdf](http://powermin.nic.in/sites/default/files/uploads/joint_initiative_of_govt_of_india_and_haryana.pdf)

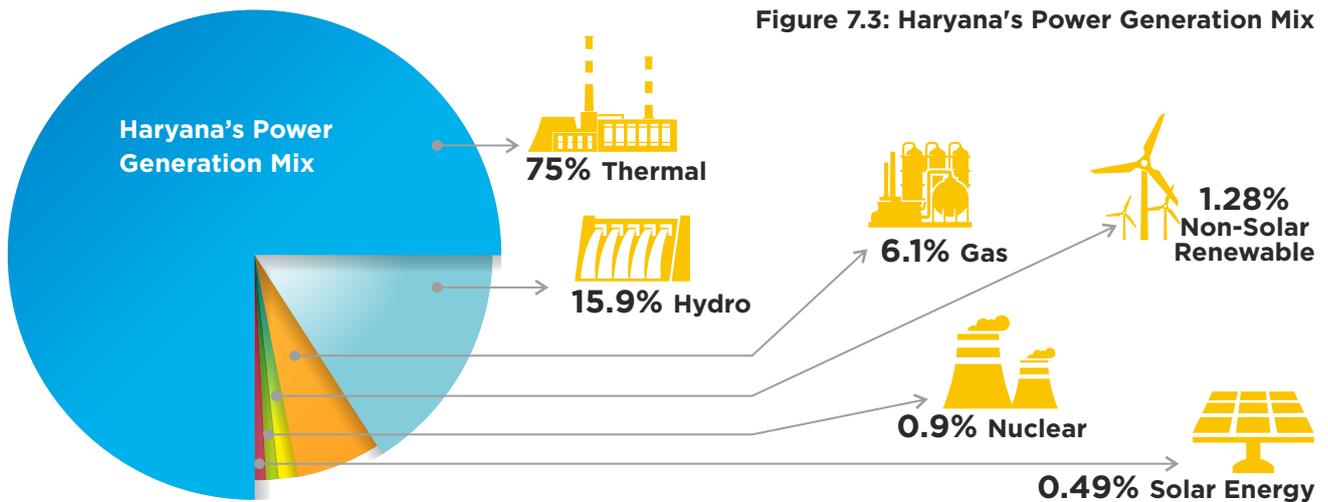


Figure 7.3: Haryana's Power Generation Mix

policy was introduced in a bid to meet a larger portion of energy needs through environment-friendly sources, such as solar plants and roof top solar panels.

**Interventions for energy efficiency**

Efforts towards energy conservation have also been enforced through the Energy Conservation Building Code, waste-to-energy projects and upgradations in the public transportation system. Programmes such as these have contributed to the overall strengthening of Haryana's energy infrastructure, both in terms of capacity and efficiency. For example, the *Mhara Gaon Jag Mag Gaon* scheme and the Feeder Sanitization scheme have led to a reduction in energy losses and driven up rural supply hours. Implementation of the *Ujjawal Discoms Assurance Yojana* has led to reduction in DISCOM losses and more reliable and efficient energy infrastructure. The *Deen Dayal Upadhyaya Gram Jyoti Yojana* and *Integrated Power Development Scheme* have integrated the use of IT systems to strengthen of enable and

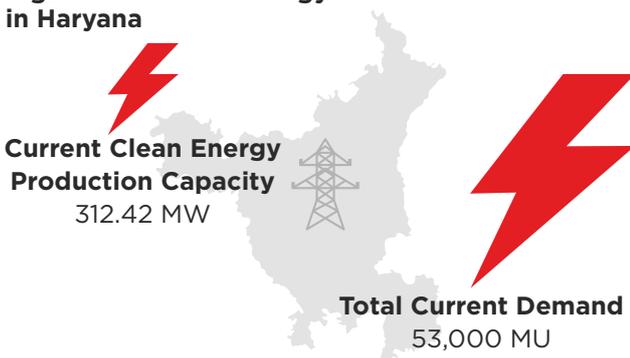
automate the distribution of infrastructures in both rural and urban spaces.

**Challenges**

While progress has been made on many fronts, the main challenge faced by the power sector includes the following:

- There are significant energy losses in power distribution. Aggregate Technical & Commercial (AT&C) losses in power distribution stand at approximately 73.69% in rural areas and 27.30% in urban areas.
- Lack of availability of land has hindered the state's ability to develop low-cost solar and renewable energy projects.
- Despite the environmental regulations and norms in place, enforcement remains uneven. For example, new environment-related norms for state-owned power generating plants have been established; however, emission levels of the plants under the Haryana Power Generation Corporation continue to exceed the prescribed limits.
- Regional disparity persists both in terms of energy usage and energy sources. For instance, some regions have greater dependence on fuels such as kerosene and wood.
- There is widespread use of substandard, unrated and inefficient electrical appliances and lighting equipment.
- Due to irregular availability of public transport, the local population is largely dependent on less efficient modes of transport like auto-rickshaws and small vans.

Figure 7.4 : Clean Energy to Meet Power Demand in Haryana



## Strategies for Success

Achieving Government of Haryana power targets by 2030 will contribute to Haryana's broader achievement of the SDGs and enhance state-wide progress towards social inclusion and environmental protection, while also spurring economic growth. In order to expedite progress on SDG 7 and to recognize the cross-sectoral nature of this goal, the Government of Haryana will constitute an inter-departmental committee so that cross-cutting issues such as land availability, development of roads, water arrangements and necessary clearances can be addressed expeditiously.

### Power for all

To help achieve the key focus areas within the SDGs, Haryana will implement a framework of activities within the purview of the departments of Power, New and Renewable Energy and Urban Development. Working together, these departments will implement various programmes aimed at fulfilling targets such as public-private partnerships in power distribution, Time-of-Use tariffs and developing SCADA programmes for towns serving as District Headquarters. These efforts will bridge current gaps to providing reliable power supply. Per capita power consumption is expected to increase in rural areas by approximately 47.32% and 46.58% in urban areas, annually.<sup>2</sup>

### Renewable energy

Additional initiatives will help modernize Haryana's power grid. These measures will see Haryana revise the Panchayati Land Lease Policy to establish the Renewal Energy Project, further enhance efficiency of the public transport system and transition the state to 100% use of energy efficient equipment in lighting, household activities and farming.

The *Haryana Solar Policy 2016* has committed state solar plants to producing an additional 4,030 MW by 2022. Regulations enforcing the net metering of rooftop solar photovoltaic systems have already been notified by the Haryana Electricity Regulatory Commission building towards producing an additional 1,600 MW by 2022.

In December 2014, the Honourable Chief Minister of Haryana decided that the Haryana Power Generation Corporation Ltd (HPGCL) should take the initiative to generate 400 MW of solar power through installations on wastelands available in the state as well as on the lands owned by it.

HPGCL initiated the process on the land available at its power stations in Panipat, Yamunanagar, Khedar and Faridabad. As per the survey carried out by M/s GERMI (consultant engaged by HPGCL for the setting up of solar power plants in Haryana), the total estimated potential of the solar power projects to be set up at various sites of HPGCL is about 133 MW.

In the series, the first project, of 10 MW, was commissioned in the residential colony of the Panipat Thermal Power Station on 1 November 2016. The project was inaugurated by the Chief Minister of Haryana on 25 November 2016.

Further, as announced by the honourable CM, another project of 6 MW will be commissioned within the current financial year at village Chandpur in district Faridabad.

Apart from the above, a joint venture company named 'Saur Urja Nigam Haryana Limited' was formed by the Haryana State Industrial and Infrastructure Development Corporation (HSIIDC) and HPGCL on 9 June 2016 for the development of Solar Parks of 500 MW in Haryana.

Rooftop solar plants have been made mandatory for certain categories of buildings.

Furthermore, Haryana is establishing a nuclear power plant in Gorakhpur to maximize clean energy generation within the state. Throughout the state, energy conservation efforts are being made at every available opportunity. Street lights

2. As per the 24 \* 7 Power for All Program by the Government of Haryana in collaboration with the distribution companies (DISCOMS) in Haryana with support from the Union Power Ministry. [http://powermin.nic.in/sites/default/files/uploads/joint\\_initiative\\_of\\_govt\\_of\\_india\\_and\\_haryana.pdf](http://powermin.nic.in/sites/default/files/uploads/joint_initiative_of_govt_of_india_and_haryana.pdf)

have shifted to LED lighting through the Ujala scheme and energy conservation efforts such as solar agriculture and solar home lighting are also being implemented through the Manohar Jyoti scheme.

### Energy efficiency

The current level of energy efficient lighting is approximated at 10% and mechanisms will be established through Energy Efficiency Services Limited (EESL) to assess the level of energy efficient lighting penetration. Targets have been set to implement energy efficient lighting across 50% of the state by 2019. Haryana will ensure that at least 20% of its agricultural equipment is replaced by energy efficient substitutes by 2019.

At present, only about 5% of its equipment is energy efficient, so by 2019 the state may witness a 15% improvement.

A waste-to-energy project in PPP mode has been planned to generate 20 MW of energy in Faridabad, Sonipat and Rohtak clusters. The process for their commissioning is presently underway. To meet new environmental norms, the state has undertaken the upgradation of existing thermal plants; also, public distribution systems are being strengthened. These plans are part of a growing suite of interventions designed to make Haryana a Kerosene-Free State by 2019 as well as free from off-grid consumption of other carbon fuels such as wood and coal.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
7	24x7 power for all	100%	100%	100%	24x7 power for all	Central Electricity Authority and Planning Commission Report
7	Reduce AT&C losses	15%	13%	10%	AT&C losses	Regulator Order and Audited Financial statements
7	Renewable energy capacity (solar + non-solar)	1,900 MW	4,030 MW	9,000 MW	Renewable energy capacity (solar + non-solar)	Reports of the Central Electricity Authority and the Ministry of New and Renewable Energy, Government of India
7	Energy efficient domestic and street lighting	50%	75%	100%	Energy efficiency in domestic and street lighting	Bureau of Energy Efficiency (BEE) reports
7	Energy efficient equipment penetration	20%	30%	75%	Energy efficient equipment penetration	BEE reports



## SDG 8 Decent Work and Economic Growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

### Vision

To position Haryana as a pre-eminent investment destination and facilitate balanced regional and sustainable development supported by a dynamic governance system and wide-scale adoption of innovation and technology, as well as skill development for nurturing entrepreneurship and generating employment opportunities.

### Haryana Today

- In 2016-17, Haryana's per capita income per annum was ₹180,174.
- The state has 97,000 MSME units, with cumulative investment of more than ₹24,000 crore, providing employment to more than 10.5 lakh persons in 2016.
- Haryana presently has 149 governmental and 192 private industrial training institutes, with more than 84,000 sanctioned seats, offering 75 different trades for skill based training to unemployed youth of the state.

### Focus for Tomorrow

- Facilitate and sustain a GSDP growth rate higher than 9.8%.
- Strengthen and increase the competitiveness of MSMEs in the state.
- Augment employment and skill development avenues for all, especially uneducated and untrained youth.

**HARYANA**  
**2030**  
Targets

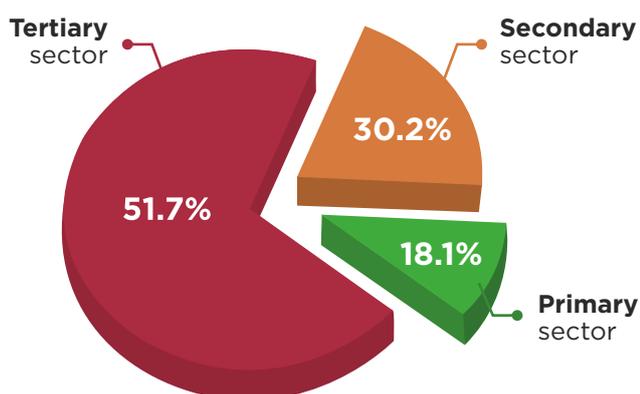
- ✓ Attract at least ₹10 lakh crore of investment in emerging sectors
- ✓ Generate 18 lakh jobs throughout the state
- ✓ Increase the workforce participation rate for females to 30%
- ✓ Increase the number of MSMEs provided with loans to 1,00,000
- ✓ Increase the skilled labour force to 5,00,000 persons

## Current Interventions

### Facilitate and sustain economic growth rate higher than 9.8%

In the year 2016–17, Haryana recorded a per capita income growth of 7.2% and an overall growth in gross state domestic product (GSDP) of 8.7%. The primary sector contributes 18.1% of the gross state value-added (GSVA), while the secondary and tertiary sectors contributed 30.2% and 51.7%, respectively (Figure 8.1).<sup>1</sup> Workforce participation rates are remarkably low across the state. In 2011 the workforce participation rate was 50.44% for men and 17.79% for women (as a percentage of

**Figure 8.1:**  
Composition of Haryana's GSVA (2016–17)



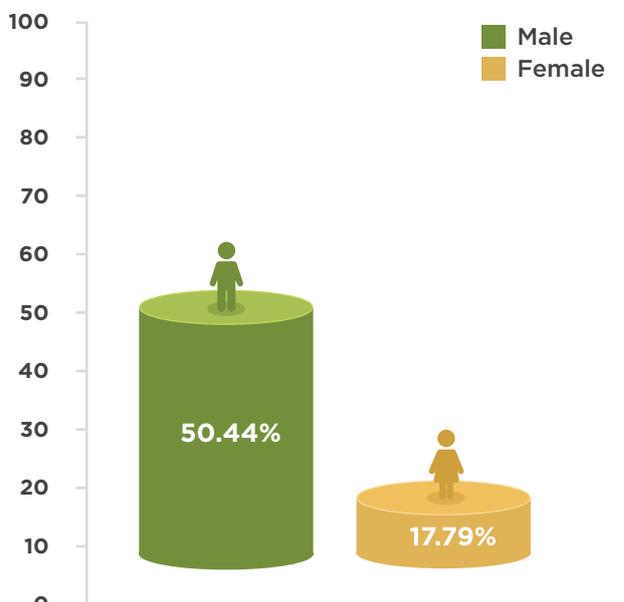
Source: Department of Economic and Statistical Analysis, Government of Haryana

male and female populations, respectively; see Figure 8.2). Therefore, women are significantly less likely than men to be gainfully employed within Haryana's workforce. The sectoral composition of the workforce is seen to vary across rural and urban areas.

Of the urban workforce in Haryana, 67.6% is employed in the tertiary sector while 51.3% of the workforce (across both urban and rural) is occupied in agricultural activities.<sup>2</sup>

Haryana compares well with national averages on all economic indicators. The labour force participation rate (LFPR) per 1,000 persons for both rural and urban Haryana is 533, in comparison

**Figure 8.2: Workforce Participation Rate (2011)**



Source: Census of India 2011, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India

with the national averages of 563 and 506 for rural and urban areas, respectively.<sup>3</sup> Haryana's labour productivity rate is 10.43%, which compares favourably to the national average of 8.44% in 2011.<sup>4</sup>

However, Haryana is still heavily dependent on traditional livelihoods, with workers mainly employed in the primary sector. However, the secondary and tertiary sectors (in particular, manufacturing, construction and education) make a higher contribution to employment in Haryana as compared to India as a whole. In 2013, secondary sector contribution to employment was 27% for Haryana and 21% for India and the same in case of the tertiary sector was 28% for Haryana and 21% for India.<sup>5</sup>

The Government of Haryana has developed a comprehensive framework of interventions aimed at driving economic growth in the state. The state has focused on positioning Haryana as a pre-eminent investment destination by attracting

1. Data provided by the Department of Statistics, Government of Haryana  
 2. <http://www.haryana.gov.in/pressrelease/WhitePaper-Finance.pdf> (Page 9)  
 3. National Skill Development Corporation (NSDC) Study 2013  
 4. <https://www.slideshare.net/amitkapoor/haryana-15007649> slide 9 (growth in GSDP per labour force participant, 2001-11)  
 5. [http://www.hsdm.org.in/images/Pdfs/Skill\\_Gap\\_Survey\\_Report.pdf](http://www.hsdm.org.in/images/Pdfs/Skill_Gap_Survey_Report.pdf) (Page 46)

investment of ₹1 lakh crore and generating employment for an additional 4 lakh persons per year in next five years and assisting women in increasing their labour force participation rates.

To this end, the Government of Haryana launched the **New Enterprises Promotion Policy 2015**. Supporting this umbrella policy, the Government of Haryana has initiated numerous other interventions aimed at economic growth as well.

The **New Industrial Regulation by Automatic Approvals and Delegation in Haryana Scheme** was established, which focuses on timebound approvals and clearances, as well as self-certification and third-party verification.

The **Financial Incentives and No Enhancements Scheme** was introduced to reduce the cost of doing business through a slew of incentives and ensuring no enhancements in the cost of allotted plots. Employment generation subsidies of up to ₹36,000 per year per person are being provided to industries employing local youth. Through the **Maha Nivesh Yojana** project, special dispensations, including customized packages of incentives have been provided to Iconic-Ultra Mega Projects in the fields of manufacturing, tourism, logistics and wholesale markets. Sector-specific policies dedicated to improving the thrust sectors, such as the textile, information technology (IT), Electronic System Design and Manufacturing (ESDM), food processing, aerospace and defence sectors, are under development.

### **Strengthening and increasing the competitiveness of MSMEs**

To build a modern economy and develop a job market that utilizes a broader skill base, the state has recognized the importance of nurturing micro, small and medium-sized enterprises (MSMEs). In 2016, Haryana's large and MSME unit exports amounted to ₹77,000 crore.<sup>6</sup> Currently, Haryana has MSME clusters predominantly of automobiles, engineering, readymade garments, handloom, scientific instruments, pharmaceuticals, footwear, IT/IT-enabled services or ITeS, plywood and utensils. Facilitating these enterprises, the state has 97,000 MSMEs, which have seen a cumulative

### **New Enterprises Promotion Policy 2015**

Based on World Bank's criteria of "Ease of Doing Business", Haryana has been ranked the top state in North India and among the top five states in the country by the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India. It boasts of a unique single-roof system for online applications, sanctions and approvals, which focuses on self-certification and third-party verification. The New Enterprise Promotion Policy 2015 focuses on:

- ease of doing business;
- enhancing competitiveness by reducing cost of doing business;
- balanced regional growth through geographical dispersal of industries; and
- mechanism to ensure monitoring and implementation of policy along with the promotion, outreach, grievance redressal and constant engagement with the industry.

investment of more than ₹24,000 crore and have provided employment to more than 10.5 lakh persons in 2016.<sup>7</sup>

Haryana has taken various steps to strengthen and increase the competitiveness of MSMEs through planned industrial and urban growth. Among these steps, there are four primary schemes:

1. **VISTAAR**, which facilitates balanced regional growth by subsidizing VAT, interest, stamp duty, tax, audits and credit rating. VAT subsidy up to 75% is available to MSMEs.
2. **Professionals and New Entrepreneur Tax Assistance Scheme** to promote startups has been introduced, which reduces the tax burden on MSMEs within both manufacturing and services industries. Under this scheme, professional and technically qualified

6. Department of Industries and Commerce, Government of Haryana

7. Ibid.

entrepreneurs are exempt from any state tax for a period of three years, up to a total of ₹3 crore. In addition to this, up to 25% of HSIIDC industrial estate plots have been earmarked for services which support manufacturing.

3. The Government of Haryana has established a number of schemes aimed at improving access to facilities and tools for MSMEs. To this end, the Government of Haryana has constructed **Common Facility Centres** in PPP mode. This project should contribute to MSME cluster development and will help to generate employment opportunities.
4. Two **Technology and Tool Centres** are being set up at Industrial Model Township, Rohtak and the Industrial Growth Centre in Saha. Each technology centre is expected to train about 10,000 trainees every year through various long-term and short-term programmes. An extension centre of the Central Tool Room at the Quality Marketing Centre in Faridabad, as well as a Technology-cum-Incubation Centre at Polytechnic is being established, in addition to a Technology Centre at Manesar and Gurgaon, which is expected to provide training for approximately 12,000 persons.

To promote innovation and spur growth of a modern economy, a special campaign focusing on startups was launched in 2015 to infuse the spirit of entrepreneurship among the young educated population of Haryana. This campaign is the first step in a programme which will see the launching of an **incubator centre** in each university throughout Haryana, together with a knowledge warehouse in Gurugram using a Hub & Spoke model and the announcement of a startup policy.

The Government of Haryana is also working with the Government of India to implement programmes which enable employment generation and provide opportunities to set up micro and small enterprise ventures through the provision of a small package of financial assistance. On a cost sharing basis, the Government of India has partnered with the Government of Haryana to create additional common facility centres for

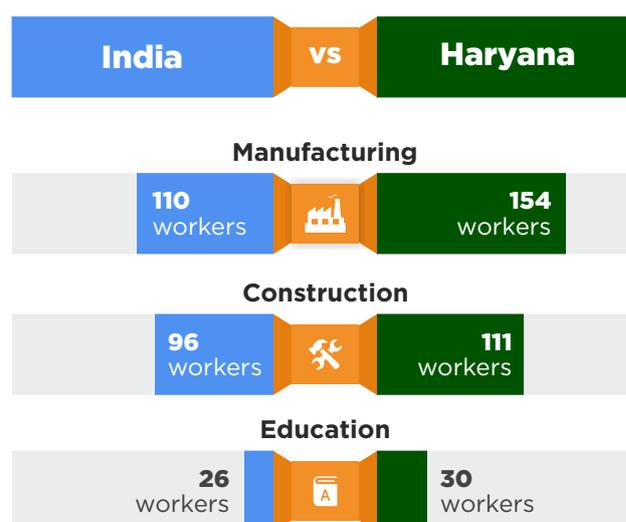
groups of small-scale units to improve both productivity and quality of products. Thus far, four clusters have received final approval from the Government of India and are likely to create substantial employment opportunities.

### Augment employment and skill development avenues for all: Uneducated and untrained youth

To increase youth employment and promote skill development within the state, Haryana presently has 149 governmental and 192 private industrial training institutes (ITIs), with more than 84,000 sanctioned seats, offering 75 different trades for skill based training to the unemployed youth within the state. Within the 149 governmental ITIs, 33 have been exclusively designated for women. To maintain quality and upkeep of the curriculum offered within ITIs, 64 government institutes have been adopted by 32 industries for upgrading and maintenance.<sup>8</sup> An additional 71 societies are working with 78 government ITIs to develop capacity and ensure they develop functional, financial and managerial autonomy.

Further to this, the Government of Haryana has established seven teacher training centres, in addition to two privately run centres within the state. Currently, these training centres have a combined seating capacity of 320 trainees per

**Figure 8.3: Skilled Workers (per 1,000) in Haryana (2013)**



Source: Skill Gap Study 2013, National Skill Development Corporation; <http://www.nsdindia.org/sites/default/files/files/haryana-sg-report.pdf>

8. Haryana Economic Survey 2015-16, <http://esaharyana.gov.in/Data/Economic%20Survey%20of%20Haryana/2015-16.pdf>

year. As a result of all these efforts, Haryana has a more skilled workforce compared to India as a whole, though there is much left to be desired still (Figure 8.3).

To develop a modern economy, which is better equipped to employ youth, the Government of Haryana is creating an IT ecosystem for the delivery of online services. In this regard, the following projects are being undertaken:

- A **Common Service Centres Scheme and Bharatnet - National Optical Fiber Networks** have been most comprehensively implemented and have seen significant progress. All the gram panchayats are expected to be covered with Common Service Centres (CSCs) and Bharatnet by the Golden Jubilee Year of Haryana (November 2016–October 2017).
- A **State Resident Database** is being established as an integrated service delivery platform, towards a new generation of innovative and planned service delivery.
- The state has initiated a **direct beneficiary transfer of funds** to residents so that eligible residents can benefit from services without delay, particularly in projects like the Pradhan Mantri Awaas Yojana-Gramin, Indira Awaas Yojana and Mahatma Gandhi National Rural Employment Guarantee Act.
- **Information Security Management** has been taken up as a pilot project and will be scaled up in the coming three years. Digital literacy will be further scaled up through the Haryana Knowledge Corporation Limited, as well as the CSCs and Hartron.



## Challenges

### **Facilitate and sustain economic growth rate higher than 9.8%**

Haryana faces a number of challenges concerning its industrial growth in the next 13 years. Efforts must be made to address these challenges, to offset their impact on the potential growth of the

state. Currently, **industrial growth is not uniformly spread** across the state. The majority of development has taken place in and around the NCR region, in urban areas such as Gurugram, Faridabad, Palwal, Manesar, Bahadurgarh, Panipat, Sonapat and Karnal.

While Haryana may be among the top states in terms of per capita income, high incomes are primarily concentrated in some districts: Gurugram, Faridabad, Rewari, Panipat, Panchkula, Ambala and Kurukshetra. In contrast, other districts with low industrial development and growth have per capita incomes much below the state average.<sup>9</sup> Lack of investment in manufacturing and labour intensive sectors and conversion of proposals into business in other regions of the state have led to increasing regional disparity across the state.

Compounding this disparity, the lack of female participation in the workforce and particularly in enterprises, has stunted Haryana's growth rate. With females currently comprising approximately 65% of the population in the working age group 15–59 years and only 17.79% of them employed, this population remains a vastly untapped resource and will continue to hold the growth rate back until they are better integrated within the economy.<sup>10</sup>

### **Strengthening and increasing the competitiveness of MSMEs**

At present, in Haryana, only 50% of MSMEs are registered within the formal sector.<sup>11</sup> This has hampered the MSME industry significantly, as lack of registration impacts access to finance, particularly in terms of obtaining collateral-free loans and working with limited capital. Beyond the automobile sector, Haryana's MSME sector lacks internationally recognized certification in many industries and there are currently few paths to facilitate this certification process. Lastly, even in innovative MSMEs, business managers tend to manage businesses using traditional approaches and obsolete technology, lowering both efficiency and effectiveness against the international market. As part of Haryana's Enterprise Promotion Policy 2015, 29 online schemes for promoting MSMEs and enhancing their competitiveness have been notified.

9. [http://dcmsme.gov.in/dips/state\\_wise\\_dips/state%20profile%20haryana.pdf](http://dcmsme.gov.in/dips/state_wise_dips/state%20profile%20haryana.pdf), Page 52

10. [http://www.hsdm.org.in/images/Pdfs/Skill\\_Gap\\_Survey\\_Report.pdf](http://www.hsdm.org.in/images/Pdfs/Skill_Gap_Survey_Report.pdf)

11. Department of Industries and Commerce, Government of Haryana

### **Augment employment and skill development avenues for all: Uneducated and untrained youth**

Currently, much of the population in Haryana is rural and has been unable to transition from traditional to modern economy occupations. As the global economy continues to move forward, old skill sets will become increasingly obsolete and employment hard to find.

There is a need to upgrade and increase skill development activities to effectively decrease the unemployment rate. Contributing to this, efforts must be made to combat the poor enrolment of women. At present, only 35%–40% of the seats reserved for women in ITIs are being utilized.<sup>12</sup> Compounding this is the unavailability of qualified instructors in adequate numbers, which continues to impede progress. For example, out of a total of 4,065 posts in ITIs, 1,581 remain vacant.<sup>13</sup> Existing instructional staff requires training and/or re-training on modern techniques and methodology to meet present market demands.

## **Strategies for Success**

### **Facilitate and sustain economic growth rate higher than 9.8%**

To facilitate and sustain GSDP growth rates higher than 9.8%, the Government of Haryana will work towards attracting investment in focus sectors such as aerospace, defence, IT& ESDM, textiles and food processing. This push will help to generate employment by improving the overall ease of doing business in the state. Emphasis on balanced regional development with a special focus on the C&D category backward blocks will contribute to development and employment generation, while motivational campaigns and entrepreneurial development programmes will enhance enterprise specifically in rural areas.<sup>14</sup> New productivity enhancement schemes will be launched, incentivizing enterprises based on their productivity standards.

### **Strengthening and increasing the competitiveness of MSMEs**

The formulation of a dedicated MSME Policy will provide a multi-pronged approach to fostering MSME growth in the state. This MSME policy will:

- Incentivize MSME registration, bringing a greater portion of them into the organized sector and providing them with greater access to financing.
- Create a State Credit Guarantee Funds Trust for Micro & Small Enterprises.
- Create a sector specific cell in MSME clusters to spread awareness about available programming and facilitate international level certification.
- Develop more common facility centres in clusters throughout the state to promote rapid industrialization.
- Establish state-of-the-art R&D and testing labs within clusters.
- Develop policy and programming frameworks to facilitate the establishment of special economic zones, with state-of-the-art infrastructure and residential facilities for labour, minimum governance and electricity tariff subsidies for industrial units.
- Organize vendor development programmes to encourage modernization of technology by facilitating sensitization and collaboration efforts with industry leaders from across the world.
- Establish entrepreneur development programmes and apprenticeship schemes.
- MSME facilitation cells, both at the headquarters and in the field are being created to support, guide and advise MSMEs.

