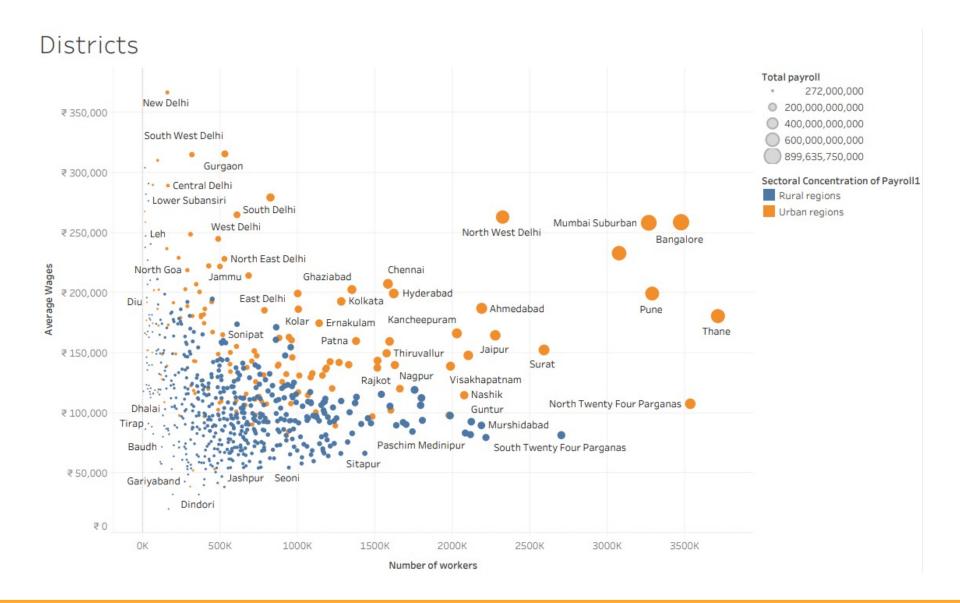
## Beyond GDP Social Progress Index for States and Districts of India

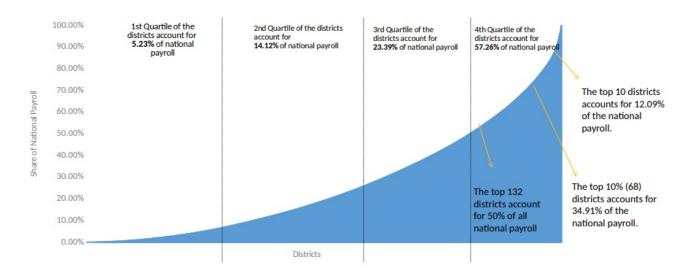
Amit Kapoor Institute for Competitiveness

September 21, 2023



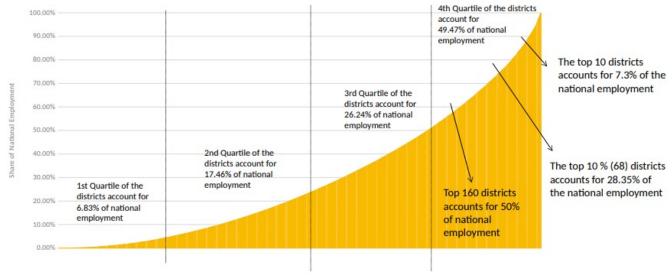
Districts with high wages and a high concentration of payroll in urban areas significantly drive economic activity by providing better job opportunities and generating higher wages. These regions serve as hubs for industries, service, and commerce, attracting a larger share of the payroll.

#### Concentration of Value Generation across districts



The upper quartile of the districts seems to be the hub of the vast economic activities as its contribution to employment, and payroll stands at 49.47% and 57.26%, respectively.

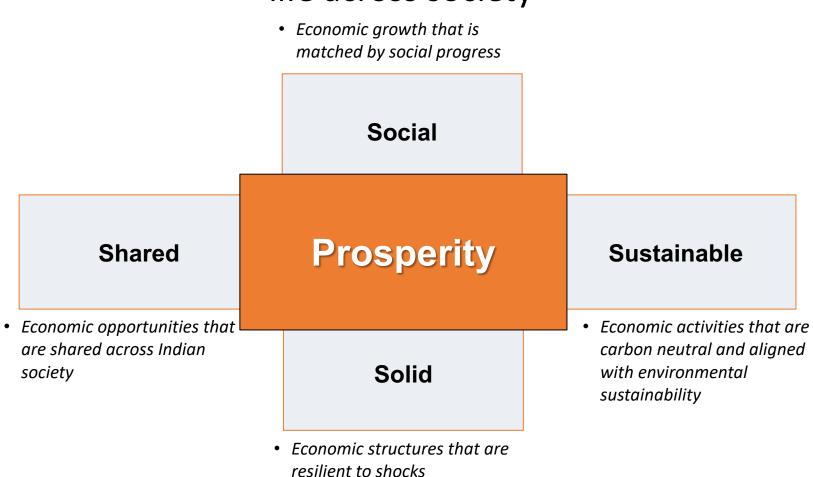
#### Concentration of Employment across districts



