



PUNJAB 2030 - SDG WISE STRATEGIC ROADMAP



Strategic Roadmaps

SDG 1	08
SDG 2	14
SDG 3	20
SDG 4	26
SDG 5	32
SDG 6	38
SDG 7	44
SDG 8	48
SDG 9	54
SDG 10	60
SDG 11	66
SDG 12	72
SDG 13	76
SDG 15	82
SDG 16	88



ROADMAPS





**SDG 1
NO POVERTY**

SDG 1 – NO POVERTY



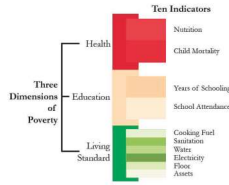
Reduce, at least by half, the proportion of men, women and children of all ages, living in poverty in all its dimensions, by continuous monitoring of progress in social protection and inequality.

VISION



According to Mission Antyodaya Report, 2019, about **3.2%** of households in rural areas live in kuchha houses compared to all India average of **21%**.

CURRENT STATUS



As per the **MPI, Punjab's Multidimensional Poverty Headcount Ratio** is estimated at **5.59%** population are multidimensionally poor i.e. around **6** out of every **100** punjabi are multidimensionally poor. How poor are these **6%** Punjabis? These Multidimensional poor lack 43.75% of the most basic and essential services (health, education, drinking water, sanitation, electricity etc.)



Punjab rural poverty was **7.6%** compared to **9.2%** of urban poverty - as per the estimation from 68th round of Household Consumption and Expenditure (**HCE Survey**).

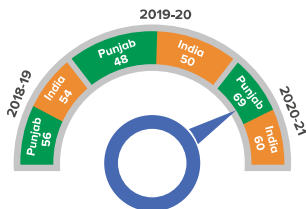


At all India level, the provision of employment stands at **85%** of the total demand for employment. Punjab stands with a similar position, about **86.5%** on this indicator. At the district level, the employment provision under **MGNREGA** stands at **81%** of total demand.

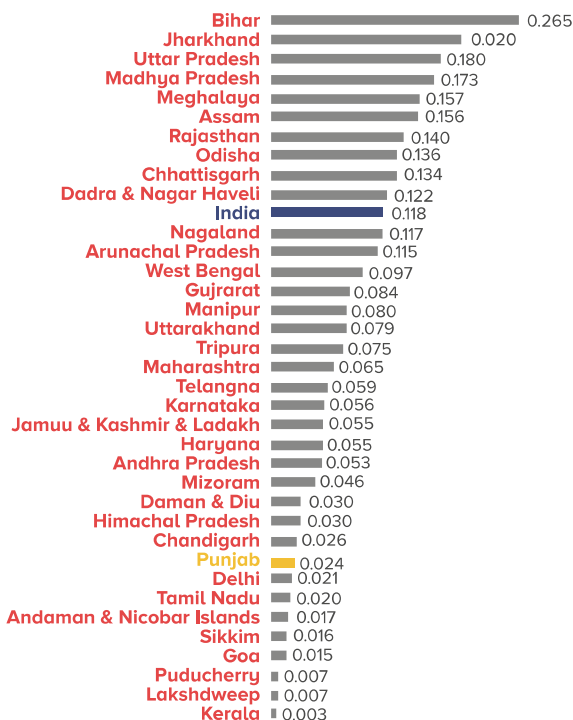
The United Nations Development Program (UNDP) developed a multi-pronged strategy to address the goal of 'No Poverty'. This strategy covers all three dimensions which contribute to problems of poverty and its growth such as, social, economic, and environmental.

In India, NITI Aayog with the help of various other ministries and with necessary methodological supports from UNDP and Oxford Human Development and Poverty Initiative developed a national level MPI. Accordingly, the MPI for all India, states and uptill district level is prepared for the year 2021 with the use of various socio-economic data obtained from 4th round of National Family Health Survey (NFHS), 2015-16.

SDG Index Composite Score



State wise MPI scores in 2020-21¹



8.26% POPULATION IN PUNJAB LIVING BELOW THE NATIONAL POVERTY LINE



PUNJAB'S MULTIDIMENSIONAL POVERTY HEADCOUNT RATIO IS ESTIMATED AT 5.59%

6.4% RURAL AND 4.32% URBAN POPULATION ARE MULTIDIMENSIONALLY POOR



HEALTH INSURANCE HAS INCREASED FROM 21.2 IN 2020-21 TO 25.2 IN 2021-22



84.77% PERSON PROVIDED EMPLOYMENT

AS A %AGE OF PERSONS WHO DEMANDED EMPLOYMENT UNDER MGNREGA



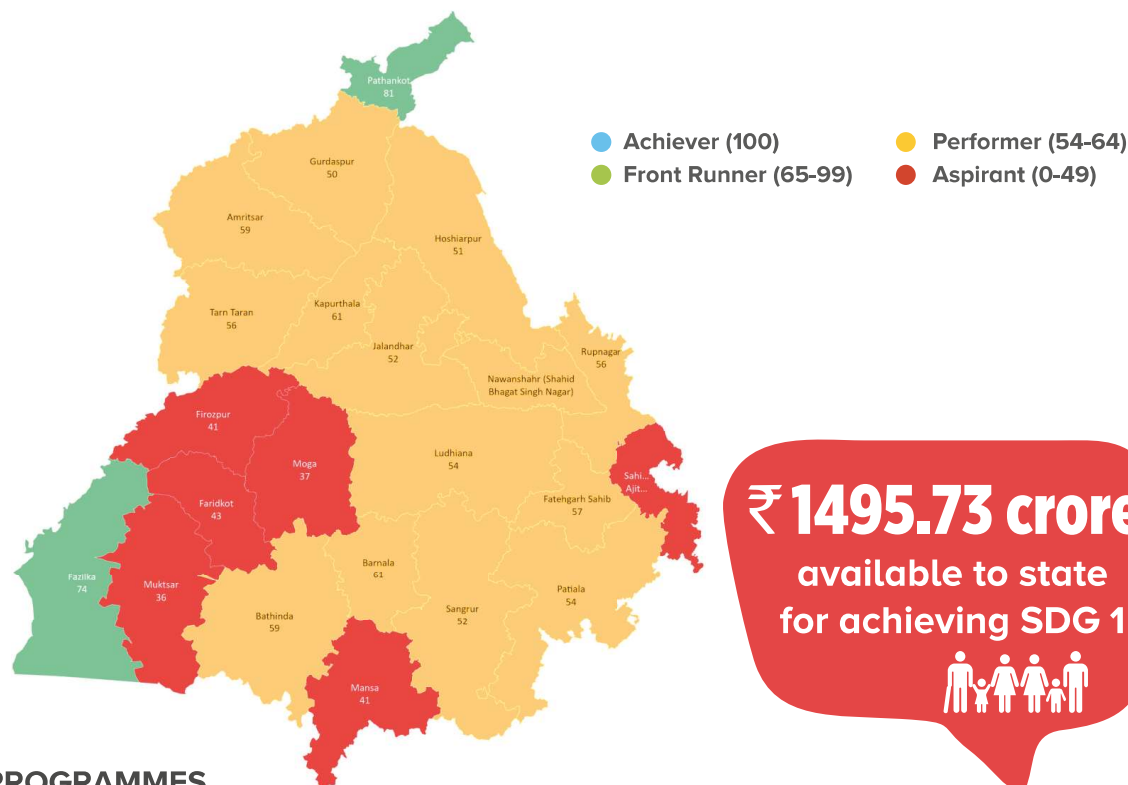
%AGE OF THE POPULATION (OUT OF TOTAL ELIGIBLE POPULATION) RECEIVING SOCIAL PROTECTION BENEFITS UNDER

PRADHAN MANTRI MATRU VANDANA YOJANA (PMMVY) HAS REDUCED FROM 96.46 IN 2020-21 TO 71.74 IN 2021-22



%AGE OF HOUSEHOLDS LIVING IN KATCHA HOUSES INCREASED FROM 0.5 TO 1.1

SDG 1 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

	Schemes/Programs	Grant Released By FD (2019-20) Rs. Lakhs		
		SS	CS	Total
1.	Pradhan Mantri Awaas Yojana(G)	3471.04	0.00	3471.04
2.	Mahatma Gandhi National Rural Employment Guarantee Scheme	12500.00	37500.00	50000.00
3.	Mahatma Gandhi Sarbat Vikas Yojna (MGSVY)	250.00	0.00	250.00
4.	National Rural Livelihood Mission (NRLM)	1169.00	1753.00	2922.00
5.	Shyama Parsad Mukherji Rurban Mission (SPMRM)	2160.00	1080.00	3240.00
6.	Supply of land hand driven chaff cutter (Toka) to landless/marginal Scheduled Castes families	0.00	40.00	40.00
7.	National Family Benefit Scheme	0.00	600.00	600.00
8.	Bhagat Puran Singh Medical Insurance Scheme for poor people	1.00	0.00	1.00
9.	Sarbat Sehat Bima Yojana	10000.00	15000.00	25000.00
10.	Mission Tandrust Punjab	1200.00	0.00	1200.00
11.	Construction of new Link Roads to the Basti's of Scheduled Caste and poorer sections of the society, shamshan ghats, places of worship	50000.00	0.00	50000.00
12.	Aapni Gaddi Aapna Rozgar Scheme	500.00	0.00	500.00
13.	Grant in aid for Punjab Ghar -Ghar Rozgar and Karobar Mission Society (PGRKAM)	1000.00	0.00	1000.00
14.	Hara Tractor (35 to 50 HP)	1.00	0.00	1.00
15.	Yari Enterprises	500.00	0.00	500.00
16.	Urban Employment Programme	9000.00	0.00	9000.00
17.	Houses For Houseless (Urban)	1.00	0.00	1.00
18.	Pradhan Mantri Kushal Vikas Yojana	0.00	1847.72	1847.72
	TOTAL	91753.04	57820.72	149573.76



- **Price rise in healthcare services** takes away a major chunk of income from total household income and may bring the family down to the below poverty line area.
 - About 40% of households in India had at least one member covered under a health insurance or health scheme (NFHS-5), whereas in Punjab, this ratio stands at 25%.
 - In 2019, Out Of Pocket Expenditure (OOPE) as a share of the total healthcare expenditure in the state was 77.3% compared to all India average expenditure of 58.7%
- The updated **urban unemployment rate** in Punjab as on 1st week of January, 2022, stands at all time high of 11.5% (Centre for Monitoring and Indian Economy sources). The gender gap in employment and wage rate is also a major challenge in the fight against poverty.

- The **debt to GDP ratio** during 2021-22 (BE) was 46%. Higher debt commitments of the state government create obstacle in increasing its budget provision for social sector programs.
 - The fiscal deficit also stands at the level of 4% and revenue deficit at 1.4 % of state GSDP in 2021-22. This financial position of the state government is beyond the level of Fiscal Responsibility Budget Management (FRBM) Act limits.
- Punjab has witnessed a low and **declining-income growth trend*** since 2016-17 - **GSDP was 6% and it came down to 4.2%** in 2019-20. During the pandemic year 2020-21, the state witnessed a negative growth rate of 6.6 %.
- **Low level of human development factors** arrests the growth rate from attending take off stage. Education and life expectancy strengthen the productivity-growth-employment-poverty cycle.
 - Literacy rate in the state stands at 75.6%, closer to all India average rate of 73% but far behind Kerala with literacy rate of 94%.
 - The state has an Infant Mortality Rate (IMR) of 2.1% and high Maternal Mortality Rate (MMR).
- It is crucial to address the **regional growth inequality** issues in the state:
 - The per-capita income of the district of Gurdaspur was Rs. 96,999 in 2017-18 – about half of the per-capita income of Rupnagar which was Rs.182552 in 2017-18.
 - The literacy rates in Hoshiarpur stands at 86% as compared to 61% in Mansa.
 - The child sex ratio at birth is as low as 746 in Gurdaspur as compared 1037 in Amritsar.

RECOMMENDATIONS & STRATEGIES

The government needs to reach out the bottom 9th and 10th decile income class of the population in the state.

Location of these sections of the population through a survey at district and block level may be necessary to address the issue of extreme poverty. Ensuring access of necessities such as housing, electricity, education, health, to the bottom 9th and 10th income class through a poverty specific program, is essential. This will improve their employment ability and include them as a part of the growth process.

The districts with lower per-capita income need better attention in terms of reallocation of public resources viz. public spending towards the lower income districts

The border districts need special attention in terms of development. To begin with, state must work towards higher public spending on education sector, mostly on school education, in these districts. It will help in improving state rank in human development. At the same time, education sector creates employment opportunities and adds to multiplier effect on Gross Value Added (GVA) of the state.



Short-Term Strategies

Raising the government interventions in major schemes related to poverty, livelihood, social security, and the schemes dealing with other socio-economic development aspects of the people living at the bottom of the income pyramid.

1. **Strengthening MGNREGA Implementation in Punjab**
 - In Punjab, less than 3% completed 100 days period under MGNREGA. **The reason for under completion** of 100 days guaranteed work by more than 95% of people registered, needs to be answered through field research.
 - A push from the government is needed to increase these statistics, especially person-days employment generation in the state.
2. **Conducting MPI at block level in the state:** NITI Aayog has completed the task till the district level and now it's the states responsibility to conduct the MPI for its blocks. The exercise will help assess the level of poverty, so that corrective actions can be planned and implemented.
3. **Increase enrolment of the poor in public health insurance programs** - Health insurance coverage should be expanded to cover out-patient services to discourage overutilization of in patient services. To reduce out-of-pocket costs, insurance needs to cover all family members (especially of marginalized communities) rather than restricting coverage to a specific maximum defined.
4. **Transformation of Higher Education in the State.** State needs to draw a plan to increase its GER for higher education and conduct a need assessment study i.e., a 'Job Mapping' exercise to identify what skills Punjab's industry requires to employ the youth.
5. **Encouraging women's participation in Work Force** - women's labour force participation leads to multiplier effect – **women headed households reinvest 90% of their income** into their families, compared to 30% - 40% contributed by men. It is crucial for the state to reduce or remove the barriers to their entry in workforce.
6. **Strengthening Punjab State Rural Livelihoods Mission** to provide gainful employment to women SHGs at the last mile through financial inclusion, livelihoods support, training and capacity building, etc.
7. **Create more skilling opportunities for young girls and women.**



Long-Term Strategies

- **Developing growth absorption capacity/increasing trickledown effect** - Poverty reduction strategy is to apply a redistribution policy and help the growth trickle down to the bottom of the pyramid. The trickle-down effect would be stronger if the growth absorption capacity of the people living below poverty line is increased. **Growth absorption capacity can be developed with rising level of education, skilled training, good health, and others. This strategy needs higher allocation of public spending on education and health sector.**
- **Creating safety nets for poor population** - Evidence shows safety nets programs — i.e. cash, in-kind transfers, social pensions, public works, and school feeding programs targeted to poor and vulnerable households help people escape extreme poverty, close the poverty gap, and reduce inequality. Punjab should not only **ensure budgetary provisions but ensure robust implementation of programmes that build household resilience** to respond to shocks across the life cycle - a key to building human capital.
- **Balancing Regional Development** - There is **wide diversity at district level standard of living and per-capita income.** Differences at the base level per-capita income and at the same time difference in growth led to divergence of income at district level. To minimize the divergence gap, the **public spending on capital formation needs to be more strategic.** The backward districts need specific attention in terms of resource allocation under various development programs.
- **Emphasis to improve the productivity in agriculture sector** - Agriculture sector provides about 50% of total employment in the state. Above **30% of total farmers in the state belong to small and marginal sections.**
 - provisioning of **better farm technology**, high yielding varieties of seeds, and technique of product diversifications suitable to soil and climate would be helpful to the small and marginal farmers.
 - start working with the Union Government to help in **domestic development of drone technology and its use in agriculture sector to improve productivity.**
 - ensuring **better credit facilities** through banks at the time of need and covering all farmers under the PM-Kisan scheme
- **Focusing on economic growth** - As the state witnessed a declining growth trend over the last few years since 2016-17 and the pandemic year 2020-21 made it worse, there is need of a big push to renew and revive the growth in the state. The big push can be attained in terms of a **higher public spending on capital formation.**

*<https://finance.punjab.gov.in/uploads/0b6d50050e3142de15bb052827ce385c.pdf>

WHY ACHIEVING SDG 1 IS IMPORTANT TO ACHIEVE ALL SDGS?

Accelerated investment in poverty eradication will be fostered by policy frameworks at the regional and international levels which are based on pro-poor development strategies.

Corruption, bribery, theft and tax evasion cost developing countries around US\$1.26 trillion per year; money that could be used to lift many out of poverty. Many of the countries that did not achieve their Millennium Development Goal targets by 2015 were countries experiencing armed conflict and instability.

Biodiversity and ecosystem services offer equitable and fair access to natural resources.

Climate change could encumber India's economic progress, pushing 45 million Indians into extreme poverty over the next 15 years. India has ratified the Paris Agreement, dealing with greenhouse gases emissions mitigation, climate change adaptation and financing.

Below poverty line households in rural India spend around 70% of their consumption expenditure to meet food requirements.

Around 8.8 million households live in urban slums. The 'Housing for All by 2022' Mission will promote affordable urban housing through credit-linked subsidies, slum rehabilitation, and public-private partnerships.

If India stops inequality from rising further, it could end extreme poverty for 90 million people by 2019. If it goes further and reduces inequality by 36%, it could virtually eliminate extreme poverty.

India accounts for the largest number of people living below the international poverty line of US\$ 1.90 a day - 224 million, and the largest number of people below the food poverty line - 195 million.

Healthcare costs can neutralize gains from income increases and poverty eradication schemes. National Health Protection Scheme intends to provide health insurance cover to poor households.

Poverty can influence mental capacities. The success of the Mid-Day Meal Programme in improving enrollment and retention shows the importance of hunger in determining drop-out rates.

Female labour force participation has been on a declining trend since 2004-05. By IMF estimates, equal participation of women in the workforce will increase India's GDP by 27%.

Inadequate sanitation causes economic losses equivalent to 6.4% of India's GDP in 2006. Nearly half the population defecates in the open. Swachh Bharat Mission aims to make India open defecation free, clean and sanitised by 2019.

237 million Indians have no access to energy. Access to modern and sustainable energy is fundamental for eliminating poverty. Government aims to achieve 100% village electrification by 2018.

Around 92% of employment in India is informal in nature (unorganized sector workers plus informal workers in the organized sector). The vast majority of untrained labour goes into such low productivity jobs.

Job creation by industrial expansion is the way forward along with redistributive policies to solve the problem of high poverty rates.





**SDG 2
ZERO HUNGER**

SDG 2 - ZERO HUNGER



VISION

To ensure that everyone everywhere has enough good quality food to lead a healthy life. To improve the productivity and income of small and marginal farmers through sustainable food production systems and resilient agricultural practices.

CURRENT STATUS



Punjab is close to achieving the targeted agricultural productivity at national level with high current level of productivity of wheat and rice



100% coverage of target beneficiaries under National Food Security Act (NFSA) by covering 14,522,380 beneficiaries in 2020-21

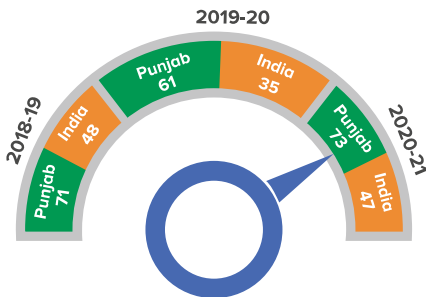


State providing better connectivity to the agricultural markets: All villages have been linked to the mandi (market) towns with pucca (permanent) roads

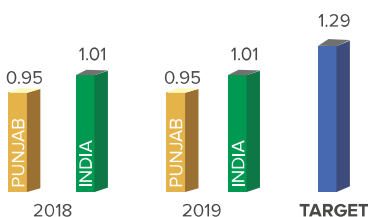


With Gross Value Added (GVA) in agriculture per worker at Rs. 2.4 lakhs, Punjab is the second leading performer state and has already surpassed the national targeted value of Rs. 1.36 lakhs.

SDG Index Composite Score



Ratio-Rural Households Covered Under PDS



Anaemia



7 OUT OF 10 CHILDREN

in age group 6-59 months are anaemic



25.9% ADOLESCENTS

in age group 6-59 months are anaemic



5 OUT OF 10 PREGNANT WOMEN

in Punjab are anaemic (15-49 years)

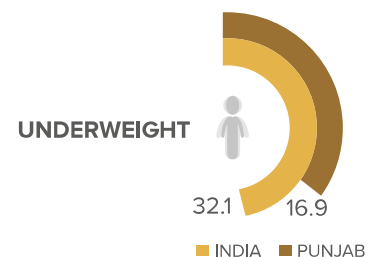
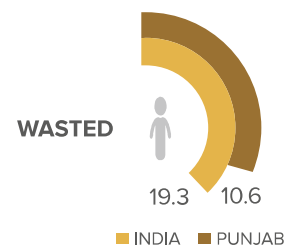
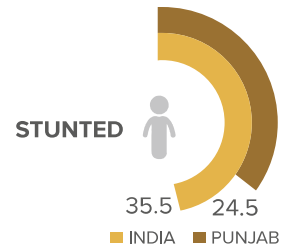


6 OUT OF 10 NON-PREGNANT WOMEN

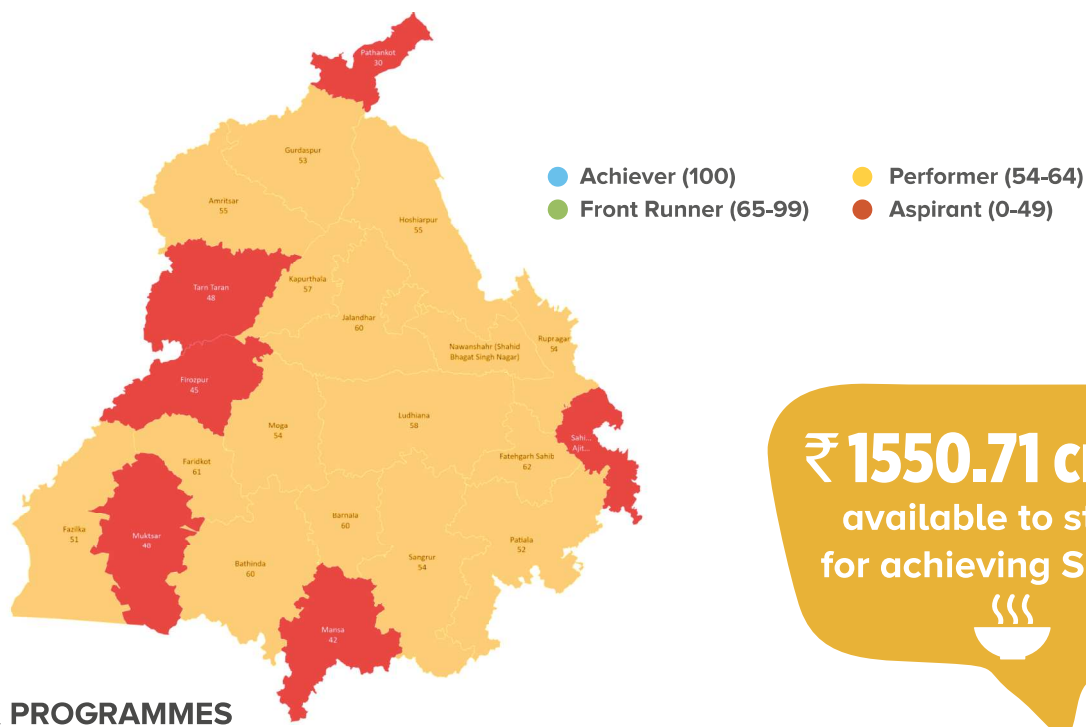
in Punjab are anaemic (15-149 years)

Malnutrition

Under 5 years children



SDG 2 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

	Schemes	Grant Released By FD for 2019-20 (Rs.Lakhs)		
		SS	CS	TOTAL
1.	National Nutrition Mission	2,132.40	8,529.56	10661.96
2.	Nutrition ICDS (SNP)	7,000.00	7,000.00	14000.00
3.	Integrated Child Development Services Scheme	40,549.36	18,778.29	59327.65
4.	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) (SABLA)	306.98	348.02	655.00
5.	National Food Security Mission	106.00	450.00	556.00
6.	Anaemia Mukht Bharat (approved funds by GoP) but NOT MENTIONED in budget sheet		2936.00	2936.00
7.	NRHM	25,496.39	19,545.84	45042.23
8.	National Mission for Sustainable Agriculture (NMSA) as Sub Mission on Agro Forestry	154.00	231.00	385.00
9.	National Horticulture Mission	1,718.00	2,577.00	4295.00
10.	Paramparagat Krishi Vikas Yojana	112.45	300.00	412.45
11.	Rashtriya Krishi Vikas Yojana (RKVY)	6,800.00	10,000.00	16800.00
GRAND TOTAL		84375.58	70695.71	155071.29

CHALLENGES



Malnutrition Status

Inefficient Public Delivery System

Lack of crop diversification

Declining farmers income

1. Malnutrition Status

- Approximately **one-fourth of the adult population** in Punjab suffers from Chronic Energy Deficiency (CED).
- Staggeringly **increasing anaemia levels** in the State

2. Public Delivery System

- Weeding out of **fraudulent cards** owing to political influence in preparation of beneficiary list.
- Punjab distributes **only wheat** under 'One Nation One Ration Card' programme

3. Lack of crop diversification

- Agricultural growth in terms of **productivity and profitability** has reached a plateau.
- **Overexploitation** of natural resources, especially groundwater and soil
- Prevalence of **stubble burning** for managing crop residue
- **Procurement policy** does not favour crops other than wheat and rice; causing low economic returns from alternative crops
- Lack of assured **market support and cumbersome certification** process for organic products discourage natural farming.

4. Declining Farmer Incomes

- Farmers remain dependent on **non-institutional sources of credit** - As per NSS - 77th Round (2019), the **Incidence Of indebtedness (IOI)** by credit agencies in **rural Punjab stands at 51%** for agricultural households, out of which 26.2% is institutional and 12.7% is non-institutional, and the remaining 12.1% is from both.



Short-Term Strategies

1. Food Grain Security to Nutritional Security

- State level **nutrition awareness programmes** to address household level nutrition and food insecurity with support from community/women's groups/Self Help Groups (SHGs) in planning, management and monitoring of Anganwadi Centres (AWCs) and developing local initiatives
- **Food-based safety** nets i.e. NFSA and ICDS should provide more diversified food basket, including bio fortified staples. The food-based safety nets in Punjab are biased in favour of staples (rice and wheat) against arguably more nutritious foods such as coarse grains, pulses, fruits and vegetables.

As first step, **increasing supply of fortified rice and wheat** in order to address micronutrient deficiencies to extend **beyond aspirational districts** in a phased manner.

- Scaling up the **Poshan Vatika initiative** across all Anganwadi Centres in Punjab involving PRIs and urban local bodies for land demarcation and usage for the same.
- **Investment in women's education** (particularly Higher Education) to have a **multiplier effect** on household food security, awareness regarding nutrient rich diets, more equitable intra-household distribution of food, child health care, sanitation facility and personal hygiene.
- Focus on **water and sanitation infrastructure programmes** (WASH initiative), especially awareness of basic sanitation and hygiene to community and school children, with special focus on behavioural change, capacity building.
- **Integrated nutrition policy** against multi-dimensional indicators of malnutrition will be crucial especially in certain districts with pronounced geographical clustering of underweight and stunted children.

2. Synergy between Agricultural Programmes and Nutrition Sensitive Interventions

- **Targeted** agricultural programmes with a stronger design that support livelihoods, improve household food availability and diet quality and foster women's empowerment need to be promoted.
- The trade-off between promoting agricultural production and nutrition needs to be confronted. Leveraging **agricultural policies and programmes to be more "nutrition sensitive"** and reinforcing diet diversification will help focus on both nutrition and development.

3. Develop a blueprint for sustainable agricultural practices in Punjab

- Increased coverage of **crop insurance** to protect the marginal and small farmers.
- Increased **investment in agricultural research** and establishment of gene bank facilities
- Setting up of **Better Farming Centres at GP level** through private sector participation can help in agriculture diversification, optimum use of natural resources and higher income for farmers. These centres will act as advisory and supply centres for marginal farmers.
- Promotion of production and consumption of **millets** to bring in dietary diversification.