### **Augment employment and skill development avenues for all**

To effectively prioritize employment and training for uneducated and unemployed youth in Haryana, the state will require a cohesive effort across all sectors, as well as significant endorsement from the private sector. To this end the Government of Haryana will establish a network of finishing institutes for improving communication skills, business etiquette and imparting basic knowledge on computer applications. It will organize motivational campaigns which concentrate particularly on developing the interest of potential employers, specifically in the private sector in Haryana's rural areas and introduce skill

12. Skill Development and Industrial Training Department, Government of Haryana

13. Ibid.

14. A: Industrially developed blocks  
 B: Blocks with intermediate development  
 C: Industrially backward blocks  
 D: Most industrially backward blocks

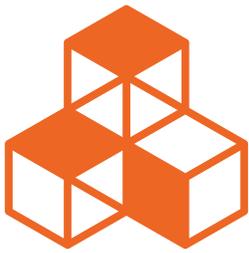
development courses focusing on small scale industries such as handlooms, hand-printing and stitching. The Government of Haryana will aim to build a more competitive labour force through job oriented skill development programmes and by increasing the strength of both, governmental and private ITIs.

Existing ITIs will be modernized and equipped with upgraded technology and encouraged to partner with industry. These institutes will be incentivized to collaborate with global institutions in order to provide cutting-edge training and international certification at the end of the courses. The Government of Haryana will also provide space and infrastructure in existing government ITIs and polytechnics to training providers on “off working days and weekends” at a nominal charge.

In the policy and programming arena, a framework of special schemes will be designed to promote and foster women entrepreneurs, by way of special rebates on interest rates, reservations for industrial plots and setting up skill development centres especially for women entrepreneurs. On the whole, norms may also be relaxed to better attract foreign direct investment in the state. Lastly, the state will create an online portal that brings together potential employers and employees and facilitates a matching of industrial labour demand and supply. Registration of unemployed youth through this portal will add to the overall youth employment strategy and focus on training in institutions to better meet industry needs.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
8	Diversify industrial growth to emerging sectors to generate employment	5 lakh	13 lakh	18 lakh	Employment generated	Department of Industries and Commerce, Government of Haryana
8	Female workforce participation rate	19.23%	21.0%	30%	Workforce participation rate for women	Department of Industries and Commerce, Government of Haryana
8	Employment generation through MSMEs	19.40 lakh	24.00 lakh	32.00 lakh	Number of jobs generated through MSMEs	Department of Industries and Commerce, Government of Haryana
8	Create training facilities in every block of the state	63 (50% blocks)	126 (100% blocks)	252	No. of training institutes/facilities	Industrial Training Department, Government of Haryana
8	Establishing/upgrading of ITIs	157	166	198	No. of government ITIs	Industrial Training Department, Government of Haryana
8	Establishing/upgrading of ITIs	230	276	428	No. of private ITIs	Industrial Training Department, Government of Haryana



## SDG 9 Industry, Innovation and Infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

### Vision

Develop state-of-the-art infrastructure to promote a conducive environment and provide a robust plug-and-play ecosystem for sustainable and inclusive industrialization that fosters innovation across the state.

### Haryana Today

- Haryana has 10 notified brownfield electronics manufacturing clusters (EMCs), auto clusters that produce 50% of the cars and motorcycles in India and Gurugram is a significant IT-ITeS cluster which is the business process management (BPM) capital of the world with 5% of world's BPM workforce.
- In 2015, Haryana ranked fourth on India's Infrastructure Index. It is among the few states with almost 100% connectivity to rural areas through metalled roads.
- The state has set up the Haryana Renewable Energy Development Agency (HAREDA) for implementing various schemes of solar energy, biogas and biomass.

### Focus for Tomorrow

- Resilient and reliable infrastructure, including IT
- Connectivity of roads, airports, physical and digital, as well as access to finance and integration into value chain and markets
- Green technology and innovation: promoting entrepreneurship and redefining the role of IT

### HARYANA 2030 Targets

- ✓ Establish six EMCs, six IT parks, three e-commerce warehouses and seven incubations centres
- ✓ Construct 100 flatted factories and 100 labour housing colonies
- ✓ Add 8,500 new buses as part of Haryana's public transport system
- ✓ Construct 15 new flyovers, 20 new bypasses and 100 new road over/under bridges
- ✓ Establish 17 mega recycling plants, 28 effluent treatment plants and 5 multi-modal logistics hubs

## Current Interventions

In 2015, Haryana ranked fourth on India's Infrastructure Index.<sup>1</sup> The state government has been working towards building infrastructure while fostering innovation through the implementation of infrastructure schemes. This suite of programmes has focused on providing basic facilities like water, drainage and sewerage, pollution control, road construction, raw material banks and technology services.

This push towards infrastructural growth has been most visible through projects such as the State Mini Cluster Scheme, Critical Infrastructure Project Scheme, Assistance to States for Infrastructure Development of Exports (ASIDE) targets and the Critical Infrastructure Development Scheme. These schemes have been formulated to ensure comprehensive support to the development and modernizing of new and existing infrastructural facilities throughout the state.

The ASIDE scheme also covers projects pertaining to the strengthening of basic infrastructure for exporting units, common effluent treatment plants, export exhibit centres, testing laboratories, R&D centres, power sub-stations and roads dedicated to export clusters.

### Resilient and trusted infrastructure (including IT)

**Infrastructure clusters development:** Utilizing a cluster-based approach to implementing infrastructure throughout the state, the Government of Haryana has invested in developing an auto-cluster; electronic manufacturing cluster; IT-ITeS cluster and a medical and scientific instruments cluster. All areas of the state are linked to at least one major industrial corridor.

- Automotive Cluster: Presently, the auto cluster in Gurugram and surrounding areas produces more than 50% of the cars and 60% motorcycles in India.<sup>2</sup> Additionally, Rewari, Faridabad and Palwal are emerging as key

industrial districts within Haryana for automotive and engineering industries.

- Electronic Manufacturing Cluster: In electronics manufacturing, 10 brownfield EMCs have been identified under the central government's Modified-Special Incentive Package Scheme. Through this scheme, Gurugram, Bawal, Dharuhera, Panchkula, Faridabad, Palwal, Ambala, Yamunanagar and Jhajjar will benefit as the electronic manufacturing industry within the state grows.
- IT-ITeS Cluster: At present, Gurugram is the business process management (BPM) capital of the world, with 5% of the global BPM workforce.<sup>3</sup> In 2015, Gurugram had the highest concentration of business process outsourcing (BPO) workforce of the world. This growth has made Gurugram the leading IT/ITeS cluster within Haryana. As of 2015, more than 450 IT/ITeS units have produced employment for 2.53 lakh people, including 4,000 foreigners.<sup>4</sup> Five special economic zones for IT/ITeS in Gurugram have seen approximately ₹5,000 crore of investment and generated 55,000 new jobs in 2015.<sup>5</sup>
- Medical and Scientific Instruments Cluster: Ambala has grown to be the largest medical and scientific instruments cluster in India, with over 1,200 units.<sup>6</sup>

**Proactive policymaking for industrial infrastructural development:** Overarching policy has been developed to foster the growth of more clusters throughout the state. The Enterprise Promotion Policy, 2015 will impact infrastructure across the state, building the necessary platforms for clusters to exist (Figure 9.1). Through the Cluster Development Programme, common facility centres have been established for groups of at least 20 existing industries in a cluster, with

1. <http://timesofindia.indiatimes.com/india/Haryana-jumps-3-places-is-4th-in-education-index/articleshow/5489460.cms>

2. [http://www.assochem.org/upload/event/recent/event\\_1199/session4\\_G%20S%20Arora,Additional%20Director,%20Department%20of%20Industries,%20Government%20of%20Haryana.pdf](http://www.assochem.org/upload/event/recent/event_1199/session4_G%20S%20Arora,Additional%20Director,%20Department%20of%20Industries,%20Government%20of%20Haryana.pdf)

3. Ibid.

4. Ibid.

5. Data provided by the Department of Industries, Government of Haryana

6. [http://www.assochem.org/upload/event/recent/event\\_1199/session4\\_G%20S%20Arora,Additional%20Director,%20Department%20of%20Industries,%20Government%20of%20Haryana.pdf](http://www.assochem.org/upload/event/recent/event_1199/session4_G%20S%20Arora,Additional%20Director,%20Department%20of%20Industries,%20Government%20of%20Haryana.pdf)

financial support from both the Government of India and Government of Haryana. Similarly, through the *Mini Cluster Development Scheme*, common facility centres are being established for groups of at least 10 existing units with a similar joint funding pattern.

Basic infrastructure is simultaneously being created for Industrial units located in conforming zones, through the *Critical Infrastructure Project Scheme*, which is being jointly funded by the state and the centre.

Further, the Civil Aviation Department is planning to develop the Hisar aerodrome as an *international airport and integrated aviation hub*, which will provide for aircraft maintenance, repair and overhaul, specifically catering to light and medium fixed-wing aircraft and helicopters, as well as fixed-base operations and a components-manufacturing complex.

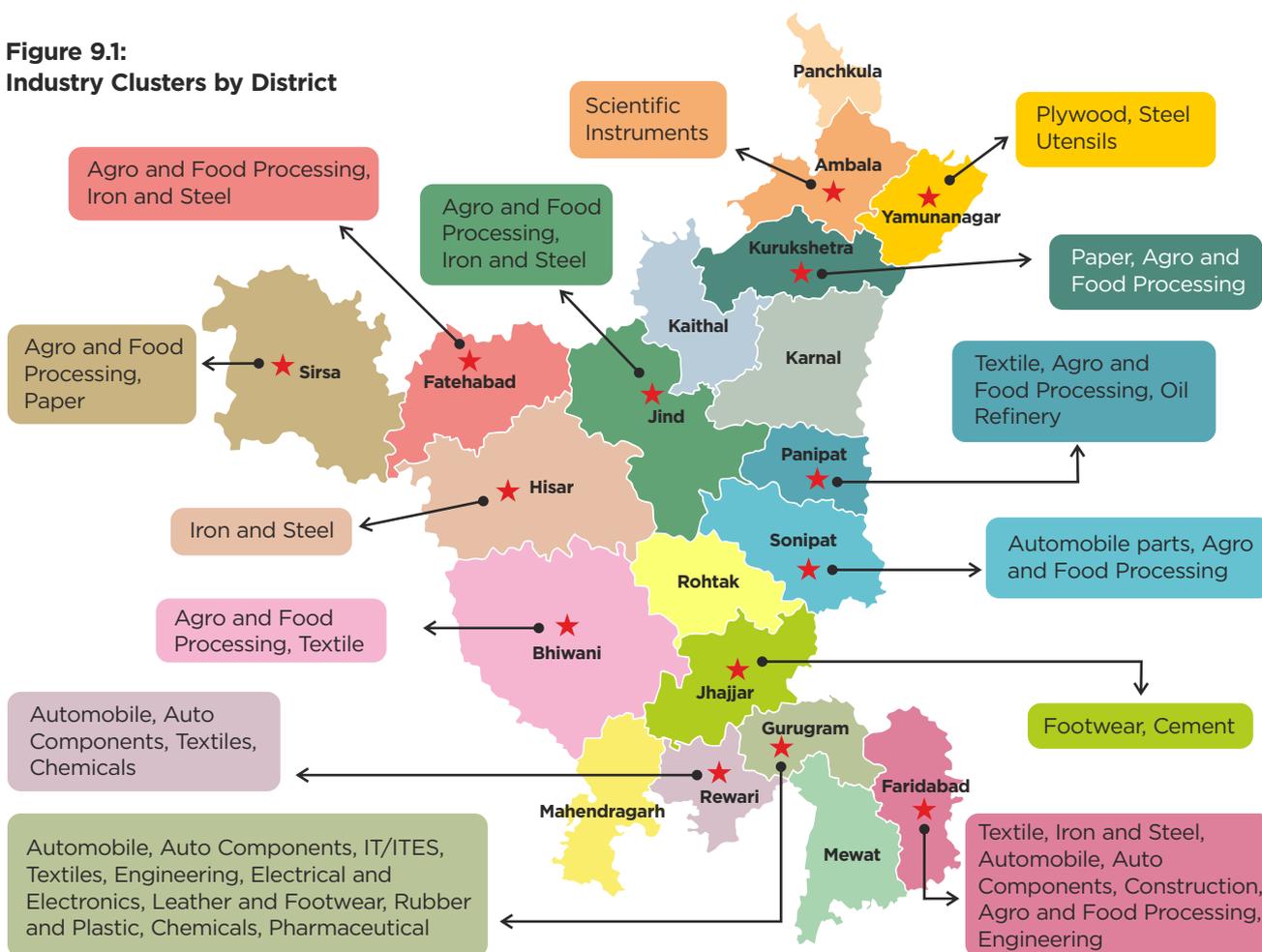
**Focus on IT infrastructure:** A number of pilot initiatives towards building Digital Haryana have

been undertaken. *Common Service Centres and a National Optical Fibre Network* are being set up on a substantive scale. A State Resident Database has been established as an integrated service delivery platform for new generation public service delivery. Initial interventions towards information security management and building digital literacy have started with the Haryana Knowledge Corporation Limited, CSCs and Hartron. To ensure that Haryana continues to grow in these areas, a state level Research and Development Centre has been set up in Ambala, which is providing assistance to electronics and other related industries. Building on this culture of innovation, plans are in place to develop a 107-acre Export Promotion Industrial Park within Haryana as well.

**Connectivity: Roads, airports, physical, digital, access to finance and integration into value chain and markets**

**Road:** As of December 2015, Haryana had a total road network of 26,016 km out of which 2,482 km

**Figure 9.1:**  
**Industry Clusters by District**



Source: Department of Industries, Government of Haryana

constitute national highways and 1,801 km are state highways which cater to approximately 85% of the total state traffic.<sup>7</sup> With 27,006 km of metalled roads, Haryana is among the few states with almost 100% metalled road connectivity to rural areas.<sup>8</sup> Apart from road connectivity, Haryana had also benefited from at least 4,262 km of railways throughout the state by August 2015.<sup>9</sup> In addition to this, two major projects have been developed in partnership with the Government of India which have led to better connectivity within Haryana. These two are projects are:

- *The Dedicated Freight Corridor:* In order to leverage investments along the Dedicated Freight Corridor from Delhi to Mumbai, the Government of Haryana is planning to build an integrated multi-modal logistic hub in Southern Haryana to cater to the entire NCR, a global city in Gurugram district and a mass rapid transit system (MRTS) connecting Gurugram-Manesar-Bawa.
- *The Kundli-Manesar-Palwal (KMP) Expressway:* Designed as a 136 km long, six-lane expressway project with a potential industrial corridor of 27,200 hectares (67,000 acres) with 1 km of controlled area on either side, this expressway will connect four crucial national highways: the NH-1, NH-2, NH-8 and NH-10. The KMP Expressway will act as a high-speed link to northern districts in Haryana, from southern districts, including Gurugram. The KMP Global Economic Corridor has been planned with an investment potential of close to US\$ 50 billion.

**Air:** In September 2015, a new terminal at the Chandigarh airport was inaugurated. The terminal is capable of handling both domestic and international flights. The Airports Authority of India bore 51% of the airport construction cost to the tune of ₹475 crore.<sup>10</sup> The state governments of Punjab and Haryana bore the remaining cost equally.

In addition to this significant growth in air connectivity, Haryana has five civil airstrips at Pinjore, Karnal, Hisar, Bhiwani and Narnaul. Three

flight training centres have been established at Pinjore, Karnal and Hisar by the Haryana Institute of Civil Aviation, a move that allows successful students to obtain numerous certifications, including a private pilot license, commercial pilot license, assistant flight instructor rating, flight instructor rating and instrument rating.

**Power and Digital Infrastructure:** The total installed power capacity available to the state in 2014-15 was approximately 10,937 MW. This figure includes 2,782.7 MW from the stations of the Government of Haryana, 829 MW from jointly-owned projects (the Bhakra Beas Management Board) and a share from central projects and independent private power projects. A framework has been established to regulate the method of installation of power units at various levels, including self-certification, automatic metre reading, modem provision and vendor hiring. The National Optic Fiber Network (NOFN) has also been initiated at the national level, with more than 3,800 of Haryana's GPs connected via Optical Fiber Network (OFN).

### Green technology and innovation

Recognizing the importance of promoting entrepreneurship and redefining the role of IT in innovation and the development of green technology, the Government of Haryana has made significant investment in these industries in recent years. For example, in a move towards more green-friendly buildings, the Government of Haryana has incorporated energy saving items within the Haryana Schedule of Rates. At present, energy saving T-5 and compact fluorescent lamps (CFLs) are being used in all government buildings and the Government of Haryana as a whole is moving towards building and utilizing green buildings for government functions.

To this end, the Public Works Department has started a pilot project in road construction using green technology. The Government of Haryana has established the Haryana Renewable Energy Development Agency (HAREDA) for implementing various schemes relating to solar

7. *Economic Survey Haryana 2015-16*, (Page 74) <http://esaharyana.gov.in/Data/Economic%20Survey%20of%20Haryana/2015-16.pdf>  
 8. [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2012-13\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2012-13).pdf) (Page 511, 512, 513)  
 9. *Ibid.* (Page 522)  
 10. <http://www.tribuneindia.com/news/punjab/inauguration-of-new-terminal-of-chandigarh-airport-by-may-end/74074.html>

energy, biogas and biomass, in addition to other enviro-promoting policies.

The Government of Haryana has planned marquee investments in world class mega-infrastructure projects, including:

- *The Saur Urja Nivesh (SUN) Solar Park:* This solar park will generate energy by leveraging 320 of 365 high solar radiation days to generate 1.3 GW of clean energy by 2022.
- *Industrial Parks under PPP Model:* Land will be made available in NCR for the development of industrial parks under the PPP model.
- *A Start-up Warehouse Incubation Centre and Innovation Campus:* Using a hub-and-spoke model in Gurugram, this initiative is being setup in collaboration with NASSCOM. Further, the state government will identify seven universities as host institutes, where it will develop incubators, while providing financial assistance of ₹30 lakh each, for a period of three years.
- A *Mobile Application Development Centre* shall be set up in collaboration with the Internet and Mobile Association of India at Gurugram, with financial assistance of ₹4 crore for capital expenditures and yearly support of ₹1 crore for operational expenditure over a period of three years.



## Challenges

Haryana faces a number of challenges which need to be offset in order to curb their potential negative impact on the growth.

### **Resilient and trusted infrastructure (including IT)**

Currently, industrial growth is unevenly spread throughout the state with a concentration in urban areas such as Gurugram, Faridabad, Palwal, Manesar, Bahadurgarh, Panipat, Sonapat and Karnal. Along with the above, unavailability of 24x7 quality power in industrial estates, lack of well-integrated industrial parks which can host plug-and-play infrastructure and lack of IT infrastructure in rural areas, continues to hamper extensive industrial growth in Haryana.

### **Connectivity**

Difficulties in acquiring land for the creation of state and district road networks and for the construction of basic infrastructure in the state have also impeded progress in this regard. Issues around land acquisition have stunted the state's ability to provide sanitation and drainage facilities, transportation infrastructure, public transport and parking facilities and mass rapid transit system (MRTS). In addition to these challenges, unavailability of e-commerce warehouses in the state, particularly within the NCR region and lack of access to global markets as well as finance for developers, continue to impede growth in many sectors. Overall, the state must prioritize the development of physical, financial and digital connectivity, as well as genuine integration into international value chains and markets.

### **Green technology and innovation**

There is a need to upgrade and increase skill development activities to effectively decrease the unemployment rate. Much of the population is rural and has been unable to transition from traditional occupations into jobs within the modern economy. As the global economy continues to move forward, existing skill sets will become increasingly obsolete without upgrades and employability of the labour force will come down further. Policies which have been adopted to develop a modern workforce also need to be better implemented.

Challenges to entrepreneurship and innovation are both systemic and physical. Without strong foundational support for entrepreneurship, experimental enterprise in innovative green business and green technology is unlikely to occur, or gain traction with the broader public. Currently, renewable or green technology is also expensive and the general population lacks awareness about the long-term benefits of adopting green technology. This lack of awareness and access has led to low adoption of green technology in the state. Lack of institutional mechanisms for providing green technology, along with the thin spread of innovation and incubation centres across state, has bred low exposure and poor IT literacy in rural areas.

## Strategies for Success

In order to expedite progress towards this SDG, an interdepartmental committee consisting of various state departments shall be established.

### **Resilient and trusted infrastructure, including IT**

To build a more efficient and effective infrastructural network across the state, the Government of Haryana will prioritize the construction of more manufacturing clusters, special economic zones and EMCs with plug-and-play infrastructure. Dedicated industrial feeders will be built to ensure 24x7 quality power supply in industrial clusters. The state will also create infrastructure for underground power transmission and put greater emphasis on generating more captive power within the state. Broadband connectivity will be provided in rural areas. Six EMCs will be built, in addition to six IT parks and three e-commerce warehouses. To ensure sustainable growth, care will be taken to ensure that every industrial cluster in the state also includes a mega recycling plant. Lowering AT&C losses by 10% will add to these sustainability measures. Lastly, 100 new factories which include labour housing projects will be planned to improve industrial infrastructure, employment levels and increase the ease of doing business.

### **Connectivity: Roads, airports, physical, digital, access to finance and integration into value chains and markets**

The Government of Haryana will work towards building flyovers, road over bridges, road under bridges and bypass lanes to reduce traffic congestion and increase cross-state connectivity. New bus fleets for public transport will also enhance rural-urban accessibility, in addition to upgrading single-lane roads to double lane and double-lane to four-lane roads across the state. The state will also widen and strengthen existing bridges within state highways and on major district roads.

To ensure that connectivity develops in an innovative and sustainable manner, the state will also increase the network penetration of piped natural gas and establish new effluent treatment plants, as well as common effluent treatment plants.

Lastly, it will develop multi-modal logistic hubs to connect nearby regions to the NCR through MRTS.

### **Green technology and innovation: promoting entrepreneurship, redefining the role of IT**

The role and value of IT in helping Haryana move forward in both innovation and infrastructure cannot be overstated. Accordingly, the IT Department will be of critical importance as technology becomes central to each department in a digitally driven environment. The Government of Haryana will work towards establishing state-of-the-art R&D labs, innovation campuses, incubation centres and data centres, with relevant infrastructure and access to the latest technology based on PPP modelling. Further to this, the state will develop plans for the manufacturing of energy efficient lighting systems, solar panels and air purifying systems for houses and malls, also in PPP mode.

Overall, the state will push for creation and innovation in green sectors by enhancing its focus on solar power generation, making more soft loans available to renewable energy projects and incentivizing units which produce a low carbon foot print. Green technology awareness campaigns will be organized on a quarterly basis across the state and new incubation centres will be established in various arenas throughout the state.

### **Strategies for Success**



## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
9	Establishment of EMC, IT park and e-commerce warehouses	EMC : 2 IT : 2 e-Commerce : 1 warehouses	EMC : 4 IT : 4 e-Commerce : 2 warehouses	EMC : 6 IT : 6 e-Commerce : 3 warehouses	Number of EMC, IT park and e-commerce warehouses established	Department of Industries and Commerce, Government of Haryana
9	Establishment of mega recycling plant	6	12	17	Establishment of mega recycling plant	Department of Industries and Commerce, Government of Haryana
9	Construction of flatted factories and labour housing colonies	Flatted factories : 20 Labour housing colonies : 20	Flatted factories : 50 Labour housing colonies : 50	Flatted factories : 100 Labour housing colonies : 100	Construction of no. of flatted factories and labour housing colonies	Department of Industries and Commerce, Government of Haryana
9	Establishment of effluent treatment plants	5	15	28	Establishment of effluent treatment plants	Department of Industries and Commerce, Government of Haryana
9	Addition of new buses	5,000	6,000	8,500	Addition of new buses	Transport Department, Government of Haryana
9	Construction of no. of flyovers, bypasses, bridges	Flyovers : 3 Bypasses : 4 Road Over Bridges/Road Under Bridges : 30	Flyovers : 8 Bypasses : 12 Road Over Bridges/Road Under Bridges : 60	Flyovers : 15 Bypasses : 20 Road Over Bridges/Road Under Bridges : 100	Number of flyovers, bypass, bridges constructed	Public Works Department, Government of Haryana
9	Establishment of multi-modal logistics hub.	2	4	5	Establishment of multi-modal logistics hub.	Department of Industries and Commerce, Government of Haryana
9	Establishment of incubation centres	2	5	7	Establishment of incubation centres	Department of Electronics & IT, Government of Haryana



SDG 10

# Reduced Inequalities

Reduce inequality within and among countries

## Vision

It is the objective of the state to make the minorities, elderly, differently-abled and scheduled castes and backward classes economically self-reliant, to provide them equal opportunities in all spheres of life and establish a socially secure and just environment for them. By 2030, it is our endeavour to reduce inequalities and make all the vulnerable groups secure and self-reliant.

## Haryana Today

As per Census 2011, of the total population of Haryana

- 2.1% has at least one form of disability
- 8.65% is over the age of 60 years
- 12.54% belongs to a minority group
- 20.17% constitutes Schedule Castes

## Focus for Tomorrow

- Progressively achieve and sustain income growth of the most vulnerable
- Ensure equal opportunity and reduce inequalities by educating, empowering, protecting and promoting the social and economic inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

**HARYANA**  
**2030**  
Targets

- ✓ For the Divyang or persons with disabilities the Government of Haryana aims to ensure 3% job reservation in all institutions of the state by 2030. It will provide soft loans, develop skills and also provide disabled-friendly civil public infrastructure and transportation in all districts.
- ✓ For the minorities, Government of Haryana will ensure that in all blocks where 25% or more of the population belongs to minority communities, the number of secondary schools and government colleges are increased and scholarship schemes are available at the state level. Also 5,00,000 people will also be trained for blue-collar jobs.
- ✓ For the elderly the state will ensure that 1,00,000 care-givers are trained. Old-age homes and old-age day care centres will be opened in all districts.
- ✓ The Government of Haryana is committed to making members of schedules castes and backward classes economically stronger through soft loans for income-generating schemes and skill development.



## Current Interventions

Haryana has been making efforts to reduce socio-economic inequality with respect to major vulnerable groups like the elderly, persons with disabilities (PwDs or Divyang), destitute children, minorities, members of scheduled castes (SC) and backward classes (BC) and households below the poverty line (BPL).<sup>1</sup>

As part of a broader effort to reduce inequalities, the Government of Haryana has worked to provide social protection to all vulnerable sections of the society through various pensions and other schemes for the aged, widows, destitute women, children as well as PwDs.

### Persons with disabilities

According to the Census 2011, 5,46,374 persons were identified as Divyang in the state constituting 2.1% of its population. The number of PwDs below 19 years of age is 1,12,231 and those above 80 years is 28,010.

#### DIVYANG CENSUS DATA (2011)

Visually impaired	82,702
Hearing impaired	1,15,527
Speech impaired	21,787
Mobility impaired	1,16,026
Mentally retarded	30,070
Mentally ill	16,191
Persons with multiple disabilities	47,250
Others	1,16,821
<b>Total</b>	<b>5,46,374</b>

The *Persons with Disability Act, 1995* was enacted to spell out the responsibility of the state towards the prevention of disabilities, protection of rights, provision of medical care, education, training, employment and rehabilitation of PwDs; to create a barrier free environment for them in the sharing of development benefits, vis-a-vis non-disabled persons; to counteract any situation of abuse and exploitation of PwDs; and to make special provisions for the integration of PwDs into the social mainstream.

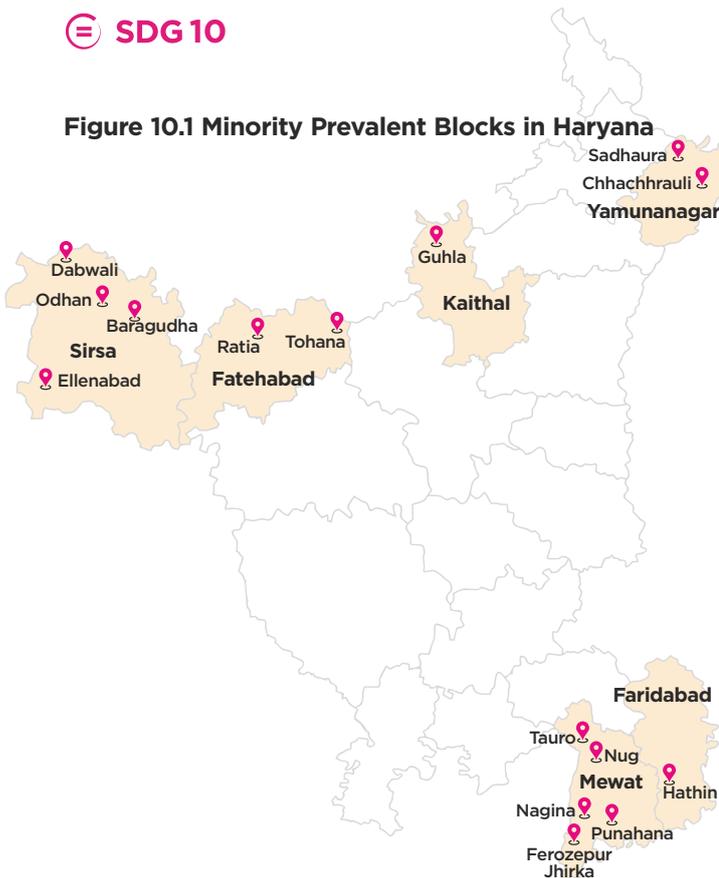
Building on this foundation, a new *Rights of Persons with Disability Act, 2016* has since been enacted. This Act of 2016 covers a broader range of 19 disabilities and confers several rights and entitlements to disabled persons. Persons with at least 40% disability are entitled to certain benefits such as reservation in education and employment, as well as preference in government schemes and other such entitlements. These include disabled-friendly access to all public buildings, hospitals, modes of transport, polling stations and other public facilities. In the case of mentally ill persons, district courts may award two types of guardianship: a limited guardian who takes decisions jointly with the mentally ill person and a plenary guardian who can take decisions on the behalf of the mentally ill person without consulting him/her. Violation of any provision of the Act is punishable with imprisonment up to six months and/or a fine of ₹10,000. Subsequent violations carry a higher penalty. This Act will go a long way towards removing discrimination against PwDs in Haryana and reducing social inequality.

In addition to this legislative framework, the Government of Haryana has implemented a number of schemes aimed at supporting the needs and capacity building of disabled persons. These schemes are listed below:

- The Government of Haryana provides an allowance of ₹1,600 per month to 1,41,046 beneficiaries who have a disability of more than 70%.
- The Government of Haryana also includes PwDs with more than 60% disability in social security schemes. There is an annual budgetary provision for ₹255 crore for this purpose.
- In partnership with the Government of India, the Government of Haryana provides funding for NGOs working towards the rehabilitation and skills training of PwDs.
- The Government of Haryana has developed an

1. All data presented in the section entitled "Current Interventions", unless mentioned otherwise, has been provided by the Department of Social Justice and Empowerment, Government of Haryana. <http://socialjusticehry.gov.in/>

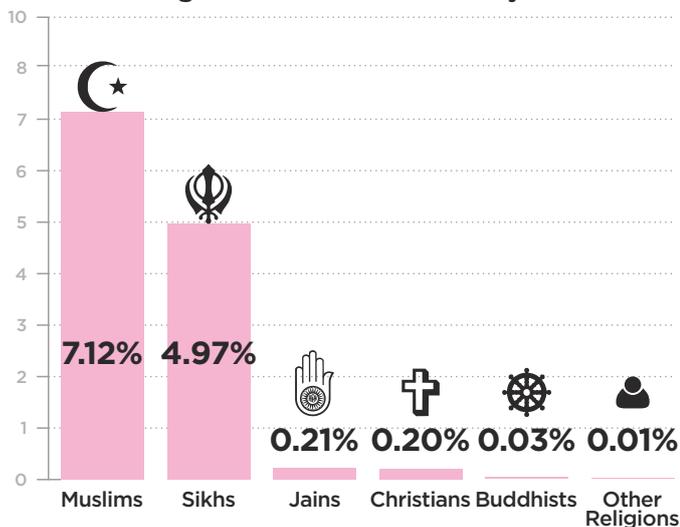
**Figure 10.1 Minority Prevalent Blocks in Haryana**



Source: Census of India 2011, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India

ambitious programme which will provide aids and appliances to differently abled persons, with assistance from the Artificial Limbs Manufacturing Corporation of India (ALIMCO). More than 10,000 aids and appliances were provided in the closing months of 2016 alone. A total of 25,000 aids and appliances will be distributed in 2017 through this programme.

**Figure 10.2: Minorities in Haryana**



Source: Census of India 2011, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India

**Minorities**

The Government of India presently recognizes six religious groups as minorities in the country, namely, Sikhs, Jains, Christians, Buddhists, Muslims and Parsis. Within Haryana, 15 blocks in six districts have been identified as having more than 25% of their total population from minority communities and these blocks have been declared Minority Prevalent (Figure 10.1).

The total population of these minority religious groups in the state according to the 2011 census was 31.80 lakh, which accounted for 12.54% of the total population of Haryana. The most significant minority populations in the state are the Muslim population at 17.81 lakh persons, followed by the Sikh community at 12.44 lakh persons.

The Government of Haryana has implemented a number of schemes aimed at supporting the needs of minority groups. These schemes include:

- a) The Government of Haryana has implemented a Multi-Sectoral Development Plan for districts with concentration of minority populations. Under this plan, schemes and programmes for poverty alleviation, education, health and welfare are being implemented actively in these districts. Existing schemes in infrastructure development, such as rural electrification and road connectivity are also being implemented in these districts. The provision for basic amenities such as pucca housing, safe drinking water supply, water closet toilets and electricity for each household are being made. During the financial year 2016/17 a budgetary provision of ₹ 10 crore has been made available for this purpose.
- b) Pre-matric, post-matric and merit-cum-means scholarships are being given to students belonging to minority communities for professional and technical courses.

**The elderly**

According to Census 2011, Haryana has approximately 21.94 lakh persons over 60 years of age, comprising 8.65% of the state population. The *Maintenance and Welfare of Parents and Senior Citizens Act, 2007* was enacted to protect and safeguard the interests of this growing elderly

population. The Act makes it a legal obligation for children and heirs to provide for the welfare of senior citizens and parents.

In addition to this legislative framework, the Government of Haryana has implemented a number of schemes aimed at supporting the needs and continued welfare of elderly persons. For the number of aged persons in Haryana by age group, see Figure 10.3. These schemes include the following:

**Figure 10.3: Population of Aged People in Haryana, 2011**

Age group	Total
60-64	8,44,349
65-69	5,04,439
70-74	3,74,161
75-79	1,96,217
80 and above	2,74,589
<b>Total</b>	<b>21,93,755</b>

Source: *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India

- a) To provide social security to elderly persons who are unable to sustain themselves from their own sources and are in need of financial assistance, the Government of Haryana has established the Old Age Samman Allowance. A total of 14,04,842 elderly are being given an allowance of ₹1,600 per month per beneficiary through this scheme. There is an annual budget provision of ₹2584.20 crore by the Government of Haryana for this purpose.
- b) In partnership with the Government of India, the Government of Haryana is also providing funds to NGOs to operate old age homes, halfway homes and to support the rehabilitation of the elderly.
- c) The Government of Haryana is also launching an ambitious centrally sponsored programme which will provide various types of physical aids and assisted-living devices such as walking sticks, elbow crutches, walkers/crutches, spectacles, hearing aids, artificial dentures and wheelchairs to senior citizens within the BPL category.

### Scheduled Castes and backward classes

According to the Census 2011, the SC population of Haryana (across 37 caste groups) stands at 51,13,615, constituting 20.17% of its population. Census 2011 reports that the sex ratio of the SC population in Haryana is 887 women per 1,000 men, which is notably higher than the overall sex ratio of the state at 879.

Government of Haryana has notified 72 castes in Schedule A and 6 castes in Schedule B as BC of Haryana.<sup>1</sup>

A legislative framework for providing social security to the SCs has been established through the *Protection of Civil Rights (PCR) Act, 1955* as well as the *Prevention of Atrocities (POA) Act, 1989*. In an effort to boost educational outcomes of SC youth, the Government of Haryana has provided pre/post/merit-cum-means-matric scholarship schemes to SC students studying in classes IX and X. In order to cover the risk of falling into poverty due to financial difficulties arising out of caste conflicts/atrocities and to ease expenditure of marriages, the Government of Haryana is providing financial assistance like “Mukhya Mantri Vivah Shagun Yojana”, “Legal Aid to Scheduled Castes and Vimukta Jati’s” and “Dr. Ambedkar Medhavi Chhattra Yojana”. Financial assistance for higher competitive entrance examinations to SC/BC candidates through private institutions is also being given by the state. Government of Haryana is providing soft loans to SCs for income-generating activities in order to enable them to have sustainable livelihoods.

### Other vulnerable groups

In addition to these measures, the Government of Haryana has implemented a number of targeted pension and allowance schemes to support extra-vulnerable communities. These pension and allowances rates are amongst the highest in the country being paid to vulnerable groups and show a substantial target by the state to the cause of equality and social security of these groups. In particular, the Government of Haryana has developed the following schemes:

- Widow & destitute women’s pension: A total of 6,15,387 women are currently being provided an

1. The list of these castes is available at [http://haryanascbc.gov.in/list\\_of\\_backward\\_castes.htm](http://haryanascbc.gov.in/list_of_backward_castes.htm)

allowance of ₹1,600 per month per beneficiary through this programme. The Government of Haryana made an annual budget provision of ₹1,060.10 crore for this purpose.

- Financial assistance to destitute children: The state currently provides ₹700 per beneficiary per month to 1,01,334 beneficiaries who have not attained the age of 21 years and whose parents/ guardians are not able to support them. There is an annual budget provision of ₹106.60 crore for this purpose.
- Ladli social security allowance: Families with only girl child/children are being given an allowance of ₹1,600 per month per household. A total of 28,570 beneficiaries are currently availing this facility. There is an annual budget provision of ₹50.12 crore set aside for this purpose.<sup>2</sup>
- Financial assistance to non-school-going disabled children: Under this scheme, the state is providing financial assistance to 6,687 children in the age group of 0-18 years who are mentally challenged or suffer multiple disabilities and are not able to attend formal education and/or training, at the rate of ₹1,000 per month per beneficiary.
- Allowance to eunuchs: The state is presently providing an allowance of ₹1,600 per month to 14 eunuchs. There is an annual budget provision for ₹5 lakh of this purpose.
- Allowance to dwarves: An allowance of ₹1,600 per month is presently being given to 24 persons (including men below 3 feet 8 inches in height and women below 3 feet 3 inches in height). There is an annual budget provision of ₹5.45 lakh set aside by the Government of Haryana for this purpose.

#### **Insurance schemes for other vulnerable groups**

BPL households have further been provided with insurance coverage under the Aam Aadmi Bima Yojana, which is a Government of India scheme. Under the scheme, death and disability coverage is provided to all BPL families of Haryana. The head of the family or one earning member of the family in the age group of 18-60 years is insured against death and disability. Under this scheme, a premium

of ₹200 per year per person is being borne by the centre, while the remaining ₹200 per person is paid by the Government of Haryana. In the case of death due to accident an amount of ₹75,000 is to be paid. In the case of permanent total disability due to accident an amount of ₹75,000 and the same amount is paid for the loss of both eyes or two limbs, or loss of one eye plus one limb in an accident and an amount of ₹37,500 is paid for loss of one eye or one limb in an accident.

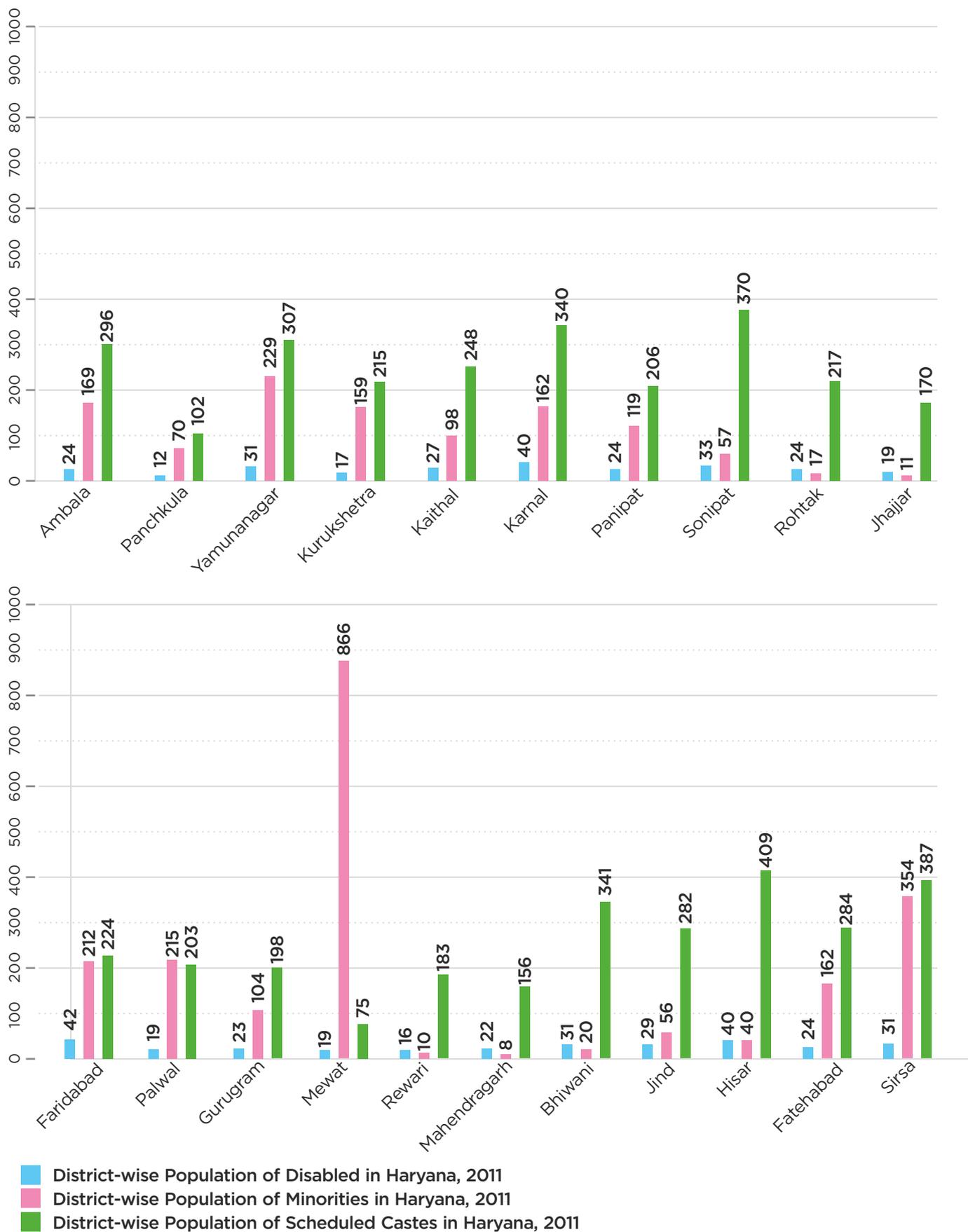
Rajiv Gandhi Parivar Bima Yojana: The Government of Haryana is also implementing the Rajiv Gandhi Parivar Bima Yojana. Through this scheme, compensation is given in case of accidental death or permanent disability to all in the age group of 18-60 years who are domiciled in Haryana and have an income of less than ₹2.50 lakh per annum. An amount of ₹1 lakh is paid in case of death and permanent disability. In case of loss of two limbs or both eyes or one limb plus one eye compensation of ₹50,000 is paid. ₹25,000 is given in case of loss of one eye or one limb.

Pradhan Mantri Suraksha Bima Yojana: This scheme provides insurance cover for accidental death and disability on account of an accident. All savings bank account holders in the age group of 18-70 years in participating banks are entitled to this cover. Benefits include an insured sum of ₹2 lakh in case of death or total or irrecoverable loss of both eyes or loss of use of both hands or feet or loss of sight of one eye and loss of use of a hand or a foot. An insurance amount of ₹1 lakh shall be admissible on total and irrecoverable loss of sight of one eye or loss of use of one hand or foot. The Government of Haryana, in an ambitious effort to provide insurance cover under Pradhan Mantri Suraksha Bima Yojana to all eligible residents of Haryana, has decided to pay a premium of ₹12 per annum per person.

Pradhan Mantri Jeevan Jyoti Bima Yojana: This insurance scheme offers life insurance cover for death due to **any reason**. This scheme covers the age group of 18 to 50 years. ₹2 lakh is payable on a member's death due to any cause. A premium of ₹330 per annum per member is deductible from the account holder's bank account.

2. Details of the schemes are available at [http://socialjusticehry.gov.in/schemes/LADLI\\_SOCIAL\\_SECURITY\\_ALLOWANCE.pdf](http://socialjusticehry.gov.in/schemes/LADLI_SOCIAL_SECURITY_ALLOWANCE.pdf)

**Figure 10.4: District-wise Population of Disabled, Minorities and Scheduled Castes in Haryana (per 1,000 persons)**



Source: Census of India 2011, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India

## **Challenges**

### **Divyang**

The main challenges faced by the disabled are lack of job opportunities, difficulties in developing skills for a healthy and prosperous life, lack of a disabled-friendly civil and social infrastructure, absence of long-term care facilities for the disabled and obstacles to economic self-reliance.

### **Minorities**

The challenges faced by minorities, especially Muslims, are poverty, lack of skill training opportunities and low literacy rate. The district of Mewat has the maximum Muslim population of 79.20, followed by Sikhs in district Sirsa at 26.17%. Christians constitute 0.64% in Gurugram district.<sup>3</sup>

Low literacy rates and the lack of job opportunities among minority groups are the main challenges.

### **The elderly**

The main challenges faced by the elderly are the dearth of geriatric specific health care facilities, elderly friendly civil infrastructure and a good social security system.

### **Scheduled Castes**

The literacy rate among SCs of Haryana is low (65.91%) as compared to the overall literacy rate of 75.55%. Low literacy rates among SC women at 48.27% present a major challenge, along with lack of skill training and job opportunities.<sup>4</sup>

In addition, there is a lack of awareness about the schemes/programmes launched by the government to bridge the gap between socially backward and vulnerable groups and the rest of the society to attain the goal of a casteless society.

### **Backward classes**

Primary challenges are related to upgrading their skills and accessing financial assistance on easy terms for self-employment.

## **Strategies for Success**

For PwDs, the Government of Haryana is committed to focusing on early intervention and prevention of disability, creating disabled-friendly infrastructure and transportation and providing universal ID cards. The other area of strategic focus will be to help sustain their livelihoods through skill training, reservation in jobs and providing easy financial assistance in order to make them self-reliant and independent.

For minorities, the Government of Haryana is specifically focusing on educational infrastructure, especially at the secondary education level and skill training. Government of Haryana will also lay emphasis on physical infrastructure in minority prevalent areas so as to ensure parity with developed areas of the state.

For the elderly in Haryana, Government of Haryana is going to focus on providing better health services and enhancing elderly-friendly infrastructure. Old-age homes and old-age care centres will be opened and government support will be delivered through direct bank benefit transfers. Special schemes will be planned to re-skill them in order for those who are physically fit to be engaged in remunerative jobs.

Government of Haryana is focused on improving the literacy rate amongst SCs and BCs as well as skill training and scholarships to improve employability. Government of Haryana will also provide easy financial assistance/ soft loans for SCs and BCs to set up small businesses.

3. [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2014-15\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2014-15).pdf)

4. Ibid.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
<b>FOR DIVYANG OR PERSONS WITH DISABILITIES</b>						
10	Early intervention and services	In all medical colleges	In all district hospitals, sub-divisional hospitals	In all Primary Health Centres (PHCs), Integrated Child Development Services (ICDS) centres	Number of institutions providing services	Department of Medical Education; Health and Family Welfare, Government of Haryana
10	Skill development job trainings	2,500	10,000	50,000	Number of trainings provided	Department of Skill Development and Industrial Training, Government of Haryana
10	Disabled-friendly civil public infrastructure available	2 districts	10 districts	All districts	Civil infrastructure	Public Works Department, Department of Architecture and Department of Social Justice and Empowerment, Government of Haryana
10	Implement 3% job reservation	50% of government jobs for PwDs identified by departments	100% of government jobs for PwDs identified by departments	Extend the reservation to the corporate sector	Percentage of jobs obtained by PwDs	Chief Secretary Office-Department of Social Justice and Empowerment, Government of Haryana
10	Soft loans for income generating schemes	1,400	10,000	50,000	Number of PwDs provided loans	Haryana Backward and Economically Weaker Section Welfare Corporation; Department for Social Justice and Empowerment, Government of Haryana
10	Direct bank transfers linked to Universal IDs plus Aadhar-linked accounts	50% of pension beneficiaries	75% of pension beneficiaries	All PwDs	All PwDs with Aadhar-linked accounts	National Payments Corporation of India; Department of Social Justice and Empowerment, Government of Haryana
10	Disabled-friendly public transport and amenities	All municipal corporations	All district headquarters	All over the state	Public transport facilities	Transport Department, Government of Haryana
<b>FOR MINORITIES</b>						
10	Increase the number of secondary schools	25% of minority prevalent blocks	50% of minority prevalent blocks	100% of minority prevalent blocks	Increase in number of schools	Department of Secondary Education, Government of Haryana
10	Scholarship scheme at the state level	20,000 students	30,000 students	50,000 students	Number of students getting scholarships	Department of Social Justice and Empowerment, Government of Haryana
10	Increase the number of government colleges	25% of minority prevalent blocks	50% of minority prevalent blocks	100% of minority prevalent blocks	Number of colleges	Department of Higher Education, Government of Haryana
10	Skill training in blue-collar jobs	2,500	10,000	50,000	Trainings provided	Skill Development and Industrial Training Department, Government of Haryana

SDG	Activity	2019	2022	2030	Indicator	Data Source
<b>FOR THE ELDERLY</b>						
10	Health care provision for the elderly population initiated	In all medical colleges	In all district hospitals and sub-divisional hospitals	In all PHCs and ICDS centres	Health care provisions in health institutions	Department of Medical Education; Department of Health and Family Welfare, Government of Haryana
10	Training to Skilled care givers for the elderly	1,000	3,000	10,000	Number of skilled care givers	Skill Development and Industrial Training Department, Government of Haryana
10	Elderly-friendly civil infrastructure	2 districts, Gurugram and Faridabad	10 districts	All districts	Civil infrastructure	Public Works Department, Department of Architecture and Department of Social Justice and Empowerment, Government of Haryana
10	Opening new old-age homes	5 districts	10 districts	All districts	Number of old-age homes	Department of Social Justice and Empowerment, Government of Haryana
10	Opening new old-age day care centres	5 districts	10 districts	All districts	Number of old-age day care centres	Department of Social Justice and Empowerment, Government of Haryana
<b>FOR SCHEDULED CASTES</b>						
10	Soft loans for income-generating schemes	15,000	20,000	40,000	Number of loans provided	Haryana Scheduled Castes Finance & Development Corporation; Welfare of Scheduled and Backward Classes Department, Government of Haryana
10	Skill development training	5,000	15,000	30,000	Trainings provided	Welfare of Scheduled Castes and Backward Classes Department, Government of Haryana
10	Scholarships	95,000	1,05,000	2,00,000	Number of scholarships awarded	Welfare of Scheduled Castes and Backward Classes Department, Government of Haryana
<b>BACKWARD CLASSES</b>						
10	Soft loans for income-generating schemes	5,000	8,000	20,000	Number of loans provided	Welfare of Scheduled Castes and Backward Classes Department, Government of Haryana
10	Scholarships	50,000	60,000	1,00,000	Number of scholarships awarded	Welfare of Scheduled Castes and Backward Classes Department, Government of Haryana
10	Skill development training	2,500	5,000	10,000	Number of trainings provided	Welfare of Scheduled Castes and Backward Classes Department, Government of Haryana



# SDG 11 | Sustainable Cities and Communities

Make cities and human settlements inclusive, safe, resilient and sustainable

## Vision

Develop smart, safe, slum-free and affordable housing for all with high quality basic urban services (like water, sanitation, waste management, public transport and energy), along with robust IT connectivity and digitization, sustainable environment, safety and security of residents, particularly women, children and the elderly.

## Haryana Today

- 65.1% of Haryana's population is rural and 34.9% urban.
- There has been a 45% growth in the urban population over the past decade.
- Haryana has approximately 4,154 public buses, which carry an average of 12.40 lakh passengers per day.
- There are 154 cities and towns within Haryana, of which Gurugram, Faridabad and Karnal are being developed as smart cities.

## Focus for Tomorrow

- Provide affordable houses.
- Provide access to safe, affordable, accessible and sustainable transport systems.
- Develop smart cities.

**HARYANA  
2030  
Targets**

- ✓ Provide affordable houses to 6.65 lakh urban poor families; Upgrade housing facilities for 1 lakh urban poor families
- ✓ Implement an Intelligent Traffic Management System, including traffic surveillance systems
- ✓ Add 8,500 new buses to the public transport fleet
- ✓ Establish CNG/LPG filling stations in 10 districts of NCR
- ✓ 100% waste and garbage collection and management, including toilets and sewerage services to all slums
- ✓ Establishment of 20 e-waste and solid waste management plants
- ✓ Ensure secure, commercial grade internet services throughout the state

## Current Interventions

### Provide affordable housing for all, with basic urban services

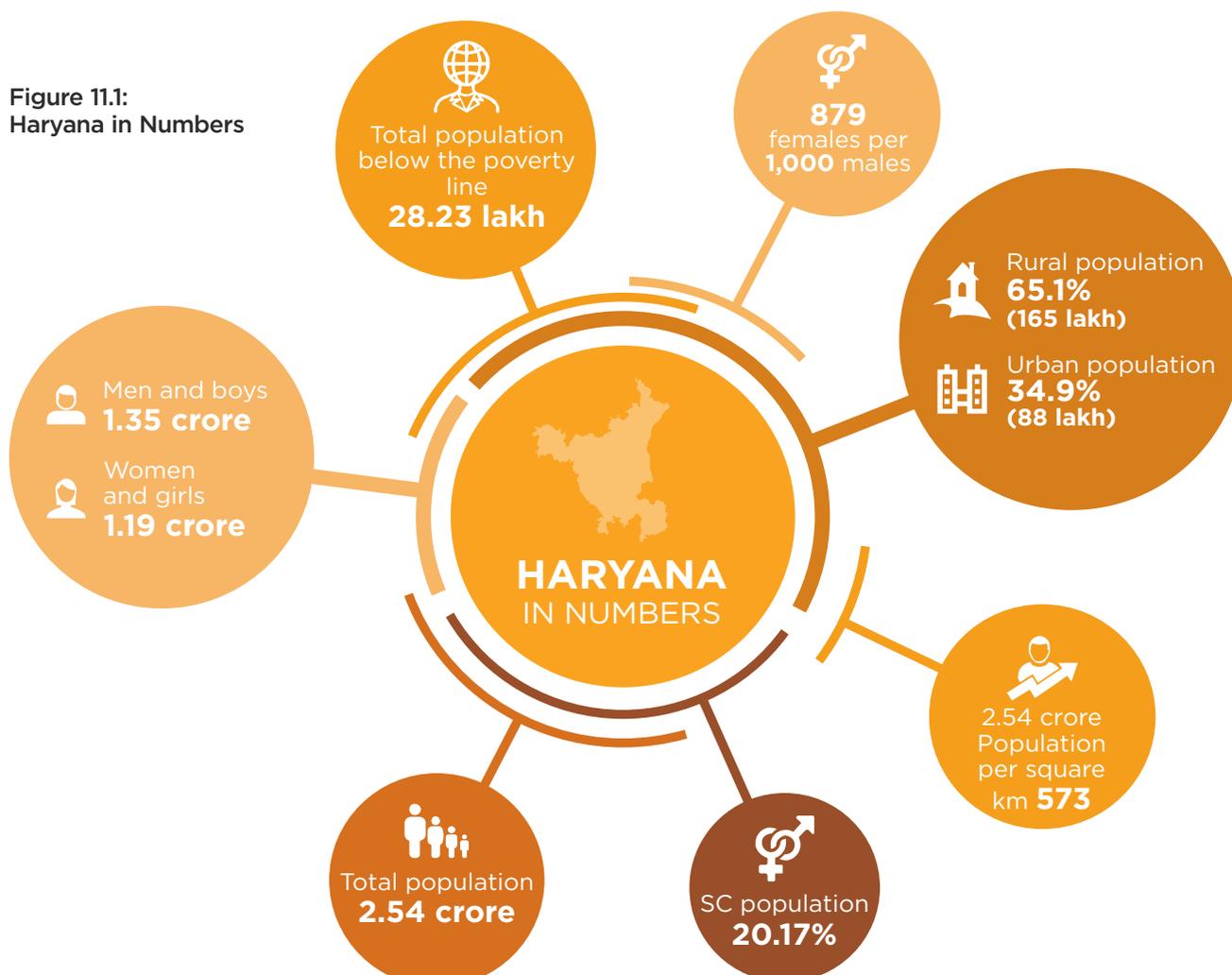
Various departments of the Government of Haryana have taken different initiatives to make cities inclusive, safe, resilient and sustainable. For urban communities, local bodies have been implementing various **centrally sponsored schemes** such as:

- Jawaharlal Nehru National Urban Renewal Mission and Integrated Housing and Slum Development Programme: These programmes have been devised to address issues related to adequate housing and amenities of power

supply, drinking water and sanitation in slums. During 2015-16, 212 dwellings units were completed and work on a further 518 is in progress through the Integrated Housing and Slum Development Programme.<sup>1</sup>

- Housing For All Mission/ Pradhan Mantri Awas Yojana: Under this scheme, the Government of India has completed the construction of over 4,000 houses with 21,600 under construction. Through this programme, the Government of India has approved the inclusion of nine towns on the recommendation of the state government and has committed ₹110.25 lakh to

Figure 11.1: Haryana in Numbers



**Sources:**

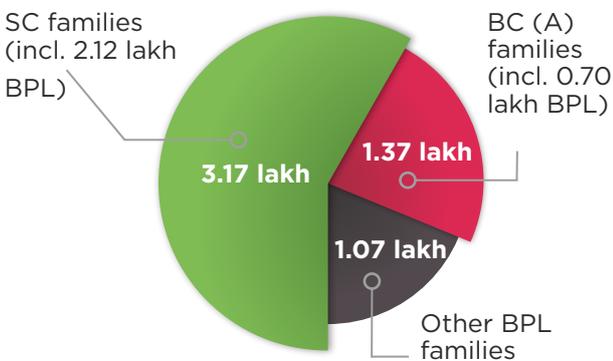
1. Total population and population density: *Census of India 2011*, Office of the Registrar General and the Census Commissioner of India, Ministry of Home Affairs.
2. Male and female population, sex ratio and rural and urban populations: *Economic Survey of Haryana, 2015-16*, <http://esaharyana.gov.in/Data/Economic%20Survey%20of%20Haryana/2015-16.pdf>
3. BPL population: Planning Commission Report, 2011-12, [http://planningcommission.nic.in/news/pre\\_pov2307.pdf](http://planningcommission.nic.in/news/pre_pov2307.pdf), page 6
4. Percentage of SC population: *Statistical Abstract of Haryana 2014-15*, Page 21

1. *Economic Survey of Haryana, 2015-16*, <http://esaharyana.gov.in/Data/Economic%20Survey%20of%20Haryana/2015-16.pdf>, Page 134

carry out preparatory exercises in the select towns. Provision of in-situ construction for 759 dwelling units in Yamunanagar was also approved through this programme.<sup>2</sup>

- **Notification of Unauthorized Colonies:** The Housing Board Haryana (HBH), HUDA and the Town & Country Planning Department have devised various schemes/policies for the creation of housing stock for BPL households, economically weaker sections and lower income groups. 887 unauthorized colonies were notified in 2013-14 for providing essential services. Development plans of 60 municipal towns have already been formulated.<sup>3</sup>
- **Mahatma Gandhi Gramin Basti Yojana:** Free residential plots of 100 sq. yards each are being allotted to eligible SCs, BCs and BPL families. The sites on which these plots are located are developed with necessary infrastructural facilities, including power supply, drinking water and paved streets. More than 5.60 lakh eligible families have been identified and will benefit through this scheme. Out of these, 3.83 lakh families had been allotted plots by the end of 2015 and the allotment process for the remaining families is in progress.<sup>4</sup> Through the Mahatma Gandhi Gramin Basti Yojana, 5.62 lakh (including 3.88 lakh BPL) eligible families were identified for the allotment of free residential plots (Figure 11.2).