Long-Term Strategies

1. Increasing Farmer Incomes

- Including **grains other than wheat and paddy in the MSP basket** will go a long way in bringing agricultural diversification in the state.
- There is need for **strengthening the price stabilisation** fund, especially for pulses, oilseeds and onions, for rapid growth of farmers' incomes.
- **Diversify crop procurement policies** to align with agro-ecology of the region.
- **Millets, oil-seeds and pulses** procured by government can **become part of the supplementary nutrition and meals** provided under the ICDS and MDM schemes, as also the grains provided through the PDS. This would help in tackling farmers' distress and India's nutritional crisis, while at the same time addressing the water problem in the state.
- Create an ecosystem to **set up new and promote existing local agri-value addition industries** to enhance farmer incomes.

2. Promoting Sustainable Agricultural Practices: Promoting horticulture and allied activities, protecting crops, limiting chemical contamination, managing biodiversity and the ecosystem. Reducing cost of cultivation by proper soil health monitoring, judicious water use, integrated nutrient and pest management, and adopting natural farming practices along with better product management. Some steps in this regard are:

- Bring 72,000 ha of area under organic farming from current 5,000 ha.
- Promoting Direct Seeding of Rice (DSR), which is a sustainable agricultural practice.
- Fix and enforce the maximum area for paddy cultivation per power operated tube-well; ensure eight hours of regular power supply to tube-wells throughout the year
- Reduce the use of pesticides to 0.675 kg/ha and use of fertilisers to 195 kg/ha.
- To halt the fall in ground water table by advancing the commencement date of paddy transplantation to: June 18 by 2020, June 23 by 2025, and June 30 by 2030.

3. Smart Governance

- On-ground implementation of POSHAN (Prime Minister's Overarching Scheme for Holistic Nutrition) Tracker
- End-to-end computerisation of PDS and e-NAM (National Agriculture Market - pan-India electronic trading portal) through consistent training and capacity building of functionaries at all levels.
- Use of mobile applications to disseminate farming knowledge and address extension gaps.

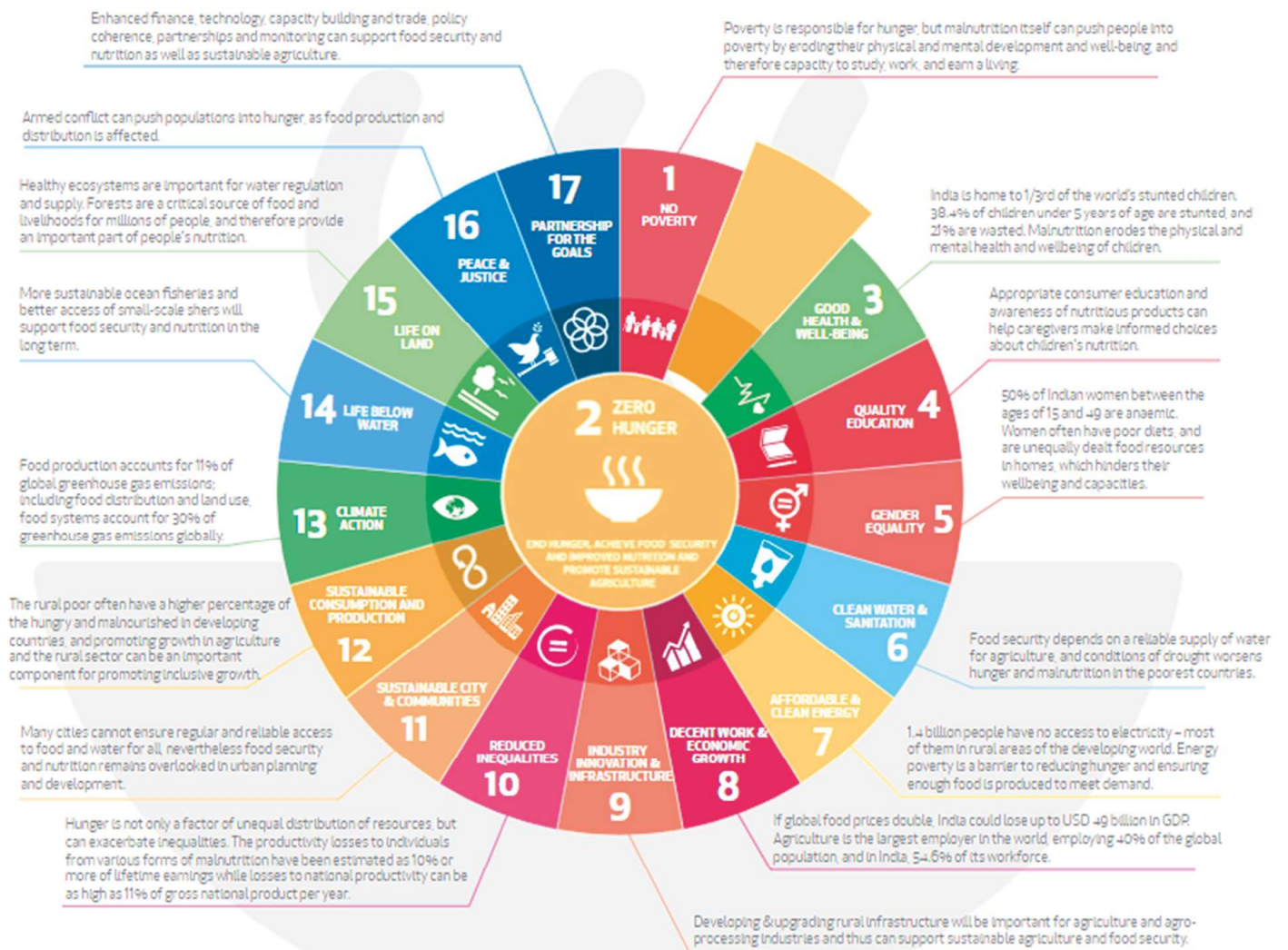
4. Build a strong convergence mechanism: Strengthening partnership between the PRIs/urban local bodies and communities that recognise and build on local initiative and innovation, fostering convergent action with NRHM, SSA, TSC, MGNREGA, etc.

5. Awareness and Capacity building drives: Training of field functionaries such as members of Village Health Sanitation and Nutrition Committees (VHSNCs), Anganwadi Workers (AWWs) Auxiliary Nurse Midwives (ANMs), etc., to make them participate in regular monitoring and social audit. Facilitate districts and communities to develop specific locally relevant strategies.

6. Strengthening Extension Services and Rural Infrastructure: Design relevant programmes to ensure timely recruitment, training and retention of extension staff.

7. Various **agri-startups** providing relevant information should be popularised and promoted in regions for realistic estimation of water resources, strengthening the database on rainfall, groundwater levels, canal discharge, and base flow through intensive monitoring and pilot studies on the parameters like specific yield, canal seepage, rainfall infiltration, and return flow from irrigation.

WHY ACHIEVING SDG 2 IS IMPORTANT TO ACHIEVE ALL SDGS?





**SDG 3
GOOD HEALTH AND
WELL-BEING**

SDG 3 - GOOD HEALTH AND WELL-BEING



VISION

To ensure that the population is healthy and disease-free. Improve physical and mental well-being among all segments of the population, focussing on reducing inequities for vulnerable groups.

CURRENT STATUS



98.5% pregnant women give birth in medical institutions as compared to 90.5% in 2017.



Good accessibility of health services at the last mile as per time to care approach i.e., within close proximity of the residential areas and the distance can be covered within 20-30 minutes

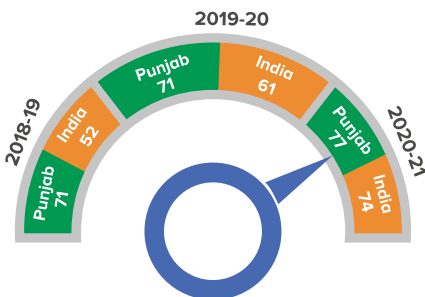


Nearly 90% of children aged 12-23 months are fully immunised



Punjab's performance on indicators relating to HIV incidence and availability of human resources is among the best compared to other states.

SDG Index Composite Score



UNDER 5 MORTALITY RATES REDUCED FROM 33.2 in NFHS-4 to 32.7 in NFHS-5



MATERNAL MORTALITY RATIO PER 1 LAKH LIVE BIRTH IS 114
BEST STATE KERALA - 43



89% CHILDREN IN AGE GROUP 9-11 MONTHS ARE FULLY IMMUNIZED



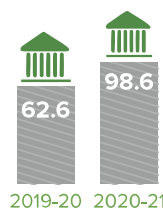
THE TUBERCULOSIS NOTIFICATION RATE IMPROVED FROM 182 in 2019-20 to 196 in 2021-22



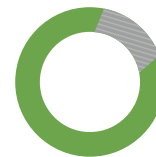
SUICIDE MORTALITY RATE IN 2020-21 IS 7.9 PER 100,000 POPULATION



15.41 DEATH RATE DUE TO ROAD TRAFFIC ACCIDENTS PER 100000 POPULATION IN 2020-21



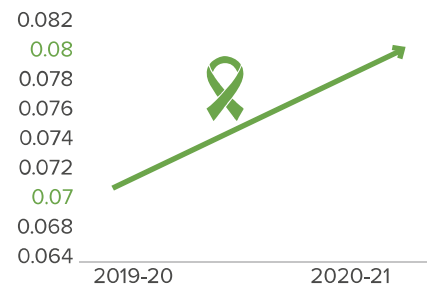
PROPORTION OF INSTITUTIONAL DELIVERIES HAS INCREASED FROM 62.6 IN 2019-20 TO 98.6% IN 2020-21.



OUT OF RS. 100 SPENT ON HOUSEHOLD ON GOODS OR SERVICES, RS. 13.50 IS SPENT ON HEALTHCARE (OOPE) BEST STATE CHHATTISGARH – Rs. 6.6

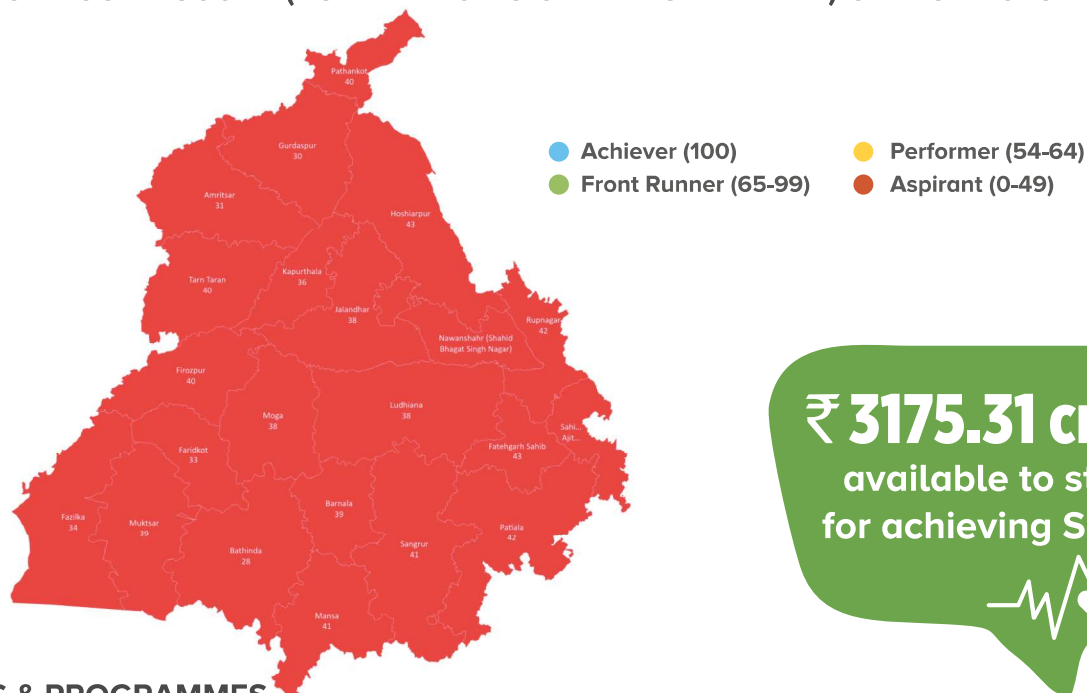


THERE IS ONLY ONE PHYSICIAN/ NURSE/MIDWIFE FOR 179 PEOPLE



INCIDENCE OF HIV PER 1000 UNINFECTED POPULATION INCREASED BY 0.01 FROM 2019 TO 2020

SDG 3 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

	Schemes	Grant Released by FD (2019-20) Rs. Lakhs		
		SS	CS	Total
1	Grant-in-aid to State Health Society AYUSH (AY12)	400.00	600.00	1000.00
2	Grant in aid to State Health Society AYUSH (HM21)	160.00	240.00	400.00
3	National Rural Health Mission (NRHM)	37494.69	28743.89	66238.58
4	Implementation of Emergency Response Services in the State	4100.00	0.00	4100.00
5	Matching Grant to State Blood Transfusion council under the AIDS Control Society	220.00	220.00	440.00
6	National Urban Health Mission (NUHM)	3,163.42	4,745.13	7,908.55
7	Punjab Urban Health Infrastructure (DHS- 0-0 10,11,13,15 and 25) (Civil works+Equipment) (ACA 2011-12)	1,088.75	0	1,088.75
8	Seed Corpus of Cancer Relief Fund	5000.00	0.00	5000.00
9	Upgradation/ Strengthening of Nursing Services in the State	1.00	0.00	1.00
10	National Programme of Health Care of Elderly	460.00	690.00	1150.00
11	National Programme for Prevention and Control of Cancer Diabetes, Cardiovascular Disease and Strokes (NPCDCS)	460.00	690.00	1150.00
12	Bhagat Puran Singh Medical Insurance Scheme for poor people	1.00	0.00	1.00
13	Creation of Cancer & Drug addiction Treatment Infrastructure	1000.00	0.00	1,000.00
14	Operationalization of state Radiation Safety Agency in the State	15.00	0.00	15.00
15	Setting up of food and drug authority	1.00	0.00	1.00
16	Manpower development under national mental hospital Amritsar	1.00	277.76	278.76
17	National health protection Scheme	6000.00	0.00	6,000.00
18	Setting up of health and wellness clinics	2250.00	0.00	2,250.00
19	Setting up of Trauma Care Center on Important National Highways in the State	2000.00	0.00	2,000.00
20	Sarbat Sehat Bima Yojana	10000.00	15000.00	25,000.00
21	Upgradation of infrastructure in Government Medical College and Hospital (Patiala)	17168.05	0.00	17,168.05
22	Upgradation of infrastructure in Government Medical College and Hospital (Amritsar)	2973.21	0.00	2,973.21
23	Setting up of AIIMS like institute in the state	937.91	0.00	937.91
24	Upgradation of Existing State Government Medical College for Increasing MBBS Seats (Amritsar)	299.78	400.00	699.78
25	Upgradation of Existing State Government Medical College for Increasing MBBS Seats (Patiala)	0.00	418.09	418.09
26	Burn Unit at Government Medical College Patiala and Faridkot	166.26	249.41	415.67
27	Upgradation of Infrastructure in Govt Dental Colleges and Hospital (Amritsar and Patiala)	601.00	0.00	601.00
28	Establishment of Guru Ravi Das Ayurvedic University (Hoshiarpur)	170.00	0.00	170.00
29	Tertiary Care Cancer Center	1691.76	2473.64	4,165.40
30	Nutrition ICDS (50% of actual expenditure reimburses by GoI) (SNP)	7000.00	7000.00	14,000.00
31	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) (SABLA)	306.98	348.02	655
32	Integrated Child Development Services Scheme (Shifted from Non Plan)	40549.36	18778.29	59,327.65
33	Integrated Child Development Services (ICDS) Training Programme (Shifted from Non Plan)	109.16	163.74	272.9
34	National Nutrition Mission	2132.40	8529.56	10,661.96
35	National Creche Scheme for the Children of Working Mothers	70.76	106.14	176.9
36	Swachh Bharat Abhiyan (Gramin)	0.00	3000.00	3,000.00
37	Swachh Bharat Abhiyan (Gramin) (Incentive Fund)	0.00	7000.00	7,000.00

	Schemes	Grant Released by FD (2019-20) Rs. Lakhs		
		SS	CS	Total
38	Swachh Bharat Mission (Urban)	2869.20	5179.80	8,049.00
39	Setting up of Spinal Injuries Centre at Mohali	200.00	0.00	200.00
40	Niramaya-State Govt's Contribution towards Health Insurance Scheme for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disability	1.00	0.00	1.00
41	Mission Tandrust Punjab	1200.00		1,200.00
42	Construction of 8 New Maternal and Child Health wings at Sub-Divisional hospitals of Talwandi Sabo, Nabha, Patti and Derabassi, District Hospitals of Muktsar and Gurdaspur and CHCs of Bhawanigarh & Raikot.	6500.00		6,500.00
43	Completion of the construction work of the 9 Maternal and Child Health Wings	5700.00		5,700.00
44	Additional beds at the existing MCH wings at District Hospitals of Ludhiana, Faridkot, Hoshiarpur, Bathinda and Barnala with a target of completing atleast 50% by March 2022.	5500.00		5,500.00
45	Construction of 3 new Drug warehouses of 1,500 sqm each at the MCH Wings in Hoshiarpur, Ferozepur & Sangrur	1100.00		1,100.00
46	Mukh Mantri Punjab Cancer Rahhat Kosh Scheme	15000.00		15,000.00
47	Upgradation of Health Infrastructure	10000.00		10,000.00
48	New Medical College and Hospital namely Sri Guru Nanak Dev State Institute of Medical Sciences at Kapurthala and Shaheed Udham Singh State Institute of Medical Sciences at Hoshiarpur	8000.00		8,000.00
49	Poshan Abhiyan	5300.00		5,300.00
50	Maternity Benefit Programme	2741.73	572.60	3314.33
	TOTAL	2,12,104.42	1,05,426.07	3,17,530.49



CHALLENGES

- In spite of 98.5% institutional delivery, the **MMR stands at 114**, worse than neighbouring state Haryana (96) and India (103) values.
- Punjab has among **the lowest spending on health (less than 1% of GSDP)** as a percentage of Gross State Domestic Product (GSDP); public health spending in Punjab is inadequate to meet the healthcare demands of the population.
- Over-reliance on an unregulated private health sector**, and high out-of-pocket expenditure. On average, people in Punjab spend 2-3 times higher on accessing healthcare in private facilities - nearly double the out-of-pocket expenditure as compared to the national average.
- Average **number of beds** in a district hospital was lower than 22 beds per 1 lakh population as recommended by the IPHS guidelines.¹
- In rural primary healthcare, **number of sub-centres is less than what is required**; only 2,950 sub-centres against the requirement of nearly 3,600 sub-centres.
- Non-Communicable Diseases (NCDs) (52.1%) and injuries (11.1%)** have emerged as major contributors towards the disease burden in the state.
- Double burden** of high level of malnutrition and obesity in the state. Increasing rates of anaemia, even among men
- The **prevalence of substance, illicit substance and alcohol use disorders** in Punjab is much higher as compared to other states



RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

- Focus on data** that is most important for policy making i.e.,
 - collection and analysis of data for **infections and cure rate** will be crucial
 - strengthening **Integrated Disease Surveillance Project (IDSP)** network and making it part of Aatma Nirbhar Bharat Package (ANBP)
 - ensuring implementation of **ICDS** scheme to provide coverage, especially to vulnerable groups
 - effective implementation of **NIPI** (National Iron Plus Initiative) and **POSHAN** (Prime Minister's Overarching Scheme for Holistic Nutrition) Abhiyaan
- The state needs to redraft the strategies i.e., **strengthening of primary healthcare** to decongest the secondary health institutions for treatment of minor ailments.



Long-Term Strategies

- Ensure **functional MCH (Maternal and Child Health) wings** in all district/sub division hospitals to improve State's performance on MMR.
- Setting up of **integrated Public Health Labs** in all districts.
- In Punjab, the rates of **NCD related mortality** have been growing rapidly. To address this issue:
 - effective Implementation of National Programme for Prevention & Control of Cardiovascular Diseases, Cancers and Stroke (NPCCDCS)

3. The state will have to ramp up its efforts to **reduce MMR** by
 - a. addressing causes of death emerging in Maternal Death Reviews (MDR) and focussing on groups who have inequitable access to maternal care services.
 - b. Under Pradhan Mantri Surakshit Matritva Aashwasa (Suman Yojana)- ensure coverage of ANC check-ups, especially for vulnerable groups.
 - c. eliminate the inequities of access to full antenatal care, delivery, and postnatal care for women belonging to Muslim communities, for women under the age of 20, for women who are expecting their fourth or more child, for women living in rural areas, and for women who are chronically ill
4. Addressing the
 - a. knowledge gap among women and families about signs and symptoms of pregnancy complications
 - b. lack of availability of blood storage at secondary care facilities
 - c. provision of maternal healthcare services in Tarn Taran, Shahid Bhagat Singh Nagar and Barnala districts (NFHS-4).
5. Promote **modern methods of contraception** and reduce reliance on female sterilisation, especially in rural areas and among women with lesser years of schooling. Also, information and education campaigns to promote knowledge and use of contraception especially among adolescents and young couples
6. Take up a **detailed study to identify the issues relating to high Anemia** prevalence in the State – basis the learnings design and implement a customized awareness and behaviour change campaign for all regions in the state
7. Research and data to understand the problem of **substance abuse** from a public health perspective; subsequent designing and implementation of community-based campaigns to end stigma around addiction and against drug abuse.
8. Punjab reported the highest number of dengue cases in 2020. Thus, develop and implement a multi-sectoral plan to address the **issues related to WASH** - water, sanitation and hygiene to reduce the incidence of malaria, dengue and other communicable diseases.

- b. implement Mental Healthcare Act, 2017.
 - c. community awareness and behaviour change interventions targeted at the risk factors for NCDs.
 - d. ensure availability of diagnostic facilities and medicines at government hospitals.
4. To address the issue of **substance use** in the state:
 - a. Ensure community-based follow - up care, psychosocial support and rehabilitation services for recovering addicts and their families
 - b. Facilitate screening of spouses and family members for risk of addiction.
 - c. Ensure de-addiction services are women friendly the incidence of malaria, dengue and other communicable diseases.

<https://indianexpress.com/article/india/district-hospitals-have-avg-24-beds-per-1-lakh-people-niti-aayog-report-7544405/>

WHY ACHIEVING SDG 3 IS IMPORTANT TO ACHIEVE ALL SDGS?







**SDG 4
QUALITY EDUCATION**

SDG 4 – QUALITY EDUCATION



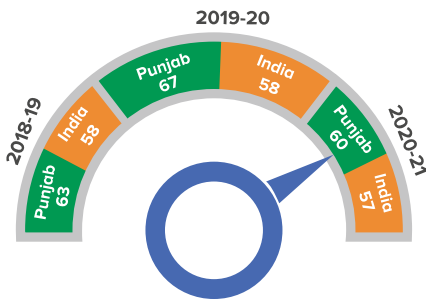
Ensure the completion of primary and secondary education by all boys and girls and achieve universal access to a quality higher education. Provide equal access to affordable and quality vocational training, towards eliminating gender and wealth disparities.

CURRENT STATUS

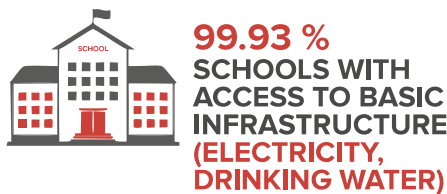
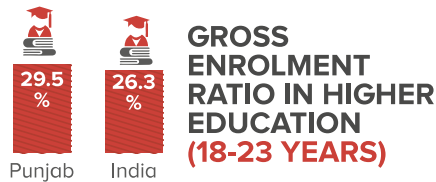
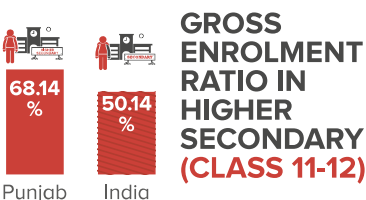
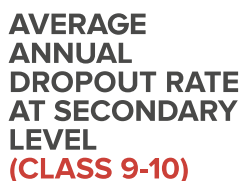
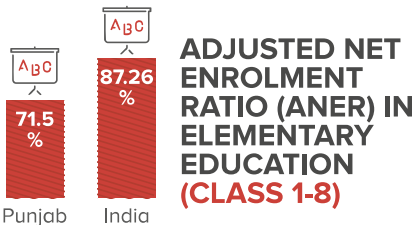


- Punjab topped the national Performance Grading Index of School Education for 2019-20; a significant improvement from 2018-19 position of 13.
- The School Education Quality Index (SEQI) developed by NITI Aayog ranked Punjab 9th amongst all the states.
- The achievements in Gross Enrolment Ratio (GER) and Net Enrolment ratio (NER) at all levels of school education in the state have considerably improved; jump by almost 24% in the case of adjusted NER for secondary level of education
- More than 75% schools are equipped with computers vis-à-vis the national level figure of 29.75%
- 80% of primary schools in Punjab have a pupil teacher ratio lower than the recommended norm of 30:1
- About 97% of the children at the age of 4 years are enrolled in Anganwadis/pre-schools
- Punjab Educare mobile app was launched during the lock down period in 2020 to support students of all classes

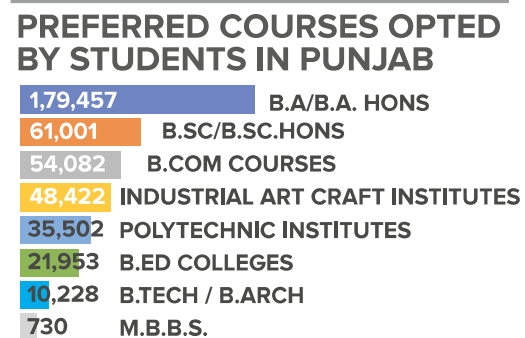
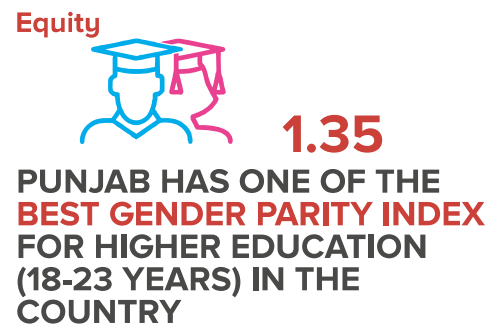
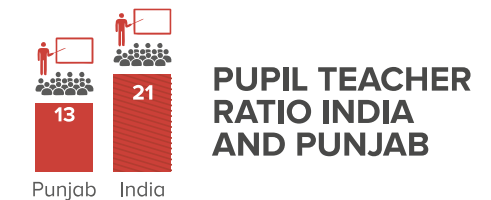
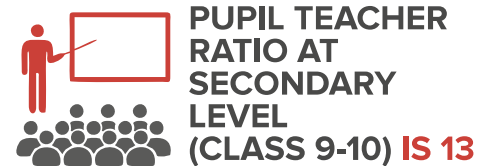
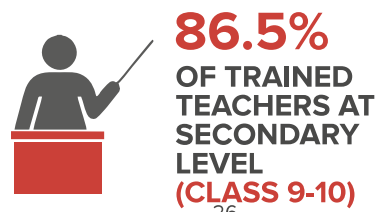
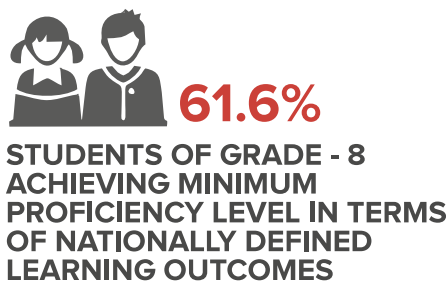
SDG Index Composite Score



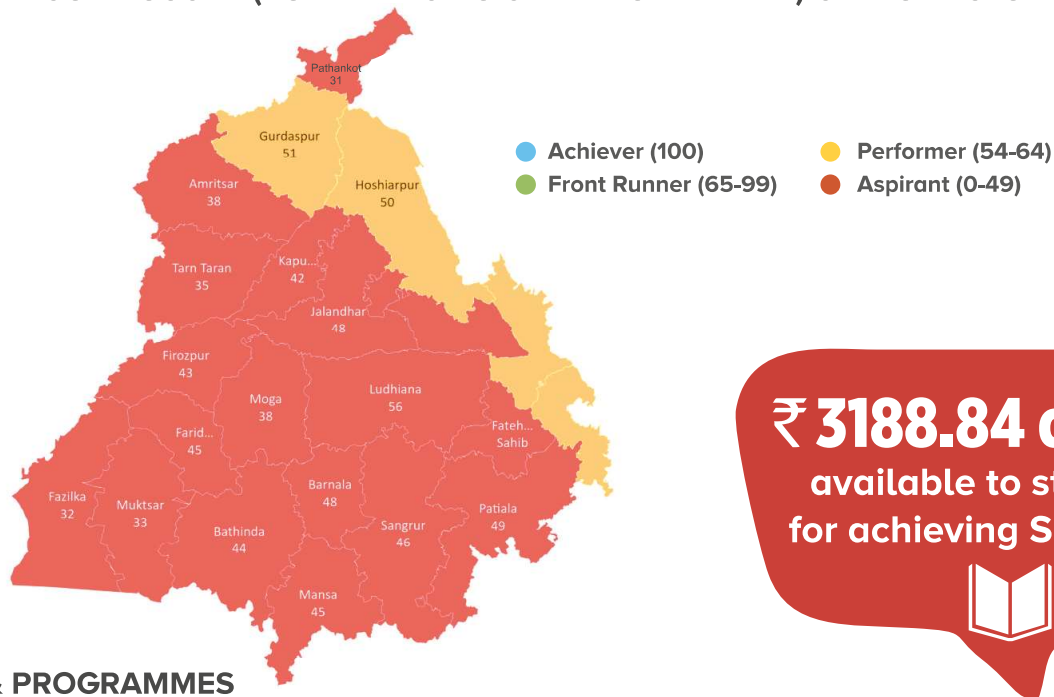
Access to Education



Quality of Education



SDG 4 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

	Scheme	Grant Released by FD (2019-20) Rs. Lakhs		
		SS	CS	Total
1	Samagraha Shiksha Adbihiyan Punjab (Secondary)	70845.00	12300.00	83145.00
2	Rashtriya Ucchar Shiksha Abhiyan (RUSA) (60:40)	1936.00	2904.00	4840.00
3	Samagraha Shiksha Abhiyan, Punjab Elementary	35775.51	45000.00	80775.51
4	Rashtriya Madhyamik Shiksha Abhiyan (RMSA) for Universalization of Secondary Education (60:40)	0.01	0.0	0.01
5	Financial Assistance for providing higher education to the students of meritorious schools in the State	1.00	0.0	1.00
6	Infrastructural Development in government schools & Opening/running of Adarsh and Meritorious Schools through Education Cess in Punjab	13961.78	0.0	13961.78
7	Dr. Hargobind Khurana Scholarship for brilliant students	500.00	0.0	500.00
8	Setting up of model schools at block level in educationally backward blocks (scheme delinked by Govt of Punjab 2015-16)	1250.00	0.0	1250.00
9	Grant in Aid Information and Communication Technology (ICT) in Punjab Schools (60:40)	80.00	120.00	200.00
10	Providing new green boards (6' *4') in Government Primary,Middle,High and Senior Secondary Schools	1600.00	0.0	1600.00
11	Providing computers in Government Primary Schools	1500.00	0.0	1500.00
12	State support for Inclusive Education for Disabled at Secondary Stage(IEDSS)	55.00	0.0	55.00
13	Implementation of EDUSAT Project in the State	94.00	0.0	94.00
14	Padho Punjab Padhao Punjab	1.00	0.0	1.00
15	Free books to general category students of 9th and 10th class & all students of 11th and 12th class	1000.00	0.0	1000.00
16	Digital Education in the Govt Schools	500.00	0.0	500.00
17	Mid Day Meal Scheme (MDM) (60:40)	13086.00	16014.00	29100.00
18	Centre for Training and Employment of Punjab Youth (C-PYTE)	900.00	0.0	900.00
19	Financial assistance to Rural Youth/Sports Clubs	238.00	0.0	238.00
20	Free smart mobiles phones to the youth	1600.00	0.0	1600.00
21	Mai Bhago Vidya (Edu.) Scheme. (Free Bicycle to All Girl Students Studying in class 9th to 12th)	1500.00	0.0	1500.00
22	Attendance Scholarship to Handicapped Girl Students in Rural Areas	58.00	0.0	58.00
23	Attendance Scholarship to SC Primary Girl Students.	916.65	0.0	916.65
24	Attendance Scholarship to BC/EWS Primary Girl Students.	1.00	0.0	1.00
25	New Courses/Vocational Training in ITIs for SC Students (Staff expenditure, scholarship to SC Students etc)	500.00	0.0	500.00
26	Pre-matric Scholarship to the Children Whose Parents are engaged in Unclean Occupations(Shifted from Non Plan)	64.56	55.88	120.44
27	Post matric Scholarship to the Other Backward Classes for Study in India (100% GOI over and above committed liability of State Govt.)	0.0	3600.00	3600.00
28	Pre-Matric Scholarship for Scheduled Caste Students Studying in Class ixth and xth (100% GOI)	4641.44	1843.00	6484.44

	Scheme	Grant Released by FD (2019-20) Rs. Lakhs		
		SS	CS	Total
29	Scholarship for Post Matric Students for Scheduled Castes (100% GOI over & above committed liability of State Govt) (Shifted from Non-Plan)	6079.00	73921.00	80000.00
30	Pre-matric Scholarship for OBC Students (GoP share includes committed liability)	1210.88	1031.36	2242.24
31	Placement Linked Skill Development Projects under Deen Dayal Upadhyaya Grameen Kaushalya Yojana(DDU-GKY)(60:40)	840.00	1260.00	2100.00
32	Provision of Free Text Books and Tools Kits to Scheduled Castes	100.00	0.0	100.00
	TOTAL	160834.83	158049.24	318884.07



CHALLENGES

- The **drop out levels for upper primary** from 98.58% to 93.32% needs attention. The retention of students in school education dips after primary level and declines even further as one reaches the higher secondary level of school education. Thus, boosting the Gross Enrolment Ratio (GER) in higher education institutions, is an area requiring urgent attention.



TELLING FIGURES	
STATE	UNEMPLOYMENT RATE
Punjab	7.3%
Haryana	6.4%
Chandigarh	6.3%
Himachal	3.7%
National Average	4.8%

State-wise rate of underemployment among the educated population as per the latest PLFS report between July 2019 and June 2020

- Limited Employability** of candidates from government institutions (especially for students from the field of liberal arts); a dire need to improve the quality of higher education to attract industry placements and job offers.
- Bridging the gap between academic level and employability** - With an overall unemployment rate pegged at 7.3% against the all India average of 4.8%, Punjab has the highest unemployment rate in the region.¹

- Rising trend amongst youngsters to **migrate abroad** for better work opportunities and lifestyle; and to do so is via enrolling for higher education in foreign universities.
- The **rising cost of higher education** is a major hindrance for the economically weaker, making it even more challenging to achieve the goal of equity in education.
- Burgeoning **digital divide** in contemporary times even in urban regions.
- Composition of girls and boys** vary significantly in higher education courses
 - The percentage of girls in liberal arts (B.A., B.Com., etc.) is almost 50%
 - Academic streams in which representation of women is low are B.Tech./B.E. - 16%, Industrial Art and Craft Institutes - 18%, and Polytechnic Institutes - 30%

RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

- Attention of the state to **consolidate the gains achieved at the lower level of school education** – especially for girls. Few steps in this regard are:
 - Support high under-graduate students through Career Counselling facilities by way of psychometric assessment – especially to students belonging to economically weaker sections of the society as well as girls. This will help students choose their careers wisely and effectively. Career Counselling centers can also serve as information dissemination centers for scholarships, skilling opportunities, etc.
 - To encourage Entrepreneurship Development (ED) amongst students, set up ED Cells in higher education institutions under the ambit of central ED Centre. This will be key to inspire students to become entrepreneurs through training, knowledge sharing, mentorship, financial support, etc.
 - Create an ecosystem for students to access expert seminars, workshops, etc to create awareness amongst students regarding off-beat and unconventional career opportunities India and abroad – use of virtual media for the same
- Retaining the marginalised segments** in higher education can be enhanced by ensuring inclusion of all kinds of students via. disabled friendly infrastructure, classrooms, and other support mechanism in



Long-Term Strategies

- Recruitment, retention and capacity building of qualified teachers**
 - Recruitment of regular qualified teachers in higher education should be a priority for the state
 - Teachers to be recruited at UGC approved pay-scales to minimize attrition of quality teachers
- Pre-primary education should be handled by professional teachers and not Anganwadi workers** - given the multi varied nature of Anganwadi workers' assignments, it would be too much to expect from them to do justice to their role as pre-primary educators. Good quality pre-primary education goes a long way in determining the success of induction and continuation in formal education system of a child.
- Encourage participatory hands-on approach in classroom learning** - the school curriculum and syllabi need to be redesigned so that children are not confined to only the theoretical part of knowledge but also experience application-based practical component in each of the subjects.

schools and colleges, coupled with provisioning hospitable environment and ensuring not even subtle forms of discrimination is faced by marginalized students.

3. **Access to sector specific and industry specific courses** i.e. equipping students with requisite skills to make them employable Undertake a mapping study in Punjab to better understand industry needs when it comes to recruitment from Govt. institutes in Punjab; basis the study, revisit the curriculum and/or introduce new industry specific courses/modules/trainings, etc. Jagat Guru Nanak Dev Punjab State Open University along the lines of Indira Gandhi National Open University (IGNOU) partially achieves this objective but creating awareness regarding these courses is key to boost enrolment.

4. **Skilling and Vocational Courses** for students State must develop a coordinated multi sectoral plan in this space and convergence of key line departments is crucial in this regard. For example: Centre of Punjab for Youth Training and Employment (C-PYTE) set up by the Department of Labour and Employment, Ambedkar Bhawans set up by Department of Social Welfare, Mission Red, National Skill Qualification Framework (NSQF) scheme under Punjab Skill Development Mission and many other schemes have not been able to generate the expected impact. A coordinated line of work in this regard can make systems more efficient and avoid duplicity of efforts.

5. **Teacher training and capacity building**

- Filling of vacant positions at all higher education institutions
- Ensure timely capacity building of teachers especially for new courses

4. **Promote employability of students through active industry/service sector linkages** - better linkage with industry and service sector for effective employability of the educated youth can be developed through internship programmes.

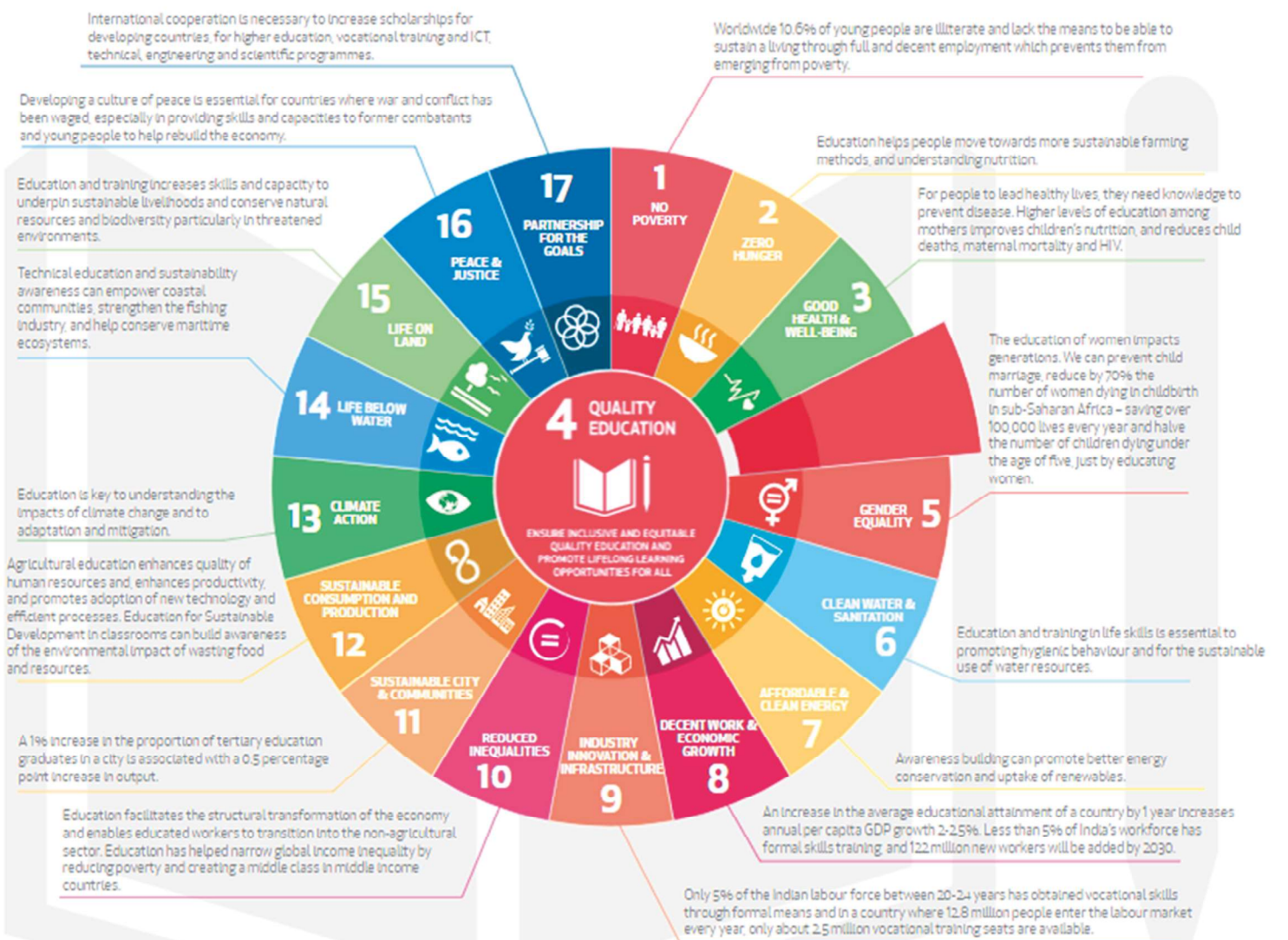
5. **Promote NGOs and civil society** for expanding the reach of educational goals, especially adult education

6. To address the increasing costs of education, the state should **promote larger number of scholarships in higher education** to make it economically viable for all. The scholarships should be in line with recommendations based on NSSO's 75th Round survey of Household Social Consumption on Education in India; basis the report, listed below are some of the scholarships which need urgent revision:

- Pre-Matric Scholarship for OBC Students of the amount of Rs. 250, Rs. 400 and Rs. 500 per year.
- Paltry amount of Reader Allowance and Travel Allowance for physically disabled students.
- The award of Rs. 1,200 per year to brilliant SC students
- The award of Rs. 500 - 1,000 per year to SC sports students

7. **Promote social sciences** along with other professional disciplines

WHY ACHIEVING SDG 4 IS IMPORTANT TO ACHIEVE ALL SDGS?







**SDG 5
GENDER EQUALITY**

SDG 5 – GENDER EQUALITY

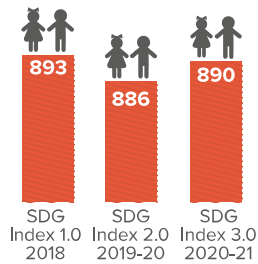
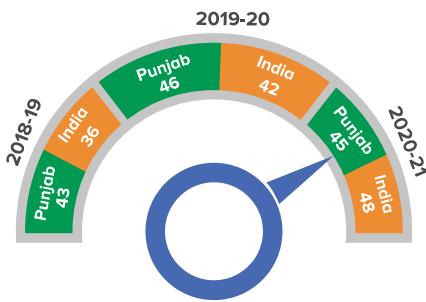


VISION

End to all forms of discrimination against women and girls everywhere. Deliver not only equal rights to women and girls but empower them to live dignified lives and contribute to development, as equal partners.

CURRENT STATUS

SDG Index Composite Score



SEX RATIO AT BIRTH IS **890**



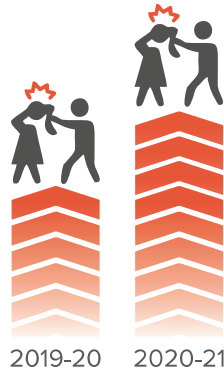
GENDER PAY GAP RATIO IN 2020-21 IS **0.67** AMONG REGULAR WAGE/SALARIED EMPLOYEES.



RATIO OF FEMALE TO MALE LABOUR FORCE PARTICIPATION RATE (LFPR) IS **0.26**



190 WOMEN IN MANAGERIAL POSITIONS IN COMPANIES PER 1000 PERSONS



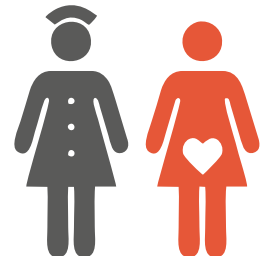
RATE OF CRIMES AGAINST WOMEN PER **100,000** FEMALE POPULATION HAVE INCREASED FROM **34.1** IN 2019-20 TO **41.5** IN 2020-21



11.4 WOMEN PER LAKH OF WOMEN POPULATION HAVE EXPERIENCED PHYSICAL/SEXUAL VIOLENCE BY HUSBAND OR HIS RELATIVES DURING 2020-21



5.13% ELECTED WOMEN AMONG TOTAL SEATS IN THE STATE LEGISLATIVE ASSEMBLY (2020)

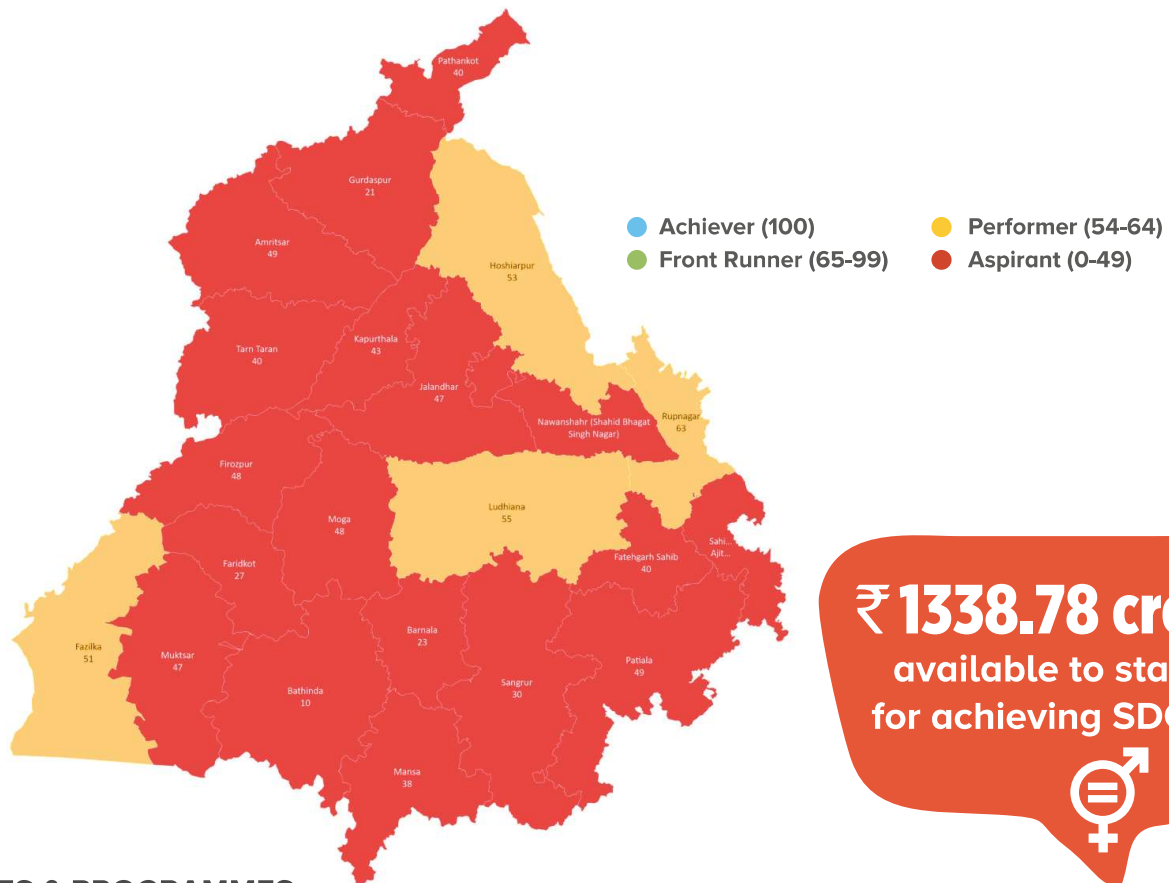


80.9% MARRIED WOMEN AGED 15-49 YEARS HAVE THEIR DEMAND FOR FAMILY PLANNING SATISFIED BY MODERN METHODS



1.55% FEMALE OPERATED LAND HOLDINGS

SDG 5 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

	Scheme	Grant Released by FD (2019-20) Rs. Lakhs		
		SS	CS	TOTAL
1	Maternity Benefit Programme	2741.73	572.60	3314.33
2	Establishment of State Resource Centre for Women under National Mission for Empowerment of Women	8.00	12.00	20.00
3	Swadhar Greh Scheme	8.00	12.00	20.00
4	Mahila Shakti Kendra (MSK)	44.00	66.00	110.00
5	Nutrition ICDS (SNP)	7000.00	7000.00	14000.00
6	Integrated Child Development Services Scheme (Shifted from Non Plan) over and above the committed liability of Rs. 96 cr of State Govt. for paying honorarium to Anganwadi workers/helpers	40549.36	18778.29	59327.65
7	Integrated Child Development Services (ICDS) Training Programme (Shifted from Non Plan)	109.16	163.74	272.90
8	National Nutrition Mission	2132.40	8529.56	10661.96
9	National Creche Scheme for the Children of Working Mothers	70.76	106.14	176.90
10	Indira Gandhi National Widow Pension Scheme	0.0	750.00	750.00
11	Attendance Scholarship to SC Primary Girl Students.	916.65	0.00	916.65
12	Attendance Scholarship to BC/EWS Primary Girl Students.	1.00	0.00	1.00
13	Ashirwaad to SC Girls/Widows/Divorcees and Daughters of Widows at the time of their Marriages.	10000.00	0.00	10000.00
14	Ashirwaad to Backward Classes and Christian Girls/Widows/Divorcees and Daughters of Widows of any caste at the time of their Marriages.	5000.00	0.00	5000.00
15	Provision for the grant of Rs.5.00 lac each for purchase of plot/house for the widows of Martyrs/75% to 100% disabled soldiers during the different operations from the period 1/1/1999 onwards	100.00	0.00	100.00
16	Financial assistance to Gallantry Awardees, war widows and scholarship to their children (Corpus Fund)	0.10	0.00	0.10
17	Mai Bhago Vidya (Edu.) Scheme. (Free Bicycle to All Girl Students Studying in class 9th to 12th)	1500.00	0.00	1500.00
18	Grant to aid to Mai Bhago Armed Forces Preparatory Institute (for Girls), Mohali	300.00	0.00	300.00
19	Financial Assistance to Acid Attack Female Victims	24.00	0.00	24.00
20	Upgradation of Infrastructure of Senior Secondary Schools for Girls in the State	679.00	0.00	679.00
21	RajivGandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) (SABLA)	306.98	348.02	655.00
22	Mai Bhago Vidya (Edu.) Scheme. (Free Bicycle to All Girl Students Studying in class 9th to 12th)	1500.00	0.00	1500.00

	Scheme	Grant Released by FD (2019-20) Rs. Lakhs		
		SS	CS	TOTAL
23	Attendance Scholarship to Handicapped Girl Students in Rural Areas	58.00	0.00	58.00
24	Solar Cooker Programme for women in the State under Jawaharlal Nehru National Solar Mission	40.00	0.00	40.00
25	State Scheme to promote Women entrepreneurship under Stand up India.(WISH)	50.00	0.00	50.00
26	FastTrack Courts to handle cases related to Crime Against Women (Salary)	1.00	0.00	1.00
27	Laboratory for Cyber Crime Prevention against Women & Children (CCPWC)	300.00	0.00	300.00
28	Free Transport Facility to Students and Women	17000.00	0.00	17000.00
29	Seven Hostel for working women in major districts of Punjab namely Jalandhar, Patiala, Ludhiana, SAS Nagar, Mansa, Barnala and Amritsar	5000.00	0.00	5000.00
30	Safety and Hygiene of girl students	2100.00	0.00	2100.00
	TOTAL	97540.14	36338.35	133878.49



CHALLENGES

- **Low child sex ratio** (890) as compared to national average (929).
- **Crime against women is high**– 41.5 per lakh female population
- Ratio of female to male **average wage/salary earnings** received among regular wage/salaried employees reduced from 0.96 to 0.67
- Ratio of female to male **Labour Force Participation Rate (LFPR)** in the age group of 15-59 years is only 0.26 against the national target of 1
- Women's roles in farms have largely been replaced by technology, and they rarely hold profitable jobs outside of the home. This major shift has resulted in the **decreased earning potential of women**
- Percentage of **female operated operational land holdings is 1.55** against the national target of 50
- Discrimination against women in terms of **credit lending and property ownership**
- **Gender gap in education** is higher among the scheduled castes
- Prevalence of **caste based sexual exploitation**
- **Low political participation** of women in the state legislative assembly as well as in Parliament
- **Increased number of NRI bride desertions cases** - around 32,000 brides have been deserted by their husbands in Punjab
- Prevalence of ill impact of **substance abuse on women**.
- **Malnourishment and anaemia** among children & women which is high despite being a food rich state.

RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

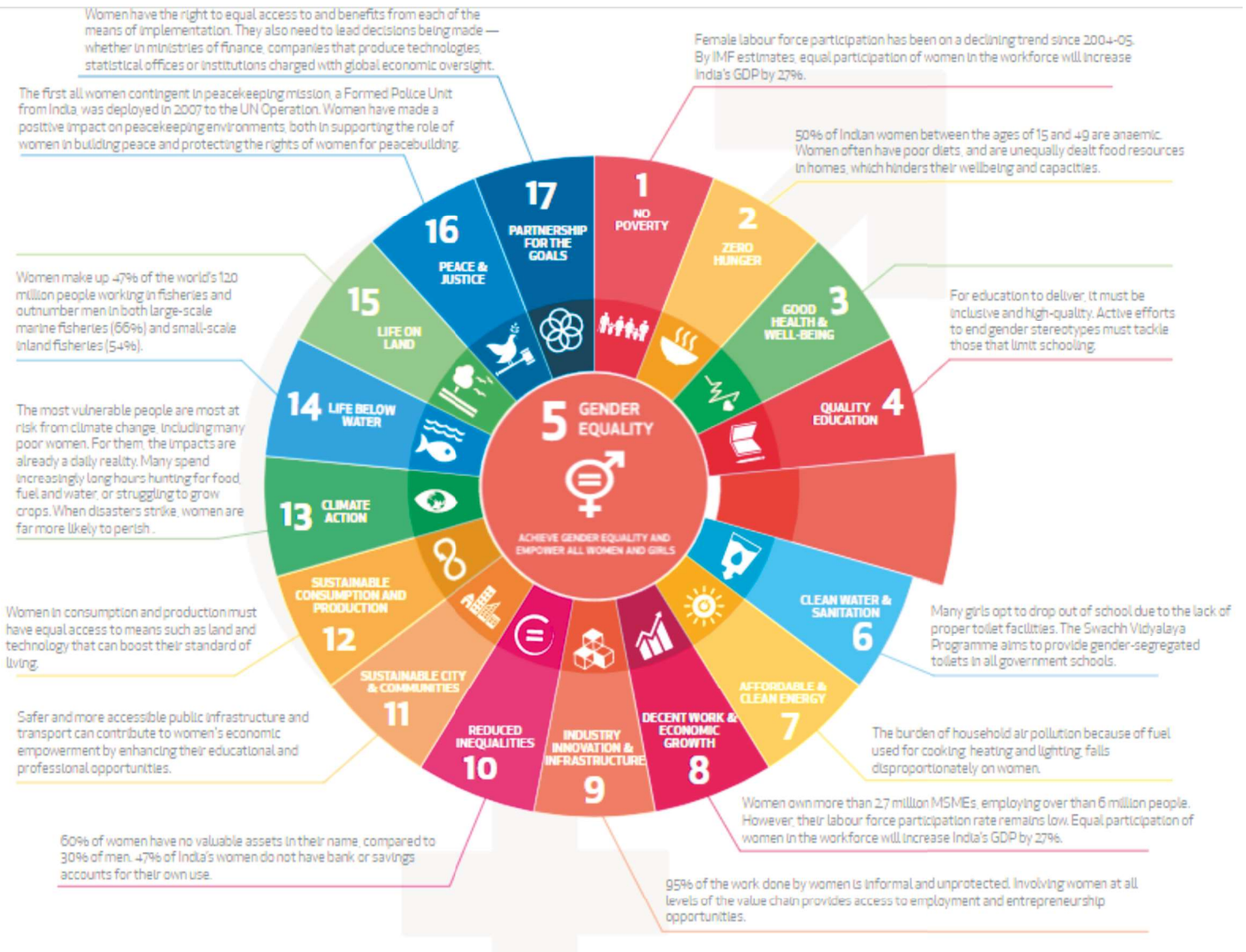
- Promote collection and analysis of **gender disaggregated statistics** for a wide range of indicators for guiding policy and decision-making processes.
- **Create awareness** around the Prohibition of Child Marriage Act, especially at the last mile by engaging community and religious leaders.
- Promotion of sustained awareness building strategies and appropriate legislative and policy action towards **transformation of societal norms and values** that discriminate against girls and women. Promote gender sensitization through awareness campaigns, training programmes and capacity building
- **Focus on groups with special needs** such as disabled women, elderly women through appropriate policy and institutional support.
- Create **education opportunities** for girls and provide incentives to girls and the families to complete graduation.
- Incorporate **career counselling sessions** at +2 level to encourage girls to engage in gainful employment.
- Make **access to loans** easier including MUDRA loans for girls and women
- Strong **implementation of Domestic Violence Act, 2005** at all levels. Also, involving Self-Help Groups and Panchayati Raj Institutions to play a key role in creating awareness around the Act and reporting of incidences.
- Organise 'mahila sabhas' at Gram Panchayat (GP) level and promote women's participation in decision making processes.