**Figure 11.2: Allotments under the Mahatma Gandhi Gramin Basti Yojana**



Source: Development and Panchayats Department, Government of Haryana

**Figure 11.3: Activities of Haryana Urban Development Authority in 2016**



In addition to national programmes, state institutions such as the Housing Board of Haryana, Haryana Urban Development Authority (HUDA), and the Town & Country Planning (TCP) Department have also devised various schemes and policies for the creation of affordable housing for economically weaker classes and low-income families (Figure 11.3). These are:

- **Priyadarshini Awaas Yojana:** Through this scheme, financial assistance of ₹81,000 is provided to each beneficiary household for the construction of a house and ₹9,100 for toilet construction. The project had targeted assistance to 2 lakh rural poor households over a span of two years, between 2013 and 2015, at a cost of ₹1,350 crore. By mid-2016, 1,50,456 beneficiaries had been identified and registered.<sup>5</sup>
- **Deen Dayal Jan Awas Yojana 2016:** To meet the needs of a growing population, the Government of Haryana established the “Affordable Plotted Housing Policy for Low and Medium Potential Towns”, known as the Deen Dayal Jan Awas Yojana. Under the scheme, colonies are to be

2. Data is sourced from (i) *Economic Survey of Haryana, 2015-16*, <http://esaharyana.gov.in/Data/Economic%20Survey%20of%20Haryana/2015-16.pdf>, Page 138. (ii) Urban Local Bodies Department, Government of Haryana  
 3. Data has been provided by Urban Local Bodies Department, Government of Haryana  
 4. Data is sourced from (i) *Economic Survey of Haryana, 2015-16*, <http://esaharyana.gov.in/Data/Economic%20Survey%20of%20Haryana/2015-16.pdf>, Page 128  
 5. Data provided by the Urban Local Bodies Department, Government of Haryana

developed within area limits of 5 to 15 acres, where 65% of the licensed area is permissible for sale. To encourage the development of these colonies by private builders, licence fees and external development charges have been reduced substantially, while conversion charges and infrastructural development charges have been waived entirely. This policy has contributed significantly to the “Housing for All by 2022” campaign, as a total of 193 applications have been received for an area of more than 1,800 acres across the state.<sup>6</sup> Through this scheme, the Government of Haryana will be able to provide shelter to approximately 6 lakh persons in low and medium potential towns, as per applicable density norms.

- The New Integrated Licensing Policy (NILP) 2015: This policy has been designed for the development of hyper- and high-potential urban complexes such as Gurugram–Manesar, Faridabad–Ballabgarh, Sohna, Sonipat–Kundli, Panipat and Panchkula–Kalka–Pinjore. The policy enables small landowners to voluntarily monetize their land by participating in the process of licensing, real estate development, marketing and sale of their transferable development rights. Through this framework, real estate developers are now able to establish projects in areas of less than 100 acres.

Haryana Roadways has been **Awarded the Transport Minister’s Trophy** for the lowest accident record during each year **from 2005 to 2013**



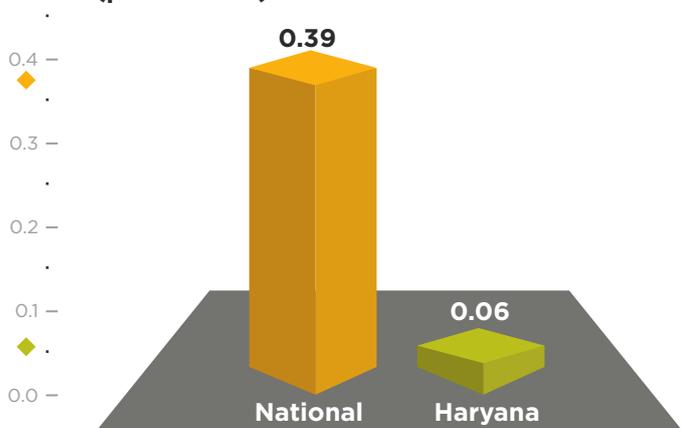
Besides these targeted interventions, the Government of Haryana has made changes at the systemic level which will also increase efficiency at the institutional level. For example, a number of Government of Haryana programmes and services have been made available online. Now 3.15 lakh allottees can get access to their property details and they can get instant allottee account statements. Other online facilities include change of correspondence address, plot status enquiry, payment gateway portals, instant approval of new building plans and submission of scheme forms.

**Provide access to safe, affordable, accessible and sustainable transport systems**

The state of Haryana has approximately 4,154 public transport buses, which cover a network of approximately 12.71 lakh km per day and carry an average of 12.40 lakh passengers per day. As compared to the national average of 0.39 accidents per lakh km, Haryana experiences only 0.06 accidents per lakh km (Figure 11.4).<sup>7</sup>

Haryana Roadways has been awarded the Transport Minister’s Trophy, with a cash award of ₹1.50 lakh, for the lowest accident record among all

**Figure 11.4: Average Road Accidents in 2013-14 (per lakh km)**



Source: Data provided by the Association of State Road Transport Undertakings (ASRTU)

6. Data provided by the Urban Local Bodies Department, Government of Haryana  
 7. Data provided by the Department of Transport, Government of Haryana

similar State Road Transport Undertakings in the country every year from 2005 to 2013.

Haryana Roadways currently operates 20 departmental driver training schools to impart training and certify new heavy vehicle drivers.<sup>8</sup> During the period April-December 2016, 25,077 candidates received heavy vehicle driver training and obtained the required driving license. Training for light vehicle drivers is also offered at institutes in Murthal, Hisar, Gurugram, Mahendragarh, Jhajjar and Bhiwani.

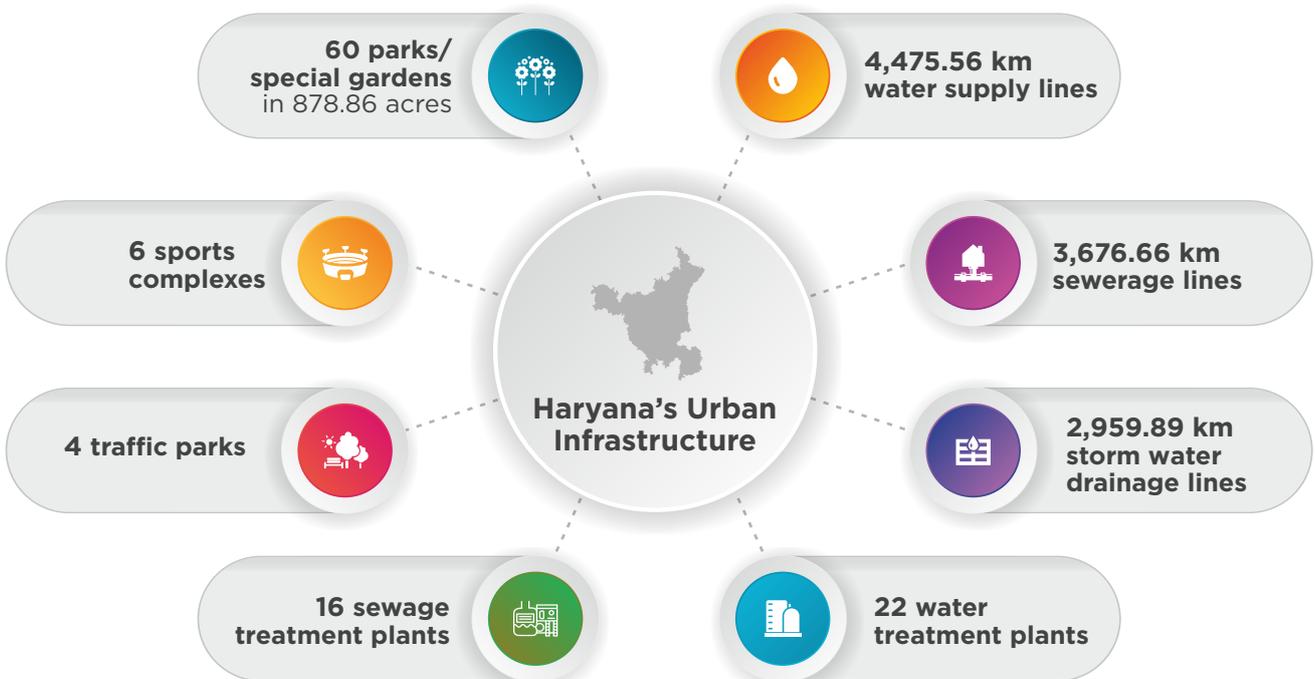
To build on this foundation of road safety, efficiency and education, Haryana Roadways has taken steps to improve state bus services and upgrade public amenities at bus stands. To this end, the Government of Haryana has increased the planned budget of the department from ₹123.35 crore during 2015-16 to ₹238 crore during 2016-17.<sup>9</sup>

During 2016-17, 245 old buses were slated for replacement along with the addition of 350 new buses to the fleet. As part of this process, 65 new buses have been introduced. The department has also initiated a process of recruitment of 2,038

drivers on a regular basis, including 1,495 drivers through outsourcing initially.<sup>10</sup> All efforts to expand the overall public transportation system are dedicated to lowering the volume of people relying on personal transportation, thus easing the traffic situation and reducing road accidents throughout the state. These initiatives are in addition to numerous other smaller interventions which focus on the upkeep and technological modernization of Haryana's public transport, as well as efforts to make it safer and more accessible to all sections of society.

Policy efforts to enhance road safety are also underway. A Draft Haryana Road Safety Fund Rules, 2015 was proposed and is currently under consideration with the Government of Haryana. The draft policy provides for the utilization of 50% of the composition fee collected on account of offences under the Motor Vehicle Act to fund additional programmes on road safety issues. The State Road Safety Policy 2015 has been formulated based on the National Road Safety Policy and is also under consideration with the Government of Haryana.

**Figure 11.5: Haryana's Urban Infrastructure (as of June 2016)**



Source: Information provided by Haryana Urban Development Authority

8. Data provided by the Department of Transport, Government of Haryana

9. Ibid.

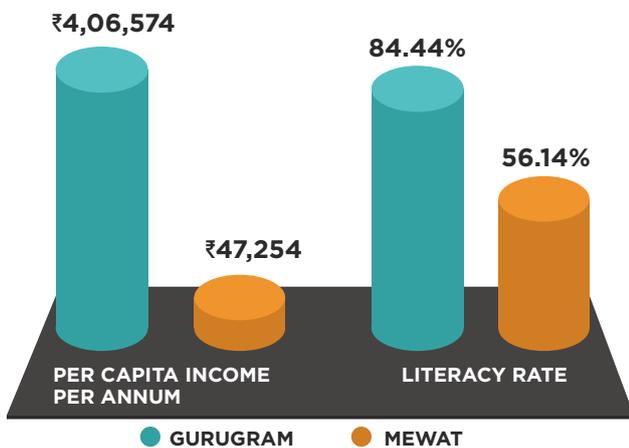
10. Ibid.

### Development of smart cities

Out of 100 cities selected nationally by the Government of India for potential development as smart cities, the Government of Haryana has shortlisted two cities, Faridabad and Karnal. The Government of Haryana additionally decided to develop Gurugram as a smart city, for which the project cost will be borne solely by the Government of Haryana.

Urbanization and in-migration: There are 154 cities and towns in Haryana. Faridabad district is the most urbanized, where more than 70% population is concentrated in urban areas. This is followed by

**Figure 11.6: Comparing the Richest and the Poorest Districts**



**Source:**  
 Per capita income: Department of Economic and Statistical Analysis, Government of Haryana  
 Literacy rate: *Census of India 2011*, "Provisional Population Totals, Haryana Data Sheet," Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.

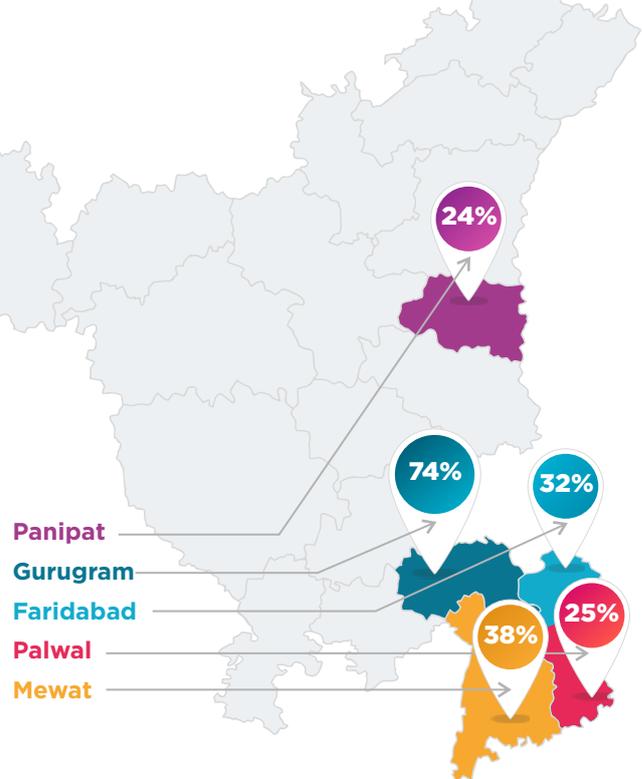
Gurugram and Panchkula districts, where more than 60% of its population lives in urban areas.<sup>11</sup>

The districts of Mewat, Mahendragarh, Bhiwani and Fatehabad are the least urbanized, with less than 20% of the population living in urban centres.<sup>12</sup>

The ratio of per capita income between the richest and the poorest districts was 3.7 in 2004-05, which jumped to 8.6 in 2013-14 (Figure 11.6).<sup>13</sup>

At present, the urbanization rate in Haryana is

**Figure 11.7: Population Growth in Select Districts (in 2011 over 2001)**



**Source:** *Census of India 2011*, Provisional Population Totals, Haryana Data Sheet, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.

approximately 35%, compared to the national urbanization figure of 31%. The rapid growth of urban centres in Haryana has manifested in a 45% growth in urban population within the state over the last decade.<sup>14</sup>

Urban Slums within Haryana: Out of 154 towns in the state, 75 report slums. These 1,265 slums are home to 4.6% of Haryana's population and 2.5% of the national slum population. Within Haryana, approximately 78% of slum households live in permanent houses,<sup>15</sup> 17.7% in semi-permanent structures and 4.2% in temporary or dilapidated structures.<sup>16</sup>

At present, 26.8% of slum households do not have access to tap water for drinking, 7.3% of households lack electricity, 20% of households are

11. Data was sourced from the *Census of India 2011* and Satish Kumar et. al, "Urban Population: Distribution and its Socio-Economic Attributes in Haryana (2011)", *Global Journal for Research Analysis-GJRA*, Volume : 2 | Issue : 12 | Dec 2013 • ISSN No 2277 - 8160' pp 79-84.  
 12. Ibid.  
 13. Department of Economic and Statistical Analysis, Government of Haryana  
 14. *Census of India 2011*, Provisional Population Totals, Haryana Data Sheet, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.  
 15. Mrs. Minakshi, "Slums in Haryana: A Geographical Study", *International Journal of Recent Research Aspects*, ISSN: 2349-7688, Vol. 2, Issue 3, September 2015, pp. 118-121  
 16. *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.  
 17. Ibid.

without a toilet within their premises and 36.4% of households are not using LPG as the main fuel for cooking.<sup>17</sup> The Government of Haryana and Government of India have introduced a wide array of programmes and interventions geared towards improving the quality of life in slums and improving the social mobility for those living in slums. These programmes include:

- ***Swachh Bharat Mission***: Funds amounting to ₹23.41 crore have been released to urban local bodies for the construction of individual household latrines. Sanctions have been issued to the 34,953 eligible beneficiaries of individual household latrines and 7,188 individual toilets are under construction.<sup>18</sup>
- ***Urbanization of Rural Areas (Rurban)***: Six rural clusters have been selected for urbanization, namely, Balla, Barara, Uchana Khurd, Kosli, Samain and Badli.
- Door-to-door collection of solid waste takes place in 318 of the 1,439 municipal wards in Haryana.<sup>19</sup>
- ***State Technical Support Agency (STSA)***: Two STSAs, namely Guru Nanak Dev University, Amritsar and the School of Architecture & Planning, New Delhi have been engaged for the preparation of an Integrated Cluster Action Plan.
- ***Integrated Housing Slum Development Programme***: Through this national programme, an amount of ₹22.66 crore has been diverted to projects in Hisar, Ambala and Yamunanagar.



## Challenges

### Provide affordable housing for all with basic urban services

Acquisition of land is the biggest challenge being faced while carrying out programmatic work towards the development of affordable housing and basic services. The prohibitive cost of urban land due to the large overlap of Haryana with NCR significantly impedes progress in affordable

housing projects in urban areas. Currently, around 57% of Haryana's landmass falls within the NCR region.<sup>20</sup>

In the recent past, HUDA has been constrained by severely restricted budgets and this lack of resources has made it difficult to provide even basic amenities. Progress in this regard is also hampered by increased litigation, which has resulted in delays to development projects, as well as issues concerning transparency and procedural delays.

Housing projects being developed in PPP mode cater primarily to high-income groups and expensive housing. In spite of programming targets, limited access to housing financing for low-income groups further exacerbates the gap between available housing and those in need of affordable housing.

### Provide access to safe, affordable, accessible and sustainable transport systems

At present, Haryana suffers from lack of road safety education, awareness about traffic laws and non-compliance with traffic rules. This lack of awareness has led to significant non-compliance, which, paired with increasing population density and traffic density, will result in an increase in road accidents and deaths. An inadequate public transport system has encouraged greater reliance on personal transport, which increases congestion and slows down traffic. Unavailability of traffic infrastructure, including multi-level parking facilities (especially in NCR), bypasses, bridges and flyovers, creates obstructions to seamless traffic mobility. Ineffective transport management at a more strategic level is also lacking. This is visible in the lack of connectivity between districts by rail, traffic surveillance and insufficient traffic police personnel in the state.

### Development of smart cities

***Urbanization of rural areas***: The urban share of Haryana's total population is 35% and is projected to grow at an accelerated rate. Panipat, Rohtak, Gurugram, Rewari, Faridabad and Sonapat have seen exponential growth in urban population, and the existing physical, urban and social infrastructure of these cities needs to be

18. *Economy Survey of Haryana, 2015-16*, <http://esaharyana.gov.in/Data/Economic%20Survey%20of%20Haryana/2015-16.pdf>, Chapter entitled "Panchayati Raj & Rural & Urban Development"

19. Ibid.

20. <http://www.dailyioneer.com/state-editions/chandigarh/now-57-per-cent-area-of-haryana-under-ncr.html>

overhauled in order to meet and sustain present-day requirements. Urban areas in Haryana still suffer from an inadequate number of door-to-door collectors of solid waste, lack of GIS-enabled systems for monitoring and to support decision-making processes and a lack of mobile-based platforms for the delivery of citizen-centric services across the state.

**Urban slums:** The state needs to work towards developing a housing scheme which can effectively address the housing needs of the urban poor, in both slum and non-slum areas. While previous housing schemes concentrated primarily on the construction of new dwelling units, the state needs to pursue programmes which also ensure the repair of existing houses and better define parameters which identify the target group.

## Strategies for Success

To help achieve these key focus areas within the SDG 11, Haryana will implement a policy framework which will see the development of affordable housing with basic services across the state, the enhancement of public transportation systems, as well as the development of smart cities.

Mechanisms for public participation are also being developed to give citizen needs in Haryana greater agency in planning and policy. Self-declaration of impoverished households, for example, will allow urban pro-poor and slum-based policy to become more accurate and better reflect realities in poverty demographics as they change.

The development of proper institutional grievance redressal systems will also help to ensure transparency and accountability throughout local governance. A separate institutional system should be put in place at state, district, town/municipality, block and village levels, with proper specialized support staff to maintain such grievance redressal systems. IT should also be integrated in a more comprehensive manner to optimize efficiency and ensure regular data collection, processing and monitoring at even the local level.

In addition to these efforts, poverty alleviation programmes are being considered, such as new policies to ensure an adequate land bank for future development; an e-auctioning policy for residential, commercial, industrial and institutional plots (for private organizations); and better

framing of group housing sites. Landowners should also be made partners in land aggregation so as to ensure planned development of towns. Introduction of IT services will also enable government services to operate more efficiently, so as to ensure greater public satisfaction.

Specifically, with regard to the provision of affordable housing and all basic urban services, the Government of Haryana will pursue the following strategies:

### **Provision of affordable housing and all basic urban services**

- Provision of land on an extended, longer lease, such that this land may be used for the construction of affordable houses to cater to low-income bracket families.
- Land will be earmarked with “No Change of Land Use” requirements stipulated for the development of affordable houses.
- New Government of Haryana schemes for affordable housing will offer subsidized rates and loans, to better cater to low-income groups.
- Creation of new public toilets, including provision of mobile toilets.
- All government offices will be connected to district and sub-district headquarters through high speed optic fibre cable connectivity, which will improve planning and approval efficiency within the system.
- The new industrial licensing policy provides more than 20% of the total area earmarked for worker housing, to promote a walk-to-work culture. In order to provide affordable housing for workers in industrial estates of HSIIDC, a special scheme is being formulated which leverages a central government scheme of making available dwelling units at less than ₹10 lakh and/or EMI of maximum ₹4,000 per month.

### **Safe, affordable, accessible and sustainable transport systems**

To improve access to safe, affordable, accessible and sustainable transport systems across the state, the Government of Haryana will:

- Conduct road safety audits, particularly in accident-prone areas, towards the elimination of black spots.
- Host various educational programmes on road

safety and awareness about traffic rules towards the capacity building of government personnel and awareness raising at the public level.

- Construct new bypass roads, flyovers and multi-level parking facilities, as well as carry out widening of existing bridges, towards the elimination of level crossing and enhancing seamless traffic flows at both road and railway levels.
- Install centralized city surveillance systems and an Intelligent Traffic Management System in the state, including the deployment of synchronized signal lights at all crossings, with time displays.

### Development of smart cities

Lastly, the Government of Haryana will pursue the development of smart cities through the implementation of a policy framework which facilitates and improves all aspects of urban planning, including:

- Development of a GIS-based support system to inform decision-making in various departments including within the Town and Country Planning (TCP), HUDA, Revenue, Forest, Municipal Corporation and Traffic Departments.
- Development of a mobile service delivery platform which will be used to provide citizen-centric services at the doorstep.
- Formulation of an e-waste and solid waste management policy.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
11	Increase affordable housing for economically weaker sections, including eligible rural beneficiaries	1.5 lakh	4 lakh	6.65 lakh	Number of houses constructed under affordable housing schemes	Urban Local Bodies Department, Government of Haryana
11	Modernization for housing facilities to urban poor families	0.4 lakh	0.6 lakh	1 lakh	Number of BPL houses provided with modern facilities under affordable housing schemes	Urban Local Bodies Department, Government of Haryana
11	Implementation of traffic management systems, including traffic surveillance systems	20% coverage	50% coverage	100% coverage	Percentage of area covered across the state	Transport Department, Government of Haryana
11	Expand public transport	5,000	6,000	8,500	Number of new buses added to public transport fleet	Transport Department, Government of Haryana
11	Establish CNG/LPG filling stations	2	4	10	Number of NCR districts covered	Transport Department, Government of Haryana
11	Increase the number of sewage treatment plants	2	6	12	Number of new sewage treatment plants	HUDA
11	Establish new e-waste and solid-waste management plants	5	10	20	Number of new e-waste and solid-waste management plants	HUDA
11	Increase the availability of secure and commercial grade internet services throughout the state	40%	70%	100%	Percentage of internet penetration by state area	Department of Electronics and IT, Government of Haryana



SDG 12

# Sustainable Consumption and Production

Ensure sustainable consumption and production patterns

## Vision

The Government of Haryana will strive to sustainably reduce waste generation through prevention, reduction, recycling and re-use and to sustainably manage the use of natural resources, while positively impacting statewide consumption and production norms.

## Haryana Today

- Presently, 2.5 lakh hectares of soil are facing the threat of erosion.
- From June 1999 to June 2014, Haryana witnessed a decline of 8m in the underground water level.
- 4,265 tons of solid waste are generated per day in Haryana.

## Focus for Tomorrow

- Efficient use of natural resources.
- Efficient management of waste through prevention recycling, re-use, etc.
- Sustainable patterns of consumption and production.

**HARYANA**  
**2030**  
Targets

- ✓ Increase the Solar Renewable Purchase Obligation to 5000 MW
- ✓ Construct covered storage to house 30 lakh tons of food grains at the micro level
- ✓ Process 7,000 tons through waste disposal facilities
- ✓ Reduce the total pesticides used in agriculture by 18.3 MT
- ✓ Increase energy use per unit value added by industry to ₹70 per unit

## Current Interventions

### Interventions related to renewable energy

The Government of Haryana has been working towards the promotion of clean energy and development of alternative sources of energy. These efforts have focused on using the sun and water towards energy production and improving the quality of soil and air. To this end, the Government of Haryana has launched an ambitious scheme which promotes the use of solar power in government and semi-government buildings to meet energy needs. Haryana is also the first state to issue a comprehensive notification outlining energy conservation measures. These efforts have helped to integrate solar and renewable energy within the state. At present, the state generates 310.42 MW of power through renewable sources of energy, of which 27.8 MW is from grid interacted MW scale solar plants and 45 MW is from solar rooftop power plants. 59.51 MW of capacity is generated through biomass cogeneration power plants; 27.61 MW is generated from bio-gas/biomass/biomass gasification plants; and 73.50 MW capacity from small hydro-based power projects.<sup>1</sup>

### Interventions towards water management

As Haryana continues to face ongoing depletion of groundwater, the Government of Haryana has

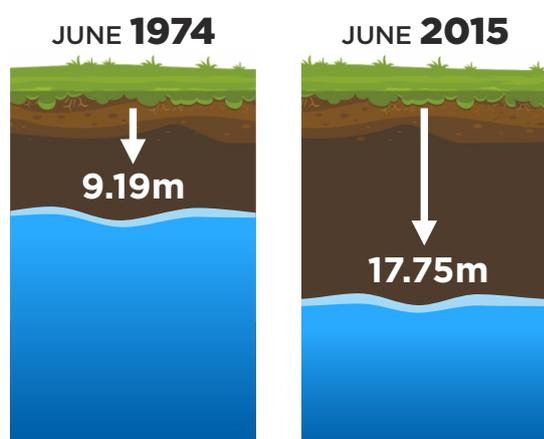
recognized the crucial need to effectively manage existing water resources such that water wastage is minimal and water distribution is equitable. From June 1974 to June 2015, Haryana witnessed a decline of 8.56 m, from 9.19 m to 17.75 m, in its water table.<sup>2</sup> The state presently has 17 dark zones and 13 districts which lack any safe blocks. Within the remaining districts, there are 15 critical blocks, seven semi-critical blocks and only 23 safe blocks.