Long-Term Strategies

- **Promote convergence**, coordination and planning across different state bodies, departments, and functionaries to effectively address intersectional issues affecting the well-being of girls and women.
- Ensure availability of **gender disaggregated data** to understand existing challenges, planning and efficient programme implementation and tracking of progress.
- **Support SRLM** to create more micro and nano entrepreneurs at the village level. Create more awareness around agri-based businesses and handhold women to become entrepreneurs.
- Promote training and skill building programmes in **non conventional and upcoming trades**.
- Establish **working women's hostels** so that women's safety and security is ensured, and they are encouraged to work in the formal sector.
- Ensure **efficient and accountable law enforcement machinery** at all levels (administration, government, police and judiciary). Capacity building of these to react swiftly and with sensitivity towards women and children cases.
- Provide **migrant support services** for girls and women at source and destinations to enable them to secure their rights and entitlements.
- Enhance the **nutritional security of girls and women** by ensuring access to adequate quantity and quality of food.
- **Promote equal participation** of women in all stages of designing and implementing government programmes, policies.

WHY ACHIEVING SDG 5 IS IMPORTANT TO ACHIEVE ALL SDGS?







**SDG 6
CLEAN WATER AND
SANITATION FOR ALL**

SDG 6 – CLEAN WATER AND SANITATION FOR ALL



Improve water quality by reducing pollution, substantially increasing water-use efficiency across all sectors. Ensuring support to and strengthening the participation of local communities in improving water and sanitation management.

CURRENT STATUS



All urban and rural households have access to toilet facilities - 100% districts verified to be ODF in Punjab



Punjab Water Resources (Management and Regulation) Act, 2020 has already been enacted by the state government



The state is very close to reaching its SDG target for the proportion of schools with separate toilet facilities for girls.

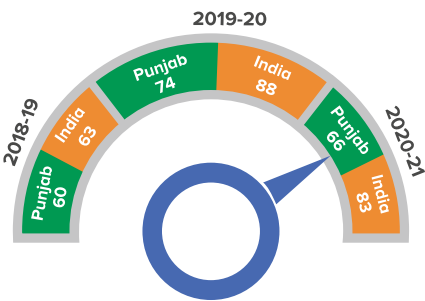


Most of the rural population has access to improved drinking water.

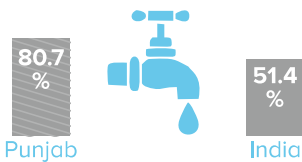


Good accessibility to safe and adequate drinking water within premises through piped water supply.

SDG Index Composite Score



%age of rural population getting safe and adequate drinking water within premises through Pipe Water Supply (PWS)



%age of rural population having improved source of drinking water



%age of individual household toilets constructed against target (SBM(G))"



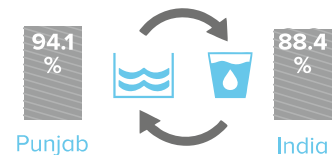
%age of districts verified to be ODF (SBM(G))



%age of schools with separate toilet facility for girls



%age of industries (17 category of highly polluting industries/ grossly polluting/ red category of industries) complying with waste water treatment



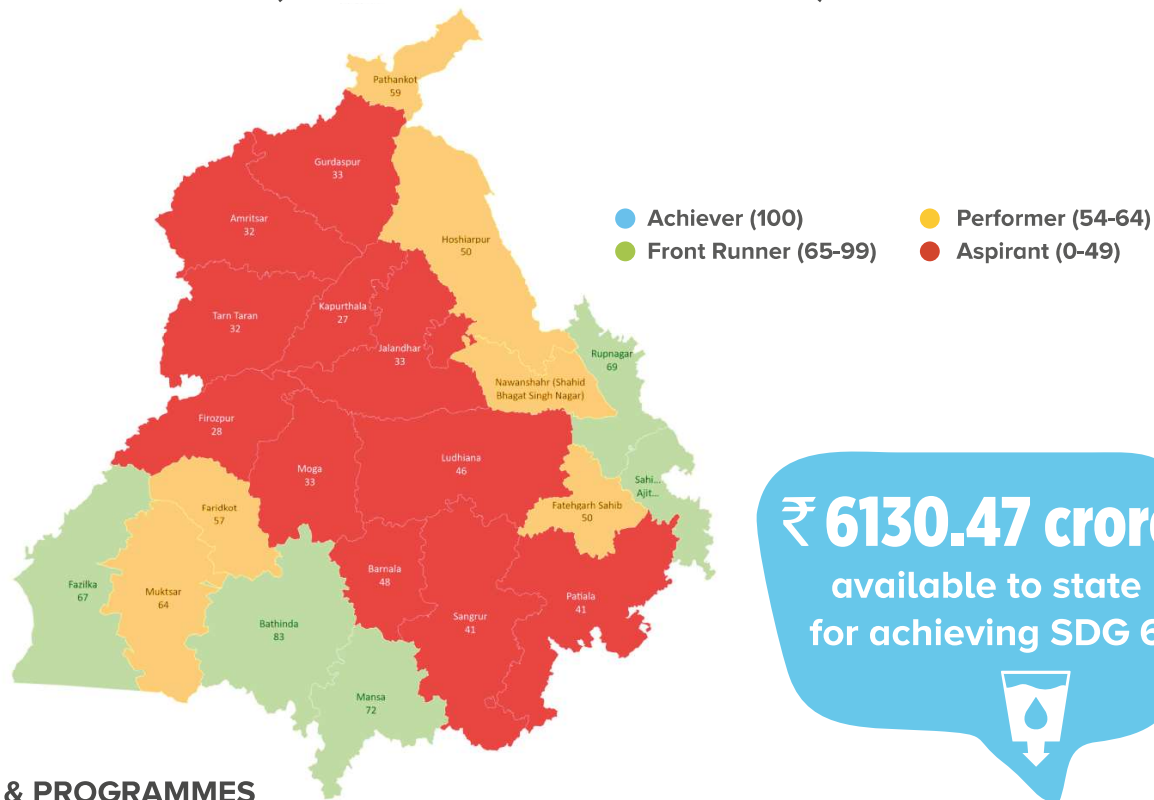
%age of ground water withdrawal against availability



%age of blocks/over-exploited for water



SDG 6 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



₹ 6130.47 crore
available to state
for achieving SDG 6



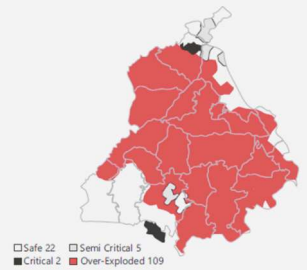
SCHEMES & PROGRAMMES

	Schemes	GRANT RELEASED BY FD 2019-20 (Rs.Lakhs)		
		SS	CS	TOTAL
1	National Rural Drinking Water Supply Programme (NRDWP)	0.00	12,000.00	12000.00
2	Special assistance for mitigation of drinking water problems in the habitations affected with Arsenic and Fluoride	0.00	500.00	500.00
3	Drinking Water R.O. System for Rural High and Senior Secondary Schools in the State (RIDF-XXIII)	900.00	0.00	900.00
4	Provision/Augmentation of water supply & Sewerage facilities in specific towns	1500.00	0.00	1500.00
5	Installation of Reverse Osmosis (RO) systems to provide drinking water in heavy metals affected districts of Punjab RIDF- XIX(NABARD)	140.00	0.00	140.00
6	Installation of Reverse Osmosis(RO) systems to provide drinking water in heavy metals affected districts of Punjab RIDF-XXII(NABARD)	398.00	0.00	398.00
7	Second Punjab Rural Water Supply and Sanitation Sector Improvement Programme - World Bank Assisted Project	20000.00	0.00	20000.00
8	Provision of piped water supply in rural areas of Punjab-RIDF XXIII	2000.00	0.00	2000.00
9	Augmentation/Enhancement/Replacement and Rehabilitations of existing infrastructure in Rural Water Supply and Sewerage Schemes	600.00	0.00	600.00
10	Project for Judicious use of Available Water and Harvesting of Rainwater for Enhancing Irrigation Potential in Punjab State (NABARD)	1.00	0.00	1.00
11	Swachh Bharat Mission (Urban)	2869.20	5,179.80	8049.00
12	Swachh Bharat Abhiyan (Gramin)	0.00	3,000.00	3000.00
13	Samagraha Shiksha Abhiyan, Punjab Elementary	35775.51	45,000.00	80775.51
14	Samagraha Shiksha Adbihiyan Punjab (Secondary)	70845.00	12,300.00	83145.00
15	Liquid Waste Management in Rural Areas	6291.40	0.00	6291.40
16	Atal Mission for Rejuvenation and Urban Transformation(AMRUT)	14300.00	12,347.00	26647.00
17	2 new multi village surface water supply projects for Roopnagar and Hoshiarpur	19800.00	0.00	19800.00
18	Har Ghar Paani, Har Ghar Safai	214800.00	0.00	214800.00
19	Surface water supply projects would be undertaken in the rural villages of the districts Ferozepur, Fazilka, Hoshiarpur and Roopnagar	91100.00	0.00	91100.00
20	Upgradation of water quality testing infrastructure	1400.00	0.00	1400.00
21	Rural Sanitation Programme	40000.00	0.00	40000.00
	TOTAL	522720.11	90326.80	613046.91

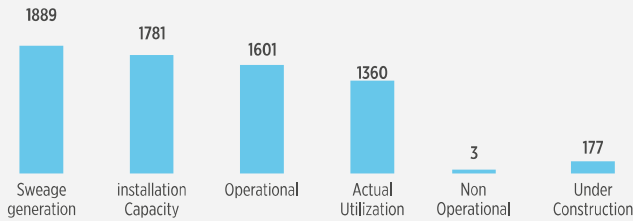


CHALLENGES

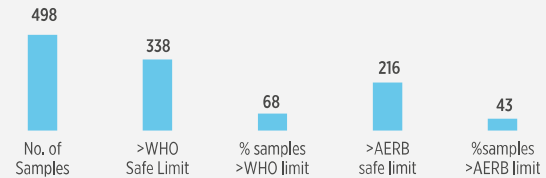
- The **groundwater level is depleting** at an alarming rate:
 - Around 80% blocks in Punjab over-exploited
 - 165% of groundwater withdrawal against availability vis-à-vis the advised rate of 70%
 - Excessive cultivation of water intensive crops like paddy.



- Sewage treatment capacity is less** than the sewage being produced in the state.
 - Lack of data regarding the amount of sewage treated before discharge into surface water bodies.
 - A snapshot of sewage generation and treatment capacity in Punjab shows progress – the same needs to be escalated to ensure 100% treatment levels



- Delay in implementation** of an Integrated Water Resources Management (IWRM) plan
- Not only is the **availability** of water decreasing, but the **quality of water is also deteriorating**. Due to various natural and anthropogenic reasons Punjab is dealing with high levels of toxic elements like uranium, arsenic and fluoride in groundwater. A study published in 2017 reveals that 68% of water samples taken from four districts (Bathinda, Mansa, Faridkot and Ferozepur) of southwest Punjab (figure above) were above the safe limit specified by WHO



RECOMMENDATIONS & STRATEGIES

The 3Rs approach should be an integral part of the water management system to check the overexploitation of water.

3-R STRATEGY



Short-Term Strategies

- Need to ensure **sustainability of all indicators**, for which the following steps are required:
 - appropriate monitoring, upkeep and maintenance to be the responsibility of GPWSCs in rural areas
 - additional toilets should be built, and public private partnership should be encouraged.
 - in schools, regular monitoring, upkeep and upgradation is required with special focus on females
- Water saving measures** in case of paddy cultivation:
 - delaying paddy transplantation to 25th June or later can result in water saving of 100-200 mm or 1,000 to 2,000 m³ per hectare.
 - alternate wetting and drying, and maximum 50 mm depth of irrigation water in the paddy field; water saving: 150-250 mm or 1,500-2,500 m³ per hectare.
 - delaying paddy transplanting to 25th June or later coupled with growing short duration varieties; water saving: 150-250 mm or 1,500-2,500 m³ per hectare.
- Ground Water Recharge**
 - structures for recharge of groundwater can be constructed along canals, drains, choes and rivulets to utilize the excess for groundwater recharge during monsoon.
 - integrate rainwater harvesting systems including recharge structures while constructing private buildings and premises, and
 - public spaces in urban areas to improve groundwater recharge in cities



Long-Term Strategies

- Encourage construction of Green Buildings & retro-fitting of existing buildings with focus on rainwater harvesting**
 - Although provisions for rainwater harvesting and construction of recharge wells are included in government guidelines, there should be strict implementation and periodic checking of the rainwater harvesting structures
 - People should be encouraged to practise rainwater recharge within their premises and government should help in this direction by providing suitable technical and financial assistance.
- Department of Agriculture to encourage **Crop Diversification** amongst farmers with due focus on replacing paddy with other less water consuming crops.

Replacement crop	Water saving potential
Paddy to kharif maize	1,000 mm or 10,000 m ³ per hectare
Paddy to millets (bajra)	1,100 mm or 11,000 m ³ per hectare
Paddy to oilseeds (groundnut)	1,100 mm or 11,000 m ³ per hectare
Paddy to pulses (moong bean)	1,100 mm or 11,000 m ³ per hectare
- Extend the scope of project under **NABARD Aided RIDF – XXIV in heavy metals affected districts**, including the installation of Reverse Osmosis (RO) systems to provide drinking water in these regions.
- Augmentation/enhancement/replacement and rehabilitation of existing infrastructure under the aegis of Rural Water Supply and Sewerage Board scheme.
- For the purpose of the **Integrated State Water Plan**, the Government may divide the State into different categories based on the stage of groundwater development, the trend of groundwater level depletion,

4. Punjab Water Resources (Management and Regulation) Act, 2020 has already been enacted by the state; however, the **Integrated State Water Plan (ISWP) is still awaited**. The integration planning of water resources involves various Government departments like Irrigation, Water Supply and Sanitation, and local bodies like municipalities, gram panchayats, etc. through various tools, and includes the following activities

- management of surface water, groundwater and rainwater
- government and private sectors that are separately managing water resources
- policy, resource management and service delivery of water
- management, conservation, maintenance, and scientific use of water resources
- integration of economic, social and environmental outcomes
- issues related to food and energy security

5. **Tracking activities under Gram Panchayat Development Plans:** Once GPDP is approved for a year comprising different activities, there is no system to track which activities have been completed or which have not. Government can come up with holistic portal covering SDG related GPDP and tracking of activities along with training of PRI members to implement water management and sanitation activities.

6. **Awareness among farmers** needs to be created regarding the current situation and future consequences of rapid decline in the water table in Punjab. Dedicated seminars/awareness camps need to be conducted.


the level of water table, quality of groundwater, availability of surface water or other relevant criteria, as it may deem appropriate in view of the local conditions.

6. **Rejuvenation of Identified Ponds** - 15,466 rural and 249 urban ponds have been identified by Department of Rural Development & Panchayats (DRDP) and Department of Local Government (DLG). One of the key features of the pond rejuvenation plan is to set up wastewater treatment facilities in 800 villages located in the catchment area of rivers as per pre-decided timelines.
7. Amount of **waste sewage water dumped into the surface water bodies** needs to be assessed
 - Cities/towns/villages having/not having adequate facility for treatment of the sewage waste should be identified and classified under the two categories - (1) with facility for treatment, and (2) without facility for treatment.
 - These two categories should be scrutinized so that plans can be worked out to achieve the target by 2030.
 - The need of the hour is to use an amalgamation of approaches for sewage treatment, effluent treatment, and decentralized wastewater/solid treatment before it enters the waterbody, thus reducing water pollution.

WHY ACHIEVING SDG 6 IS IMPORTANT TO ACHIEVE ALL SDGS?







**SDG 7
AFFORDABLE AND
CLEAN ENERGY**

SDG 7 – AFFORDABLE AND CLEAN ENERGY



VISION

Ensure universal access of population to affordable, clean, sustainable, and modern energy, for commercial as well as domestic use.

CURRENT STATUS



Punjab is an achiever in SDG 7 with SDG Index score 100 in 2021.



State has achieved 100% target of providing LPG and PNG connections against the total number of households.



State has achieved 100% electrification of households

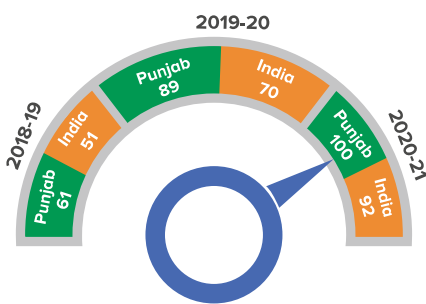


10.42 tonnes of Co2 emission reduced by using LED bulbs (per 1,000 population).



16.04 MW of Installed Capacity of Grid Interactive Biopower (per 10 lakh population).

SDG Index Composite Score



Percentage of household electrified

PUNJAB
100%



INDIA
99.9%

LPG+PNG connections against number of households

PUNJAB
146.2%



INDIA
92%

Percentage of household with electrified

99.7%

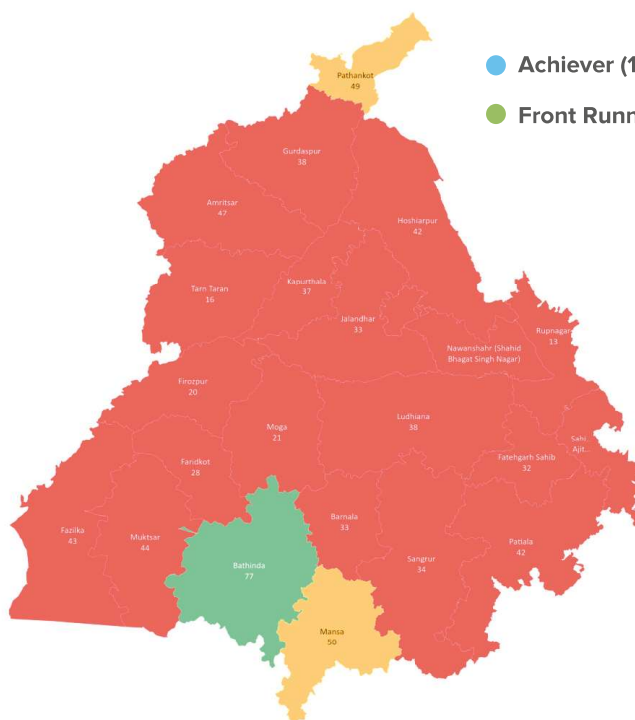


Households using clean fuel for cooking

76.7%



SDG 7 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



● Achiever (100)

● Performer (54-64)

● Front Runner (65-99)

● Aspirant (0-49)

₹ 172.00 crore
available to state
for achieving SDG 7



SCHEMES & PROGRAMMES

	Schemes	GRANT RELEASED BY FD (2019-20) Rs. Lakhs		
		SS	CS	Total
1	Installation of High Mast Solar Powered Light in 750 rural stadium/playgrounds	500.00	0.00	500.00
2	Pradhan Mantri - Kisan Urja Suraksha Evam Utthaan Mahabhiyan	12500.00	0.00	12500.00
3	SPV Water Pumping Programme under Jawaharlal Nehru Solar Mission. (CS:SS:Benf)(22:58:20) (Direct Release)	4200.00	0.00	4200.00
	Grand Total	17200.00	0.00	17200.00



CHALLENGES

- **Management of peak electricity load requirements**, especially during paddy sowing season.
- **Lack of enforcement of Renewable Purchase Obligations (RPOs)** has led to concerns about the final purchase of renewable power.
- The **credit worthiness of the distribution companies** is a critical issue and plays a key role in determining the bankability of a Power Purchase Agreement (PPA).
- **Lack of convergence and coordination** among key departments.
- **Lack of infrastructure** to support electric vehicles, biomass energy and energy from solid and municipal waste.
- **Dearth of data** with respect to status of energy intensity in mega joules per rupee in the State
- **High economic dependence on fuel taxes** is hurdle towards implementation of renewable energy as an alternative source of energy

RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

1. **Ensure effective implementation of Renewable Purchase Obligations (RPOs).**
2. **Ensure streamlining and standardizing** the acquisition of permits, clearances, and other administrative hurdles to set up renewable energy facilities.
3. **Build strong coordination mechanism** among various departments i.e., New and Renewable Energy, Environment, Power etc.
4. **Build capacity of Gram panchayats** and create awareness among the residents regarding (a) the benefits of renewable energy, especially in agriculture through solar pumps; and (b) the multiple advantages of energy efficiency practices.
5. Provide **subsidy** in rural areas for **solar installation**.
6. **Promote use of solar cookers** at community level kitchens and sensitise religious centers to use solar cookers.
7. **Provide incentives on Renewable Energy** to investors as well as consumers.



Long-Term Strategies

1. **Use unproductive land** to promote development of solar parks by private sector developers.
2. **Promote farm level solar power generation** where land owning farmers can install solar power projects of 2-3 MW capacity.
3. Promote **installation of solar generation capacity** including roof top solar system with suitable regulations.
4. Develop and implement **Electric Vehicle Policy** including promotion of research & development for electric vehicles and provide facilities for the manufacture of efficient batteries and other equipment.
- 5 **Separate budgetary provisions** should be made for strengthening the structure, mechanism and implementation plan for achieving SDG 7.
6. Promote **development of wind energy** by exploring innovative technological advances.
7. **Leverage international cooperation** in technology transfer for efficient coal power and to procure solar technology of higher efficiency.

WHY ACHIEVING SDG 7 IS IMPORTANT TO ACHIEVE ALL SDGs?







**SDG 8
DECENT WORK AND
ECONOMIC GROWTH**

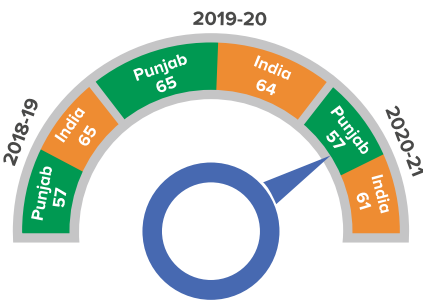
SDG 8 – DECENT WORK AND ECONOMIC GROWTH



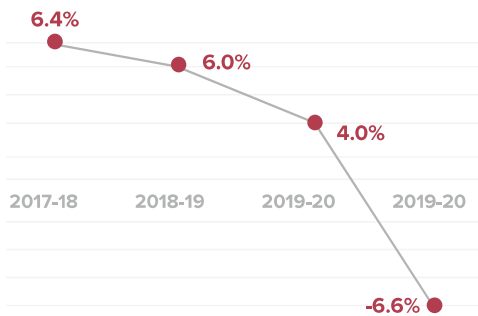
Achieve higher economic growth with job creation by expanding Punjab's industrial and services sectors through diversification and innovation that straddle both technology and labour intensive areas. While doing so, the state envisions protecting labour rights and promoting a safe and secure working environment. It also aims to eradicate forced labour, human trafficking and child labour.

CURRENT STATUS

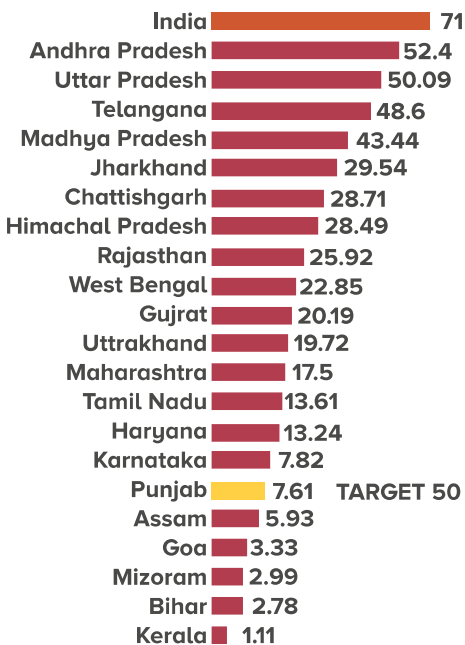
SDG Index Composite Score



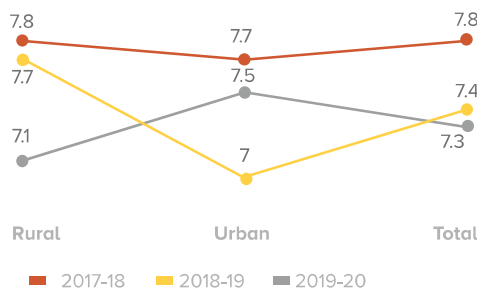
Gross State Domestic Product (%) at Constant Prices (GSDP)*



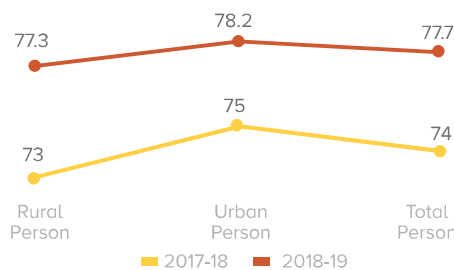
Ease of Doing Business (EODB) Score (feedback score) 7.61



Unemployment rate (%) (15-59 years): 8.0%



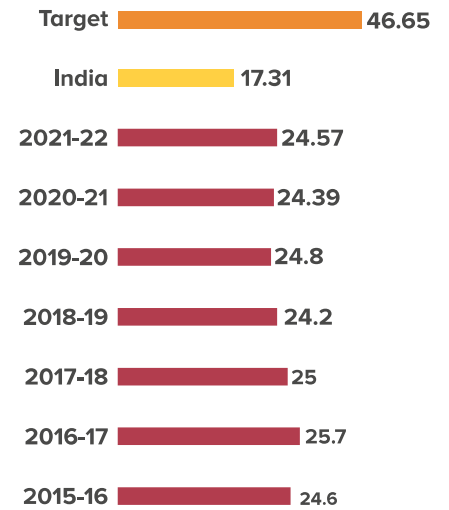
%age of workers in informal sector among total workers engaged in non-agriculture sector



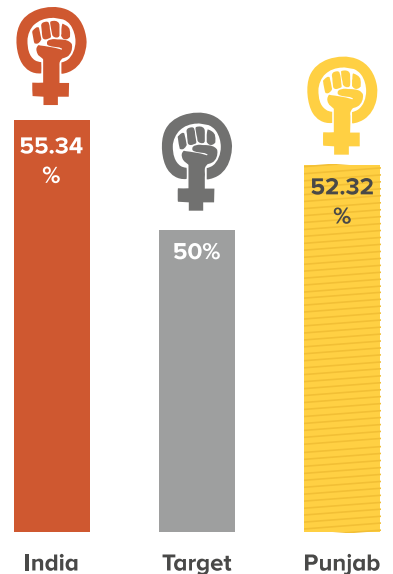
At **70.3%**, Punjab has the highest percentage of regular wage or salaried employees in non-agriculture sector without any social security benefit