The Government of Haryana has been working towards recharging ground water supplies by implementing a *compulsory rainwater harvesting system* and promoting crop diversification in an effort to move towards less water-intensive crops. These efforts have resulted in farmers slowly shifting away from regular rice/wheat crop cycles towards the adoption of micro-irrigation techniques. This has lowered the overall reliance on flood irrigation, saving water within the agricultural sector and improving water use techniques. Presently, 6,45,200 hectares of land are using *micro-irrigation for agricultural and horticultural purposes*.<sup>3</sup> A watershed management programme has also been put in place to harvest rainwater for irrigation, plantations, fisheries, pasture development, etc.

### Interventions related to soil and air management

In recognition of 2.5 lakh hectares of soil presently facing a threat of erosion in the state, the Government of Haryana has committed itself to improving soil depletion while building on its existing efforts to reduce the use of pesticides and fertilizers. To this end, the Government of Haryana has introduced Soil Health Cards, which have been issued to farmers to better regulate the amount and type of fertilizers which can be used on their lands. In an effort to curb depleting carbon content within the soil and promote environment-friendly agricultural practices, the burning of wheat stubble and straw residue in fields is monitored closely. These efforts also help to improve the air

**Figure 12.1: Decline in Water Table**



**Source:** Department of Agriculture, Government of Haryana, [agriharyana.nic.in/gwc\\_fluctuations.htm](http://agriharyana.nic.in/gwc_fluctuations.htm)

1. New and Renewable Energy Department, Government of Haryana  
 2. Department of Agriculture, Government of Haryana, [agriharyana.nic.in/gwc\\_fluctuations.htm](http://agriharyana.nic.in/gwc_fluctuations.htm)  
 3. Department of Irrigation and Water Resources, Government of Haryana

quality within the state. The Government of Haryana presently has a strong regulatory framework to improve the quality of air, including the establishment of four ambient air quality monitoring systems within the state to measure pollution levels.

#### Interventions related to natural resources

Presently, Government of Haryana policies aim at generating renewable energy and reducing reliance on carbon-based energy, alongside growing capacity for energy efficiency. Haryana has recently raised its targeted Solar Renewable Purchase Obligation for 2021-2022 from 3% to 8%. This will result in the installation of sufficient capacity to generate an additional 3,200 MW of solar power by 2021. Installation of solar power plants which will bear 3% to 5% of the current connected load and accompanying net metering facilities, is also being made mandatory. Through the grid-based Solar Power Generation Mission, the Government of Haryana anticipates achieving grid parity by 2022 and parity with coal-based thermal power by 2030. Rooftop Power Plants with a capacity to generate 1,600 MW will be installed by 2021.

The state is investing in a number of additional interventions which will further contribute to building a policy framework for renewable energy within the state:

- policies related to off-grid decentralized solar applications;
- development of an Energy Efficiency Programme for energy conservation in agriculture;
- development of an Action Plan for Energy Conservation in industry;
- enactment of a Ground Water Bill to regulate and control the development of ground water;
- inclusion of Roof Top Rain Water Harvesting (RTRWH) in building bylaws.

#### Interventions related to waste management

The Government of Haryana has focused its interventions related to waste management on prevention, recycling and reusing. Increasing industrialization throughout the state has led to a

comparable increase in the amount of waste generated by municipalities and agriculture, as well as at the household level. The Government of Haryana has thus pledged itself to effectively managing waste through various modes of recycling and reuse programmes. Presently, solid waste is being generated at a rate of 4,265 tons per day. Door-to-door solid waste collection is currently in place in 318 out of 1,473 municipal wards. 1,302 solid waste management projects have been started in the state. 88% of Haryana's households have individual household latrines and 1,515 community/public toilets have been built. An additional 4,393 community/public toilet sites have been identified for construction.

Presently, the state lacks solid waste management sites in rural areas; however, solid waste management sites have been constructed in every major city across the state and sewerage lines have been installed in all major cities as well. The state has installed 117 sewage treatment plants (STPs), with a capacity of 1,491.06 million litres per day (MLD) to treat sewage. Through these interventions, the state has pursued a "Cluster Based Approach" to municipal solid waste management. A total of 15 clusters have been proposed, out of which 3 clusters will incorporate waste-to-energy models and the remaining 12 will employ a composting based model.

At present, the state does not have any plans for the management and/or disposal of agricultural waste, beyond the elimination of harmful practices such as stubble burning. The state government has implemented a number of Acts, rules and notifications towards the creation of a regulatory framework which controls waste and pollution generation. These include:

- 1134.24 lakh MT of crop residue in the form of wheat stubble and paddy straw made available for use as a source of carbon credit.
- Installation of a common effluent treatment plant (CETP) in all industrial areas.
- Increasing the state budget towards waste prevention measures.
- Enhancement of landfill sites to better respond to state-wide needs.

- Installation of three co-generation power plants focusing on industrial waste.
- Implementation of the Non-Biodegradable Management Act, 2013, to manage plastic waste in the state.
- Construction of waste-to-energy plants in Gurugram–Faridabad and Sonipat.
- Public-private partnerships to facilitate solid waste management in towns during the Swachh Bharat Mission.
- Construction of nine detailed project reports (DPRs) for integrated solid waste management, sewerage systems and STPs in Bahadurgarh, Charkhi Dadri, Karnal, Yamunanagar, Ambala, Narnaul and Rohtak.
- 85 units have been registered for the recycling and reprocessing of hazardous waste.
- 15 traders have been registered for importing hazardous waste.

#### **Interventions related to sustainable patterns of consumption and production**

As a predominantly agriculture-based state, Haryana produces a significant volume of food grains, pulses, cotton and vegetables. While this has benefited the state in numerous ways, the management of production, transportation and storage of these goods is still minimal and as such, the state suffers losses and wastage due to mismanagement. Consumption of energy, as it relates to production of these goods, has also increased and demands closer management and regulation.

Within agriculture, the Department of Horticulture is presently encouraging a cluster-based approach towards fruit cultivation, recognizing differences in climatic and soil conditions. This has resulted in an increase in area used and fruit produced to grow to 5,54,900 tons in 50,595 hectares for the year 2013–14. At present, horticultural crops cover 4.5 lakh hectares of area, which accounts for 6.94% of the total cropped area of the state. To facilitate marketing of this produce, the Haryana State Agricultural Marketing Board has established 195 purchase centres, 33 cotton markets, 30 fruit and vegetable markets, 25 fodder markets, three fish

markets, two farmers markets, one timber market, one apple market and one wool market.

#### **Interventions related to food grains**

During 2014–15, Haryana's target for total food grains, wheat, rice, oilseeds, pulses and sugarcane production, including rabi and kharif seasons, was 42,689 thousand tons. At present, the state is experiencing a shortage of covered storage facilities used to prevent produce losses during rain and natural calamities. As of December 2015, the Haryana State Warehousing Corporation and other procurement agencies cited a covered storage capacity of 83.59 lakh tons within the state. In an effort to reduce the storage losses, the Government of Haryana is constructing several new covered storage facilities, in order to help meet this need in different locations throughout the state.

In keeping with broader strategies to modernize Haryana's power grid, multiple interventions, such as rebate programmes, subsidies, cogeneration and regulations concerning mandatory installation of environment-friendly technologies have been put in place to lower the agricultural dependence on non-renewable energy. In an effort to more effectively manage agricultural waste, a cluster-based approach to composting plants has been adopted and work has commenced on the construction of plants in Bhuna, Hisar, Bhiwandi, Puhana and Farukhnagar. Strategies towards crop diversification, which is also known to reduce agricultural waste, are being implemented around the state. To this end an area of 71,488 hectares within the state is presently being used for crop diversification techniques.



## **Challenges**

#### **Challenges related to natural resources**

The Government of Haryana has been making strides towards enhancing sustainable consumption of natural resources. In order to continue this progress and magnify the impacts of ongoing interventions, certain existing challenges must be considered and resolved before Haryana is able to meet its targets towards SDG 12.

*Awareness:* At present, lack of awareness has made it difficult for solar-based technology to take root in Haryana. More funds are needed to develop public awareness campaigns to better educate the public on the benefits of using solar-based appliances and to increase energy production in the renewable resources sector.

*Deteriorating soil quality:* Further aggravating the prevailing challenges of soil degradation in Haryana, 40.70 MT of pesticides are currently being used by the agricultural sector, with an adverse impact on soil health in the short run and on human health in the long run.

*Water quality and water wastage:* Water quality too remains an ongoing challenge for the state. Water wastage by all stakeholders, including agriculture, industry, institutions and households, is a significant challenge.

*Monitoring implementation of policies:* While the state has developed an Action Plan to stem runoff water through the use of rain harvesting pits and recharging irrigation wells, implementation of this Action Plan needs more consistent effort. Similarly, compliance within programming towards zero effluent discharge within the industrial sector has been lacking and underground aquifers continue to be threatened by this discharge. Pollutions levels, in terms of water-borne, air-borne and soil-borne pollutants similarly present a significant challenge to progress. Dark zones in Haryana will continue to grow if extensive monitoring systems are not developed to curb this phenomenon.

Air quality too remains a top concern for Haryana. Ambient air quality of cities near the National Capital Region is under significant pressure, while the levels of residual suspended particulate (RSP) matter regularly cross permissible limits. Public transportation faces challenges in reliability and quality, which has resulted in greater reliance on older and private vehicles that tend to generate a higher volume of carbon pollution.

#### **Challenges related to waste management**

Major types of waste include biodegradable waste, chemical waste, brown waste, construction waste, electronic waste, plastic waste, hazardous waste, industrial waste and other waste. Haryana generates about 4,249 tons of municipal solid waste (MSW) per day, which is forecasted to grow to a volume of more than 7,675 tons per day by

2035. A greater effort towards segregating and disposing of waste in an environment-friendly way is needed. Segregation and disposal needs to be considered and implemented at all levels, from households and communities to industries.

#### **Challenges related to consumption and production patterns**

The state has experienced numerous challenges related to storage facilities, adaptation of existing production techniques to climate change and better regulation of non-eco-friendly behavioural patterns. At present, there is a shortage of covered storage facilities in mandis, which leads to spoilage and wastage of food grains during the process of marketing. Greater research in drought-tolerant and pest-resistant crops is required. Lastly, regulations and motivation towards vehicle emission testing is lacking and in those instances where it does exist, it is not properly implemented.

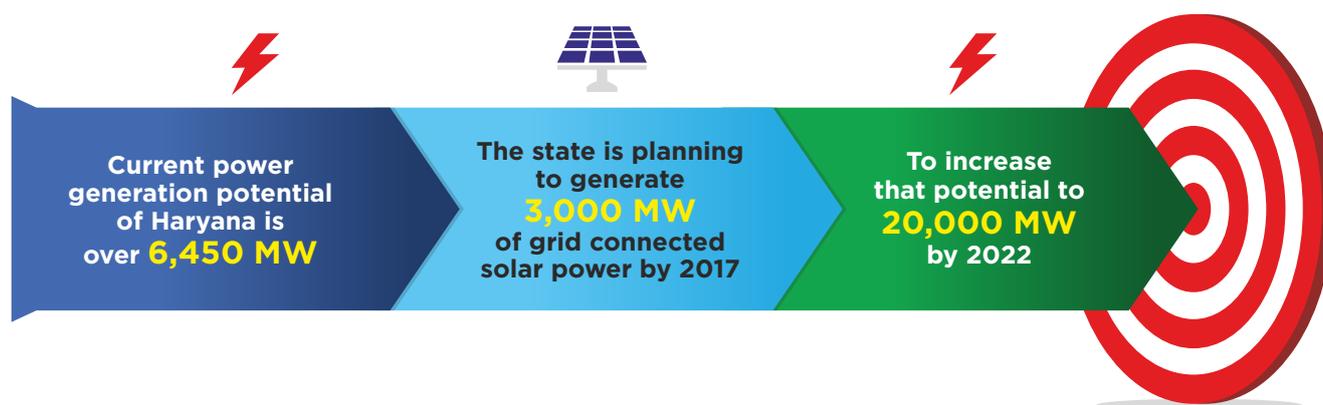
## Strategies for Success

### **Strategies towards protecting natural resources**

As a starting point, the state will invest in more consistent implementation of existing policies, such as the Renewable Energy Policy of Haryana 2005 and the State Solar Power Policy 2016. In this manner, the Government of Haryana will help to build an environment which is conducive to private sector participation in implementing public projects, as they relate to power projects which are based on renewable energy sources. The Government of Haryana will also develop strategies to maximize the power generation capacity within the state and efficiently utilize existing renewable energy sources such as solar, biomass and wind. Haryana has the potential to generate over 6,450 MW through renewable energy sources. The Government of Haryana aims to generate 3,000 MW of grid-connected solar power within the state by 2017 and increase that capacity to 20,000 MW by 2022 (Figure 12.2).

To better manage the sustainable use of water throughout the state, the Government of Haryana is planning to establish a State Water Regulatory Authority, which will provide modelling and analysis of data depicting the impacts of climate change on water resources.

Figure 12.2: Solar Power Scenario in Haryana



**Strategies towards better waste management**

The Government of Haryana is committed to better managing the segregation, collection, transportation and disposal of all kinds of waste at all levels. To this end, it will adopt a cluster-based, participatory approach to waste management and plans to establish Solid Waste Management Sites throughout the state. Moreover, it will establish STPs in all cities and towns, through the mandate of the HUDA and HSIIDC, as well as constructing CETPs in all industrial towns throughout the state.

**Strategies towards sustainable consumption and production**

The state government will consider strategies for better management of food loss, storage capacity, pest management and nutrient management. In this manner, the Government of Haryana will be better placed to link soil, crop, weather and hydrologic factors with Haryana’s existing cultural and conservation practices, as they relate to soil and water. This will allow the state to achieve optimal nutrient use efficiency, yields, crop quality and economic returns, while reducing offsite transport of nutrients, which may cause further deterioration of the environment.

**Targets**

SDG	Activity	2019	2022	2030	Indicator	Data Source
12	Solar Renewable Purchase Obligation	2,000 MW	3,200 MW	5,000 MW	Solar Renewable Energy Purchase Obligation	Haryana Renewable Energy Department (HAREDA), Haryana Power Generation Corporation Ltd (HPGCL)
12	Covered storage capacity for food grains at the micro level	12 lakh ton	22 lakh ton	30 lakh ton	Covered storage capacity at micro level	Haryana State Agricultural Marketing Board (HSAMB), Department of Agriculture, Government of Haryana
12	Waste disposal facility	4,200 ton	5,500 ton	7,000 ton	Waste disposal facility	Urban local bodies
12	Energy use per unit value added by industry	₹57 per unit	₹65 per unit	₹70 per unit	Energy use per unit value added by industry	Department of Industries and Commerce, Government of Haryana
12	Total pesticides (40.70 MT) used in agriculture to be reduced	6.10 MT to be reduced	12.20 MT to be reduced	18.30 MT to be reduced	Total pesticides (40.70 MT) used in agriculture to be reduced	Department of Agriculture, Government of Haryana



SDG **13**  
&  
SDG **14**

# Climate Action and Life below Water

Take urgent action to combat climate change and its impacts; and conserve and sustainably use the oceans, seas and marine resources for sustainable development

## Vision

In consonance with the State Action Plan on Climate Change and SDGs, Haryana will strive to increase the resilience, awareness and adaptive capacity of people, particularly within extra-vulnerable segments of the population.

## Haryana Today

- Climate trends for Haryana have shown a maximum and minimum temperature increase of about 1 to 1.2 degrees Celsius.
- Mean annual rainfall is projected to decrease marginally by about 63 mm (3%) by mid-century and increase by about 347 mm (17%) by end-century.
- Haryana emits nearly 2% of national greenhouse gases (GHGs) while it contributes 2.09% of the country's population as per the Census 2011.

## Focus for Tomorrow

- Integrate climate change interventions in a systematic way across all state government departments.
- Strengthen resilience and adaptive capacity across sectors.
- Raise awareness and education on mitigation, adaptation and resilience in all communities, especially the vulnerable ones.

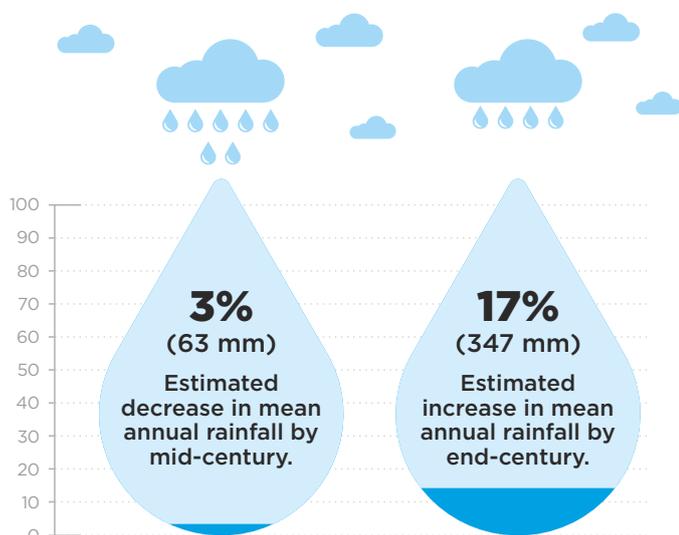
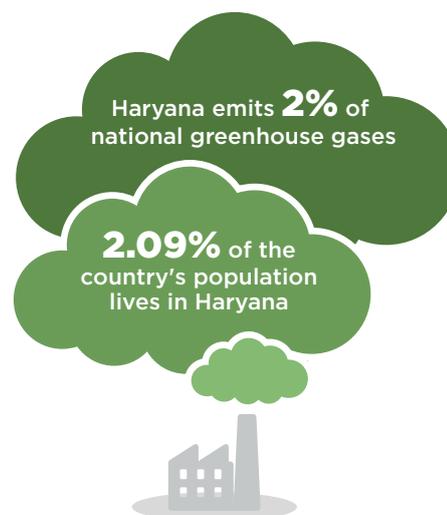
**HARYANA**  
**2030**  
Targets

- ✓ Eliminate stubble burning completely
- ✓ Establish 400 climate smart villages
- ✓ Establish a Knowledge Mission Centre
- ✓ Train 1,500 farmers and other vulnerable communities on the impacts of climate change



## Current Interventions

Haryana has felt the impact of climate change in numerous ways. The state has witnessed an increase of about 1 degree celsius to 1.2 degrees celsius, in maximum and minimum temperatures. Mean annual rainfall is projected to decrease 3% by mid-century and increase 17% by end of the century.<sup>1</sup> Currently, Haryana emits 2% of national greenhouse gases (GHGs). These variations in temperature, erratic rainfall and the emission of GHGs have already had an impact on crop production, ground water and the health of people.



It is a known fact that extreme temperatures (especially heat waves), air and water pollution, can have adverse effects on humans, animals and agricultural produce. In the future, cardiovascular and respiratory problems along with the incidence of major infectious diseases may increase. At the same time, efficiency of livestock may decline, with poorer milk productivity and impaired reproductive functions.

It is estimated that there may be increase of runoff to the stream flow in this century but negligible decrease of groundwater recharge. The impact on plant life will be even more immediate. Of the 14 forested grids in Haryana, four (28.75%) will feel the impact of climate change during 2030.<sup>2</sup> In terms of the hydrological cycle, it is estimated that

there may be increase of runoff to the stream flow in this century but negligible decrease of groundwater recharge.

### Integrated and convergent interventions

Haryana has aligned its State Action Plan on Climate Change (SAPCC) with India's National Action Plan on Climate Change and has developed this plan in consultation with relevant state line departments. Within SAPCC, the Government of Haryana has outlined 43 priority areas of intervention to promote resilience and enhance climate change adaptation, as well as adaptation measures to be implemented in the next five years within the priority areas of action.

Several collective and coordinated measures need to be taken by state departments regarding different interventions for adaptation to climate change at various levels. In addition to the outcomes of SAPCC, the Union Ministry of Environment, Forest and Climate Change has initiated the National Adaptation Fund for Climate Change to support the interventions of various line departments.

### Resilience and adaptability interventions

Apart from broadly building state capacity in order to effectively implement SAPCC, Haryana is moving forward in three areas to develop climate adaptation measures:

- **Agriculture:** Scaling up climate resilient

1. State Action Plan on Climate Change (SAPCC), Haryana, 2011  
2. Ibid.

agricultural practices within 100 *climate smart villages*:

- *Power*: Improving the health and economic conditions of populations living in close proximity of thermal power plants;
- *Irrigation*: Constructing injection wells as a recharging scheme throughout the state.

In order for all 2.5 crore people in the state to have drinking water and to also meet the ever-growing needs and demands of upcoming urban areas and industry, the Government of Haryana has developed an extensive canal network of 14,085 km, consisting of 1,461 channels. In addition to this, the state has established a vast network of drainage, 5,144 km in length, consisting of about 801 drains.<sup>3</sup> These combined efforts have made Haryana one of the leading states in the country in terms of contribution to the national food basket and providing drinking water to 100% villages, in spite of the impacts of climate change and water shortages.

**Interventions to build awareness**

Currently, the Government of Haryana has no specific interventions aimed at increasing awareness about the impact of climate change within Haryana. The growing importance of this facet has, however, been recognized and resulted in the identification of awareness building as one of the key focus areas of the Government of Haryana in Vision 2030.



**Haryana's maximum and minimum temperature has increased by 1 to 1.2 degrees Celsius.**

 **Challenges**

**Challenges to integration and convergence**

The lack of cohesion and convergence across different state agencies in the collection of data which can then be analysed to predict the effects of climate change, is a big stumbling block in the way of systematic integration of disjointed actions being taken as of now.

There is a lack of skilled and knowledgeable human resources who are able to analyse and interpret the different outcomes and impacts of climate change and identify actions or models.

Lastly, awareness about the potential impact of climate change among stakeholders, crucial to the success and sustainability of any intervention, is low.

**Challenges to adaptability and resilience**

Haryana is a state with limited water resources. It receives about 300 mm to 1,100 mm annual precipitation and 40% of its groundwater is brackish. It is heavily dependent on interstate river agreements for freshwater. Therefore, the state faces a gigantic challenge in providing water for irrigation (to support agriculture which is the backbone of the state economy) and drinking water to more than 2.5 crore people besides meeting the ever-growing needs of the upcoming urban areas as well as industry.<sup>4</sup>

Haryana currently struggles with *sustainable agricultural development*. Present agricultural practices within the state call for high consumption of water, fertilizers and pesticides in the fields. The current challenge is to develop new varieties of water aerobic rice, improved biotic stress tolerant Indian mustard and molecular breeding of chickpea for survival in a drought-prone environment. Focus is required to develop heat-tolerant cultivars in wheat breeding programmes, a Soil Health Action Plan, strengthening of interventions to manage pests and weeds and the control of losses in total milk production due to heat stress.

Since the groundwater table needs to be continuously recharged, it is a big challenge to

3. Irrigation and Water Resources Department, Government of Haryana  
 4. Ibid.

ensure *judicious use and uniform distribution of water resources to remove the stress on water systems*, through efficient management, adoption (in the face of strong farmer reluctance) and maintenance of modern water-saving technologies like sprinkler/drip/pressure irrigation/volumetric measurement.

Water quality has deteriorated due to pollution from domestic, industrial and agricultural activities and over-exploitation of groundwater.

Low investment in groundwater and drought management and delays in completion of the Sutlej-Yamuna Link canal and linking of the Bhakra Main Line-Hansi Branch to the Butana Branch Multipurpose Link Channel offer further challenges. Better inter-sectoral and inter-state coordination is required to irrigate the command area.

Heat stress due to either high temperature or the rising temperature-humidity index (THI) has impaired reproductive functions in livestock and altered breeding and birthing seasons. This has had a negative impact on growth and puberty attainment processes of livestock. Crossbreeds (promoted for higher yields) have been found to be more sensitive to rise in THI than indigenous breeds (which have lower yields but greater resilience to local climatic conditions).

### Challenges to building awareness

Awareness levels about climate change mitigation and adaptation in Haryana are low. This is owing to the fact that the state has not focused on generating awareness among cultivators and households about practices and techniques to promote environmental sustainability and mitigate environmental degradation.

IEC material highlighting the impact of water-logging, salinity and the deteriorating quality of water due to pollution from domestic industrial and agricultural activities, as well as over-exploitation of groundwater has not been circulated adequately in the state.

It is a steep challenge to impress upon the general public, the serious impact of climate change and polluting human activities on health, including death due to cardiovascular issues during heat waves and increasing incidence of respiratory distress due to the presence of suspended particulate matter and other aero-allergens in the atmosphere, particularly in the wake of stubble

burning. The residents at large are reluctant to let go of age-old practices and it is a big challenge to affect positive change towards adopting climate change measures in daily life.

## Strategies for Success

### Strategies for integrated and convergent action across sectors

To enhance coordination, a *Strategic Knowledge Mission Centre on Climate Change* will be created for collecting data from various line departments in their respective areas of work. This centre will also operationalize climate interventions across the state. The development of information systems will meet the needs of line departments working with relevant sectors. These systems may be domain-specific to a certain extent, to allow for the management of sector-specific information, but will need to have cross linkages in order to tackle the convergent nature of climate change strategies.

*Convergent action for the key focus areas* within the SDGs will be promoted through the implementation of coordinated activities within the departments of Environment, Forest and Wildlife; Mines and Geology; Fisheries; Irrigation; Revenue, Disaster Management and Consolidation; Tourism; Agriculture and Horticulture. Working together, these departments will implement various programmes aimed at fulfilling these targets. They will:

- commission studies to assess the vulnerability of climate sensitive sectors and opportunities for adaptation;
- conduct biophysical, economic and gender impact assessments and develop policies and programmes to mitigate the impact of climate change, particularly unto extra-vulnerable segments of the population; and
- analyse adaptation policies and programmes and present the results to decision makers.

*Indigenous Regional Climate Models* to generate accurate climate projections up to the district level will be developed.

A detailed *Disaster Management Plan* is being developed and the implementation of a national e-

governance plan for agricultural improvement through soil and water testing facilities to farmers has also commenced.

Additionally, the Government of Haryana will *invest in capacity building* to enhance the technical capacity within relevant departments to develop climate change impact assessments and adaptation capacity monitoring and evaluation mechanisms and fiscally responsible management.

### **Strategies to increase adaptability and resilience**

Optimal usage of water will be promoted through utilization of surplus water, lift irrigation schemes and micro-irrigation projects. The Irrigation Department has identified 11 projects to utilize surplus water from the Yamuna River during the monsoons. It is expected that 4,000 cusecs of water will be made available to the Western Jamuna Canal system during monsoon season after the execution of these projects. As a first step towards realizing the "*har khet ko pani*" vision of the Government of Haryana, a project for improving the capacity of various pump houses and canals of the Jawahar Lal Nehru Lift Irrigation System has been developed. The project will be implemented in a phased manner over the next two years. To encourage micro-irrigation, a pilot project will also be implemented in 13 districts of Haryana next year.

*District Irrigation Plans leading to the creation of the State Irrigation Plan (SIP)* are being worked upon to maximize the development of water sources within the irrigation network, which will enable end-to-end solutions to water shortages through rainwater harvesting, distribution networks and by improving efficiencies within farming technology.

*Rehabilitation of 565 watercourses* throughout the state is being prioritized, in addition to 200 watercourses which are queued for rehabilitation in the coming year. A project utilizing surplus water during the monsoon period to recharge groundwater vis-a-vis 390 injection wells will also be implemented in the next year.

An amount of ₹50 crore will be spent in the next five years to bring in the most appropriate technology to produce real-time data on canals and channels. Under the Jal-Kranti programme launched by the central government, a command area of 1,250 hectares in Ambala District will be developed as a Model Command, where all issues related to water and the agriculture sector shall be addressed holistically.

### **Awareness building strategies**

Government of Haryana will establish numerous *Centres of Excellence* throughout the state, involving universities and the civil society in order to carry out public awareness campaigns to strengthen resilience and adaptation techniques to counter the impact of climate change. Further, it will organize media campaigns, seminars, conferences and workshops which will unpack and localize climate change issues such that they are both relevant to Haryana and accessible to the public.

The Government of Haryana will also create *Climate Change Awareness Centres* in areas which are considered pinnacles of environmental conservation within Haryana, such as national parks, sanctuaries, zoos and other public places.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
13	Eliminate stubble burning	70%	85%	100%	Stubble burning elimination	Haryana State Pollution Control Board, Department of Revenue and Disaster Management, Department of Agriculture and District Rural Development Agencies, Government of Haryana
13	Establish climate smart villages	100	250	400	Establish climate smart villages	Department of Agriculture, Government of Haryana; National Bank for Agriculture and Rural Development
13	Establish Knowledge Mission Centre	1	1	1	Establish Knowledge Mission Centre	Department of Environment, Government of Haryana
13	Awareness generation and training of farming and other vulnerable communities in climate change adaptation and mitigation strategies	500	1,000	1,500	Number of farmers and other vulnerable communities trained in climate change adaptation and mitigation strategies	Department of Environment, Government of Haryana
13	Introduction of micro-irrigation to replace flood Irrigation	1% of total irrigated area	5% of total irrigated area	10% of total irrigated area	Introduction of micro-irrigation to replace flood Irrigation	Irrigation and Water Resources Department, Government of Haryana



## SDG 15 | Life on Land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss.

### Vision

The Government of Haryana will develop and implement adaptation and mitigation measures which address the impact of climate change on forest ecosystems, agriculture, biodiversity, natural resources and future generations.