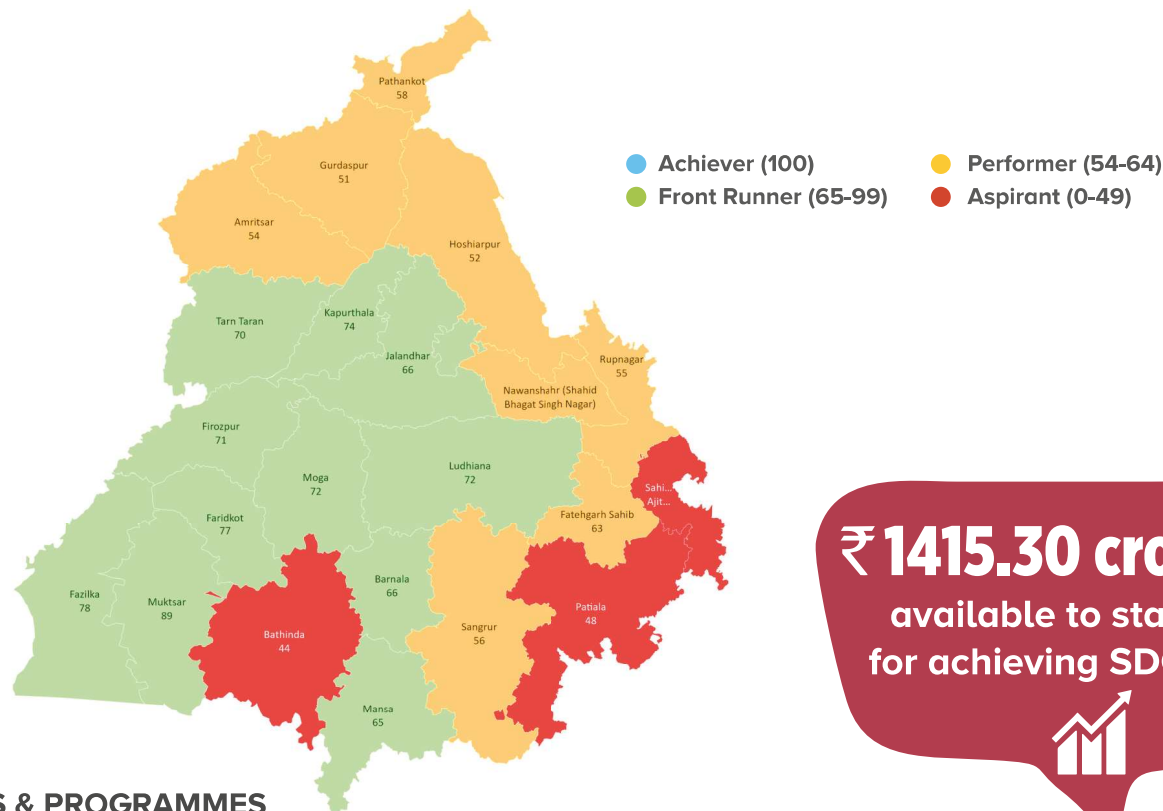
ATMs per 1 lakh population



%age of women account holders in **PMJDY** ranks the state at **21** - indicating limited financial empowerment of women



SDG 8 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

	Schemes	Grants Released by FD (2019-20) Rs. Lakhs		
		SS	CS	TOTAL
1	Pradhan Mantri Gram Sadak Yojana (PMGSY-1)-100% Revised	0.00	400.00	400.00
2	Aapni Gaddi Aapna Rozgar Scheme	500.00	0.00	500.00
3	Mahatma Gandhi National Rural Employment Guarantee Scheme	12500.00	37500.00	50000.00
4	Setting up of new Department of Employment Generation and Training	1.00	0.00	1.00
5	Centre for Training and Employment of Punjab Youth (C-PYTE)	900.00	0.00	900.00
6	Grant in Aid to Maharaja Ranjit Singh Armed Forces Services Preparatory Institute, Ajitgarh (Corpus Fund)	128.34	0.00	128.34
7	Setting up of District Employment Bureaus in the State	700.00	0.00	700.00
8	Grant in aid for Creation of Corpus Fund for Punjab State Council for Employment Generation & Training	100.00	0.00	100.00
9	Grant in aid for Punjab Ghar-Ghar Rozgar and Karobar Mission Society (PGRKAM)	1000.00	0.00	1000.00
10	Urban Employment Programme	9000.00	0.00	9000.00
11	Training to unemployed youth at Police Security Training Institute (PSTI), Jahankhelan for Service in Security Sector through Punjab Police Security Corporation (PPSC) Ltd.	50.00	0.00	50.00
12	Engagement of Young professionals for Economic & Statistical Organisation	93.87	0.00	93.87
13	Incentive for IMA-NDA cadets (@ Rs. 1 lac per cadet)	430.00	0.00	430.00
14	Training scheme for the wards of ex-servicemen and others for entry to technical/non technical trades of Defence /Para Military forces	170.67	0.00	170.67
15	Development and implementation of IT Parks, Knowledge Parks and IT enabled Services Industries	3.80	0.00	3.80
16	Upgradation of Industrial Training Institutes into Centres of Excellence in Punjab	350.00	0.00	350.00
17	Pradhan Mantri Kusal Vikas Yojana	0.00	1847.72	1847.72
18	Skill Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALAP)	474.80	712.20	1187.00
19	Opening of new ITIs in the state of Punjab	68.00	0.00	68.00
20	Skills Strengthening for Industrial Value Enhancements (STRIVE)	0.00	100.00	100.00
21	Mahatma Gandhi National Rural Employment Guarantee Scheme	12500.00	37500.00	50000.00
22	Punjab Skill Development Mission (PSDM)	22800.00	0.00	22800.00
23	Centre for Training and Employment of Punjab Youth (C-PYTE)	1700.00	0.00	1700.00
	TOTAL	63470.48	78059.92	141530.40



CHALLENGES

- **Growth of Gross State Domestic Product (GSDP)** (5.8%) and per capita income (4.7%) between FY2012 and FY2020 was much lower than the targeted growth rate of 7%.
- Fiscal health of Punjab is characterised by **high debt and inadequate revenue** to meet committed expenditures.
- At 8.0% Punjab has one of the **highest unemployment rates** (15–59 years) across India (compared to the national average of 6.2 %) in FY2020.
- The state **lacks jobs with suitable aspiration value for the youth**, a still-to-mature tertiary sector, not enough opportunities in the industrial sector.
- **Work environment** in Punjab is characterized by scattered, unorganized, informal, and largely contractual opportunities that are low on skill-demand, wages, job security and social protection, especially adverse for migrant workers.
- **Lack of robust tracking of unemployment** in the farm and informal sectors further clouds the sectoral picture of employment.
- **Manufacturing sector is dominated by** the Micro, Small and Medium-Sized Enterprises (**MSMEs**) for auto components, agricultural implements, bicycle and bicycle parts, cotton ginning and processing, electrical goods, hand tools, IT and ESDM, pharmaceuticals, rubber goods, sports goods, yarn and textiles and sewing machines. Many of these units are low on productivity, have poor working and living conditions and lack access to credit, technology, markets and trained resources rendering themselves unattractive for the youth.

RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

1. **Upgradation of technology for traditional industries** such as food processing, garments and textiles, light engineering, etc. to minimize drudge work and remain relevant and attractive to job seekers.
2. Inclusion of medical and life insurance in traditional industrial jobs to protect against exploitation.
3. **Enhance productivity in the manufacturing sector** to make it competitive in order to fit into efficient global supply chains. **Participate in global knowledge and technology partnerships** that focus on inter-sectoral efficiencies and synergies such as digital technologies.
4. **Develop the service sector** to fill need gaps arising out of downstream value addition in agriculture, ramping up productivity in manufacturing and inter-sectoral opportunities such as warehousing, cold chains, logistics, food processing, etc.
5. Initiate **formation of women self-help groups** and promote financial inclusion to influence incomes, build new and upgrade existing infrastructure and generate employment opportunities.
- 6 **Attract investments** for growth and human resources by
 - Fostering incubation and risk management for start-up enterprises;
 - Offering rapid growth ecosystem and opportunities to MSMEs;
 - Effectively deploying fiscal and non-fiscal incentives to boost the industry sector;
 - Building and promoting industrial infrastructure and efficient institutional framework and industrial utilities;
 - Developing skilling, research, and support services in lockstep
7. Facilitate **scaling up of the industrial** sector by
 - Improving formal credit access for tiny, micro and small units
 - Improving financial literacy of own account entrepreneurs and integrating them into the financial system;
8. Enabling **product/process innovations and social/marketing innovations** by small manufacturers for better value realization; and leveraging synergies between industry and public institutions that foster innovation.
9. **Skill development** should be **synchronized to demand** so that participants in these programmes are employable and promptly find decent jobs after skilling.
10. **Vernacular high-quality digital learning opportunities** need to be developed and incentivized on the basis of attainments and satisfaction of employers and employees.
11. Initiate **strong export programme for skilled manpower** to other states and countries, linked to the skills programmes.
12. Develop **clear strategy for promoting unique products** including getting geographical indication tags.
13. **Invest resources into capacity building** so that craftspeople can leverage digital technology and marketing skills to tap a wider market
14. Develop policy to address the issues of **social justice and inclusion along a green growth path**.
15. Promote decent, dignified and remunerative **livelihood opportunities for vulnerable groups such as urban informal workers, migrant labourers, refugees**, etc.
16. Legislate and implement a **law to prohibit gender-based discrimination in wages** and salaries to regular employed persons.
17. Develop policy instruments to **reduce the dependence of the rural population on the informal money lenders**.



Long-Term Strategies

1. Focus on **creation of new jobs** and improvement in the earnings of individuals **by expanding the industrial and services sectors** through diversification and innovation.
2. **Switching to agri-practices that are more efficient** in terms of water, soil, inputs, and energy use would also address many of the environmental challenges being faced by Punjab.
3. Develop **policy and enabling measures to ensure access and utilization of banking and insurance products** and financial services to positively influence incomes, build new and upgrade existing infrastructure and generate employment opportunities.
4. Adopt a more **responsive fiscal policy** to reduce debt stock and promote spends in a way that puts money in the hands of the people and spurs demand, in order to achieve inclusive economic development and decent working and living conditions.
5. Ensure that the **employment generated by service sector complies with the institutional and legal framework** for decent working conditions.
6. **Technology oriented and digital economy jobs** including automation, robotics, ITeS, software development, big data research, data centres etc need to be created.
7. Punjab must put in place a **policy for medical tourism**, build infrastructure in partnership with healthcare providers and **encourage NRIs and foreigners to visit the state** for treatment and recovery.
8. Formulate **policies to encourage capital formation and stimulate private investment** in the state to achieve annual GSDP growth target and reduce its fiscal debt burden.
9. Develop **tourism opportunities** that cover religious circuits, rural Punjab, historical monuments, festivals, adventure sports, etc.

WHY ACHIEVING SDG 8 IS IMPORTANT TO ACHIEVE ALL SDGS?







**SDG 9
INDUSTRY, INNOVATION
& INFRASTRUCTURE**

SDG 9 – INDUSTRY, INNOVATION & INFRASTRUCTURE



Strive to develop Punjab as one of the most economically developed states in the country by investing in state-of-the-art industrial infrastructure, facilitate Ease of Doing Business, and foster a progressive policy regime to attract more investments and strengthen the existing industry, thereby enhancing sustainable Development Goals (SDGs).

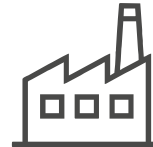
CURRENT STATUS



100 % road connectivity to all habitations.

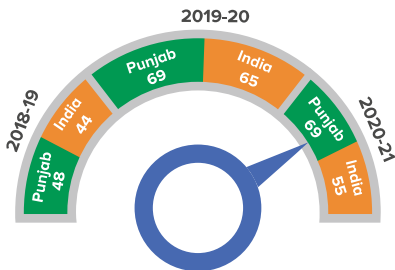


- State has a total cultivable area of 4.2 mn ha - 3% of the net area sown in India
- Punjab produces
 - 48% of mushroom
 - 20% of honey
 - 18% of wheat (third largest marketable surplus after Canada and Australia)
 - 12% of rice (second market surplus after Thailand)
 - 10% of milk and
 - 5% of cotton in the country.



- Punjab is home to approx. 1.6 lakh MSME units - the most important pillars of the industrial growth
- Number of registered factories in Punjab increases from around 7397 in 1980 to 11,630 in 1990 and further to 19,832 in 2019.
- Nationally and globally Punjab is famous niche industries i.e., cycle and cycle parts, sewing machine, hand tools, scientific and surgical instruments, sports goods, automobile parts, textiles.

SDG Index Composite Score



100 % TARGETED HABITATIONS CONNECTED BY ALL-WEATHER ROADS PMGSY

Score for logistics ease across states (LEADS report) – 3.46; Target score 5

TOP FIVE STATES

1. Gujarat	3.62
2. Punjab	3.46
3. Maharashtra	3.42
4. Tamil Nadu	3.40
5. Haryana	3.37



PARAMETERS OF LEADS REPORT

Infrastructure – Road, rail, multi-modal, warehousing

Service
Services provider capability, road freight rate reasonability, cargo delivery timelines

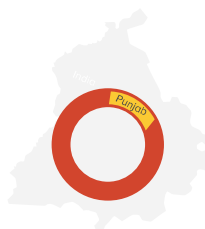
Regulation
Facilitation, ease of obtaining approvals, regulatory services efficiency

KEY SUGGESTIONS

Frame state level logistics policy & logistics master plan, Use single-window clearance system for logistics

Establishment of grievance redressal mechanism

Enable skilling in logistics through State skilling infrastructure

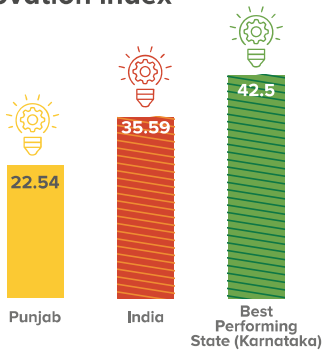


13.8 % SHARE OF GVA IN MANUFACTURING TO TOTAL GVA (AT 2011-12 PRICES)

Punjab Innovation Score Breakup

Innovation	22.54
Enablers	30.33
Human Capital	53.09
Investment	5.10
Knowledge Workers	9.86
Business Environment	14.20
Safety and Legal Environment	67.91
Performance	15.05
Knowledge Output	16.65
Knowledge Diffusion	13.46

Innovation score as per India innovation index



Manufacturing employment as a proportion of total employment



Mobile Tele Density

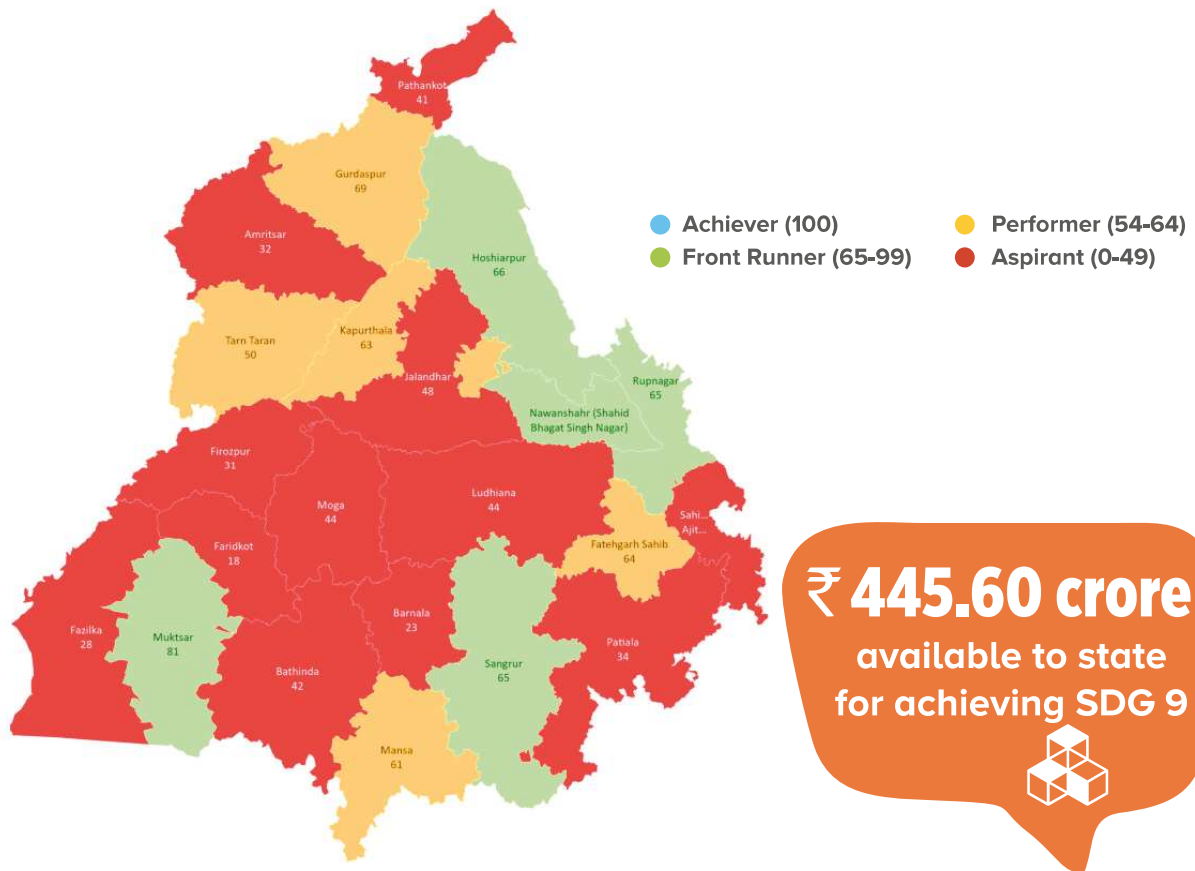


122%
IN RURAL
AND URBAN
AREAS



84.32
INTERNET
SUBSCRIBERS
PER 100
POPULATION

SDG 9- COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

Sl. No.	Schemes	Grants Released by FD (2019-20) Rs. Lakhs		
		SS	CS	TOTAL
1	Pradhan Mantri Gram Sadak Yojana (PMGSY-1)	0.0	400.00	400.00
2	Shyama Parsad Mukherji Rurban Mission (SPMRM)	2,160.00	1,080.00	3,240.00
3	Border Area Development Programme (BADP)	2,373.92	2,084.55	4,458.47
4	Extension of Existing Airfields & Airports & Construction of New Airport and Heliports in Punjab and acquisition of Land	439.21	0.0	439.21
5	Industrial Infrastructure-Creation of new & improvement of existing Focal Points/Areas/Estates	200.00	0.0	200.00
6	Incentive units set up under fiscal incentives for industrial promotion -2013 - After GST	5,000.00	0.0	5,000.00
7	Fiscal Incentives for Industrial Promotion 2013 - Investment Promotion Campaign in Punjab.	100.00	0.0	100.00
8	Financial Assistance to start ups	500.00	0.0	500.00
9	State Scheme for Make in India Zero defect & Zero effect of MSME	75.00	0.0	75.00
10	State Scheme to promote Women entrepreneurship under 'Stand up India' (WISH)	50.00	0.0	50.00
11	State scheme for awareness and Entrepreneurship Development to promote SC/STs under Stand up India Project	50.00	0.0	50.00
12	Construction of External Link Road to the Hi-Tech Cycle Valley Project Ludhiana	3,400.00	0.0	3,400.00
13	Atal Mission for Rejuvenation and Urban Transformation	14,300.00	12,347.00	26,647.00
	TOTAL	28,648.13	15,911.55	44,559.68



CHALLENGES

- **Intense competition** from different industries from within and outside the country.
- **Lack of new and innovative technologies** for building human capabilities for innovation.
- Lack of frontier technologies to encourage more **MSMEs**
 - Negligible share of medium size units in Punjab manufacturing sector resulting in limited re-innovation to promote technology suitable for the MSME sector.
 - Technology available for large sector is not appropriately adjusted to make it adaptable for MSME sector. Most of Research and Development (R&D) units are either funded or part of big corporate houses.
 - The R&D in such units mainly focuses on improvement of capital-intensive technology as it relatively enhances their competitiveness viz micro and smaller units.
- **Lack of infrastructure** such as electricity shortage affects the performance of smaller units more as most of large units that have the capability to build in-house alternative arrangements.
- High **cost of land** affects manufacturing sector's competitiveness.
- **Government R&D institutes** are not able to pursue the research in labour intensive areas.

RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

1. Ease of Doing Business to be implemented more strongly and strategically.
2. Enhance physical infrastructure along with introducing **institutional innovations** for upgrading human capital. State-of-art technological industrial estates should be planned with digitalization of supply chains
3. For development of infrastructure, '**plug and play**' form of **manufacturing** should be built for seamless production.
4. Facilitate **youth for entrepreneurship** with the development of state-of art facilitation-cum-incubation centers.
5. Spread awareness regarding the concept and importance of **Start-up Scheme**.
6. Piloting of new programs based on **emerging technologies** such as AI, IOT etc.
7. Encourage **potential investors and budding entrepreneurs** through various incentives.
8. Close **inter-linkages within, between and different Ministries and Departments** to be established to reduce redundancy, wastage and other hurdles.
9. Close **interaction and coordination with higher education institutes** to attract the youth towards entrepreneurship activities.
10. **Skill development** of labour forces in line with latest technologies towards making them competent for the future needs. Developing local capacity in terms of skills in building infrastructure can provide job opportunities for the local population.



Long-Term Strategies

1. Make provisions for
 - a. availability of **ready to use facilities** like power, road, rail, building, supported with streamlining all clearances within stipulated time frame.
 - b. **self-sustainable industrial estates** with green technologies should be the focus to avoid redundant costs in the future
 - c. long-run growth of Punjab's **industry with sustainability and gainful employment** opportunities.
 - d. **diversification of energy sources** to fulfil the future energy demands of the state
2. Industrial estates should be developed in the form of '**innovative production system**' to house different agents of production in close loop for the timely and efficient production.
3. Developing **industrial clusters** at divisional headquarters level can foster growth in industries at the regional level.
4. **Improving road connectivity** to major tourist destination can be used as a strategy to enhance economic growth in the state.
5. **Strengthening public private collaboration** in construction of physical infrastructure can be used as a strategy to lower the burden of state in the expansion of infrastructure facilities in the state.
6. To attract international investment in infrastructure there needs to be put in place **an effective dispute resolution mechanism** to minimize delays in project execution.
7. Formulation of **an effective state Intellectual Property Rights (IPR) policy** for commercialization and technology transfers.

WHY ACHIEVING SDG 9 IS IMPORTANT TO ACHIEVE ALL SDGS?







**SDG 10
REDUCE INEQUALITIES**

SDG 10 – REDUCE INEQUALITIES



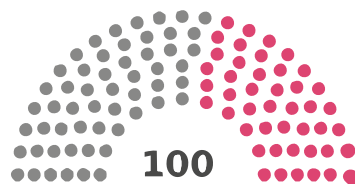
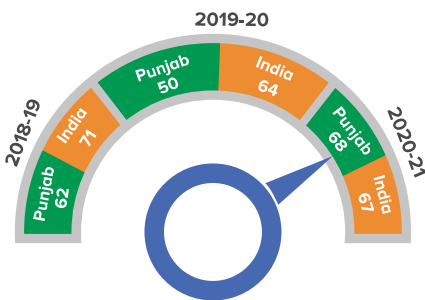
VISION

Reducing not only income inequalities but also inequalities of outcome by ensuring access to equal opportunities as well as promoting social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, religion, or other status laid out within a society.

CURRENT STATUS

- Punjab among the achievers (as per SDG Index) for participation of women in PRIs.
- Horticulture identified as remunerative for diversification of land use, will provide increased employment opportunities, better returns per unit area.
- Under Debt Relief Scheme, loans of about 5.52 lakh small & marginal farmers, waived off.
- Under Paradhan Mantri Kisan Samman Nidhi Yojana (PM-KISAN), 18.92 lakh farmers provided relief in 2018-19
- Nine well equipped Dairy Training and Extension Centers established
- Implementation of various schemes for removing gender disparity in access to school education.
- 10 special residential schools opened in different parts of Punjab to provide quality education to poor and meritorious students.

SDG Index Composite Score



41.79% SEATS HELD BY WOMEN IN PANCHAYATI RAJ INSTITUTIONS (PRI)

TARGET – 33 %



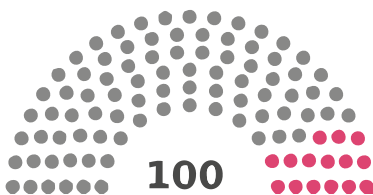
RATIO OF TRANSGENDER TO MALE LABOUR FORCE PARTICIPATION RATE (15 YEARS AND ABOVE) - 1.2



PERCENTAGE OF POPULATION IN LOWEST TWO WEALTH QUINTILES HAS REDUCED FROM 5.2 IN NFHS-4 TO 1.1 IN NFHS-5

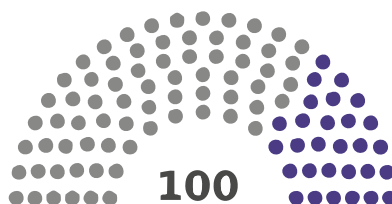


1.9 RATE OF TOTAL CRIME AGAINST SCs (PER 100000 SC POPULATION)



15.38% ELECTED WOMEN OVER TOTAL SEATS IN THE STATE/UT LOK SABHA ELECTION

TARGET – 50 %

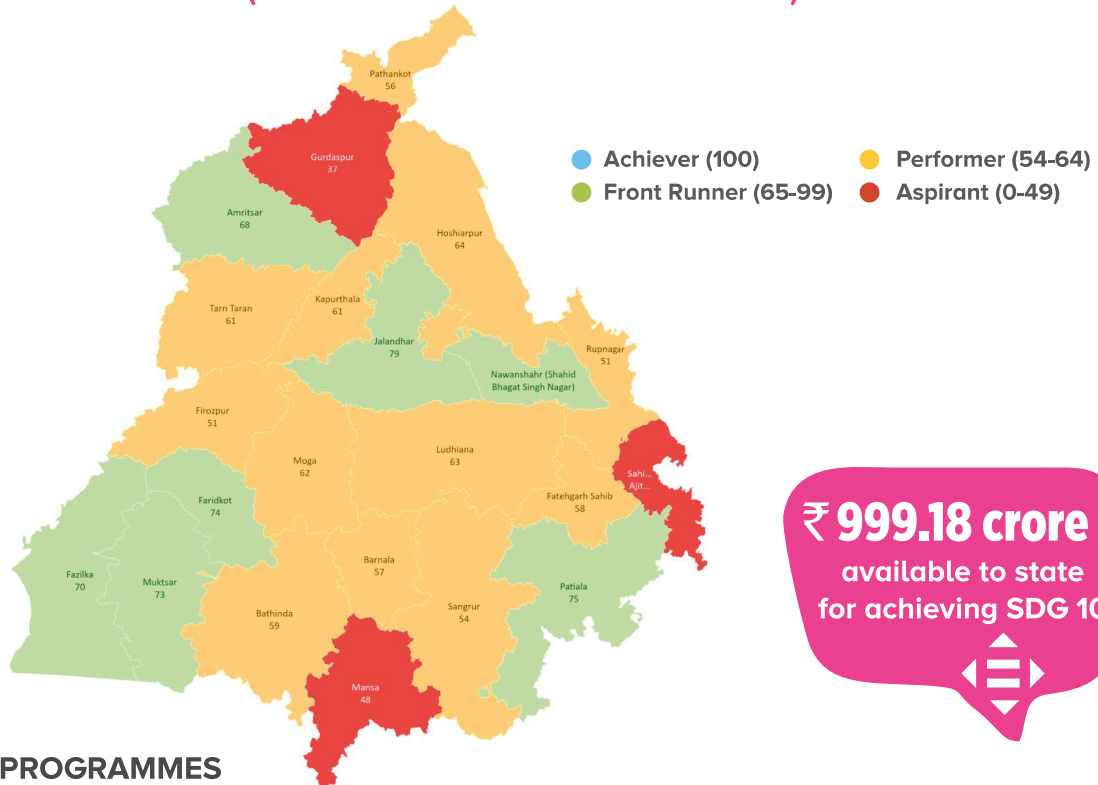


29.06% SC/ST SEATS IN STATE LEGISLATIVE ASSEMBLIES



47.3% FEMALE WORKERS TO MALE WORKERS WORKING AS LEGISLATORS, SENIOR OFFICIALS AND MANAGERS FOR EACH STATE/UT

SDG 10 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

	Schemes	Grants Released by FD (2019-20)		
		SS	CS	TOTAL
1.	Paramparagat Krishi Vikas Yojana	240.00	360.00	60.00
2.	Mahatma Gandhi National Rural Employment Guarantee Scheme (90:10)	12500.00	37500.00	50000.00
3.	PMAY- In Situ Slum Re-development (Vertical-i)	0.00	2000.00	2000.00
4.	PMAY- Beneficiary Led Construction (vertical -iv)	0.00	20000.00	20000.00
5.	PMAY- Preparation of Action plan and establishment of technical cell	175.00	700.00	875.00
6.	Grant in aid for Punjab Ghar-Ghar Rozgar and Karobar Mission Society (PGRKAM)	1000.00	0.00	1000.00
7.	Aapni Gaddi Aapna Rozgar Scheme	500.00	0.00	500.00
8.	Yari Enterprises	500.00	0.00	500.00
9.	Setting up of District Employment Bureaus in the State	700.00	0.00	700.00
10.	Centre for Training and Employment of Punjab Youth (C-PYTE)	900.00	0.00	900.00
11.	Grant in Aid to Maharaja Ranjit Singh Armed Forces Services Preparatory Institute, Ajitgarh (Corpus Fund)	128.34	0.00	128.34
12.	Grant to aid to Mai Bhago Armed Forces Preparatory Institute (for Girls),Mohali	300.00	0.00	300.00
13.	Skill Development Mission/Initiative Scheme	0.00	1081.00	1081.00
14.	Urban Employment Programme	9000.00	0.00	9000.00
15.	Pradhan Mantri Kushal Vikas Yojana	0.00	1847.72	1847.72
16.	Placement Linked Skill Development Projects under Deen Dayal Upadhyaya Grameen	840.00	1260.00	2100.00
17.	Skill Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALAP)	474.80	712.20	1187.00
18.	Pradhan Mantri Awaas Yojana- Housing for All (Urban)	397.20	158.40	555.60
19.	Pradhan Mantri Awaas Yojana (G)	3471.04	0.00	3471.04
20.	Mahatma Gandhi Sarbat Vikas Yojna (MGSVY)	250.00	0.00	250.00
21.	National Rural Livelihood Mission (NRLM)	1169.00	1753.00	2922.00
	TOTAL	32545.38	67372.32	99917.70



CHALLENGES

- **Non-availability of disaggregated data** is a challenge to develop appropriate specific plan/policies, to achieve SDGs.
- **Migration** - a major challenge for SDG10. Due to rapid growth and urbanization, migrant workers come to Punjab for various skilled and unskilled works, but are not able to avail social and other benefit schemes.
- **Low women workforce participation**, in income generation activities.
- **High level of malnutrition** amongst women and children.
- Inadequate number of **women representatives in State/Lok Sabha**.
- Ratio of **transgender to male labour force participation** in the age group of 15 years and above is very less (0.2).
- Since a significant majority of **workers are engaged in unorganized sector**, identifying and bringing them under ambit of existing social security programs is an uphill task.
- **Lack of adequate resources** for proper implementation of skill development and livelihood programmes.

RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

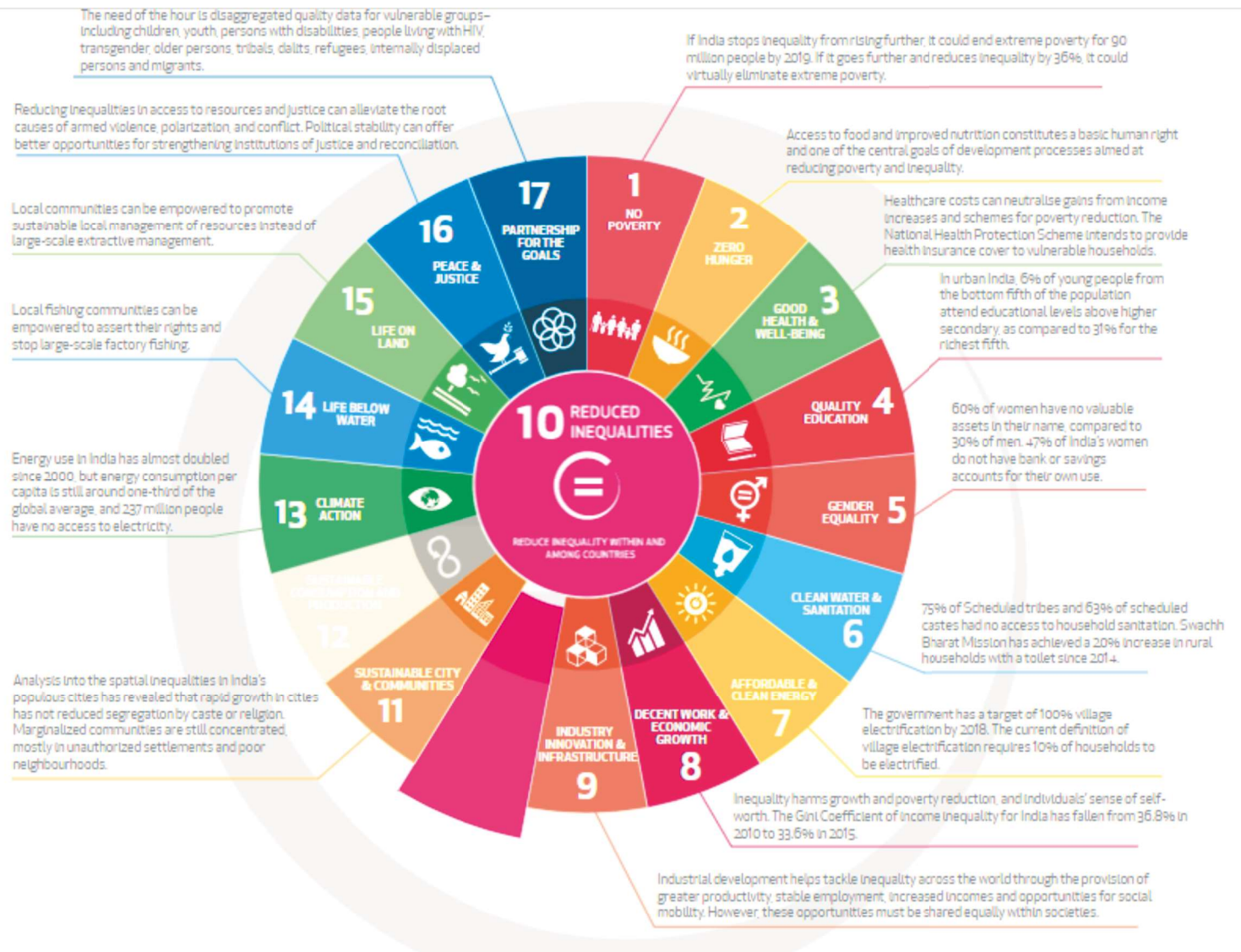
1. Develop and implement **policies & programmes** for
 - **sustained livelihood** for farm laborers and small & marginalized farmers
 - supporting people working in the **unorganized sector**
 - participation of women in income generation by **promoting self-help groups**
 - **participation of priority groups** (SC/ST, PwD, transgender, minorities) in the governance system at various levels.
2. Proper implementation of
 - **skill development and livelihood programmes**
 - existing welfare programmes particularly for scheduled castes and minorities; especially those for economic inclusion
 - National Social Assistance Programme (NSAP)
 - non-discriminatory laws such as Scheduled Caste and Scheduled Tribe (Prevention of Atrocities) Act, 1989.
3. **Linking** eligible populace with relevant social protection schemes.
4. **Information dissemination** on various social protection schemes, laws and legislations, through mass awareness programmes.



Long-Term Strategies

1. Strengthen
 - **inter-state** migration policies and ensure protection of migration workers.
 - **capacities of duty bearers** to perform their roles and responsibilities effectively.
2. Provide **special training** to the elected representatives from special categories (women/SC/ST/OBC).
3. **Capacity building programmes** for political representatives from priority social groups for effective participation in governance and decision making to ensure effective fulfilment of reservation policy.
4. Establish **fully equipped old age homes** at all districts headquarters.

WHY ACHIEVING SDG 10 IS IMPORTANT TO ACHIEVE ALL SDGS?







**SDG 11
SUSTAINABLE CITIES
AND COMMUNITIES**

SDG 11 – SUSTAINABLE CITIES AND COMMUNITIES



To be model state in finding the collective will, planning sustainably, generating adequate resources, and implementing path breaking solutions for rapid urbanization, in the process, setting new India and global benchmarks in developing resilient and sustainable cities and communities.

CURRENT STATUS



Punjab is the lead front runner state in SDG Index 2020–21, ahead of states such as Goa, Gujarat, and Maharashtra.¹

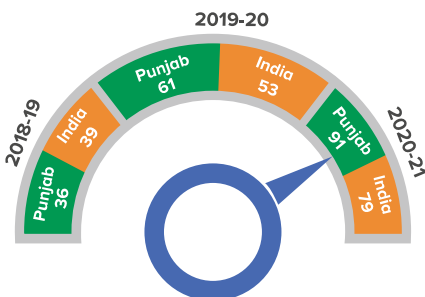


On share of wards with 100% source segregation, Punjab achieved 93.4 per cent in 2020–21² (SBM(U))



With 21.2% households where any usual member is covered by any health scheme (or health insurance), Punjab scored 19 on the SDG Index composite score for the indicator (NIF 1.3.1). This is low compared to the India score of 28.7 and way behind the leading state of Andhra Pradesh at 74.6%.³

SDG Index Composite Score



0.10% of urban households living in katcha houses



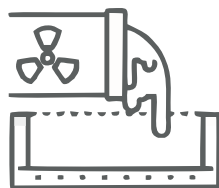
98.52% of wards with 100% door to door waste collection (SBM(U))



59% of Municipal Solid Waste (MSW) processed to the total MSW generated (SBM(U))



96.73% wards with 100% source segregation (SBM(U))



94.28% Installed sewage treatment capacity as a percentage of sewage generated in urban areas

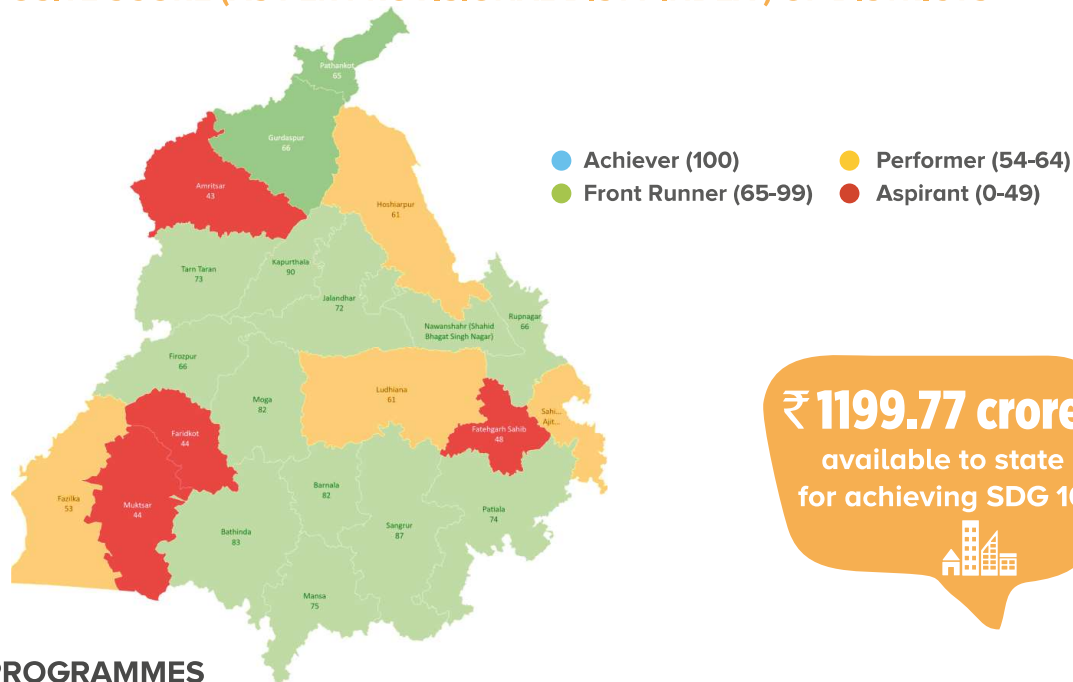


97% of urban households with drainage facility



13.96% deaths due to road accidents in urban areas (per 1,00,000 population); higher than national percentage of **12.2%**

SDG 11 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

	Scheme	Grant Released By FD for 2019-20 (Rs. Lakhs)		
		SS	CS	TOTAL
1.	Atal Mission for Rejuvenation and Urban Transformation (AMRUT)	14300.00	12347.00	26647.00
2.	Urban Infrastructure and Governance (UIG) (JNNURM)	0.0	7369.15	7369.15
3.	Mission for Development of 100 Smart Cities	5800.00	5800.00	11600.00
4.	Swachh Bharat Mission(Urban)	2869.20	5179.80	8049.00
5.	Construction of Memorial-Jang-E-Azadi at Kartarpur (Jalandhar), Guru Ravidas at Khuralgarh (Hoshiarpur), Bhagwan Balmik ji at Amritsar, Shaheed Uddham Singh at Sunam, Baba Moti Mehra Ji (Fatehgarh Sahib), Swami Viveka Nand and Swami Girja Nand ji at Kartarpur, besides memorial at Kila Raipur (Ludhiana) & Ghallugharas and other Art Academies (To be financed out of Cultural Cess Collections)	4200.00	0.0	4200.00
6.	Holding of musical and cultural festivals, heritage melas, seminars and conferences - 350 Sala Birth Celebrations of Sri Guru Gobind Singh Ji (Rs.50Cr.)	500.00	0.0	500.00
7.	Funds for maintenance & Development to Amritsar Culture and Tourism Development Authority - to be funded by Heritage Places Cess	500.00	0.0	500.00
8.	Heritage Grant for Restoration/ Conservation of Quila Mubarak Patiala and Bathinda Fort	250.00	0.0	250.00
9.	To implement the Punjab State Cultural and heritage policy -2017	10.00	0.0	10.00
10.	550th years Celebration of Birthday of Sri Guru Nanak Dev Ji	30000.00	0.0	30000.00
11.	100 Year Centenary Celebrations to Commemorate Jallianwala Bagh Martyrs	300.00	0.0	300.00
12.	Extension of Existing Air Fields & Airports & Construction of New Airport and Heliports in Punjab and Acquisition of Land	439.21	0.0	439.21
13.	Pradhan Mantri Awaas Yojana- Housing for All (Urban)	397.20	158.40	555.60
14.	Pradhan Mantri Gram Sadak Yojana (PMGSY-1)	0.0	400.00	400.00
15.	PMAY- In Situ Slum Re-development (Vertical-i) (100%CS)	0.0	2000.00	2000.00
16.	PMAY- Beneficiary Led Construction (vertical-iv) (100%CS)	0.0	20000.00	20000.00
17.	PMAY- Preparation of Action plan and establishment of technical cell	175.00	700.00	875.00
18.	Consolidated Project proposal for flood protection works to be executed along with Indo Pak Border on River Ravi and its tributaries, to check erosion of culturable land, village abadies & defence installation (RMABA)	0.0	660.60	660.60
19.	Houses For Houseless (Urban)	1.00	0.0	1.00
20.	Pradhan Mantri Awaas Yojana(G)	3471.04	0.0	3471.04
21.	Construction of New Bus Stand at Sirhind	650.00	0.0	650.00
22.	Provision/Augmentation of water supply & Sewerage facilities in specific towns	1500.00	0.0	1500.00
	TOTAL	65362.65	54614.95	119977.60



CHALLENGES

- **Urban population in Punjab has grown at 25.72% during 2001–2011, thrice the rural growth rate of 7.58%.⁴** Unlike Chandigarh, Punjab's towns and cities are not planned. Significant policy and funding support for infrastructure projects that the larger metros received earlier on, were made available to the state's urban areas relatively recently. As in most Indian cities, Punjab's urbanization has moved at a clip that administration has found difficult to keep pace with and provide for.
- **Water-intensive farming** in the state has further resulted in the indiscriminate use of ground water. This has caused a **precipitous drop in the water table in most districts** in the recent decades⁵ with direct ramifications for water supply and management in Punjab's rapidly urbanizing context.
- **Changing demographics impacting age structure of Punjab's population.** In 2041, 20.6% (10.4% in 2011) of the state's population will be above 60 years and a comparable 21.0% (35.8% in 2011) will be 0–19 years. The 0–14 year olds in elementary schools will drop from 4.96 million (2011) to 3.27 million (2041).⁶ This in turn will call for major review of policies and allocation for education, healthcare and other citizen services. Due to **changing dependency ratio tax structure will also undergo a significant change.** Care for the elderly (including geriatrics) and accessibility to public spaces will need more attention.

⁴https://www.business-standard.com/article/economy-policy/punjab-census-reflects-rise-in-literacy-urban-population-111082800018_1.html

⁵<http://www.punenvs.nic.in/index2.aspx?slid=5815&mid=1&langid=1&sublinkid=996>

⁶https://www.indiabudget.gov.in/budget2019-20/economicsurvey/doc/vol1chapter/echap07_vol1.pdf

- Although the population living in the slums of Punjab fell from 2.8% of total slum population in India in 2001 to 2.2% in 2011,⁷ the state has a **higher urban poverty than rural**.⁸ Inability of official schemes and private developers to provide sufficient number of affordable formal housing to workers—many of them migrants—has resulted in the rapid expansion of slums in Punjab.⁹
- **Vulnerability from floods and water logging.** Many flood control measures have been taken in the state. However, the August 2019 floods rendered these inadequate when heavy precipitation and release of excess water from Bhakra Nangal inundated six districts¹⁰ surrounding the common delta of Ravi, Sutlej and Ghaggar with raised bed levels due to silting.¹¹ Other natural calamities such as earthquake have a greater bearing on cities and its inhabitants. Since **50 - 95% of north Punjab¹² is in seismic zone III or IV** with potential earthquakes of intensities up to 7 or 8 on the Richter scale.
- At 1,881 square kilometres, Punjab has the **lowest forest and scrub cover as a percentage of its GA** (50,362 square kilometres) among all Indian states.¹³ This on the one hand makes Punjab **devoid of any significant natural carbon sink** but on the other gives the state the advantage of more easily developing peri-urban and rural pockets for modern futuristic non-agricultural economic activities. It is important that Punjab addresses its deficiency of forests, especially surrounding urban areas with modern techniques such as urban forestry and developing master plans with provision for water bodies, afforestation and scrub and marsh lands.
- The most critical impact of **climate change is on precipitation and rainfall pattern with a drop in winter rains and a rise in monsoon and post monsoon**.¹⁴ This in turn will have severe impact on lives and livelihoods especially in Punjab—a state devoid of any major forest cover, scrub land, or marshes that act as a heat sink, helps in carbon sequestration, prevents soil erosion and helps groundwater recharge while preventing runoff and floods.

RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

1. **Rainwater harvesting and groundwater recharge** should be made compulsory for residential, commercial, industrial and public buildings and urban spaces in all towns of Punjab. Apart from creating standard norms ensuring availability of suitable materials, equipment, technology, training, etc. for the builders, architects and workers along with creating awareness and incentivizing urban end-users to invest in water harvesting. **Waste-water recycling** for industries, commercial complexes, large public buildings and even residential complexes could further help Punjab reduce drawing of ground water.
2. City administrations in Punjab may start early to provision for and **invest into urban governance, capacity building, data, technology and innovation**. National Mission on Sustainable Habitat (NMSH 2.0) also lists out enabling climate actions which are intended to address the overarching framework to facilitate adoption and implementation of the sector-wise climate action strategies. Climate Smart Cities Assessment Framework (CSCAF) will serve as a tool for cities to assess their present situation vis-à-vis objectives and targets of NMSH 2.0.
3. The non-NMSH 2.0 cities and towns of Punjab may also consider including select strategies such as **cool roofing techniques, water harvesting, energy-efficient lighting** and where possible use renewable energy for lighting in public buildings and areas.
4. In creating **gender sensitive public spaces**, proper lighting, landscaping, visibility, clean toilets, regulated motorized and pedestrian traffic, signages, security personnel, proximity to other public spaces and emergency services, access to public transportation, mixed-land use and women's participation in decision making are some of the best practices and state can start emulating the same.
5. Many cities in north Punjab are vulnerable to earthquake. A responsive monitoring mechanism is required to be on standby to quickly evaluate the extent of impact and damage to life, property, businesses, economy and infrastructure. The state needs to **immediately develop a strong Disaster Risk Reduction (DRR) mechanism** with a well rehearsed response and recovery plan for its cities from earthquake and floods.



Long-Term Strategies

1. Decisively **migrate to inclusive and sustainable urbanization** in Punjab. This will call for significant departure from the mostly unplanned expansion of urban spaces in the past (or present) when a cash-strapped administration can barely play catch-up to provide for a mushrooming poor immigrant population. A strong administrative tool for urban Punjab is needed to help local governments monitor and manage the ratio of land consumption to population growth at a targeted level.
2. Sustainability has to be made the **running theme for any capacity creation or augmentation at the primary level in institutes** as part of higher education programmes or in refresher and certification courses for practicing urban planners. Further, **augmenting urban planning capacity** at the city, district and state levels for administration, developers and other large entities such as industries, commercial complexes, etc. will need to be initiated.
3. To minimize commute, make cities more liveable and boost local economy, **Transit-Oriented Development (TOD) is rapidly becoming a centrepiece of urban planning**. A TOD typically has a walkable design prioritizing pedestrians; town centre train station with public square; regional node with a mix for office, residence, retail and civic buildings close by; extensive use of bikes and scooters with easy access parking; specialized retail for commuters; unified multi-modal public transport; etc.¹⁷
4. Punjab's cities could join Mumbai, Kolkata, Chennai and other cities to **annually report city-wide Green House Gases (GHG) emissions inventory** and consumption-based inventory. They may also define the reduction targets and prepare and act on a committed plan to reduce the emissions of CH₄, CO₂, N₂O, etc. to align to the 1.5–2.0 degree Centigrade pathway.¹⁸ Cities of Punjab could elaborate plans for intensive urban forestry in identified green spaces by deploying Miyawaki or any other suitable method to build on the concept of potential natural vegetation (PNV).¹⁹
5. Policy and incentives to **make energy production–consumption balance progressively positive in favour of renewable**, with wide participation in cities through policy, financing and incentives that promote technologies viz. Roof-Top Photovoltaic (RTPV), especially in cities and institutions. Significant socio-environmental transformation at household level is necessary to ensure wide participation in initiatives such as RTPV or goals such as net zero.
6. Although Punjab scores well on this indicator the city and town administrations could **set for themselves goals to recycle, generated energy or compost 'all solid waste' generated against a target ahead of 2030**. The towns may also aspire to become the cleanest cities following all the latest environmental norms announced periodically such as no single use plastics and work towards getting there before any other city in any other state.

⁷https://www.indiabudget.gov.in/budget2019-20/economicssurvey/doc/vol1/chapter/echap07_vol1.pdf

⁸<https://www.censusindia.gov.in/2011-Documents/Slum-26-09-13.pdf>

⁹<https://www.cseindia.org/punjab-faces-the-daunting-challenge-of-meeting-housing-requirements-of-the-urban-poor--8701>

¹⁰<https://www.cseindia.org/punjab-faces-the-daunting-challenge-of-meeting-housing-requirements-of-the-urban-poor--8701>

¹¹<https://www.nrsc.gov.in/sites/default/files/pdf/DMSP/Punjab-Floods-2019-1.pdf>

¹²<http://punenvis.nic.in/index1.aspx?lid=3307&mid=1&langid=1&linkid=1245>

¹³North Punjab comprises of the districts of Amritsar, Gurdaspur, Hoshiarpur, Jalandhar, Kapurthala, Ludhiana, Patiala and Rupnagar.

¹⁴<http://punenvis.nic.in/index1.aspx?lid=3307&mid=1&langid=1&linkid=1245>

¹⁵<https://fsi.nic.in/isfr-2021/chapter-2.pdf>

¹⁶<http://www.punenvis.nic.in/index2.aspx?slid=5925&mid=1&langid=1&sublinkid=1114>

¹⁷UCLG, 2016; UNIFEM, 2010

¹⁸<http://www.tod.org/>

¹⁹<https://www.cdp.net/en/reports/downloads/6164>

²⁰<https://daily.jstor.org/the-miyawaki-method-a-better-way-to-build-forests/>

WHY ACHIEVING SDG 11 IS IMPORTANT TO ACHIEVE ALL SDGS?







**SDG 12
SUSTAINABLE
CONSUMPTION &
PRODUCTION**

SDG 12 – SUSTAINABLE CONSUMPTION & PRODUCTION



“Do more and better with less”. State envisions increasing net welfare gains from economic activities by reducing resource use, degradation, and pollution, while increasing the quality of life.

CURRENT STATUS



As per NITI Aayog SDG Index (2020-21), Punjab scores **100% on treatment of Bio Medical Waste (BMW)** to total quantity of BMW generated

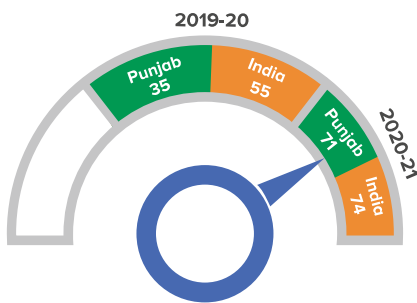
Punjab ranks 4th in the world in terms of productivity of wheat with 45096 kg/ha and stands first in India amongst all the states.



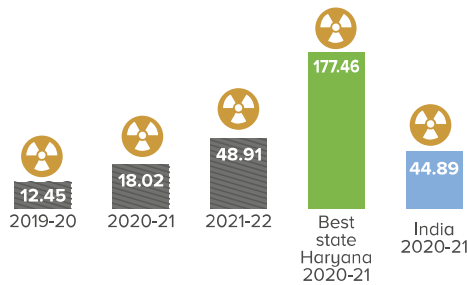
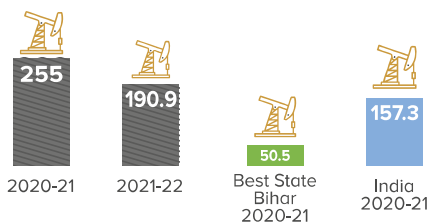
The Kharif Paddy productivity is 5933 kg/ha vis-a-vis the average productivity of India at 3450 kg/ha.

Punjab stands 3rd in terms of productivity of rice producing countries after China and Japan. The current food grain production by the state of Punjab Stands at 293.36 lac MT.

SDG Index Composite Score



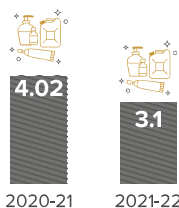
Per capita fossil fuel consumption (in kg.)