### Haryana Today

- Haryana is a landlocked state, with 6.65% forest and tree cover. Species composition within the forest is expected to change with the climate.
- Approximately 150 lakh seedlings are planted every year in the state to increase forest and tree cover and mitigate climate change.
- Haryana harbours nearly 450 species of birds, which represent nearly a third of the diversity of avifauna species found throughout India.
- The state has approximately 33,000 hectares of area under a Protected Area Network. This area consists of two national parks, eight wildlife sanctuaries and two conservation reserves.

### Focus for Tomorrow

- Promote sustainable use and management of terrestrial ecosystems.
- Protect land by combating desertification and degradation.
- Enhance biodiversity in the state through preservation of local flora and fauna.

### HARYANA 2030 Targets

- ✓ Declare six new community reserves
- ✓ Develop new participatory management mechanisms for terrestrial ecosystems, built upon the knowledge and involvement of indigenous groups and forest-based communities
- ✓ Increase forest and tree cover across the state to approximately 10%
- ✓ Undertake afforestation on government forest lands, community lands, panchayat lands and private farm lands by planting approximately 150 lakh saplings annually
- ✓ Improve environment in villages by planting grafted fruit plants under the "Har Ghar Hariyali" campaign



## Current Interventions

Haryana comprises 1.4% of India's geographical area, of which 88% is arable.<sup>1</sup> Hence most of the land is under the plough and environmental sustainability has to be ensured within this framework.

### Interventions towards environmental sustainability and management

Government of Haryana has launched several environment related schemes such as the *Mitigating Climate Change and Enhancing Adaptations for Farmers through Agroforestry in Haryana* project and the *Har Ghar Haryali* campaign. Also, districts which are significant for their flora and fauna have been declared community reserves. These initiatives have contributed to protecting the environment and promoting its sustainable use.

### Interventions to combat land degradation

As the notified forest area in the state is limited, there is a thrust on agroforestry to increase the tree cover. Trees bind the top soil and prevent land degradation and thus help to mitigate the effects of climate change. About 150 lakh seedlings are planted every year in the state.<sup>2</sup> Half of these seedlings are planted on institutional lands, panchayat lands, community lands, as well as private farm lands. The rest are planted on government forest lands (block forest lands and strip forest lands along roads, railway lines, canals and bunds, etc.).

Problematic saline, alkaline soils and sand dunes are also being reclaimed to increase tree cover and mitigate climate change. About 3 lakh hectare of land in districts of Panipat, Sonapat, Rohtak, Jhajjar, Bhiwani and Sirsa are waterlogged. Biodrainage plantation is being carried out on such lands by planting clonal eucalyptus plants on ridges constructed along bunds. The Forest Department has been undertaking biodrainage plantation for the last five to six years. Alkaline lands are reclaimed by the planting of suitable plant species

including *prosopis juliflora*, etc. Similarly, afforestation on semi-stabilized sand dunes involves planting suitable plant species, including *acacia tortilis*, *ailanthus excelsa*, etc.<sup>3</sup>

### Interventions for enhancing biodiversity

Approximately 33,000 hectares are notified in Haryana as "protected area networks," which include two national parks, eight wildlife sanctuaries and two conservation reserves, to conserve the diversity of flora and fauna. Haryana contains approximately 450 species of birds, which represent nearly 40% of the diversity of avifauna species found throughout India.<sup>4</sup>

The Government of Haryana has taken steps to protect endangered species such as the vulture, leopard, softshell turtle and flapshell turtle, as well as to improve habitat in conservation reserves in order to better protect and conserve local flora and fauna. Among its interventions, the Government of Haryana has had notable success with the use of camera traps for the census of important wildlife species and presence of new important species, conservation breeding of threatened, vulnerable and endangered species, as well as restoration of habitats.



## Challenges

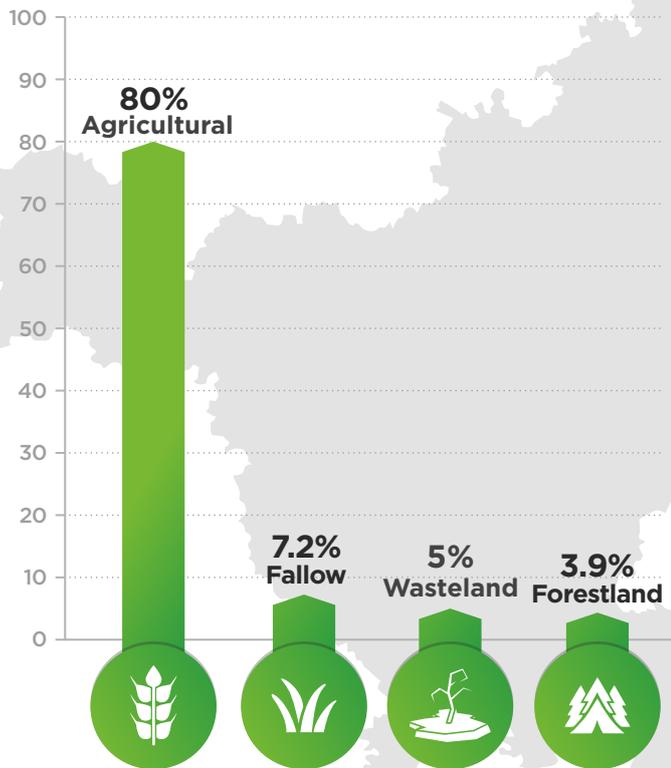
While measures have been taken to protect and conserve the natural environment of Haryana, the Government of Haryana continues to face challenges related to the demands of urban sprawl, industry and agri-growth.

### Challenges to sustainable land management

With over 80% of Haryana's land devoted to agricultural purposes (Figure 15.1), little land is left for afforestation, improving biodiversity, or meeting objectives set out under the National Forest Policy, 1988, which envisages that at least 20% of the gross area of the state will retain tree cover.

1. *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India.  
 2. Conservator of Forests (Planning & MIS), Office of Principal Chief Conservator of Forests (PCCF), Government of Haryana  
 3. *Ibid.*  
 4. Office of Chief Wildlife Warden, Government of Haryana

Figure 15.1: Major Land Use in Haryana



**Sources:**

1. *Census of India 2011*, Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs, Government of India
2. *State of Forest Report 2015*, Forest Survey of India, Ministry of Environment, Forest and Climate Change, Government of India

**Challenges of land degradation**

In the Shiwaliks the rugged terrain and dry summers often translate to a poor success rate for plantations. In the Aravallis, limited rainfall and thin soil cover on rocky hills make reforestation efforts difficult. Afforestation to combat land degradation is therefore difficult in western and southern Haryana where soil pH levels are high and rainfall scanty. The department has been undertaking plantation of species suitable for these regions.

**Challenges to conservation of biodiversity**

The state has made significant targets towards enhancing biodiversity throughout Haryana. The creation of wildlife reserves and parklands, in addition to the preservation and promotion of traditional religious and cultural norms which revere the local flora and fauna, has allowed Haryana to benefit from a rich biodiversity. In spite of these positive markers, conservation and protection of wildlife in the state continues to be a challenge.

 **Strategies for Success**

To help achieve these key focus areas within SDG 15, Haryana plans to implement a framework of activities within the purview of the departments of Environment, Forest and Wildlife, Mines and Geology, Fisheries, Irrigation, Revenue, Disaster Management and Consolidation and Tourism.

**Strategies for sustainable land use and management**

Working together, these departments will implement various programmes, such as constructing small mudwater-harvesting dams for the conservation of soil and water, adopting a watershed treatment approach and the identification of climate resilient species of plants. In an effort to better integrate indigenous knowledge with climate adaptation measures, the Government of Haryana will work towards increasing the involvement of local people in forestry schemes and enhancing the social and economic empowerment of women by engaging women in forestry and environmental conservation efforts. The state will also develop a cross-sectoral Action Plan Regarding Eco Tourism, to celebrate and protect local biodiversity and the ecosystem. The Forest Department is presently working to prepare a detailed project report on the mitigation of climate change and enhancing adaptations for farmers through agroforestry.

**Strategies for combating land degradation**

As part of a growing effort to increase green cover and afforestation, the Government of Haryana has established the *Har Ghar Haryali* scheme, which will see the growth of trees in communities for shade and protection during the summer months. The Government of Haryana is also working towards increasing the number of plantations outside forest areas, introducing fast-growing, high-yielding varieties of plants outside forest areas and standardizing nursery techniques for lesser known species of herbs, shrubs, trees and climbers.

**Strategies for enhancing biodiversity**

Building on these efforts, the Government of Haryana will work towards development of flora and fauna in community forest reserves for the preservation and conservation of endangered species. In Rewari, 2,500 acres of the Kund area are

to be brought under state protection as a community forest reserve.

Simultaneously, the Kund area of Aravallis is also to be brought under protection as a community forest reserve. This area is composed of a continuous stretch of hills and villages. It has particular ecological significance, being rich in biodiversity and home to many species of birds and animals. The Bhood area of these hills also acts as a groundwater recharging zone and the overall

tract is home to many wild animals, birds and floral species.

Certain areas have been selected for rehabilitation and development as Nature Education Centres. Habitation improvement initiatives, such as the deepening of ponds, planting of shade-providing and fruit-producing plants, creation of soil mounds within the water body and filling of the edges with sand for reptiles to oviposit, will also be undertaken.

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
15	Afforestation	150 lakh plants annually			Increase in tree cover	Monitoring and evaluation reports of the Department on Forest, Government of Haryana; Reports of the Forest Survey of India
15	Increase tree cover	8% of gross area	9% of gross area	10% of gross area		
15	Declaration of new community reserves	2	4	6	Improvement in habitat for diverse flora and fauna	Reports of the Wildlife Institute of India/ research studies



## SDG 16

# Peace, Justice and Strong Institutions

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

To create a peaceful, prosperous, inclusive and just Haryana where all forms of violence, exploitation, abuse, trafficking, illicit financial and arms flows, corruption and bribery are reduced. An island of excellence welcoming one and all with open arms. Thus, proactive steps shall be taken by the various stakeholders, in partnership with the residents, in order to create strong institutions for preserving peace and delivering justice to all, especially to the underprivileged.

### Haryana Today

- The 2014 rate of crime against women in Haryana is 73.0 incidents per lakh population, which is 20 points higher than the national average of 56.3. The rate of crime against children in Haryana is 27.4 incidents per lakh population, as compared to national average of 20.1.
- In 2014, Haryana's violent crime rate was 37.0 incidents per lakh population, as compared to national average of 26.6.
- Nearly one in three women who have been married have experienced spousal abuse.
- Haryana Police was able to dispose of 82.6% cases in 2015, whereas the disposal rate of the courts in Haryana was 21.2%, according to the National Crime Records Bureau.

### Focus for Tomorrow

- Significantly reduce all forms of violence (especially against women) and incidence of violent deaths. End abuse, exploitation, trafficking and all forms of violence against children.
- Ensure access to justice for all, especially the disadvantaged and vulnerable sections of society.
- Promote peace in society through prompt, transparent and fair law enforcement and positive interactions between the police and various sections of society.
- Strengthen the Police Department's law enforcement machinery as well as the Prosecution Department.

**HARYANA**  
**2030**  
Targets

- ✓ Haryana will reduce the number of intentional homicides to 2.0 incidents per lakh population by 2030
- ✓ Haryana will reduce the rate of crime against women to 50 incidents per lakh population by 2030
- ✓ Haryana will reduce the rate of crime against children to 16.0 incidents per lakh population by 2030

## Current Interventions

Peace, justice and effective, accountable and inclusive institutions are at the core of sustainable development.

### Reducing violent crime, violent deaths and violence against women<sup>1</sup>

Gender-based violence has critical ramifications for women's mobility and participation in the economy in both urban and rural areas.

According to the National Crime Records Bureau (NCRB), the violent crime rate in 2014 was 37.0 incidents per lakh population within Haryana, as compared to the national average of 26.6. Haryana is counted among the states suffering from a high incidence of violent crimes.

A total of 33,981 intentional homicide cases were registered in 2014 throughout India, of which 1,106 were registered in Haryana.

**Acts which constitute violence against women include:** sexual or physical abuse, psychological violence by an intimate partner, verbal harassment and eve-teasing, child marriage, rape and sexual assault, genital mutilation/cutting, human trafficking, cyber-harassment or bullying, including in the home, at school and in public places.

Preventing violent crimes in communities will begin with effective community education programmes for awareness creation. As a first step, Government of Haryana has made crime against women a zero-tolerance subject and has ensured that all cases of violent crime that involve women are registered and dealt with.

According to NCRB, the 2014 rate of crime against women in **Haryana is 73.0 incidents per lakh population, placing it nearly 20 points higher than the national average**, at 56.3. It is important to recognize that before any progress can be made in women's empowerment, women must first feel safe within Haryana and ensuring that crimes

against women are speedily registered is a step in this direction.

The data provided by NCRB and the National Commission for Women reveals the degree to which women of Haryana are at risk of violence. They routinely suffer violence in all forms, at all stages in their lives, starting with female foeticide. In Haryana approximately 12% of female foetuses are aborted annually, resulting in a skewed gender ratio at birth of 879 females: 1000 males.

Those that survive to girlhood are often under-nourished and under-educated, having to drop out of school, forced to shoulder a disproportionate burden of household chores. Child marriages, early marriages and early pregnancies compound these issues, impeding not only physical growth but also mental, emotional, social and economic well-being. NFHS-4 data shows that during 2015/16, **18.5% of women in the state aged 20-24 years were married before the age of 18**. The state received 242 complaints of child marriages being solemnized, in the same year, out of which only 153 cases have been resolved.

During early married life, young girls and women are vulnerable to domestic abuse in all its forms, including emotional and psychological humiliation, degradation, physical beatings, assault, rape and even murder, all within the four walls of their homes. Currently, within Haryana, nearly **one in three women** who have been married has experienced spousal abuse.<sup>2</sup>

Recognizing the importance of raising the safety and security of women and girls throughout Haryana, the Government of Haryana has established many programmes and incentives to improve the conditions of women. Initiatives like Beti Bachao Beti Padhao, SABLA, LADLI were introduced in the state to promote the idea of women's empowerment within the culture. However, policies to improve the status of women will only work when the mindsets of people change. Efforts need to be both continuous and

1. Data in this section, unless mentioned otherwise, has been sourced from the database of the National Crime Records Bureau.  
2. National Family Health Survey, Round 4, 2014-15

consistent across all sectors, building areas to facilitate women's empowerment and putting women in decision-making positions.

To address this issue, the Haryana Police has taken the unique initiative of setting up 22 police stations that are entirely staffed by women police personnel and are dedicated to crimes against women. It is also deploying police control room (PCR) vehicles staffed by women police personnel in each district to specifically deal with crimes against women in a prompt, effective and sensitive manner.

### **Abuse, exploitation and trafficking of children**

Living a life without violence is the right of all children and is essential to their development. Protecting children from violence is an explicit obligation set out in the United Nations Convention on the Rights of the Child (CRC) and its optional protocols. Violence against children can have a devastating long-term impact on the well-being of girls and boys. Studies show that victims of violence are also more likely to become future perpetrators, establishing a cycle of violence.

At present, there are **27.4 incidents of crime against children in Haryana per lakh population, as compared to the national average of 20.1**. To improve the safety and security of children within the state, the Government of Haryana has constituted a State Commission for Protection of Child Rights (SCPCR). In addition to this, Operation Smile was launched in 2015 to trace missing children and has since helped rescue many children from slavery, abuse and bonded labour. Police officers have also been trained specifically on trafficking of child brides and legal provisions for the protection of children, including Protection of Children from Sexual Offences Act (POCSO Act), 2012 Juvenile Justice (Care and Protection of Children) Act, 2015 and Commission for Protection of Child Rights (CPCR), 2005 and various advisories issued by Supreme Court and Ministry of Home Affairs.

The Government of Haryana has created special juvenile units in each district and posted officers in each police station to cater to the unique and sensitive needs of young people. Further, the Government of Haryana has launched the Beti

Bachao Beti Padhao programme in which Haryana's police department is proactively working with the Health Department to end the menace of female foeticide.

### **Promote the rule of law at the state level and ensure equal access to justice for all**

Improving legal rights and imposing the rule of law creates positive synergies with all other development activities by creating a foundation of institutional transparency, good governance and a corruption-free ethos. Within India, a reliable metric for the rule of law is the percentage of pre-trial detainees in prisons. According to NCRB data, the percentage of pre-trial detainees to the total prison population nationally was 67.6% in 2014. In Haryana, this figure in the same year was 59.7%.

The excessive length of under-trial detentions has been the subject of much judicial, media and civil society scrutiny. To that end, Section 436A was introduced to the Code of Criminal Procedure (CrPC) in 2005 in order to stem the volume of under-trial detainees within the detention system and put in place regulations to mandatorily release on bail any under-trials who have already served half the period of their sentence if convicted. The success of this amendment to the CrPC was noted by both civil society groups and the Supreme Court. At the state level, it is unclear what the current state of under-trials is and there are no state-specific schemes in place which seek to address this issue.

The Government of Haryana has sought to generate equal access to justice by targeting assistance within police stations towards specific vulnerable groups. For example, nodal officers have been appointed to deal with issues pertaining to SCs/STs in each district. Special officers have been posted in each police station for addressing matters pertaining to SCs/STs in a prompt, effective and sensitive manner. Further, in many districts, dedicated cells have been set up for senior citizens needing police assistance.

Overall, the Government of Haryana is committed to the belief that no principle is more essential to a well-functioning democratic society than equal access to justice. While the law increasingly permeates every aspect of our lives, not all

members of society enjoy full access to the institutions through which the law is administered, interpreted, applied and enforced.

Haryana State Legal Services Authority (HLSA) is working to enhance equal access to justice for the poor, disadvantaged or otherwise marginalized members of society by implementing various Legal Aid Schemes and Legal Services Programmes in accordance with the objectives of the Legal Services Authorities Act, 1987 and the Regulations, Schemes and Instructions of National Legal Services Authority. HLSA was established to this end, with the motto of access to justice for all, which is sine qua non for rule of law in any society. The mandate of HLSA is to provide legal aid to the poorest of the poor, the marginalized sections of society, the deprived and the indigent women and children, in addition to providing an alternate dispute redressal mechanism for settling disputes through the route of Lok Adalats under the Legal Services Authority Act, 1987. HLSA performs the following activities to help ensure equality and access to justice throughout the state:

- Provision of legal aid;
- Education and awareness of legal literacy;
- Organization of Lok Adalats;
- Mediation; and,
- Implementation of the Victim Compensation Scheme.

HLSA has a network of 21 District Legal Services Authorities and 33 Sub-Divisional Legal Services Authorities in the State. The District Legal Services Authorities also administer the permanent Lok Adalats for settlement of disputes related to public utilities.

### Prompt, transparent and fair law enforcement

The Haryana Police has made significant gains in the recent past in enforcing the rule of law in a prompt, transparent and fair manner despite several obstacles and constraints. It was able to dispose of 82.6% cases in 2015, whereas the disposal rate of the courts in Haryana was 21.2%, as per NCRB (Figure 16.1).

Further, the Haryana Police is proactively promoting constructive and positive interactions between the police and various sections of the society in which the community members are advised and encouraged to live in peace as well as to resolve their differences through peaceful and lawful means, rather than through crime. In this regard, each police officer in the field such as the Superintendent and Deputy Superintendent of Police and the Station House Officer is required to personally hold 36 community connect programmes each per year. A total of **972 community liaison groups** have been set up across the state for promoting peace and tranquility.<sup>3</sup>

In order to enhance transparency and fairness in the system as well as to bolster public confidence in the law enforcement machinery, the Haryana Police has started the Know Your Case/Complaint (KYC) initiative in which residents are invited every month to visit police stations and police officers to know the latest status of their cases or complaints.

Also, the Haryana Police lays special emphasis on proper and timely disposal of complaints received through **CM Window and Har Samay Portals**. As on 10 January 2017, a total of 51,530 complaints were received on the CM Window Portal out of which 48,047 complaints have already been properly disposed of.<sup>4</sup> Similarly, a total of 1,05,811 complaints were received on the Har Samay Portal, out of which 1,03,513 complaints have already been properly disposed of.<sup>5</sup> This is in addition to various services being provided through the said portal

**Figure 16.1: Status of Court Cases in Haryana**

	Year	Opening balance	Institution	Disposal	Closing
High Court	2015	2,79,699	1,28,620	1,19,968	2,88,351
High Court	2016 w.e.f. 1 January 2016 to 29 February 2016	2,88,351	20,910	24,515	2,84,746
District Courts	2015	4,93,768	5,72,953	5,42,440	5,24,281

Source: Administration of Justice Department, Government of Haryana

3. Data provided by the Administration of Justice Department, Government of Haryana

4. Data provided by the Chief Minister's Office, Government of Haryana

5. Data provided by the Police Department, Government of Haryana

such as Right to Information applications and lost property registration. The satisfaction level of the residents in this regard is quite high.

Though Haryana has a sturdy three-tier justice system in place, timely justice to litigants remains a far cry, with the arrears of criminal and civil cases increasing by the day. This has led to delays in justice, corruption at various levels in the administration of justice and overcrowding of jails. At present, the Government of Haryana has the capacity to house 18,096 prisoners. As against this sanctioned strength, the actual strength of prisoners in the jail is 17,964.<sup>6</sup> There is an urgent need for prison reforms in the state so as to avoid overcrowding of jails and the provision of a humane environment for the prisoners so that they can be integrated with mainstream society in the long run.

#### **Strengthening the machinery of the law**

There are 296 police stations in Haryana, including 22 police stations for women, staffed by women and 22 traffic police stations. Additional police stations are currently being developed in order to ensure that everyone has easy access to law enforcement officers and no one in need of police assistance is left out or left behind.

Concerted efforts are being made by the Haryana Police Department towards strengthening its law enforcement machinery. Technology is being leveraged to prevent and detect crimes, as well as for the prosecution of offenders. Several cybercrime analysis and forensics branches have been set up, in addition to a Forensic Science Laboratory, which is being equipped with state-of-the-art technologies. Further to this, police station records are being computerized and integrated through the ambitious Crime and Criminal Tracking Networks and Systems (CCTNS) project, in addition to the procurement of modern vehicles and weapons.

The recruitment of well-qualified personnel is underway and quality training is being imparted to the serving police personnel in order to hone and sharpen their law enforcement and public dealing skills. In view of the burgeoning population and

growing economic prosperity, proposals have been tabled for setting up more police stations in order to effectively cover newly populated pockets and poorly serviced areas.

The process of recruiting additional manpower is also underway. Specialized modules have been put in place for imparting specialized training to the police personnel keeping in view the policing needs of the 21st century. The Haryana Police Academy at Madhuban is the hub of these training activities. For the augmentation of vehicular fleet, recently, state-of-the-art Scorpio vehicles were included in the fleet of Haryana Police's PCR vehicles. The process of procuring other much-needed vehicles is also underway.

It is axiomatic that delay at all levels breeds corruption and mounting arrears of court cases are a big roadblock in the way of speedy, transparent and corruption-free administration of justice. In order to bring about a measure of transparency in the administration of justice, the Government of Haryana has taken following measures:

- **E-courts:** Under this initiative, launched by the Government of India, the Government of Haryana has provided 1+3 desktops/all-in-one computers for all the presiding officers and the staff of approximately 460 Subordinate Courts in the state of Haryana.<sup>7</sup> Besides these, about 452 courts have been provided with duplex/multifunctional printers, display boards and monitors and VGA splitters for displaying the daily cause list online.<sup>8</sup>
- **New legislation:** In order to bring about transparency in the engagement of law officers in the Advocate General's office, the Haryana Law Officers (Engagement) Act, 2016 and the Haryana Law Officers (Engagement) Rules, 2016, were enacted after being duly approved by the State Assembly and the Cabinet. These Acts provide objective criteria for the eligibility of such law officers so that only competent people are shortlisted.
- **Court Cases Monitoring System:** CCMS is a generic software which has been developed by the National Informatics Centre. It is being used

6. Data provided by Haryana Prisons Department, [http://www.haryanaprison.gov.in/present\\_population.pdf](http://www.haryanaprison.gov.in/present_population.pdf)

7. Data provided by the Administration of Justice Department, Government of Haryana

8. Ibid.

for the monitoring of all court cases/contempt matters/status of court cases/writ petitions, etc. As the Government of Haryana is presently the biggest litigant, this software will help the administrative secretaries and department heads in monitoring the cases pertaining to their departments. This will help reduce corruption and increase efficiency in the government.

- ***Litigation policy:*** There is a need for state policy to avoid vexatious litigation and settle petty matters through alternate dispute resolution. For this purpose, the Haryana State Litigation Policy, 2010 was established. The Department of Administration of Justice has prepared a draft Haryana State Litigation Policy, 2015, which envisages a three-tier system—Apex level (Chief Secretary’s Office), Department level (Head of Department) and District level (committee headed by the District Commissioner)—for the redressal of grievances and to weed out vexatious litigations.



## Challenges

### Reducing violent crime, violent deaths and violence against women

While Haryana celebrates the success and glory of its women athletes winning medals, the majority of its women continue to be victims of various forms of crimes, a trend which unquestionably reveals the deeply worrying status of girls and women in the state. There are multiple reasons for crimes against women in Haryana, though most fall within two broad brackets.

Primarily, **socio-cultural norms** have long since systemically favoured men over women in a deep-seated and far-reaching way, which has resulted in a number of gender-biased phenomena such as a persistently low sex ratio, continued preference for sons, early and forced marriages of girls, poor enforcement and implementation of development programming related to females and lack of education of the girl child. These phenomena are not only outcomes or symptoms of a systemic preference for men, but also serve to perpetuate further physical and psychological subjugation of

women all through their lives, including sexual harassment, rape and gender-based violence.

Furthermore, the law enforcement personnel, especially men, need targeted efforts to overcome their lack of awareness, sensitivity and capacity to handle complaints and investigate cases related to violence and crime against women. The Government of Haryana has taken measures to protect women and enhance their safety, for example, **by opening police stations run by women in all 22 districts of the state.** While this effort has the potential to create a significant positive impact, there needs to be a focus on addressing the foundation of this issue by creating awareness within society and by also sensitizing both male and female police officers on how to handle complaints and investigate cases related to violence and crime against women. This will help women to access all police stations and not just look for police stations run by women.

### Abuse, exploitation and trafficking of children

Haryana is amongst the worst performing Indian states with regard to child sex ratio. In 2011, the census reported that the state has 846 girls per 1,000 boys. In fact, the most vulnerable groups in Haryana are women, children and female foetuses. Foeticide is unfortunately not specific to one area in Haryana and persists across the rural-urban divide. Determination of foetal gender and selective abortion is in fact higher in urban than in rural areas where technology is easier to access. This fact points to the need for a more comprehensive campaign against foeticide. Even beyond the issues of foeticide, the girl child is more vulnerable to the risk of trafficking for the purpose of child marriage. As a consequence of the low sex ratio in the state, Haryana reported the highest rate of procurement of minor girls from across the country in 2013 and was one of the six states which reported cases of girls being purchased for forced sex work.

### Promote the rule of law at the state level and ensure equal access to justice for all

Currently, Section 436A only serves to protect rights in cases where it can be shown that the under-trial detention is for an excessively long period or is unfairly targeting a person from a poor

or marginalized community. However, this does not adequately address the core problem that needs to be focused on—that is, a low conviction rate. If the conviction rate improves, then the proportion of under-trials will drop.

### **Strengthening the machinery of the law**

In order to create a safe and secure environment for all residents it is important to invest in modernizing the police force and also recruit more trained personnel. Haryana faces the challenge of acute shortage of staff, in terms of both quality and quantity, in the police force as well as in Forensics Science Laboratories. There is also a shortage of state-of-the-art vehicles, including bullet-proof personnel carriers and state-of-the-art equipment and weapons.

The number of police stations is inadequate, especially in view of the burgeoning population and police recruitment is also constrained. This is not helped by shortage of facilities like police housing, etc., which lead to new talent looking away from a policing career.

## **Strategies for Success**

Overall, the Government of Haryana is working towards building strategies which address these challenges. Interventions will be developed by the Government of Haryana which integrate reform, strengthen existing regulatory and policy frameworks and establish a comprehensive e-governance policy.

The 2030 vision of the department is to strengthen the alternate dispute redressal mechanisms up to the GP level by creating Gram Nyayalayas and opening mediation/conciliation centres at the block/tehsil level in the state. In addition to this, the Government of Haryana will seek to digitize old records and place court orders and judgements online.

While steps are already being taken to effectively meet these challenges, the Government of Haryana may require dedicated nodal officers, as well as teams of competent and specialized personnel, to meet needs regarding the recruitment of personnel and procurement of

vehicles, equipment, weapons, as well as for the sanctioning and establishment of new police stations and police posts. In this regard, better convergence of services from the Home, Police and Finance Departments will be pursued. In addition to these overarching efforts, the Government of Haryana will take the following steps to enhance access to and the delivery of justice system mechanisms:

1. Make an increased effort to reach the most unserved sections of Haryana and provide quality policing services to them by attracting and retaining quality manpower.
2. Increase the level of participation of women in the police force in order to make it more inclusive, representative and sensitive.
3. Enhance public satisfaction levels vis-a-vis the level of peace and justice.
4. Ensure quicker investigation of cases and prosecution of offenders.