Quantity of hazardous waste recycled/utilized to total hazardous waste generated %

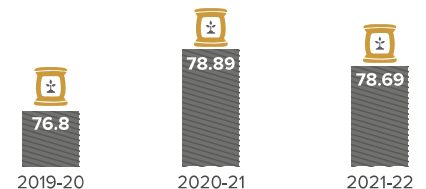


100% BMW TREATED TO TOTAL QUANTITY OF BMW GENERATED

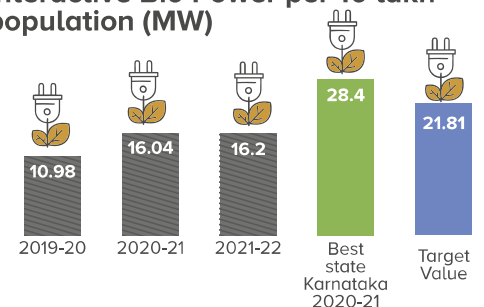


*PLASTIC WASTE GENERATED PER 1000 POPULATION (TONNES/ANNUM)

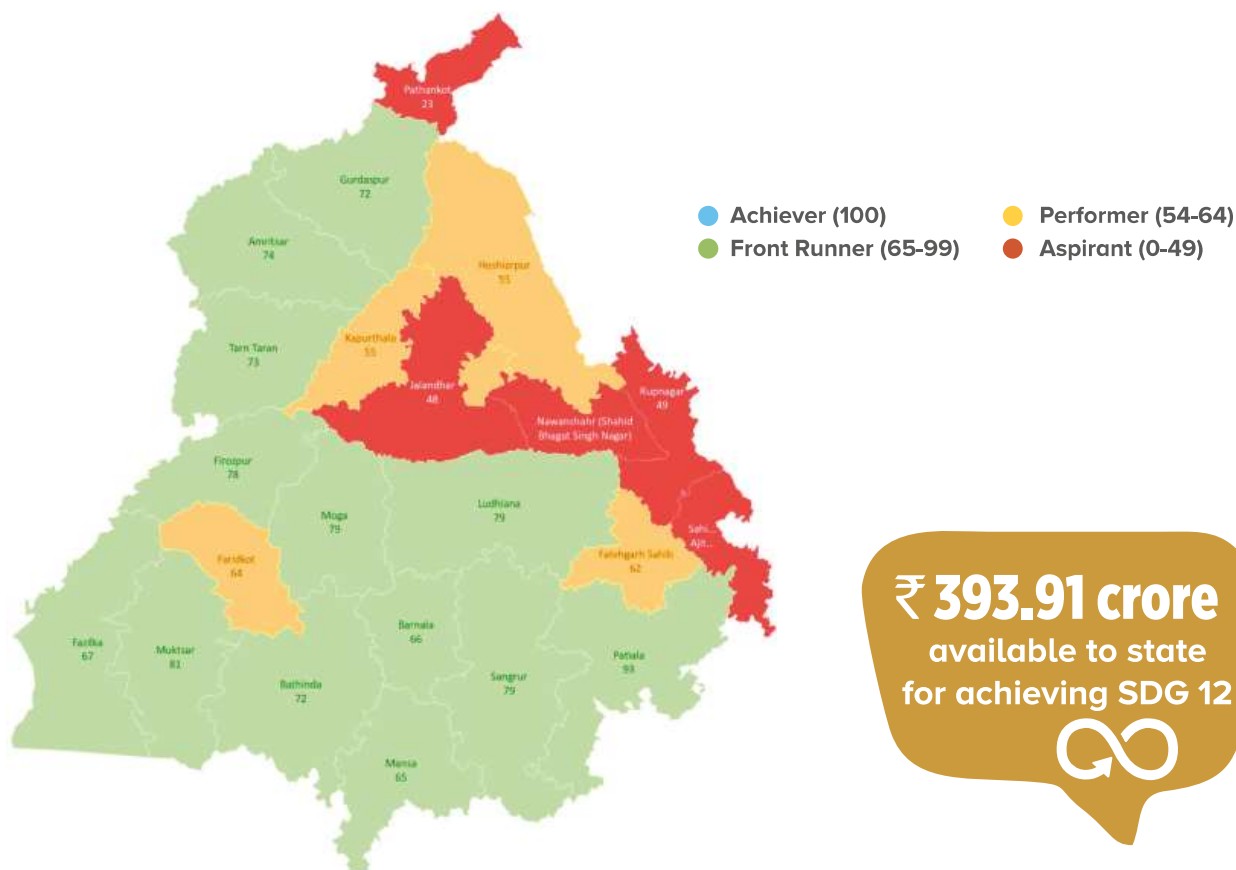
%age use of nitrogen fertilizer out of total N,P,K, (Nitrogen, Phosphorous, Potassium)



Installed Capacity of Grid Interactive Bio Power per 10 lakh population (MW)



SDG 12 - COMPOSITE SCORE (AS PER PROVISIONAL DISTTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

	Schemes	Grants Released by FD (2019-20) Rs. Lakhs		
		SS	CS	TOTAL
1	Rashtriya Krishi Vikas Yojana (RKVY)	8000.00	12000.00	20000.00
2	Upgradation of Soil Health Labs under the National Project on Management of Soil Health and Fertility (NMSA)	353.00	485.00	838.00
3	Paramparagat Krishi Vikas Yojana(NMSA)	240.00	360.00	600.00
4	Implementation of Seed village Programme under National Mission on Agriculture Extension and Technology(NMAET)	66.00	0.0	66.00
5	National Horticulture Mission (MIDH)	2419.60	3629.40	6049.00
6	Scheme for development of mushroom cultivation	50.00	0.0	50.00
7	Potato Seed Village Scheme	200.00	0.0	200.00
8	National Mission on Food Processing	1.00	0.0	1.00
9	Consulting Services for the formulation of a Water Conservation and Management Plan for the state of Punjab	11587.15	0.0	11587.15
	TOTAL	22916.75	16474.40	39391.15



CHALLENGES

- As per NITI Aayog SDG Index (2020-21), Punjab data value for **recycling of hazardous waste** to total hazardous waste is 18.02%, compared to that of Haryana -177.46%.
- State **lacks**
 - comprehensive strategies on climate-resilient agriculture
 - awareness on water exploitation, over-extraction of non-renewable resources, excessive dependence on wheat and rice cultivation etc.
 - implementation and monitoring of soil cards
 - adequate number of professionals on water resources conservation and management from Panchayat Raj functionaries.
 - adequate marketing infrastructure including storage facilities
- **Reluctance for shifting to alternative** crops from paddy and wheat. There are no policies favourable for alternative crops.
- Excessive use of **pesticides and NPK**.
- Excessive generation of **electronic waste** and no firm strategy in place for its management.
- Still persistent stubble burning.

RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

1. **Identify low yield areas**, villages and farmers in order to improve per capita food availability.
2. Ensure **timely supply** of power, fertilizers, credit and other inputs, so that rice and wheat are sown during the period that results in highest yield.
3. **Provide concrete soil cards** to farmers which will carry crop-wise recommendations of nutrients and fertilisers required for the individual farms to help farmers improve productivity through judicious use of nutrients and fertilisers.
4. Ensure **regulation in use of pesticides and NPK** and ensure its proper monitoring.
5. Encourage **sustainable production practices** in the state and conduct strong awareness campaign through all media, about the same.
6. Provide **skill development training** on seed production, organic farming, compost production, improved technological farming practices etc.
7. Leverage and ensure **effective implementation of Government of India's flagship schemes** like National Mission for a Green India, National River Conservation Plan, Shyama Prasad Mukherjee RURBAN Mission (Rural Development), Swachh Bharat Mission – Rural (Drinking Water and Sanitation), Swachh Bharat Mission – Urban (HUA).
8. Development and deployment of **capacity building of professionals** from various departments/organizations **associated with water resources** conservation and management including Panchayat Raj functionaries.



Long-Term Strategies

1. **Develop policies favourable for alternative crops** and provide price above or at least as remunerative as paddy.
2. **Ensure adequate marketing infrastructure** including storage facilities, well-developed network of regulated markets and procurement facilities.
3. Ensure proper and effective measures to address depleting water table by **bringing 72000 ha of area under organic farming** from current 5000 ha. through awareness campaigns and providing financial benefits through the Centrally Sponsored scheme Paramparagat Krishi Vikas Yojana (PKVY).
4. Provide **recognition to companies** which promote sustainability and environmental stewardship through awards, financial benefits etc.
5. Encourage large and multinational companies to **open centres of excellence in conjunction with educational institutions** to promote research and innovation and scientific outreach in schools.
6. Ensure **use of crop residue for biomass** power production to address the issue of stubble burning.
7. Ensure **technology integration and automation** for compliance and better management of resources.
8. Formulate **ware-housing and logistics policy** and ensure creation of adequate warehousing capacity in public as well as private warehousing capacity.
9. Ensure **treatment of grey water** and its mandatory reuse.

WHY ACHIEVING SDG 12 IS IMPORTANT TO ACHIEVE ALL SDGs?





**SDG 13
CLIMATE ACTION**

SDG 13 – CLIMATE ACTION



VISION

To combine climate actions into state policies towards developing an effective planning and management system against climate change impacts.



- 37.72% in renewable share of installed generation capacity; a 7.7% increase in 2020-21 over 2019-20
- Punjab produced 947.1 MW of solar energy that accounts for 59% of its renewable energy source in 2020-21.
- Around 80,000 solar streetlights have been installed



Under the LED Village Campaign/ Model Energy Efficient Village Campaign, 21 villages have been identified and approximately 14,000 LED lamp distributed.



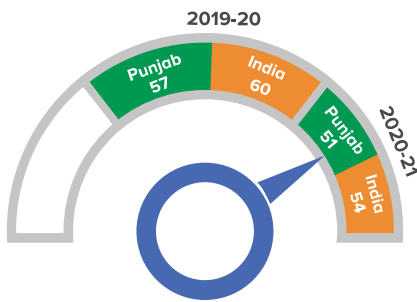
Punjab has

- 439.67 MW of generating capacity via biofuel projects
- 97.5 MW via Biomass Power Projects with an additional 14 MW enhanced capacity under process



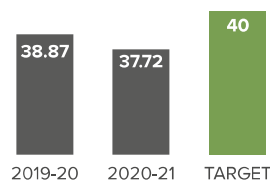
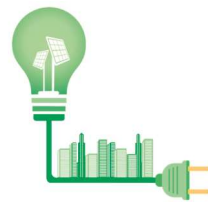
Punjab's 7,897 households i.e. 52.2% of all residents—have access to piped water at a rate of 70 LPCD (litres per capita per day).

SDG Index Composite Score



Renewable Energy

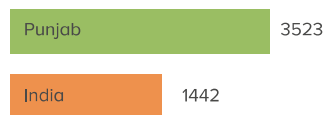
%age of renewable energy out of total installed generating capacity (including allocated shares)



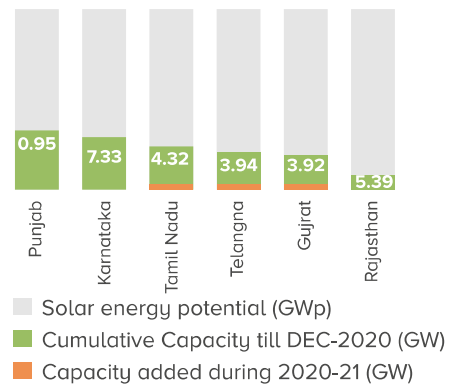
Pollution

Punjab lost **3,523** (per 1 lakh population) **years of healthy life** due to air pollution vis-a-vis national value of **1,442** under Disability Adjusted Life Years (DALY) rate. One DALY represents the loss of the equivalent of one year of full health.

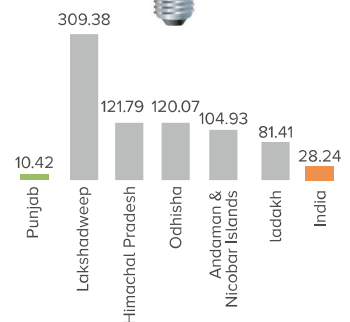
Disability Adjust life years (DALY) rate attributable to Air Pollution (per 1 lakh Population)



Solar capacity installed in the state against estimated solar potential

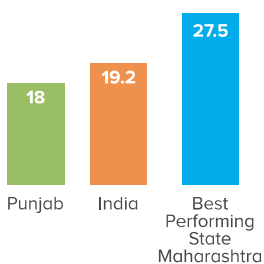


Metric tonnes of CO2 saved from LED bulbs by Punjab & better performing states (2020-21)



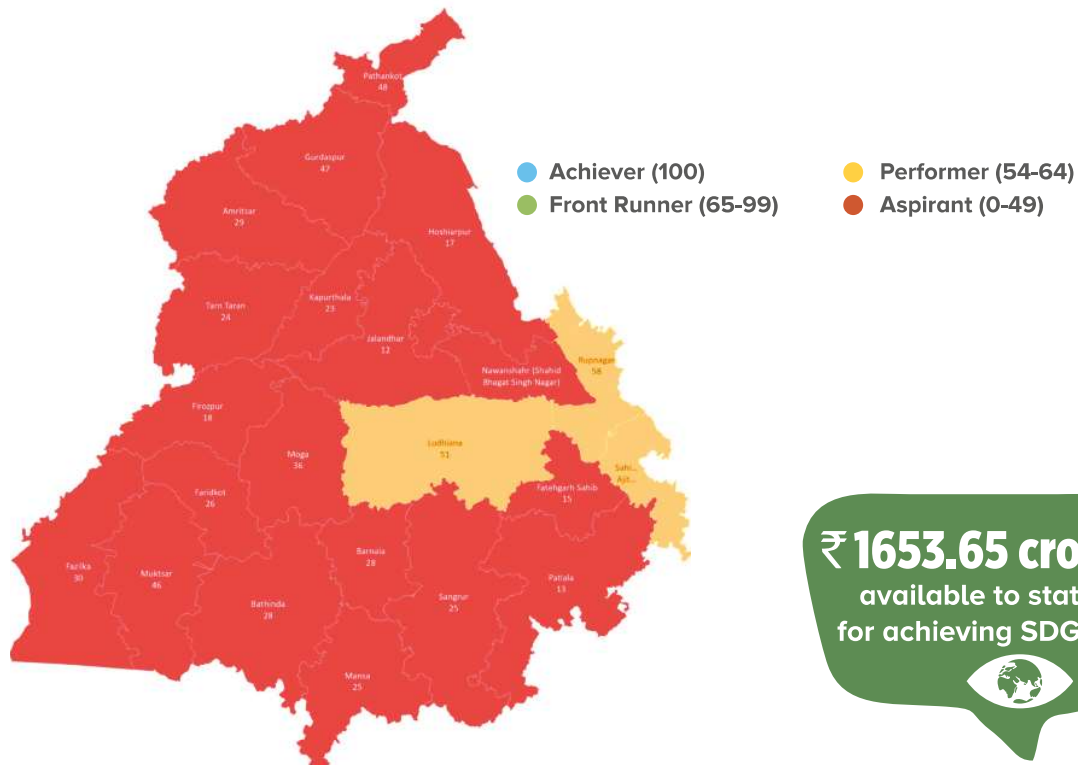
Target – **103.22 TONNES**
Best Performing State – **HIMACHAL PRADESH 121.7**

Disaster preparedness score as per Disaster Resilience Index



Punjab is among the lowest performing state with Disaster preparedness

SDG 13 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF DISTRICTS



SCHEMES & PROGRAMMES

	Scheme/Programme	Grants Released by FD (2019-20) Rs. Lakhs		
		SS	CS	TOTAL
1.	Assistance to State Forest Development Agency Under National Mission for a Green India (NMGI)	493.20	739.80	1233.00
2.	Assistance to State Forest Development Agency under National Afforestation Programme (100% CS) (NMGI)	0.0	1.00	1.00
3.	Grant-in-aid to State Forest Development Agency for implementation of Sub Mission on Agro Forestry	154.00	231.00	385.00
4.	Ghar Ghar Haryali - Each One Plant Three for Greening Punjab	400.00	0.0	400.00
5.	Intensification of Forest Management (60:40) (NMGI)	50.00	75.00	125.00
6.	Punjab Forestry and Watershed Development Project and Promotion of ICT & e-Governance in the State	100.00	0.0	100.00
7.	CAMPA, 2016 (The Compensatory Afforestation Fund Act, 2016)*	22300.00	104000.00	126300.00
8.	Setting up of Bio-diversity Park at Bathinda, Giddherbaha and Sangrur	234.00	0.0	234.00
9.	Mission Tandrust Punjab (Budget at Glance document of FD)*	1200.00		1200.00
10.	Swachh Bharat Mission - Urban	3453.20	5179.80	8633.00
11.	Rashtriya Krishi Vikas Yojana (RKVY)(60:40)	8000.00	12000.00	20000.00
12.	Paramparagat Krishi Vikas Yojana (60:40)(NMSA)	240.00	360.00	600.00
13.	Pradhan Mantri Krishi Sinchayee Yojana(PMKSY) for soil and water conservation	160.00	240.00	400.00
14.	Integrated Watershed Management Programme - PMKSY (Pradhan Mantri Krishi Sinchayee Yojana)	2301.78	3452.68	5754.46
	GRAND TOTAL	39086.18	126279.28	165365.46

*Source Budget at a Glance, Finance Deptt., GoP 2021-22



CHALLENGES

- Disaster preparedness score of 18 is a cause of concern! Due to varied rainfall patterns in the state (proximity to the Himalayas) it is vulnerable to 21 out of 33 disasters (mainly floods and earthquakes).

Disaster Preparedness Score



- 15 deaths attributed to extreme climate per 1,00,000 population.
- One DALY represents the productivity loss equivalent of one year of full health. Punjab lost 3,523 (per 1 lakh population) years of healthy life due to air pollution vis-a-vis national value of 1,442 under Disability Adjusted Life Years (DALY) rate.
- Every year, Punjab produces 22 Million Tonnes (MT) of **paddy straw in a single season**, a staggering 63% of the entire northern agricultural belt. The state is expected to **retrieve this large amount from farmers** within 3 weeks - a challenging task for both farmer and administration.
- States' contribution to the total Co2 emission reduction is 10.42 Mt per 1,000 population in 2020-21. Punjab **lags behind in comparison to both the state target** and other better performing states.
- The provision of Renewable Purchase Obligation is a **major setback for existing policies** and regulatory framework.
- Punjab has **limited renewable energy share capacity** as compared to best performing states due to their geographical location with high functional dams, and greater solar and wind generation potential.
- Punjab being an agriculture extensive state, **lacks implementation of sustainable agriculture practices**, leading to serious water and climate change challenges. Excessive production of paddy crops release greenhouse gases in the environment and put water resources under stress. Unfortunately, **no strategy so far** lists actions to curb these greenhouse gas emissions and water scarcity.
- Transitioning industrial, transport, and domestic consumption of **non-fossil fuel to renewable energy** still poses an issue.
- **High level of pollutants** in causing adverse effect on the health of the people (especially the vulnerable population of the state especially regions of Malwa, Kot Kapura & Sangrur region). Communicable diseases spread due to climate change; contamination of soil, water, and air are also either a cause of climate change or a consequence, and sometimes both, lifestyle disorders occur as an indirect consequence of climate change as well. State has no policy to address this issue.

RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

1. Increase the state's capacity to **increase renewable share** of installed generating capacity to 40% in the coming years
2. First and foremost, **collect information regarding two key parameters of risk, i.e., exposure and vulnerability to climate-related hazards**. The data acquired will be necessary for formulating policies and schemes for the state in accordance with Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR).
3. **Lack of an active State Disaster Management Authority** and a detailed and updated Disaster Risk Reduction and Climate Resilience Plan for Punjab (DRR & CC). The existing State disaster management plan
 - a. **hasn't been updated** since its formulation as per the new national and state disaster management guidelines and Disaster Management Act 2005
 - b. needs to be **linked to the latest technology and preparedness modules**
 - c. have **priority actions/targets** in alignment with the present scenario of vulnerable regions within the state
 - d. should be **customized** as per district needs and challenges
4. **Mainstream** disaster risk reduction and climate change adaptation in development and governance policies, including strengthening of risk governance ecosystem/infrastructure, capacity building and trainings of relevant personnel from time to time.
5. Opting for **agro forestry and crop diversification** to reduce negative impacts on soil and water quality. Also, promoting allied sectors that are less vulnerable to climate change impacts.
6. **Risk-transfer mechanisms**: insurance policies can have a positive effect on the risk reduction. Models such as the All India Disaster Mitigation Institute's pilot initiative on hazard-indexed risk insurance in Guwahati, Assam, should be studied and, if suitable, replicated.



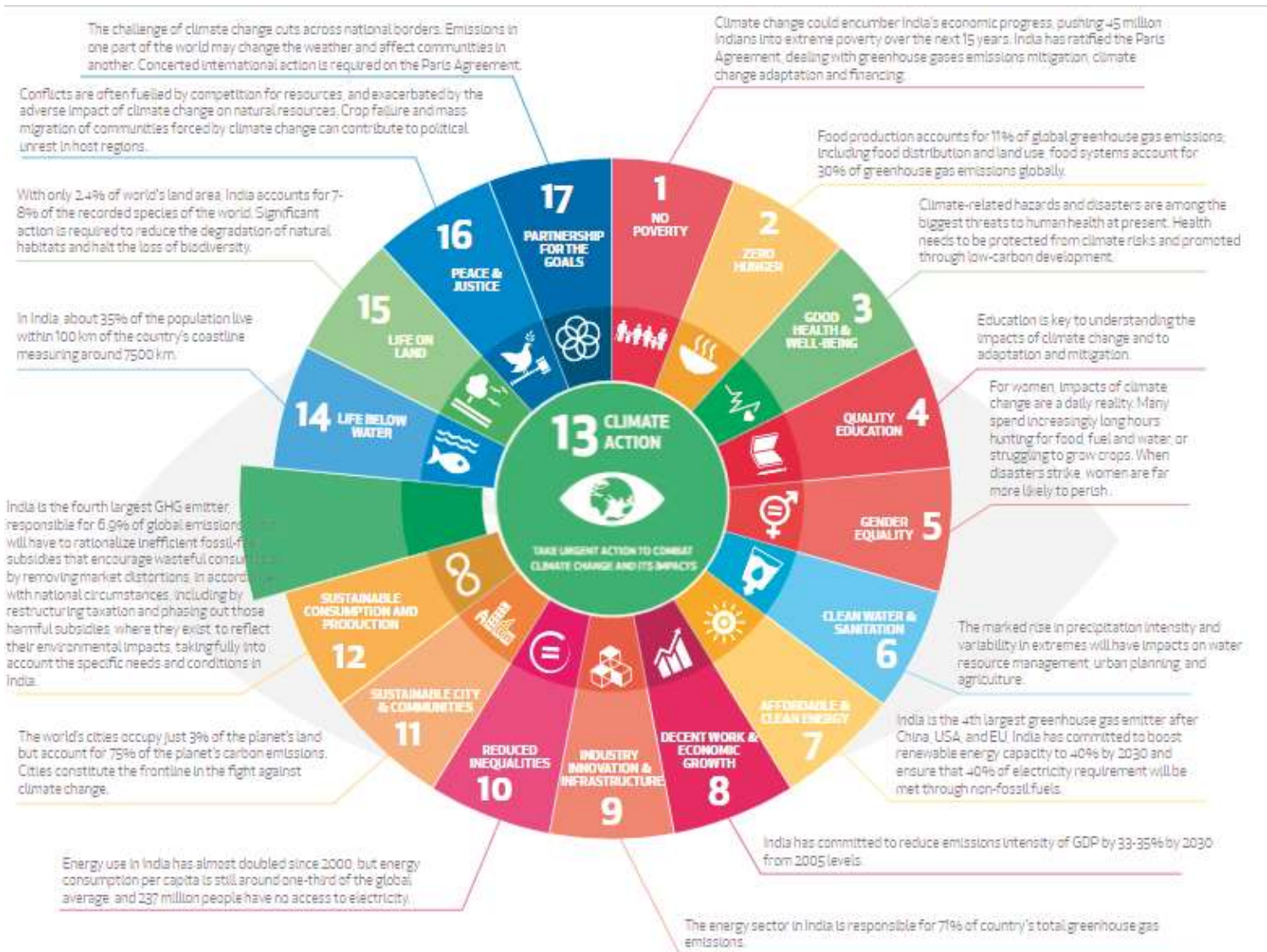
Long-Term Strategies

1. Pledge to **reduce the emission intensity** by 33-35% of its economy (GDP) by the year 2030 and achieve the SDG target score of 100.
2. Integrating **remote sensing techniques** in the present/future strategies for forecasting extreme climatic events.
3. **Transition to Solar Power**: Punjab to take focussed steps to achieve the stipulated potential of 2.81 GW of solar capacity.
 - The state needs to target solar power in remote areas which do not have conventional electricity supply.
 - promote and implement multiple schemes to accelerate the distribution of LED bulbs via UJALA in coordination with Punjab State Power Corporation Limited (PSPCL).
 - accelerate the development and usage of electric and solar vehicles (and power stations) under the pilot scheme of Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles - FAME launched in 2015, according to Punjab Electric Vehicle Policy, 2019. Since the performance of FAME is very low, concrete strategies need to be implemented for obtaining better results.
4. **Alternate Energy Switch**: Agriculture is an energy-intensive process and Punjab heavily relies on fossil fuel-based energy. However, there is immense scope of transition by installing wind turbines in the fields. Wind turbines will be mutually benefitting solution as it will enhance energy efficiency for the state and revenue generation for the farmer. Punjab should also focus on harnessing energy from biomass (paddy straw), co generation, and waste-to-energy (cow dung).
5. **Increase coverage** under Paramparagat Krishi Vikas Yojana – only 21% land out of the allocated land has been brought under organic farming under this scheme.
6. **Learn from others**:
 - Uttar Pradesh focuses on good management practices for conserving the biodiversity and forests, and it is imperative that Punjab also implements similar policies for biodiversity conservation and reforestation/wetland conservation.
 - As a part of OECD, major developed countries (the EU, the US, etc.) have come up with voluntary, producer based & consumer-based policies and practices for energy conservation. E.g. Australia increased investment in the private sector through Clean Energy Finance Corporation (CEFC), and the government was able to divert funds towards the country's finest renewable energy/energy efficiency technologies. The best way for the state government would be by providing incentives for energy efficiency technologies and removing the barriers for markets to increase private sector investment in clean energy.

7. **Model Energy Efficient Village Campaign** to be scaled up in terms of including a more villages under the campaign, training and capacity building of PRI Members, women groups on climate change and its long-term impact, etc.
8. **Solar cities** in Punjab - under the strategy, Punjab has released a detailed project report for the solar cities of Mohali, Amritsar, Ludhiana and Sultanpur Lodhi. A robust implementation and monitoring strategy to be put in place to scale up the activities.
9. Punjab must focus on capacity building and awareness programs for uplifting the state's ability to adapt with climate change. For example, in Haryana, climate change has been incorporated in developmental programmes, monitoring of the state mission projects via institutes and third-party organizations, it has also integrated climate change agenda with National Green Corps (NGC) activities and district plan activities, helping the state to develop its climate resilience. Similarly, Punjab should also **allocate 1% of its budget** for capacity building for **climate change resilience**.

- In Hiware Bazar, Maharashtra, when the existing groundwater resources were allowed to be replenished, the groundwater table quickly increased to an easily accessible level. A complete ban was put on grazing animals in this locality which resulted in a 30-fold increase in grass growth and subsequently led to a significant rise in groundwater.
7. The Punjab government has put forth various targets to be achieved by the year 2030. As per State Action-Plan for Climate Change (SPACC 2.0), **renewed efforts to me made to achieve the prime targets** mentioned below:
 - Achieve solar power capacity of 3,000 MW by 2030
 - Achieve non-solar power generation capacity of 1,500 MW by 2030
 - Achieve power generation capacity of 500 MW using biomass by 2030
 - Promote development and usage of electric and solar vehicles (and power stations)
 - 5.21% of renewable power generation out of total installed grid generation by 2030

WHY ACHIEVING SDG 13 IS IMPORTANT TO ACHIEVE ALL SDGS?







**SDG 15
LIFE ON LAND**

SDG 15 – LIFE ON LAND



Ensure sustainable use of terrestrial ecosystems by integrating ecosystem and biodiversity into local planning, developmental processes, and poverty reduction strategies. Promote fair and equitable sharing of benefits arising from the utilization of genetic resources, appropriate access to such resources, and prevent poaching & trafficking of protected species of flora & fauna.



The latest India Forest Cover Report (2020) reports that total forest vegetation cover in the state had gone up by 11.63 sq km, through afforestation and land use diversification.

To commemorate the 400th Parkash Purab of Guru Tegh Bahadur, 60 lakh plants had been planted under various schemes at over 6,986 villages in the state in 2020-21

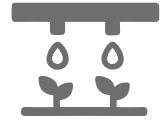
Ghar Ghar Hariyali' (Green Cover Everywhere) campaign is providing free plant saplings through a mobile application 'I Hariyali', with the aim to contribute towards improving the green cover in the state

CURRENT STATUS



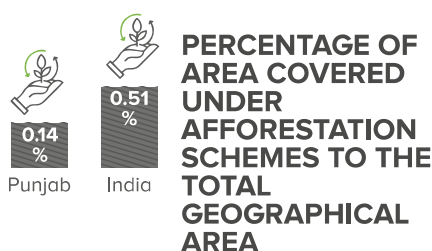
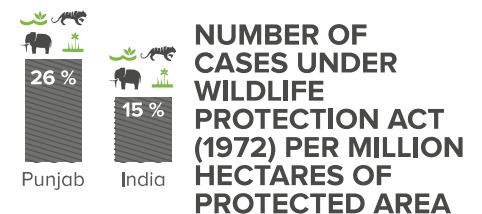
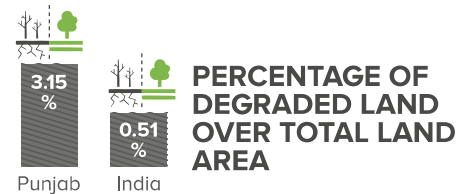
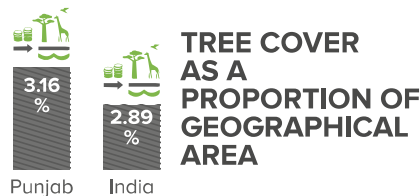
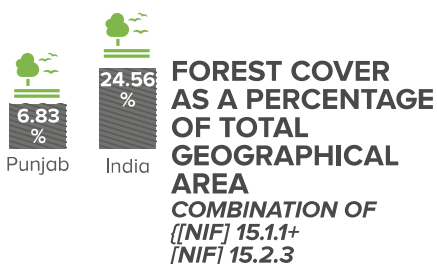
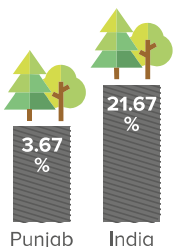
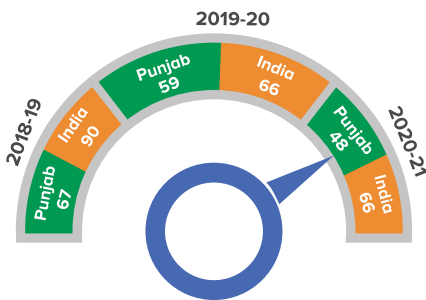
With extension support, more than 19.5 lakh high-quality clonal plants had been planted by farmers under submission on agro-forestry on their fields.¹

During 2020-21, a total of 311.978 hectares plantation was done under compensatory afforestation, 7896.218 hectares of previous year's plantations were maintained besides undertaking maintenance of 104387 tall plants and 352414 plants.