In order to provide humane treatment to prisoners and avoid overcrowding in jails two new jails are being made in Panipat and Rewari, with an authorized capacity of 1,000 inmates, the work on which shall be completed by March 2018. Additional barracks will be constructed at district jails in Sirsa, Jind, Bhiwani, Narnaul, Rohtak and at Central Jail-II Hissar. New district jails at Panchkula, Fatehabad, Palwal and Mewat are also proposed to be completed in the next two years. It is proposed to establish open-air jails at District Jail Karnal and Central Jail Ambala and then extend this to all other jails in due course.

In order to make jails crime and drug free, installing effective security equipment like jammers, providing vocational skills to all prisoners and providing legal services to the prisoners free of cost through legal aid clinics, are high on the agenda of the government.

Ensuring peace, justice and strong institutions in the state of Haryana requires a multi-pronged strategy and multi-institutional efforts. Socially conscious and well established companies, NGOs and institutions can be valuable partners in these efforts to make residents more aware of their rights, as well as for shepherding particularly those

from vulnerable communities through the legal process for obtaining justice. These partners in development can also provide high-end technological solutions to the police department, which will not only act as force multipliers but shall

also enhance the level of professionalism in the police force. Acting together with the community, these efforts will significantly contribute towards achieving the SDGs

## Targets

SDG	Activity	2019	2022	2030	Indicator	Data Source
16	Increase number of police stations	350	400	500	Number of police stations setup	Haryana Police
16	Increase presence of women in the police force	10%	14%	20%	Percentage of women in the police force	Haryana Police
16	Increase public satisfaction	65%	70%	75%	Percentage of public satisfaction	Haryana Police
16	Enhance police housing	25%	30%	35%	Percentage of police housing satisfaction	Haryana Police
16	Lower the cases demanding investigation	17%	16%	15%	Percentage of under investigation cases	Haryana Police



SDG 17

# Partnerships for the Goals

Strengthen the means of implementation and revitalize the global partnership for sustainable development

## Vision

The Government of Haryana will strive to reduce fiscal and revenue deficits and increase capital expenditure, while aligning social sector spending with Haryana's Vision 2030.

### Haryana Today

- State debt liability is estimated to be ₹1,15,904 crore in 2017-18 and ₹1,41,854 with the UDAY Scheme.<sup>1</sup>
- The revenue deficit as a percentage of GSDP is estimated to be 1.33% in 2016-17 (revised estimates or RE) and with the UDAY Scheme it should be 1.80% as per budget estimates (BE) for 2017-18.
- Presently, fiscal deficit as a percentage of GSDP at 2.61% in 2017-18 (BE) is being maintained within the limit of 3% of GSDP, as prescribed by the 14th Finance Commission. With UDAY this ratio will move up to 2.84% in 2017-18 (BE).

### Focus for Tomorrow

- Reduce fiscal and revenue deficits at the state level.
- Increase services, programmes and infrastructure by increasing capital expenditure.
- Address new and growing demands on capital expenditure, including new targets brought about through the SDGs.

All data presented in this section has been sourced from the Department of Economic & Statistical Analysis (DESA), Government of Haryana, the Central Statistics Office (CSO), Government of India and the Budget Document, Government of Haryana, 2017-18.

1. Ujwal DISCOM Assurance Yojana (UDAY) is the financial turnaround and revival package for electricity distribution companies of India (DISCOMs) initiated by the Government of India with to find a permanent solution to the financial mess that power distribution is in. It allows state governments, which own the DISCOMs, to take over 75% of their debt as of 30 September 2015 and pay back lenders by selling bonds. DISCOMs are expected to issue bonds for the remaining 25% of their debt.



## Current Interventions

At present, Haryana is burdened by debt, which has contributed to both fiscal and revenue deficit. As a result of these deficits, only a limited budget is available for capital expenditure—the primary source of state-based resources dedicated to infrastructure, social programming, and development interventions.<sup>2</sup> Inadequate capital expenditure has hampered the ability of the state to invest further in development projects, impeding the growth and scope of existing efforts, while stunting any possibility for new interventions.

Bearing this in mind, the Government of Haryana has chosen to focus its SDG 17 strategy on three areas: primarily, the reduction of fiscal and revenue deficits, which will lower existing pressures on the state's budget; second, increasing the share of capital expenditures, such that additional resources are available to fund infrastructural development and meet the existing demands for social system programming within the state; and lastly, develop new means of financing development initiatives to better align existing efforts with the targets outlined in Haryana's Vision 2030.

### Reduce fiscal and revenue deficits at the state level

There is one major factor contributing to state fiscal and revenue deficits—the *Ujwal DISCOM Assurance Yojana or the UDAY* Scheme. Though UDAY has promoted development in Haryana significantly, it has also led the state to incur notable deficits. Haryana enjoyed a revenue surplus from 2005 to 2008, after which a revenue deficit set in, which increased year on year except for marginal declines in 2011-12 and 2013-14. Since the implementation of the UDAY scheme, this deficit has grown. Overall, this has reduced the ability of the Government of Haryana to fund schemes, infrastructure and finance development initiatives.

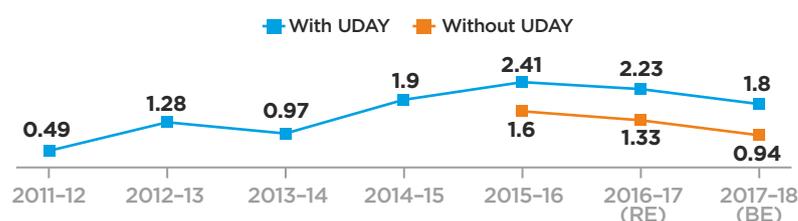
*Ujwal DISCOM Assurance Yojana (UDAY)*: A scheme for the financial turnaround of power distribution companies (DISCOMs) was approved by the Government of India to improve the

operational and financial efficiency of the state-owned DISCOMs. For the purposes of this scheme, DISCOMs were considered to include combined generation, transmission and distribution undertakings. Through this scheme, participating states undertake to achieve operational and financial turnaround of DISCOMs with specific measures, as outlined by the Union Ministry of Power. Under UDAY, states were required to take over 75% of DISCOM debt over a period of two years, beginning on 30 September 2015. In 2015-2016, 50% of DISCOM debt was to be taken over and 25% in 2016-17.

As per UDAY, out of a total debt of ₹34,600 crore, 75% (that is ₹25,950 crore) was to be taken over by the state in two years. This debt will ultimately increase the debt stock of the state government. However, as per Government of India schemes, debts taken over by the state government and borrowings under this scheme would not be counted against the fiscal deficit limit in the financial years 2015-16 and 2016-17.

*Revenue deficit*: The excess of revenue expenditure over revenue receipts is defined as a revenue deficit, while an excess of revenue receipts over revenue expenditure is defined as a revenue surplus. A revenue deficit implies that the state government does not have sufficient funds to meet its committed expenditures and the gap is met through borrowings and accordingly, fewer funds are available for productive and capital expenditure. Presently in Haryana, the revenue deficit as a percentage of the GSDP is estimated to be 1.33% in 2016-17 (RE) and 0.94% in 2017-18 (BE). With UDAY, the revenue deficit as a percentage of GSDP is estimated to be about 2.23% in 2016-17 (RE) and 1.80% in 2017-18 (BE) (Figure 17.1).

**Figure 17.1: Revenue Deficit as a Percentage of GSDP**

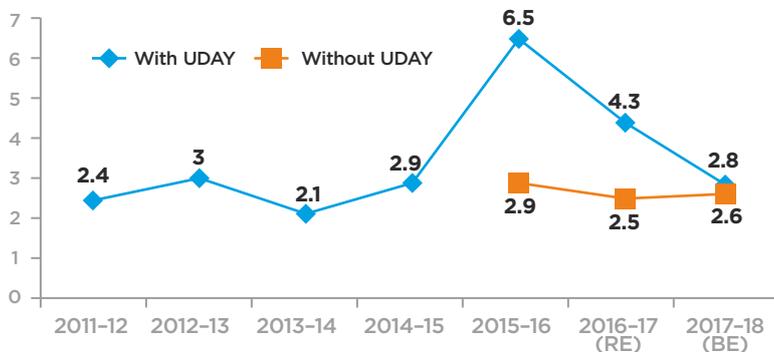


2. All expenditure that goes towards operation and maintenance, committed salary expenditure and does not create any assets is called revenue expenditure and all expenditure that creates long term assets is called capital expenditure.

**Fiscal deficit:** Fiscal deficit means excess of the total disbursements from the consolidated fund of the state (excluding repayment of debt) over total receipts into the consolidated fund excluding the debt receipts during a financial year. Declining fiscal deficit signifies a consolidation of the resource position and sustainable functioning of the government. Fiscal deficit is usually financed through borrowings by the state.

Currently in Haryana, there is a slightly increasing trend in the fiscal deficit. Fiscal deficit as a percentage of GSDP is estimated to be 2.49% in 2016-17 (RE) and 2.61% in 2017-18 (BE), which is within the limit of 3.00% of GSDP recommended by the 14th Finance Commission. This is an indication of disciplined financial management. With UDAY these ratios are 4.27% in 2016-17 (RE) and 2.84% in 2017-18 (BE) (Figure 17.2).

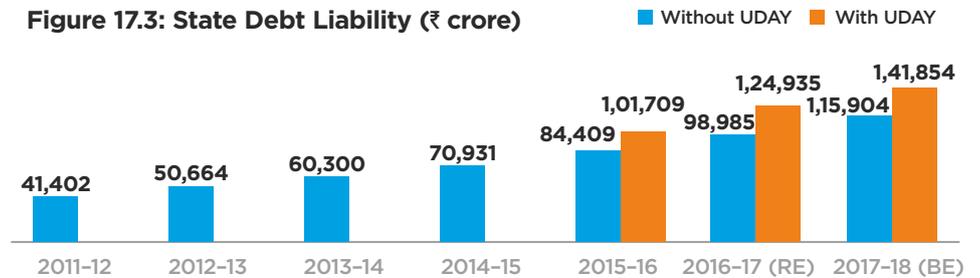
**Figure 17.2 Fiscal Deficit as a Percentage to GSDP**



**Debts of the state:** If borrowed funds and/or debt are used for public investment in basic economic infrastructure, it catalyses economic activity and creates large positive externalities both in terms of inducing related private investment as well as enlarging the state's tax base. But the trend of borrowing to finance present consumption represented by non-plan revenue expenditure is unsustainable in the long term as it does not produce future streams of income and still needs to be repaid. This is not a healthy sign for finances in the state.

The state debt liability in Haryana was ₹41,402 crore in 2011-12, which increased to ₹70,931 crore in 2014-15. In 2016-17, the state debt liability was estimated at ₹98,985 crore and as per budget estimates it is projected to be ₹1,15,904 crore in

**Figure 17.3: State Debt Liability (₹ crore)**



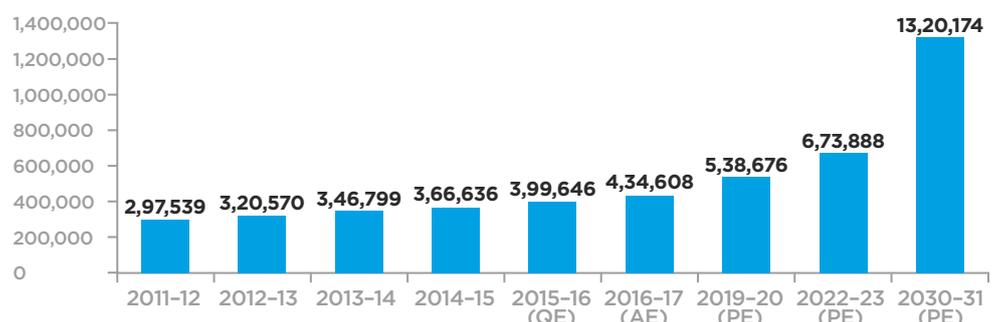
2017-18. With UDAY, total debt in 2016-17 (RE) is ₹1,24,935 crore and ₹1,41,854 crore in 2017-18 (BE) (Figure 17.3).

The ratio of state debt to GSDP, which was 13.91% in 2011-12, increased to 14.60% in 2012-13. This ratio has increased to 16.21% in 2014-15. In 2016-17 (RE), the ratio is 18.08% and it is 18.74% in 2017-18 (BE). With UDAY, the outstanding debt as a percentage of GSDP is 22.82% in 2016-17 (RE) and 22.93% in 2017-18 (BE), which is within the limit of 25.0% prescribed by the 14th Finance Commission.

**Increase services, programmes and infrastructure by increasing capital expenditure**

**Overview of the economy:** During 2015-16, the GSDP of Haryana was ₹3,99,646 crore and recorded a growth of 9.0% at constant (2011-12) prices. During 2016-17, as per advance estimates (AE), the GSDP is expected to reach ₹4,34,608 crore, growing at 8.7% at constant (2011-12) prices (Figure 17.4). The growth of the GSDP, recorded at 9.0% and 8.7% in 2015-16 and 2016-17, respectively, is faster as compared to the India's growth rate of 7.9% and 7.1% during these

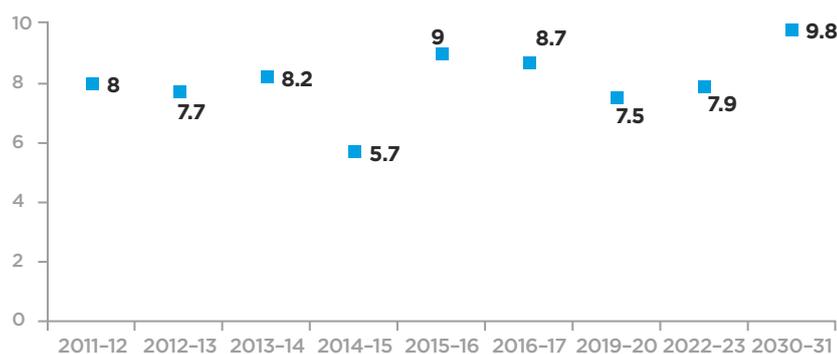
**Figure 17.4: GSDP of Haryana at Constant (2011-12) Prices (₹ crore)**



years (Figure 17.5). This growth sets the tone for state revenues, deficits and overall budgeting. Higher growth rates will contribute to higher state capacity for infrastructural, development and social system programming.

Bearing this in mind, the state government is making concrete efforts to speed up growth in different industries of the economy. Significant efforts are being made toward the development of infrastructure for irrigation, power, roads, transport and a special economic stimulus package. The agriculture and allied activities sector has also been given due priority. The Government of Haryana presently focuses its

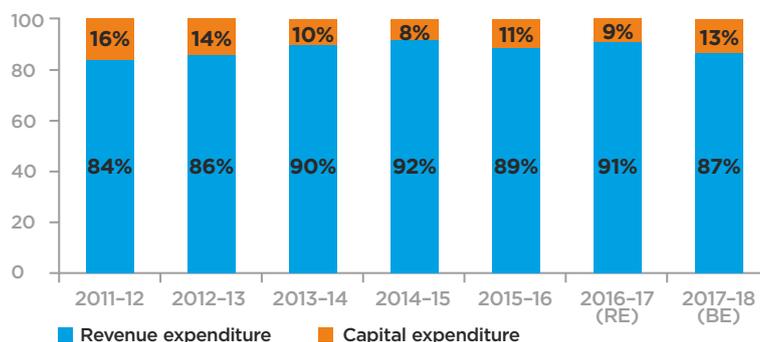
**Figure 17.5: Growth% in GSDP of Haryana at Constant (2011-12) Prices (2011-12 to 2030-31)**



initiatives on improving the ease of doing business through simplification of procedures, minimizing of waiting periods, improvement of business environments and introduction of IT systems to make governance more efficient and effective.

**Revenue and capital expenditure:** In addition to these broader strategies, the Government of Haryana is striving to enhance current development efforts in the state by increasing its available capital expenditure. The most fundamental classification of government expenditure is revenue and capital expenditure. The purpose of capital expenditure is to enhance the capacity of the economy to produce goods and services through public investment in infrastructure like roads, bridges, power generation and distribution capacity, irrigation networks, transport, sewerage, water supply, education, health, sports facilities, etc. In fact, capital outlay must increase constantly in order to meet the

**Figure 17.6: Share% of Revenue Expenditure and Capital Expenditure in State Expenditure (2011-12 to 2017-18)**



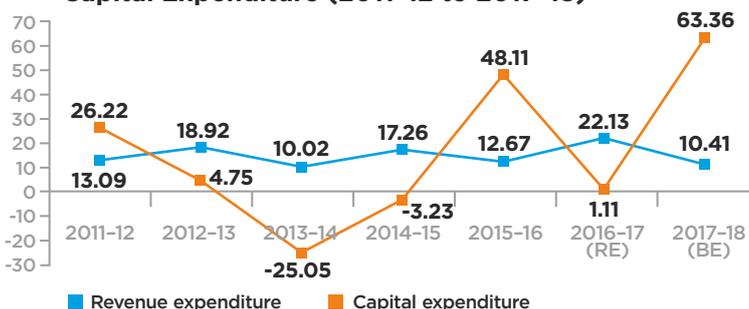
emerging infrastructural needs of a growing state like Haryana.

During the current fiscal year of 2017-18, the revenue expenditure has been estimated at ₹74,627 crore and ₹11,151 crore on capital expenditure, in the proportion of 87:13, respectively. In the same period, the growth rate of revenue expenditure has been estimated at 10.41% and 63.36% in case of capital expenditure. Figures 17.6 and 17.7 present the share and growth, respectively, of revenue and capital expenditure in 2011-12 to 2016-17.

For a developing economy like Haryana, capital formation is essential. Considerable economic growth can be achieved by concentrating on infrastructural development. The growth rate of capital expenditure was 46% during the year 2006-07. The growth in 2017-18 (BE) is estimated at 63.36% over 2016-17 (RE). The proportionate allocation of revenue and capital was around 90:10 during the period 2011-12 to 2017-18. Revenues must be raised to meet the growing demand for programming, which will need to be facilitated through capital expenditure.

During the period 2011-12 to 2017-18, the allocation

**Figure 17.7: Growth % of Revenue Expenditure and Capital Expenditure (2011-12 to 2017-18)**



of revenue expenditure has increased from ₹32,015 crore to ₹74,627 crore, while capital expenditure increased from ₹5,999 crore to ₹11,151 crore.

**Address new and growing demands on capital expenditure, including new targets brought about through the SDGs**

In order to finance the SDGs, the development budgets will need to increase substantially. This is particularly true in Haryana, where the Vision 2030 has been aligned with the SDGs. Accordingly, in order to meet the state’s own targets and also to implement long-term programming in a sustainable manner, the state must consider where and how it can maximize existing resources while also augmenting these resources through new funding avenues.

Revenue receipts: One of these funding avenues could be the increase of total revenues received by the state. The total revenue receipts (TRR) include the state’s own tax and non-tax revenues, grants-in-aid and share of central taxes from the Government of India. The tax revenue of the state, which was budgeted at ₹40,199.51 crore in 2016-17 (BE), is estimated to have decreased to ₹37,841.91 crore as per 2016-17 (RE). In 2017-18 (BE), the tax revenue likely to accrue at ₹43,339.74 crore, shows an increase of 7.81% over 2016-17 (BE). The non-tax revenue of the state was budgeted at ₹8,308.45 crore in 2016-17 (BE), which was revised to ₹7,337.83 crore as per 2016-17 (RE). The estimates for 2017-18 (BE) are ₹10,081.72 crore. Thus, during 2017-18, there is an increase of 21.34% over 2016-17 (BE) due to a number of interventions which are likely to revive the state economy, such as the lifting of the ban on mining and the new transport policy.

Prior to these years, the TRR as share of GSDP was 10.27% in 2011-12 and decreased to 9.33% in 2014-15, but increased to 11.02% in 2016-17 (RE). During the last decade, the ratio of the state’s own tax revenue as percentage of GSDP has been almost stagnant around 6%. In 2005-06, it was 8.34%, which reduced to 6.39% in 2008-09. It has hovered there since—6.86% in 2011-12, decreased to 6.32% in 2014-15, but increased to 6.91% in 2016-17 (RE) and estimated at 7.01% in 2017-18 (BE).

Analysis of the trends of the state’s own tax revenue as percentage of GSDP reveals that this

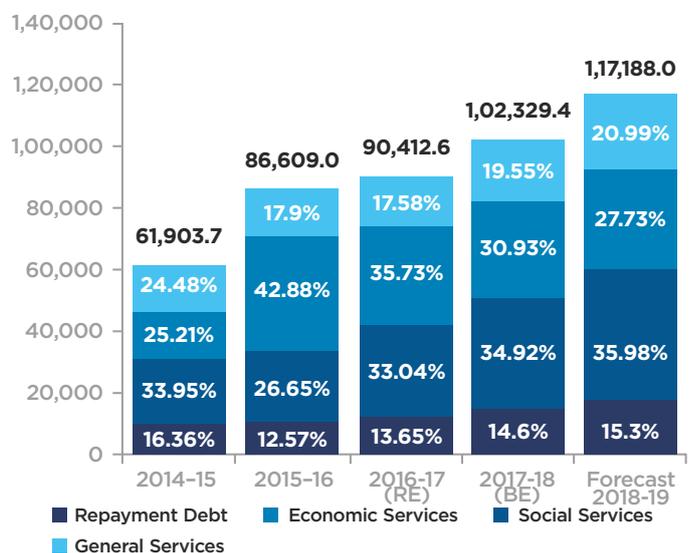
share has declined in the years leading up to 2014-15. The TRR has also steadily declined as a share of GSDP over the period up to 2014-15. As per 2016-17 (RE) and 2017-18 (BE) there is some increase in these shares.

To strengthen resource mobilization in this area, the Government of Haryana has constituted the Resource Mobilization Committee (RMC), chaired by the Chief Minister of Haryana. This committee suggests various methods for raising additional resources through both tax and non-tax measures and also develops comprehensive policies for plugging the leakage of revenues of the state.

Expenditure: Figure 17.8 shows that there was nearly a 40% hike in state expenditure across various heads in 2015-16 over 2014-15. As argued earlier, this spike is due to the implementation of UDAY and it imposed a great burden on the state treasury in 2015-16 as well as in subsequent years. Figure 17.8 shows how expenditure has been spread across various heads and how this composition has been changing over the years. Budget estimates for 2017-18 and forecasts for 2018-19 show that the state government is planning to expand social services and allocate a greater share of expenditure on it.

The online Budget Allocation System (BAS) has been implemented from the year 2010-11 to bring greater transparency, accountability and control in the budget. The state government has implemented an e-Salary system from April 2012 through the treasury for all government employees and contractual staff.

**Figure 17.8: Total State Budget and Allocation by Sector (budget in ₹ crore and allocation in %)**





## Challenges

### Reduce fiscal and revenue deficits at the state level

One of the biggest challenges currently faced by the state's economy is the high cumulative losses of state-owned power distribution utilities—Uttar Haryana Bijli Vitran Nigam and Dakshin Haryana Bijli Vitran Nigam—which increased from ₹1,030 crore in 2004–05 to ₹26,912 crore in 2013–14. The accumulated debt of these two companies increased from ₹1,458 crore from March 2004 to ₹28,199 crore in March 2014. The AT&C losses which were documented at 38% in 2005–06 dropped to 25.54% in 2011–12, but subsequently increased to 29.42% in 2013–14.

As per the UDAY scheme, the Government of Haryana has taken over 75% of the outstanding debt of the DISCOMs, amounting to ₹25,950 crore in 2015–16 and 2016–17. Accordingly, debt stock has increased to ₹1,41,854 crore (22.93% of GSDP) in 2017–18 (BE).

In addition to these issues, the Government of Haryana has also had to shift to a new pattern of payscales and allowances being adopted by the Government of India. The Government of Haryana implemented the 7th Pay Commission recommendations at the start of 2016, bringing in additional finance burden.

### Increase services, programmes and infrastructure by increasing the capital expenditure

The state suffers significant challenges in meeting the demands of the social sector, as well as the demands on infrastructure, based on the current low capital expenditure. The capital expenditure of the state as percentage of GSDP was 1.67% in 2011–12, which came down to 1.04% in 2014–15. As per 2016–17 (RE), it is 2.12% and estimated at 2.01% in 2017–18 (BE), with UDAY and 1.25% in 2016–17 (RE) and 1.80% in 2017–18 (BE), without UDAY.

In addition to this, changing demographics within the region, targets to improving facilities in rural areas and a cluster-based approach to development throughout the state have resulted in an increased burden of rural electricity subsidy to power utilities.

### Address new and growing demands on capital expenditure, including new targets brought about through the SDGs

The low growth of agriculture sector in the state during the last few years has become the main hurdle in achieving faster growth. The increase of agricultural production must therefore become a state priority. Diversification of agriculture and improving the productivity of the workforce engaged in the primary sector presently lacks prioritization as the top imperative.

In addition to this, the decline in the share of the secondary sector in the GSDP over the past decade also needs to be arrested. Haryana's locational advantage must be leveraged to give fresh impetus to its flagging industrial sector. The growth rates in both the primary and secondary sector need to be accelerated in order to harness the full potential of these sectors to drive forward and contribute to the state's economy.



## Strategies for Success

### Reduce fiscal and revenue deficits at the state level

In an effort to reduce both fiscal and revenue deficits and generate additional resources, the Government of Haryana has recently initiated the following steps: introducing stamp duty on the trading of shares and debentures in the state and revising the existing rates of other taxes like registration fee of property, registration of flats, issue of license to the property delux and other fees of the revenue department.

In addition to these measures, proposals are under consideration for leveraging additional resources by establishing an Advertisement Corporation in the state and setting up an organization for the centralized collection of property tax and other taxes and dues from urban local bodies, departments and boards. The implementation of the Goods and Services Tax (GST) from financial year 2017–18 is also expected to increase resources available to the state for development activity.

**Increase services, programmes and infrastructure by increasing the capital expenditure**

Presently, the agricultural sector contributes about 16.7% to the gross state value added. Therefore, the growth of the agriculture sector is crucial, even in a modern economy, for the overall growth of the state. Accordingly, the Government of Haryana will strive to accelerate the growth rate in the primary sector through interventions focusing on crop and livestock activities.

Complementing this targeted growth in the primary sector, the Government of Haryana will also enhance policy focus on the growing manufacturing in the state. Haryana's locational advantage will, in this manner, be able to instil fresh momentum within the industrial sector.

The Government of Haryana will further dedicate interventions to enhancing the efficiency and management of basic services, to reduce the overall financial burden and improve effectiveness of these services throughout the state. To this end, the Government of Haryana will rationalize the raw water charges for water appropriated by the Irrigation Department for drinking and other purposes; increase the rate of user charges; and introduce citizen-centric programming that puts IT at the core of government services, through interventions such as e-Rawaana.

These efforts will be coordinated based on the foundational understanding that the correction of regional disparities in state-wide development will require greater public expenditure on infrastructure and skilling.

**Address new and growing demands on capital expenditure, including new targets brought about through the SDGs**

The Government of Haryana has made considerable progress with the implementation of infrastructure projects in PPP mode; for example, the Kundli-Manesar-Palwal (KMP) road project. Given this success, the Government of Haryana aims to continue pursuing partnerships which help it meet the shortfall in funding its SDG targets, including PPP models, CSR initiatives and broader private sector engagement. It will examine the possibility of working with civil society organizations and NGOs to broaden the reach and scope of existing projects, making implementation more cost-effective and efficient.

A series of projects is planned through the various financing models listed above. These projects will include, for example, the installation of haemodialysis units and CT scan facilities in government hospitals, the commissioning of solid waste management projects, development of bus stands for commercial purposes in Faridabad and Karnal and the construction of a road in Mewat District connecting Ferozepur to Jhirka-Biwan.

Based on the success of these partnerships, the Government of Haryana will continue to explore opportunities to work with partners to build financially sustainable and implementable programmes that will help it meet its SDG targets.

## Next Steps for Implementing Haryana SDG Vision 2030

Haryana is well placed to be one of the most developed states of India by 2030 and is committed to ensuring that in coherence with Honourable Prime Minister's transformative Vision of India and through its rigorous integrated approach to development, none of its residents is left poor, uneducated, undernourished and uncared for by 2031-32.

Meeting its ambitious targets set for 2030 calls for a new way of governance instead of the business-as-usual approach. It is resolved to establish an SDG Coordination Centre (as part of the Swarna Jayanti Haryana Institute for Fiscal Management supported by the Finance and Planning Department, Government of Haryana), in partnership with United Nation Development Programme. The main activities of the centre would be to act as a catalyst/resources centre/think tank/knowledge centre/monitoring post/capacity building centre for all supporting departments and ministries.