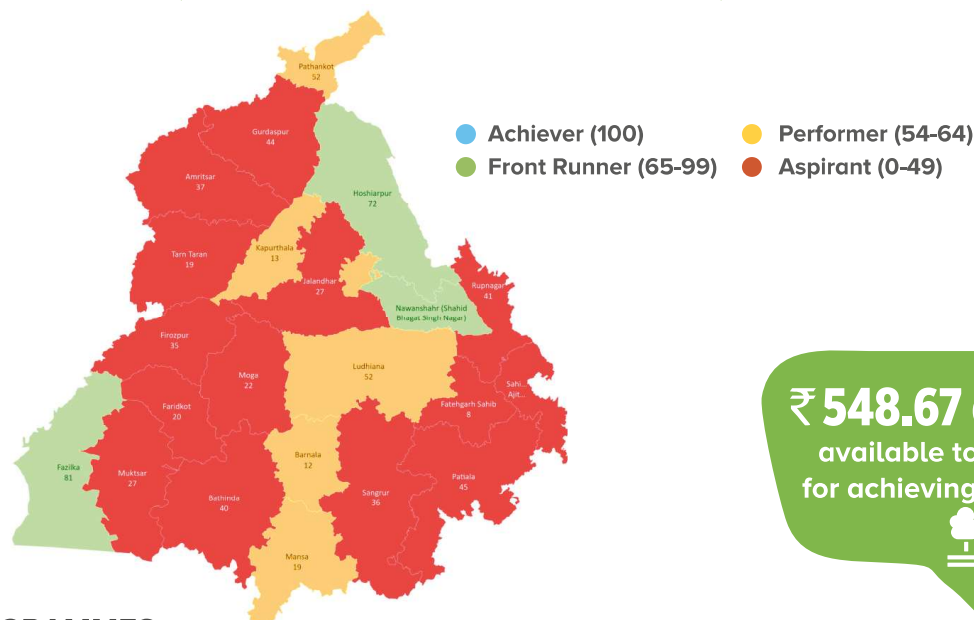


For judicious use of available surface and sub-surface water resources, the state has provided financial and technical assistance for laying of underground pipeline system on 4.94 lakh ha. and promoted Micro Irrigation (drip and sprinklers) technology on 33,710 hectares

SDG Index Composite Score



SDG 15 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF PUNJAB DISTRICTS



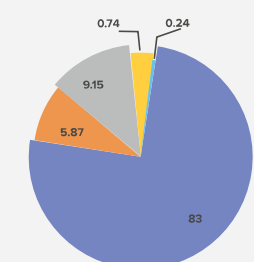
SCHEMES & PROGRAMMES

	Schemes	Grant Released by FD (2019-20) Rs. Lakhs		
		SS	CS	Total
1.	Assistance to State Forest Development Agency Under National Mission for a Green India (NMGI)	493.20	739.80	1233.00
2.	Assistance to State Forest Development Agency under National Afforestation Programme (NMGI)	0.00	1.00	1.00
3.	Integrated development of wildlife habitants	0.00	50.00	50.00
4.	Grant-in-aid to State Forest Development Agency for implementation of Sub Mission on Agro Forestry	154.00	231.00	385.00
5.	Intensification of Forest Management (NMGI)	50.00	75.00	125.00
6.	Punjab Forestry and Watershed Development Project and Promotion of ICT & e-Governance in the State	100.00	0.00	100.00
7.	Conservation, Management & Development of wild life in the State	500.00	0.00	500.00
8.	Ghar Ghar Haryali - Each One Plant Three for Greening Punjab	400.00	0.00	400.00
9.	Setting up of Bio -diversity Park at Bathinda, Giddherbaha and Sangrur	234.00	0.00	234.00
10.	550th years Celebration of Birthday of Sri Guru Nanak Dev Ji	30000.00	0.00	30000.00
11.	Rashtriya Krishi Vikas Yojana (RKVY)	8000.00	12000.00	20000.00
12.	Upgradation of Soil Health Labs under the National Project on Management of Soil Health and Fertility (NMSA)	353.00	485.00	838.00
13.	Scheme for Special Problematic and Degraded Soil in the State under Technology Development Extension and Training (TDET)	0.00	1.00	1.00
14.	Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) for soil and water conservation	160.00	240.00	400.00
15.	Paramparagat Krishi Vikas Yojana (NMSA)	240.00	360.00	600.00
	TOTAL	40684.20	14182.80	54867.00

<https://www.tribuneindia.com/news/punjab/punjab-forest-cover-up-by-1-63-sq-km-192039>

CHALLENGES

%age of area of state



- Net sown area
- Forest and tree cover
- Land not available for plantation
- Fallow land
- Other uncultivable land

- Limited Scope for increase in Forest Cover** - The State of Punjab is primarily an agrarian State. The forest and tree cover at present in the State is therefore limited to 6.87%. Most land is used for agriculture with the focus to increase per hectare yield of land.
- Diversion of Forest Land** - Punjab is losing forest land to non forestry projects. A total 411.07 square kilometre forest lands were diverted between January 1 and November 6, 2019² for 123 projects.³
- Depletion of groundwater** - Rainfall is the largest source of groundwater recharge and, hence, any deviations in the rainfall patterns distinctly impact the groundwater regime of an area. Punjab ranks in the bottom quartile among all states in India in terms of annual rainfall received.
- Degradation in soil quality** - Less use of crop residue, farmyard manure, green manure, bio fertilizers and no use of leguminous crops in crop rotations is aggravating the issues related to soil quality and conservation.
- Reduction in canal irrigated areas** - In the last couple of decades, canal irrigated land has drastically decreased. The main cause is industrial pollution and untreated effluents discharged into rivers and rivulets.
- Lack of 'Lantana Camara' weed control management** - In areas of Punjab, Lantana Camara is a serious threat to the resurgence of forests. In light of the fact that the entire Shivalik forest range is being destroyed, it is vital to control this weed biologically.



Short-Term Strategies

1. Promoting People's Participation

- Promote **different models for agro-forestry** and trees outside forests through extension activities, technical assistance, and financial incentives for land-use diversification
- Increase **environmental literacy** and engage a wide range of stakeholders in sustainable forest management
- Degraded forest areas near habitations should be regenerated with the cooperation and involvement of local communities. **Joint Forest Management practices** should be tuned to local scenario and adjusted to changing perceptions to achieve a sustainable green cover for the state.

2. Increase **skill levels of forest technicians and forest managers** in prevention, detection and monitoring programs

3. Punjab should lay emphasis on **compensatory afforestation under CAMPA scheme**, which was on hold due to insufficient funds. This in turn will help Punjab increase its forest cover to the minimum required area

- If Punjab is able to meet its remaining target of 1,881.61 hectares under CA scheme, its forest and tree cover would increase to 6.90% from 6.87% of the total area of the state.

4. Encourage private sector engagement in this space

- Promote **environment-friendly industry** for utilising and processing forest raw materials in manufacturing of value-added forest products.
- Prescribe **minimum extent of area to be kept under tree plantation and vegetation** cover by new industries, colonies, and institutions in the State

5. State is implementing **schemes/ projects for efficient use of irrigation water** and on-farm management of water resources besides rainwater harvesting and enhancing productivity in sub mountainous Kandi areas of the state. **Effective implementation of these schemes** requires multi-stakeholder engagement, in addition to convergence at state level.

6. **Punjab Water Resources (Management and Regulation) Bill, 2019** was drafted and presented in the Cabinet for approval. A Cabinet Sub Committee has been formed to examine the Bill – it is crucial for effective management of water resources in the state.

7. Undertake **Strategic Environmental Assessments (SEAs)**⁴ and use tools such as Integrating Valuation of Ecosystem Services and Trade-offs (InVEST)⁵ and Toolkit for Ecosystem Service Site-Based Assessment (TESSA)⁶ to consider the impacts on ecosystems and the goods and services they provide

8. Implement the principles of **New Generation Plantations (NGP)**⁷ that help to meet growing demand for timber and other resources through the use of well-managed tree plantations in cooperation with local people that respects and strengthens their rights to land and resources, contributes to local livelihoods and well-being, and supports biodiversity and ecosystem function



Long-Term Strategies

1. Improving Soil Quality

- For the **application of need-based fertilizers**, infrastructure like soil and leaf testing laboratories with the world class equipment should be established.
- Enhance the quality of soil and water resources by **devising technologies aimed at complementing synthetic fertilizers** with crop residues and biofertilizers and enhancing use efficiency by suitably modifying rate, source, time, and method of application
- **Engage with farmers to improve soil health** through following means:
 - Reduce dose of urea and diammonium phosphate (DAP) as per PAU recommendations, when farmyard manure or green manure has been used.
 - Skip application of phosphorous to kharif crops when its recommended dose has already been applied to rabi crops.
 - DAP must be drilled into soil; apply potassium only as per soil test reports.
 - Micronutrients such as manganese, iron and copper should be sprayed whereas zinc can be applied both to the soil as well as sprayed

2. **Greening Action Plan** for the State should be developed by involving other State Departments managing land resources. This **Action Plan** will focus on:

- Digitization of Enumeration Registers of linear forests.
- Targeting each city across the state for urban greens that includes large scale afforestation on waste lands, railway tracks, roadside, government area, etc. Municipal Corporations in all the cities shall identify open areas / lawns / vacant lands including community places and schools in the city and these places be allocated to the NGOs or industrial associations for tree plantation and their maintenance in a time bound manner
- Regulation for felling trees on private land and community holdings, which should be reviewed and rationalized to as per the communities' interest in planting and protecting trees on their lands.
- Increasing the productivity of planting material manifold by using superior planting stock raised through tree breeding programmes, as well as through clonal technology and tissue culture.
- Enhancing soil testing and using green manure to maintain soil productivity.
- Enrichment planting with suitable species of trees, shrubs and grasses in the Shivalik region.
- Protecting the representative eco-systems for preservation of floral & faunal biodiversity.

3. **Promoting Farm Forestry or Agro Forestry** as that holds the maximum potential for increasing tree cover in the state. Additionally, it will aid conservation of water, reduction in pesticide and fertilizer use and provide other ecological services besides increasing the green cover of the state.

- Bring additional area under agro forestry with trees such as Eucalyptus, Seesham, Poplar, Drake, etc.
- Develop various plantation models and promote research on improving productivity of the farm forestry tree species.

4. **Promote Eco-Tourism** in the State: Maintain or enhance the quantity and quality of forest recreation and other opportunities for people to experience forests and create a revenue model for the state.

5. **Reduce susceptibility or vulnerabilities:** Maintain diverse forest size structure and species composition on the landscape. Forests constantly change, but their trajectory of change is periodically altered by fire, insects, diseases, harvesting, weather, invasive plants, and other disturbances. Healthy, diverse forests can better cope with such disturbances and continue to function as forests.

6. Apply the **Hydropower Sustainability Assessment Protocol**⁸ when planning dams for renewable energy

²<https://www.downtoearth.org.in/news/forests/india-continues-to-lose-forest-land-to-non-forestry-projects-71633>

³<https://fsi.nic.in/sfr2017/punjab-isfr-2017.pdf>

⁴http://ec.europa.eu/environment/eia/pdf/2012%20SEA_Guidance_Portugal.pdf

⁵<https://www.naturalcapitalproject.org/invest/1> ⁶<http://tessa.tools/>

⁷<http://newgenerationplantations.org/en/ngp/>

⁸<http://www.hydro-sustainability.org/Protocol.aspx>

WHY ACHIEVING SDG 15 IS IMPORTANT TO ACHIEVE ALL SDGs?







**SDG 16
PEACE, JUSTICE AND
STRONG INSTITUTIONS**

SDG 16 – PEACE, JUSTICE AND STRONG INSTITUTIONS



Creating strong, accountable and inclusive institutions in the state, to ensure governance that provides a framework for achieving peace and justice for all. The state envisions to achieve the highest levels of law and order, e-governance, transparency, combat corruption, and empower institutions of local governance.

CURRENT STATUS



Punjab enacted the **Punjab Transparency & Accountability in Delivery of Public Services Act** in 2018, a drive towards digitisation of government services.

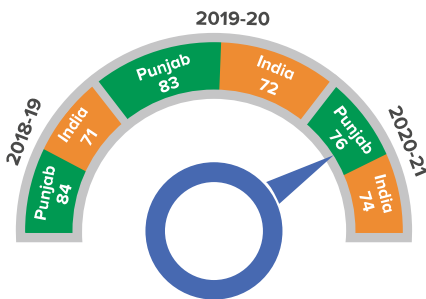
Under the aegis of **project SAANJH**, Community Police Resource Centres have been set up at District, Sub-Division and Police Station level, to act as nodal points for relief and support (legal, medical and psychological) to victims of crime.



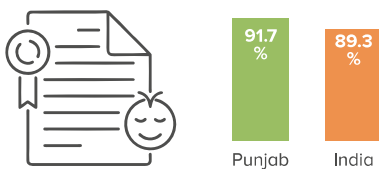
Punjab is among the 13 states of India which have **surpassed 90% registration of births**. Further, it has achieved 100.42% coverage of population under Aadhaar.

Punjab is implementing the **Integrated Child Protection Scheme (ICPS)** and has established District Child Protection Units, Child Welfare Committees, Special Juvenile Police Units, and Juvenile Justice Boards in all 22 districts for children in need of care and protection, and children in conflict with law

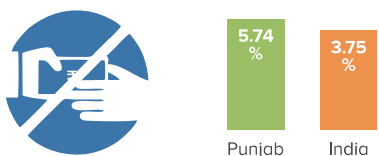
SDG Index Composite Score



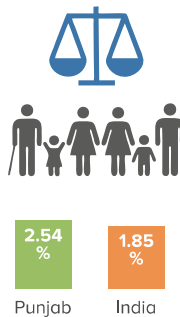
Percentage of Birth Registered



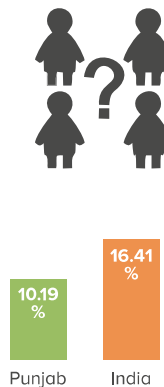
Cases Reported under Prevention of Corruption Act & Related Sections of IPC per 10 lakh population



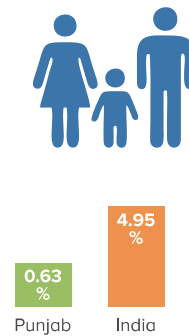
No. of courts per 1 lakh population



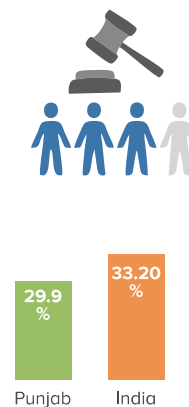
Number of missing children per one lakh child population



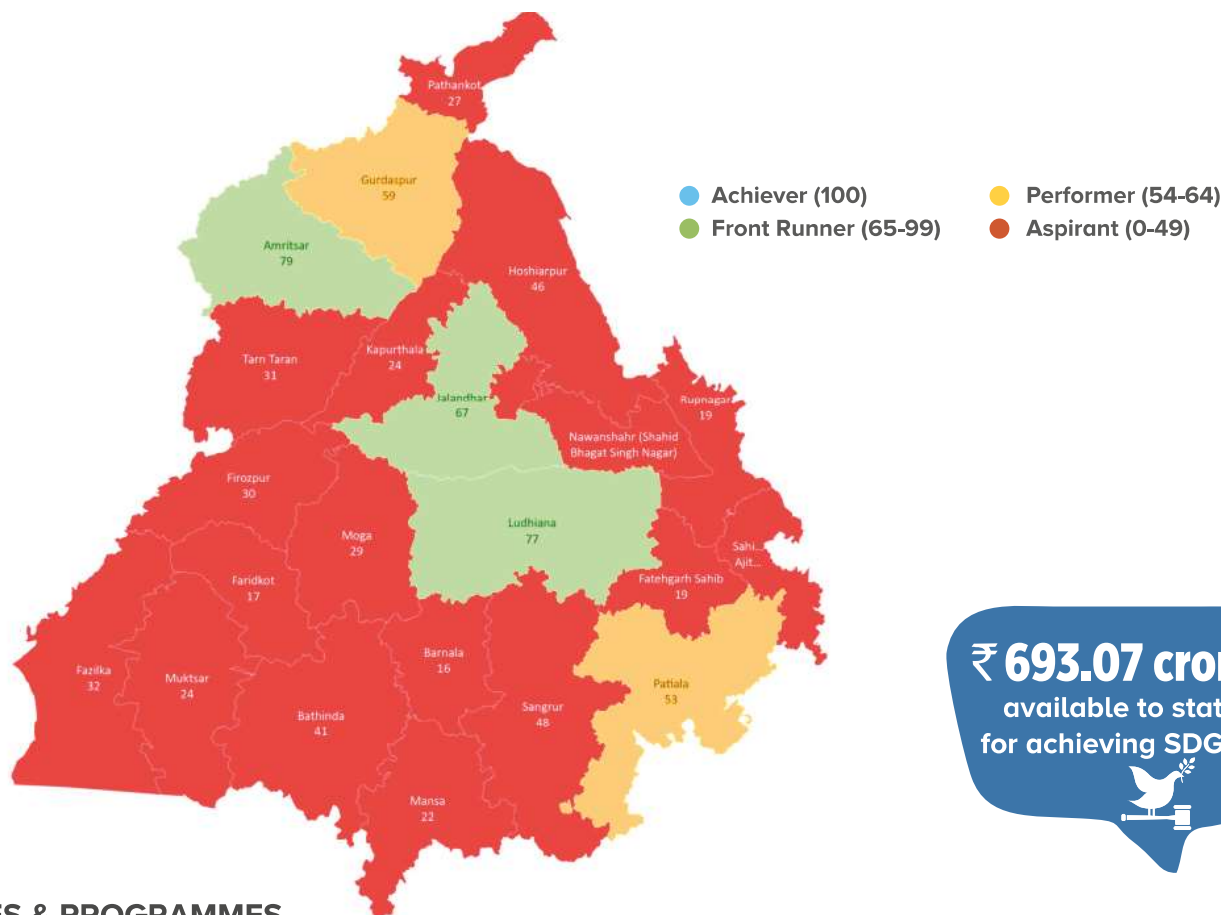
Number of victims of human trafficking per 10 lakh population



Cognizable crimes against Children per 1 lakh population



SDG 16 - COMPOSITE SCORE (AS PER PROVISIONAL DISTT INDEX) OF PUNJAB DISTRICTS



₹ 693.07 crore
available to state
for achieving SDG 16

SCHEMES & PROGRAMMES

	Scheme	Grant Released by FD (2019-20) Rs. LAKHS		
		SS	CS	TOTAL
1.	Setting up of State Level Control Room for Dial-100	587.28	0.00	587.28
2.	Modernization of Police Forces Scheme	2023.78	4908.68	6932.46
3.	National Scheme for Modernisation of police and other forces Strengthening of fire and emergency services	0.0	200.00	200.00
4.	Infrastructure Facilities for the Judiciary	3000.00	4378.00	7378.00
5.	Purchase of land for Police lines, Police Stations & Others	640.00	0.00	640.00
6.	Setting up of Community Policing Suvida Centres (Provision of funds for implementation of the recommendations of the Punjab State Governance Reforms Commission-concerning Police Department)	18.58	0.00	18.58
7.	Training to unemployed youth at Police Security Training Institute (PSTI), Jahankhelan for Service in Security Sector through Punjab Police Security Corporation (PPSC) Ltd.	50.00	0.00	50.00
8.	National Emergency Response System Project (NERS)	164.50	0.00	164.50
9.	Construction/ Renovation of Police Complexes	500.00	0.00	500.00
10.	Atal Mission for Rejuvenation and Urban Transformation (AMRUT)	14300.00	12347.00	26647.00
11.	Integrated Child Protection Scheme (ICPS)	660.00	990.00	1650.00
12.	Financial Assistance to Acid Attack Female Victims	24.00	0.00	24.00
13.	Rashtriya Gram Swaraj Abhiyan	4411.00	5561.00	9972.00
14.	Rehabilitation of bonded labourers (converted into 100% CSS from 2017-18)	111.80	1.80	113.60
15.	Child Labour-Rehabilitation Fund	20.00	0.00	20.00
16.	Introduction of Computerisation in Punjab Government Offices, Semi Government Offices including Maintenance & Upgradation of the Systems	3424.00	0.00	3424.00
17.	ICT Infrastructure and Construction of Building for e-Governance Projects	1994.47	0.00	1994.47
18.	Capacity Building for e-Governance Projects	10.00	0.00	10.00
19.	Punjab Governance Reforms and Ethics Commission (PGREC)	50.00	0.00	50.00
20.	Grant in Aid to Punjab Right to Service Commission (2011)	300.00	0.00	300.00
21.	For implementation of recommendations made by Punjab Governance Reforms Commission in respect of various departments	32.44	0.00	32.44
22.	Establishment of Rajiv Gandhi National University of Law, Punjab	898.88	0.00	898.88
23.	Purchase of land for Police line at Shaheed Bhagat Singh (SBS) Nagar and land for construction of police stations	1300.00	0.00	1300.00
24.	Construction and repair of Police Buildings	1000.00	0.00	1000.00
25.	Laboratory for Cyber Crime Prevention against Women & Children (CCPWC)	300.00	0.00	300.00
26.	Installation of CCTV camera, laptops, helmets etc	300.00	0.00	300.00

	Scheme	Grant Released by FD (2019-20) Rs. LAKHS		
		SS	CS	TOTAL
27	Setting up of State-level Centralized Call Taking Centre/Public Safety Answering Point (PSAP) at Mohali	600.00	0.00	600.00
28	Installation of CCTV cameras at Patiala and Batala; Data Center Networking and Crime and Criminal Tracking Network and System (CCTNS) coverage etc	1000.00	0.00	1000.00
29	Implementation of AI (Artificial Intelligence) enabled video surveillance and monitoring system at all the 10 Central Jails situated in the state of Punjab	1100.00	0.00	1100.00
30	Communication Dead Zone at Central Jail, Bathinda	2100.00	0.00	2100.00
	TOTAL	40920.73	28386.48	69307.21



CHALLENGES

- The **total crime rate has increased** from 239.9 (per 1 lakh population) to 243.3 in 2019. A gradual increase in the number of crime incidents can be observed across the spectrum, particularly when it comes to crime against senior citizens, women and children.
- Regarding judiciary, the cumulative effect of continuous vacancies, stretched finances, inadequate infrastructure, along with the constant influx of cases, fuels **rising pendency** and prolongs the time taken to settle cases, leading to delayed justice
- Low utilisation of funds** under the Police Modernisation Fund Scheme and Nirbhaya Fund Scheme.
 - Punjab government has implemented Crime and Criminal Tracking Network and System (CCTNS) project, however, the utilisation of Police Modernisation Fund remains dismal. In 2016-17, only 25% of the Modernisation Fund was utilised, which came down to **0% in 2019-20**.
 - Nirbhaya Fund Scheme: Only 12% of the total funds allocated to the state have been used as of 2019. Only **7% and 15% of the funds allocated** to the Departments of Women and Child Development, Home Affairs, Justice, and Road Transport and Highways have been used.
- Constraints** in terms of infrastructure, adequate budgetary provision and human resources hinder the effective execution of the mandate under various schemes and initiatives; these are important determinants of judicial capacity.
 - As of August 2021, **39 out of 89 sanctioned posts of judges were vacant** in the Punjab and Haryana High Court
 - as of 2019, **vacancy for prison officers and cadre staff stood at 41% and 28.7%**, respectively. Further, there was **100% vacancy of correctional staff**, and prison occupancy stood at 103%.
- There are **gaps in service delivery standards** of the Child Care Institutions (CCIs) operating in the state of Punjab and there is lack of publications and annual reports of the (CCIs) which could shed some light on the progress and effectiveness of these institutions.
- Government of Punjab enacted the **Punjab Police Act, 2007** which initiated efforts towards implementation of the long pending police reforms but the state remains **partially compliant** in terms of implementation of the 7 directives of the Act.

RECOMMENDATIONS & STRATEGIES



Short-Term Strategies

- Minimise the interface of the citizen with the public service provider and **encourage digital interface** to eliminate corruption; deliver all 489 public services through online mode by 2030.
- Generating awareness to **create an informed citizenry** that can avail various remedial measures to ensure that corrupt acts do not go unpunished.
- Imparting training for **capacity building of all stakeholders**:
 - Elected representatives at the local level must be undertaken on priority basis as more and more functions are being devolved to the local level.
 - Regular training programmes for appointed officials must also be ensured. Training partners like NGOs and educational institutions can increase this outreach.
 - Dissemination of knowledge, sensitisation and training of front-line personnel from the police, judiciary and the Department of Women and Child Welfare with respect to the legal framework and issues related to rescue, rehabilitation and reintegration of victims of trafficking
 - Under the Centrally Sponsored Scheme of Atal Mission for Rejuvenation and Urban Transformation (AMRUT), training programmes for municipal functionaries and elected representatives to be conducted



Long-Term Strategies

- It is imperative that **all the subjects** (the 29 subjects mentioned under the 11th Schedule of Constitution) **be transferred to PRIs** gradually in a phased, time-bound plan.
- Strengthening** the infrastructural capacity of the **SAANJH Project** to make community policing effective. Further, adequacy of the human resources and their capacity building will go a long way in delivering the mandate of realising “police community partnership in crime prevention, grievance redressal, victim assistance and information related to law, rules and procedures, civic rights and duties”
- Ensure **filling all the vacant positions in the judicial system** for effecting speedy disposal of cases in addition to strengthening and expanding the free legal aid framework in the state.
- To have a **uniform standard of quality of services/facilities** at the CCIs, the State Government has drafted a Child Protection Policy - it is crucial to effectively and efficiently implement the same.
- Implementation of the Punjab Governance Reforms Commission (PGRC) recommendations** as contained in the Fifth Status Report:

4. **Digitisation of records** related to registration of births and implement end-to-end computerisation for timely and proper maintenance of records, particularly in rural areas.
5. A new **strategy** is needed for **measuring the performance of the police** by focussing on the ratio of severe to petty crimes as recommended by the Punjab Governance Reforms Commission, instead of the existing practice wherein the performance of police is appraised on the basis of lower incidence of crime.
6. Under PTADPSA 2018, a drive towards **digitisation of government services** has been launched in Punjab. Presently, 189 out of 565 services are being delivered through online mode. It should be a matter of immediacy for the government to ensure that all services are made available to citizens as soon as possible
7. In the context of trafficking of children, it is important to establish a **well coordinated institutional framework for prevention, protection and rehabilitation**. Further, areas in the state which are prone to trafficking should be identified, with the objective of preventing trafficking by being vigilant at these sites, raising awareness, and utilisation of existing welfare and anti-poverty schemes of the government to create viable livelihood options for vulnerable families and reducing scenarios for trafficking.
8. Punjab Panchayati Raj Act,1994 provides for **50% reservation of women** for the post of **chairperson of Panchayat** Samitis and Zila Parishads – this should be maintained not just on paper but in spirit too. Training and capacity building of female PRI members is crucial for women's full and effective involvement in political, economic, and public life.
9. Encourage **settling of disputes through Alternative Disputes Redressal mechanism** and Lok Adalats by creating awareness through mass media and social media; organise legal literacy programmes through State and District Legal Services Authority.

- Establish Human Rights Courts in each district to try offences relating to human rights.
 - Establishment of a Criminal Justice Monitoring Board to track progress of all criminal cases and recommend remedial action. Also, it must function as an ombudsman and be competent to hear complaints against investigators and prosecutors.
6. There is a need to have **comprehensive prison reforms** since discussions/reports have revealed that the existing jail manuals have become obsolete, and prisons have become breeding grounds for rampant drug peddling criminals and frequent instances of gang wars.
 7. There is need to **adopt measures that promote transparency** in citizen-government interface. This implies effective implementation of the RTI Act, Punjab Transparency & Accountability in Delivery of Public Services Act, Citizen's Charter, improved service delivery through Suvridha and Saanjh Kendras, and development of ICT enabled infrastructure in all public authorities of the state.

WHY ACHIEVING SDG 16 IS IMPORTANT TO ACHIEVE ALL SDGS?





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