The SDG Coordination Centre will have the following focus areas:

### 1. Resource Mobilization & Utilization

- *Need:* To meet the unprecedented need for human, financial and physical resources.
- *Tool:* Resource Planning Board; Integrated Planning Models
- *Output*
  - Seven-year strategic plan based on the inputs of state departments through a workshop on the further elaboration of the five-step strategic imperatives identified for Haryana to develop sustainably.
  - Three-year action plan for each department, based on the Vision document and aligned to the seven-year strategic plan for the state.
  - Outcome-based budget FY 2018 onwards

### 2. Capacity Building, Awareness Generation & Partnership

- *Need:* To build internal state capacity on SDGs and support public digital literacy, awareness creation, high quality knowledge management and capacity building system and partnerships

- *Tool:* Strategy Support Group

- *Output:*

- New online certification tools
- Awareness workshops
- Public-private partnerships
- Case studies

### 3. Change Management & Innovation

- *Need:* To create new policies, change old rules and laws, start administrative reforms, initiate new instruments and adapt world class best practices.

- *Tool:* Policy Review Board plus Innovation Lab

- *Output:*

- Incubation centres in districts
- Master trainers
- Innovative pilots/models

### 4. SDG Implementation in Districts and Villages

- *Need:* To develop integrated sectoral initiatives through a single IT/technology-based platform which combines the State Resident Database with the Direct Benefit Transfer mechanism thus linking citizens' service centres in a way that is transparent and corruption free

- *Tool:* Single Synergized Mega IT Initiative

- *Output:* Direct Benefit Transfer on real time basis

### 5. Concurrent Monitoring & Data Collection

- *Need:* To ensure concurrent monitoring of targets and data feedback

- *Tool:* SDG website and online dashboard

- *Output:* Bi-annual SDG Review Report

## Process and Methodology



The UN General Assembly in September 2015 adopted a global development vision entitled *Transforming Our World: The 2030 Agenda for Sustainable Development*. This 2030 Agenda was designed as “a plan of action for people, planet and prosperity.” It lays out 17 new Sustainable Development Goals (SDGs) and 169 targets, to stimulate global action over the next 15 years on issues critical to humanity and the planet. It recognizes that ending poverty must go hand-in-hand with strategies that build economic growth and addresses a range of social needs including education, health, social protection and job opportunities, while tackling climate change and environmental protection.

India committed to these SDGs at the September 2015 UN Summit and the SDGs officially came into force on 1 January 2016. Within India, the NITI Aayog has been entrusted with the role of coordinating the implementation of the SDGs.

In view of India’s commitment to the 2030 Agenda, Haryana too has set itself targets for achieving the SDGs within the state. The state aims to align its existing schemes and programmes with the SDG

targets and prepare a Vision 2030 document and an action plan for achieving these goals. In the coming years, Haryana sees itself evolving as a development leader, not only in the country, but also in South Asia, making its presence felt in the global arena.

### Landscape analysis of SDG implementation in Haryana

To ensure overall development, the Government of Haryana has been progressively moving forward with the implementation of over 450 social welfare schemes, across 53 departments, targeted especially at extra-vulnerable populations.

The process of implementing the SDGs within Haryana began with a landscape analysis of the different government schemes in the state, allowing the Government of Haryana to take stock of the current state of development. The purpose of this landscape analysis was to create a map of the existing government schemes against the SDG goals and targets, to check for alignment, identify gaps and identify cross-sectoral linkages for better integrated planning. This mapping provided an overall picture of how schemes currently being

conducted by the Government of Haryana relate to the SDG goals and targets, which would then contribute to the development of a road map for SDG implementation. This analysis also served as the basis for proposing working groups for the design and implementation of an SDG framework within the state.

The details of over 450 national and state schemes being implemented throughout Haryana were reviewed from the New Expenditure Plan Schemes Memorandum 2016-17 and their direct and indirect links with all the SDG targets were plotted.<sup>1</sup> The schemes as per the plan sub-head were then mapped to the relevant departments and sorted accordingly. Schemes related to creation of office buildings and meeting regular maintenance expenses, although critical for the success of some of the schemes, were not included at this stage.

The SDG targets which were not addressed by any of the schemes of the state government were divided into two groups: Group 1 included those which are not relevant to the state of Haryana and pertain to national and global context; and Group 2 are those targets wherein although there is relevance of the target for the state there are no schemes which address the specific target.

Thus, the landscape analysis gave the Government of Haryana an SDG-based perspective to view the existing schemes and start discussions around how and where the SDGs could be integrated into Vision 2030 for Haryana.

### **Briefing workshop on sustainable development goals**

To take the SDG agenda forward in Haryana, a half-day briefing workshop on SDGs was organized by the Government of Haryana on 5 July 2016 at Haryana Niwas, Chandigarh. The workshop was chaired by the Hon'ble Chief Minister of Haryana, Shri Manohar Lal and was attended by Mr Yuri Afanasiev, UN Resident Coordinator and UNDP Resident Representative in India. Workshop participants included all Ministers of Haryana; the Chief Secretary and all Additional Chief Secretaries of Government of Haryana; as well as representatives from various UN agencies (UNDP,

UNICEF, UNFPA, UN Women, ILO and WHO); along with representatives from other organizations working in the state. There were over 80 participants, delegates and attendees.

The main objectives of organizing this briefing workshop were to:

- Establish commitment and generate support for SDG implementation throughout government departments
- Inculcate awareness on what the SDGs are and how they relate to the localized context of Haryana
- Create a common understanding on the state government's approach towards implementing SDGs with a Vision 2030 document as a first step in that direction<sup>2</sup>
- Offer technical expertise and support in taking this process forward through the UN agencies, as well as localizing the SDGs

### **Formation of inter-departmental working groups**

On 21 July 2016, the Government of Haryana constituted seven inter-departmental working groups for the implementation of SDGs in Haryana and development of a Vision 2030 document for Haryana (Annex 1: Clustering of SDGs for Working Groups For Haryana). The 17 SDGs were thematically clustered around the seven working groups to lead the process of consultation and coordination with various administrative departments represented in each working group. The clustering was done to facilitate convergence and the breaking of silos, as well as strategic cooperation and inter-departmental analysis and planning to achieve the SDGs within Haryana by 2030.

Each working group chaired by the senior-most officer in the group, and hence the head of one of the departments in the group.

### **Development of tools to facilitate SDG-based documentation and strategizing by working groups**

To facilitate the functioning of the working groups and help them better achieve their mandate, a

1. <http://web1.hry.nic.in/budget/pmemofinal.pdf>  
 2. <http://fortune.com/2016/12/12/microsoft-ai-machine-learning/>

number of tools were created and shared with them. On the one hand, the tools catered to the specific group objectives and on the other, they helped create a common understanding on SDGs. The idea was to make the SDG-based planning and strategizing process easier and the development of Haryana Vision 2030 a seamless process. The tools are mentioned below:

- **SDG Booklet:** Pocket-sized SDG booklets, with all 17 SDGs as well as 169 SDG targets were shared with all members.
- **Power-point presentation for each group:** At the initial meeting of each working group, a power-point presentation was shared to explain the context of SDGs and clarify the SDG agenda. This included a briefing on the formulation of the SDG agenda at the international level and involvement of India as one of the 193 member states. It further elucidated how the SDGs built on the unfinished agenda of the Millennium Development Goals and how the NITI Aayog was coordinating the implementation of the SDGs in India. The SDG-based vision exercise in Haryana was also undertaken in response to NITI Aayog's request that state governments embark on an SDG-oriented visioning exercise and initiate work on the development of a long-term vision document (Vision 2030) for each state. The presentation also explained how the SDG-based vision document would replace a 5-year planning exercise with a 15-year development agenda which seeks to merge long-term planning, regular reviews and stringent monitoring. The presentation explained the role of working group members and further included details on the SDGs being covered by different working groups, with the objective of initiating discussions on the SDG targets relevant for each working group.
- **Vision 2030 write-up workbook** (Annex 2): A workbook format was developed and shared with working groups. The idea was to help the groups structure their thoughts around the vision exercise and put together the required data and write-up in a standardized way. The workbook format required each group to articulate the major focus areas for each SDG and structure their thoughts and policy agenda

around the identified focus areas in three sections/parts that followed.

Part I defined the present context in terms of what Haryana has achieved so far regarding a particular SDG. Data was presented in relation to each focus area such that the text depicted a clear picture of the prevailing situation in Haryana vis-s-vis national averages. This section further included the elucidation of the main challenges and issues faced by Haryana, with special attention to vulnerable geographies and extra-vulnerable population groups, as well as geographical inconsistencies and disparities. This was followed by the listing of interventions being currently undertaken by the government to address these challenges and issues being faced in the implementation of on-going schemes, policies, programmes.

Part II of the workbook was used to set the context for future interventions in terms of primarily articulating the overall vision for the SDG. This was to be laid out as a broad aspirational declaration of the objectives of the Government of Haryana, based on the articulation of where the government wants to see Haryana in next 15 years and its specific role in taking it there. The vision statement was to be followed by listing ideas and solutions for planned additional interventions, such as new schemes, strategies and realignment of present schemes. These additional interventions were to be framed in a way that clearly demonstrated how they would plug existing gaps and define possible solutions for challenges identified in Part I of the workbook.

Part III of the workbook included setting actual projections in terms of numbers for achieving the vision for every SDG. This included specific 2030 targets for each SDG in terms of definable metrics expressed as numbers, percentages, geographies, or coverage, etc. with a focus on those populations who have been left behind. The targets were to be further split into milestones for 2019, 2022 and 2030, defining the best possible indicators for measuring and monitoring progress on the specific targets and expected data sources.

Keeping in view the importance of convergence, the last part of the workbook focused on potential routes to inter-departmental coordination and the forging of partnerships with the private sector, civil society, academics and institutions, which could be leveraged to better achieve the vision and goals.



### **Provision of UN technical assistance to working groups through UN support team for Haryana**

Each working group was provided with a list of UN agency experts, who were available to provide the needed technical assistance and understanding on SDGs and targets. These experts attended various working group meetings to provide relevant knowledge, clarifications and guidance. Experts from the WHO, UNDP, UNFPA, UN Women, UNESCO and ILO made presentations, participated in discussions and shared technical notes with working groups. They also reviewed and vetted the draft workbooks prepared by them.



### **Individual, working group meetings and review meetings: The drafting of workbooks and feedback**

Overall the process was highly participatory. A total of 38 individual meetings and 26 group meetings, including review meetings, were held. Continuous meetings and brain storming sessions created a common understanding of SDGs and charted out the vision for each SDG within Haryana. Almost all working groups identified one or two officers who were responsible for writing the workbook and overall coordination with the group, with the UNDP resource persons acting as facilitators. The UN team reviewed and provided feedback, as well as analytical support, on every draft of the workbook

submitted, until final workbooks of a uniform standard were produced by all the groups.

Regular review meetings were called by the Chief Secretary of the Government of Haryana, which added momentum and accountability to the process. These review meetings also provided a platform wherein problems being faced could be discussed, as well as decisions taken on progress, next steps, interim milestones and the final deadline for the release of Vision 2030.



### **Drafting of the vision document with review from the government**

The UN team then started the process of arranging and rearticulating the information received from the working groups into strategic, consistent and comprehensive chapters which clearly and accurately laid out the interventions of the Government of Haryana and its plans towards the implementation of each SDG. Through this process, information received by government departments was analyzed, gaps were identified and strategies were organized to better reflect streamlined and practical implementation plans. Beyond this, the language was standardized and brought together in a visually appealing way with info-graphics, diagrams and charts to enhance overall readability and ease-of-interpretation. These chapters were then shared with respective working groups for feedback to ensure that the chapters remained relevant, accurate and sensitive to ground realities. This process used a highly participatory approach to ensure that the Vision 2030 enjoyed acceptance at all levels of the public sector and instilled a sense of ownership over SDG implementation with the working group chairs acting as the custodians of each SDG, both in terms of the vision and implementation.

## Abbreviations and Acronyms

S.No	Abbreviation	Full Form	S.No	Abbreviation	Full Form
1	AAY	Antyodaya Anna Yojana			Authority
2	AIDS	Acquired Immune Deficiency Syndrome	34	ICDS	Integrated Child Development Services
3	ASER	Annual Status of Education Report	35	IEC	Information, Education and Communication
4	BE	Budget Estimates	36	IFA	Iron and Folic Acid
5	BEE	Bureau of Energy Efficiency	37	IMR	Infant Mortality Rate
6	BPL	Below Poverty Line	38	ITeS	Information Technology Enabled Services
7	BPM	Business Process Management	39	ITI	Industrial Training Institute
8	BPO	Business Process Outsourcing	40	JSSK	Janani-Shishu Suraksha Karyakram
9	CETP	Common Effluent Treatment Plant	41	JSY	Janani Suraksha Yojana
10	CNG	Compressed Natural Gas	42	KGBVs	Kasturba Gandhi Balika Vidyalayas
11	CrPC	Code of Criminal Procedure	43	LED	Light-Emitting Diode
12	CS	Chief Secretary	44	LFPR	Labour Force Participation Rate
13	DDP	Desert Development Programme	45	LPCD	Litres Per Capita Per Day
14	DISCOMs	Distribution Companies	46	LPG	Liquefied Petroleum Gas
15	EMCs	Electronic Manufacturing Clusters	47	M&E	Monitoring and Evaluation
16	EMI	Equated Monthly Installment	48	MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
17	ESDM	Electronic System Design & Manufacturing	49	MHA	Ministry of Home Affairs
18	GDP	Gross Domestic Product	50	MIS	Management Information System
19	GHG	Green House Gases	51	MLD	Million Litres Per Day
20	GIS	Geographic Information System	52	MMR	Maternal Mortality Rate
21	GPs	Gram Panchayats	53	MPHW	Multi-Purpose Health Worker
22	GSDP	Gross State Domestic Product	54	MRTS	Mass Rapid Transit System
23	GST	Goods and Services Tax	55	MSME	Micro, Small & Medium Enterprises
24	GSVA	Gross State Value Added	56	MUDRA	Micro Units Development and Refinance Agency
25	GW	Gigawatt	57	NABARD	National Bank for Agriculture and Rural Development
26	HAREDA	Haryana Renewable Energy Development Agency	58	NACO	National Aids Control Organisation
27	HDI	Human Development Index	59	NASSCOM	National Association of Software and Services Companies
28	HIV	Human Immunodeficiency Virus	60	NCDs	Non-Communicable Diseases
29	HPGCL	Haryana Power Generation Corporation Limited	61	NCR	National Capital Region
30	HSAMB	Haryana State Agricultural Marketing Board	62	NCRB	National Crime Record Bureau
31	HSIIDC	Haryana State Industrial and Infrastructure Development Corporation	63	NER	Net Enrolment Ratio
32	HLSA	Haryana State Legal Services Authority			
33	HUDA	Haryana Urban Development			

S.No	Abbreviation	Full Form	S.No	Abbreviation	Full Form
64	NFHS	National Family Health Survey	97	SJE	Social Justice & Empowerment
65	NFSA	National Food Security Act	98	SMART	Specific, Measurable, Attainable, Realistic and Time-based
66	NGOs	Non-Governmental Organizations	99	SNCUs	Special New-Born Care Units
67	NILP	New Integrated Licensing Policy	100	SRS	Sample Registration System
68	NIRBAADH	New Industrial Regulation by Automatic Approvals and Delegation in Haryana	101	SSA	Sarva Shiksha Abhiyan
69	NMR	Neonatal Mortality Rate	102	ST	Scheduled Tribe
70	NRLM	National Rural Livelihoods Mission	103	STI	Sexually Transmitted Infection
71	NUHM	National Urban Health Mission	104	STI/RTI	Sexually Transmitted Infections and Reproductive Tract Infections
72	ODF	Open Defecation Free	105	STPs	Sewage Treatment Plants
73	PAY	Priyadarshani Awas Yojana	106	SUN	Saur Urja Nivesh
74	PCPNDT	Pre-Conception and Pre-Natal Diagnostic Techniques	107	TCP	Town & Country Planning
75	PCR	Police Control Room	108	TPDS	Targeted Public Distribution System
76	PMAY	Pradhan Mantri Awas Yojana	109	TRR	Total Revenue Receipts
77	PMFBY	Pradhan Mantri Fasal Bima Yojna	110	U5MR	Under 5 Mortality Rate
78	PMJDY	Pradhan Mantri Jan Dhan Yojana	111	UDAY	Ujwal Discom Assurance Yojana
79	PMSMA	Pradhan Mantri Surakshit Matritva Abhiyan	112	U-DISE	Unified -District Information System for Education
80	PPP	Public Private Partnerships	113	VGA	Video Graphics Array
81	PRANETA	Professionals and New Entrepreneur Tax Assistance	114	VISTAAR	VAT, Interest, Stamp Duty, Tax, Audit Assistance and Rating
82	PRIs	Panchayati Raj Institutions			
83	PWD	Public Works Department			
84	R&D	Research and Development			
85	RBSK	Rashtriya Bal Swasthya Karyakram			
86	RCH	Reproductive Child Health			
87	RNTCP	Revised National Tuberculosis Control Programme			
88	SAM	Severe Acute Malnutrition			
89	SAPCC	State Action Plan on Climate Change			
90	SC	Scheduled Caste			
91	SCADA	Supervisory Control and Data Acquisition			
92	SCERT	State Council of Educational Research and Training			
93	SDGs	Sustainable Development Goals			
94	SECC	Socio-Economic Caste Status			
95	SHCs	Soil Health Card			
96	SHGs	Self Help Groups			

## Annex 1: Clustering of SDGs for Working Groups for Haryana

Working Group	SDG Thematic Cluster	Administrative Departments	Chairman of Working Group	Member Secretary of Working Group
Group 1	SDG 1. End Poverty	<ul style="list-style-type: none"> <li>• Development and Panchayats</li> <li>• Agriculture (including Animal Husbandry, Dairy, Horticulture)</li> <li>• Fisheries</li> <li>• Health (Food and Drugs Administration)</li> <li>• Food and Supplies</li> <li>• Revenue</li> <li>• Industries</li> <li>• Urban Local Bodies</li> <li>• Welfare of SCs and BCs</li> <li>• Public Health Engineering</li> <li>• Social Justice and Empowerment</li> <li>• Medical Education</li> </ul>	ACS Development and Panchayats	Director cum Special Secretary, Development and Panchayats
	SDG 2. No Hunger (except nutrition)			
	SDG 12. Sustainable Consumption and Production			
Group 2	SDG 2: Zero Hunger (Nutrition)	<ul style="list-style-type: none"> <li>• Health</li> <li>• Public Health Engineering</li> <li>• Labour and Employment</li> <li>• Women and Child Development</li> <li>• Haryana Urban Development Authority (HUDA)</li> <li>• Urban Local Bodies</li> <li>• Town and Country Planning</li> <li>• Medical Education</li> <li>• Development and Panchayats</li> <li>• Revenue</li> <li>• Social Justice and Empowerment</li> <li>• Agriculture</li> </ul>	ACS, Health Department	Director General, Health Department
	SDG 3: Good Health and Well Being			
	SDG 6: Clean Water and Sanitation			
Group 3	SDG 4: Quality Education	<ul style="list-style-type: none"> <li>• School Education (Elementary and Secondary)</li> <li>• Electronics &amp; I.T.</li> <li>• Higher Education</li> <li>• Industrial Training</li> <li>• Welfare of SCs and BCs</li> <li>• Technical Education</li> <li>• Social Justice and Empowerment</li> <li>• Revenue</li> </ul>	ACS, School Education Department	Director, Elementary Education Department
Group 4	SDG 7: Affordable and Clean Energy	<ul style="list-style-type: none"> <li>• Power</li> <li>• New and Renewable Energy</li> <li>• Urban Development</li> </ul>	ACS, Power Department	MD HVPNL cum Principal Secretary, Power Department
Group 5	SDG 5: Gender Equality	<ul style="list-style-type: none"> <li>• Women and Child Development</li> <li>• Development &amp; Panchayats</li> <li>• Revenue</li> <li>• Social Justice and Empowerment</li> <li>• Welfare of SCs and BCs</li> <li>• Home and Administration of Justice</li> </ul>	ACS, Women and Child Development	Director cum Special Secretary, Women and Child Development
	SDG 10: Reduced Inequalities			
	SDG 16: Peace, Justice and Strong Institutions			
	SDG 17: Partnerships for the Goals			

Working Group	SDG Thematic Cluster	Administrative Departments	Chairman of Working Group	Member Secretary of Working Group
Group 6	SDG 13: Climate Action	<ul style="list-style-type: none"> <li>• Environment</li> <li>• Forest and Wildlife</li> <li>• Mines and Geology</li> <li>• Fisheries</li> <li>• Irrigation</li> <li>• Revenue and Disaster Management and Consolidation</li> <li>• Tourism</li> </ul>	Principal Secretary, Environment Department	Director, Environment Department
	SDG 14: Life below Water			
	SDG 15: Life on Land			
Group 7	SDG 8: Decent Work and Economic Growth	<ul style="list-style-type: none"> <li>• Industries</li> <li>• Development and Panchayats</li> <li>• Urban Local Bodies</li> <li>• Social Justice and Empowerment</li> <li>• Electronics and IT</li> <li>• Public Works (Bridges and Roads)</li> <li>• Transport</li> <li>• Civil Aviation</li> <li>• Agriculture</li> <li>• Labour and Employment</li> <li>• Town and Country planning</li> <li>• Industrial training</li> <li>• Haryana Urban Development Authority</li> <li>• Tourism</li> </ul>	Principal Secretary, Industries Department	Director cum Special Secretary, Industries Department
	SDG 9: Industry Innovation and Infrastructure			
	SDG 11: Sustainable Cities and Communities			



## Annex 2

### 2030 Vision Document Write-up Workbook

(Note: The body text of the workbook should not exceed seven pages)

#### Guiding principle for articulation of SDG Vision –

- Leaving no one behind, reaching the furthest first
- Integrated approach to sustainable development as opposed to work-alone approach
- Universality

<b>Working group number</b>	1
<b>Chairperson</b>	ACS Development and Panchayats
<b>Departments represented</b>	13 Development and Panchayats 14 Agriculture (including Animal Husbandry, Dairy, Horticulture) 15 Fisheries 16 Health (Food and Drugs Administration) 17 Food and Supplies 18 Revenue 19 Industries 20 Urban Local Bodies 21 Welfare of SCs and BCs 22 Public Health Engineering 23 Social Justice and Empowerment 24 Medical Education
<b>Sustainable Development Goal</b>	SDG 1. End Poverty SDG 2. No Hunger (except nutrition) SDG 12. Sustainable Consumption and Production
<b>Key focus areas for each SDG</b> <i>(Please mention 2-3 focus/priority areas for every SDG keeping the SDG targets in mind)</i>	Key focus areas SDG 1 1. 2. 3.  Key focus areas SDG 2 1. 2. 3.  Key focus areas SDG 12 1. 2. 3.









## Annex 3





**SDG-1**

## **End poverty in all its forms everywhere**

### **Targets:**

- 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day
- 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
- 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
- 1.4 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
- 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



**SDG-2**

## **End hunger, achieve food security and improved nutrition and promote sustainable agriculture**

### **Targets:**

- 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

- 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
- 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, 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
- 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
- 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



**SDG-3**

## **Ensure healthy lives and promote well-being for all at all ages**

### **Targets:**

- 3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
- 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

- 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
- 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
- 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
- 3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents
- 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 programmes
- 3.8 Achieve universal health coverage, 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
- 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination



## SDG-4

### Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

#### Targets:

- 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
- 4.2 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

- 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
- 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
- 4.5 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 peoples and children in vulnerable situations
- 4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy
- 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 lifestyles, 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



## SDG-5

### Achieve gender equality and empower all women and girls

#### Targets:

- 5.1 End all forms of discrimination against all women and girls everywhere
- 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
- 5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation

- 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
- 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
- 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

## SDG-6

### **Ensure availability and sustainable management of water and sanitation for all**

#### **Targets:**

- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- 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
- 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
- 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
- 6.5 By 2030, implement integrated water resources management at all levels,

including through transboundary cooperation as appropriate

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

## SDG-7

### **Ensure access to affordable, reliable, sustainable and modern energy for all**

#### **Targets:**

- 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
- 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
- 7.3 By 2030, double the global rate of improvement in energy efficiency

## SDG-8

### **Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all**

#### **Targets:**

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

- 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
- 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
- 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training
- 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
- 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
- 8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products
- 8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all



## SDG-9

### **Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**

#### **Targets:**

- 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional

and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

- 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
- 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
- 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
- 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

## SDG-10

### **Reduce inequality within and among countries**

#### **Targets:**

- 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average
- 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

- 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
- 10.4 Adopt policies, especially fiscal, wage and social protection policies and progressively achieve greater equality
- 10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations
- 10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions
- 10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies



## SDG-11

### Make cities and human settlements inclusive, safe, resilient and sustainable

#### Targets:

- 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums
- 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, children, persons with disabilities and older persons
- 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries
- 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage
- 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 global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
- 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
- 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities



## SDG-12

### Ensure sustainable consumption and production patterns

#### Targets:

- 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
- 12.2 By 2030, achieve the sustainable management and efficient use of natural resources
- 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- 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
- 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
- 12.6 Encourage companies, especially large and

transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

- 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities
- 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature



## SDG-13

### Take urgent action to combat climate change and its impacts

#### Targets:

- 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- 13.2 Integrate climate change measures into national policies, strategies and planning
- 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning



## SDG-14

### Conserve and sustainably use the oceans, seas and marine resources for sustainable development

#### SDG 14 Targets:

- 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
- 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience and take action for their restoration in order to achieve healthy and productive oceans

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation

14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism



## SDG-15

### Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

#### Targets:

- 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 drylands, in line with obligations under international agreements

- 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
- 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
- 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
- 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
- 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
- 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
- 15.8 By 2020, 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
- 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts



## SDG-16

**Promote peaceful and inclusive societies for sustainable development, provide access to**

## **justice for all and build effective, accountable and inclusive institutions at all levels**

### **Targets:**

- 16.1 Significantly reduce all forms of violence and related death rates everywhere
- 16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children
- 16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all
- 16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime
- 16.5 Substantially reduce corruption and bribery in all their forms
- 16.6 Develop effective, accountable and transparent institutions at all levels
- 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels
- 16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance
- 16.9 By 2030, provide legal identity for all, including birth registration
- 16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements



## SDG-17

**Strengthen the means of implementation and revitalise the global partnership for sustainable development**

### **Targets:**

#### **Finance**

- 17.1 Strengthen domestic resource mobilization, including through international support to

- developing countries, to improve domestic capacity for tax and other revenue collection
- 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 per cent of ODA/GNI to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries
  - 17.3 Mobilize additional financial resources for developing countries from multiple sources
  - 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
  - 17.5 Adopt and implement investment promotion regimes for least developed countries

### **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
- 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
- 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

### **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 sustainable development goals, including through North-South, South-South and triangular cooperation

### **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
- 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
- 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

### **Systemic issues**

#### *Policy and Institutional coherence*

- 17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence
- 17.14 Enhance policy coherence for sustainable development
- 17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development

#### *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 sustainable development

goals in all countries, in particular developing countries

17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships *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

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

## Annex 4

### Technical Note: Calculation of HDI

The UNDP methodology adopted prior to 2010 has been used for estimating human development indices (HDIs) for the districts of Haryana. However, owing to data constraints, certain deviations were made primarily in the choice of indicators and goalposts.

The HDI is a summary measure of human development. It measures the average achievements in three basic dimensions of human development: a long and healthy life, knowledge and a decent standard of living.

The indicators used for estimating HDI in this exercise are :

- Literacy rate (with two-thirds weight) and the net enrollment rate at the upper primary level (with one-third weight) measuring education
- Infant mortality rate measuring a long and healthy life
- Per capita income per annum at current prices measuring a decent standard of living

Before the HDI itself is calculated, an index is created for each of these dimensions. To calculate the education, health and income indices, minimum and maximum values (goalposts) are chosen for each underlying indicator. Performance in each dimension is expressed as a value between 0 and 1 by applying the following general formula:

Dimension index = (actual value - minimum value)/(maximum value - minimum value)

In the HDI, per capita income per annum serves as a surrogate for measuring a decent standard of living. Income is adjusted because achieving a respectable level of human development does not require unlimited income. Accordingly, the logarithm of income is used.

Since IMR is a deprivation indicator, the formula used for calculating the health index is -

Health Index = 1-((actual value - minimum value)/(maximum value- minimum value))

The HDI is then calculated as a simple average of the dimension indices.

The **goalposts** and **data sources** for each of the indicator are as follows:

Indicators	Maximum value	Minimum value	Data Source
Literacy rate (%), 2011	98	36	Census 2011
Enrollment Ratio (Upper Primary) (%), 2015-16	100	20	U-DISE 2015-16
Infant mortality rate (per 1,000 live births), 2015-16	39	11	Maternal and Infant Death Reporting System web portal
Per capita income per annum (₹), 2013-14	4,47,000	42,500	Department of Economic and Statistical Analysis, Government of Haryana

The goalposts for literacy rate and net enrolment rate are based on the observed maxima and minima across all districts of Indian states as per Census data for literacy rate and District Information System for Education for the indicator net enrolment rate. The goalposts for infant mortality rate and per capita income are based on observed maxima and minima across districts in the state.

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Government of Haryana

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