Districts in the lower quartile have a very low concentration of economic activities, contributing merely 6.83% and 5.23% to the national employment and payroll

### A Broad Ambition for the Future

A coherent set of outcome goals, capturing the quality of life across society



## **Enabling Social Policies**

**Priority Action Areas** 

Tackle childhood poverty to remove a long-lasting burden on development and productivity

Provide childcare services to remove barriers for women entering the labor force and create job opportunities

Social and Economic Development

Invest in a value-based health care system to provide better health care services and create job opportunities in a more low-skill, tech-enabled delivery model

Enhance **public safety** to remove barriers for women entering the labor force

Enhance the effectiveness of the education system, providing K-12 students with strong foundations for a successful labor market entry

#### The Social Progress Index asks universally important questions about the success of our societies

#### **BASIC HUMAN NEEDS**



#### **Nutrition & Basic Medical Care**

Do people have enough food to eat and are they receiving basic medical care?



#### **Water & Sanitation**

Can people drink water and keep themselves clean without getting sick?



Do people have adequate housing with basic utilities?



#### **FOUNDATIONS OF WELLBEING**



#### **Access to Basic Knowledge**

Do people have access to an educational foundation?



#### Access to Information & Communications

Can people freely access ideas and information from anywhere in the world?



#### **Health & Wellness**

Do people live long and healthy lives?



#### **Environmental Quality**

Does the environment support societal well-being?

#### **OPPORTUNITY**



#### **Personal Rights**

Are people's rights as individuals protected?



#### **Personal Freedom & Choice**

Are people free to make their own life choices?



#### **Inclusiveness**

Is no one excluded from the opportunity to be a contributing member of society?



#### Access to Advanced Education

Do people have access to the world's most advanced knowledge?

# District- Level (49 indicators)

#### **BASIC HUMAN NEEDS**



#### Nutrition and Basic Medical Care

Antenatal care
Anemic women
Prevalence of anemia in children
Total health centers per lakh population
Underweight children
Children receiving an adequate diet
Stunted children



#### Water and Sanitation

Drinking source at premises Functional household tap connection Access to improved sanitation facilities



#### Shelter

Households in good condition Access to electricity Usage of clean fuel



#### **Personal Safety**

Murder crimes Violent crimes Cyber crimes Crimes against children Road deaths Crimes against women

#### FOUNDATION OF WELLBEING



#### Access to Basic Knowledge

Learning outcomes (class 3)
Learning outcomes (class 5)
Learning outcomes (class 8)
Connectivity to schools
Drop out rates in secondary school



#### Access to Information & Communication

Households having landlines Households having mobile phones Households having internet Households having computers Households having television



#### Health & Wellness

Women high blood sugar level Men high blood sugar level Men elevated blood pressure Women elevated blood pressure



#### **Environmental Quality**

Water quality chemical contaminants Water quality bacteriological contaminants Water extraction Forest cover

#### **OPPORTUNITY**



#### Personal Rights

Births registered Access to judiciary Human trafficking



#### Personal Freedom & Choice

Kidnapping & abduction of women to compel her for marriage Early marriages Family planning



#### Inclusiveness

Enrollment of SC & ST students in school Violence against SC Violence against ST



#### Access to advanced Education

Gender parity index in higher education Gross enrollment ratio in higher education Colleges per lakh population

#### Social Progress Index district level framework

#### **Basic Human Needs**

#### **Nutrition & Basic Medical Care**

- Mothers receiving antenatal care visits
- Anemic women
- Prevalence of Anemia in Children any Anemia age 5-59 months
- Total health centers per lakh population
- Children under 5 years who are underweight
- Children receiving an adequate diet
- Children under 5 years who are stunted

#### **Water & Sanitation**

- Households using improved drinking-water source
- Households with tap water Supply % age
- Households using improved sanitation facilities

#### **Shelter**

- Percentage of households completed under Pradhan Mantri Awaas Yojana (PMAY) - Grameen
- Share of Households in Pucca houses/good condition
- Percentage of houseless population
- Population living in households with electricity
- Households using clean fuel for cooking

#### **Personal Safety**

- Rate of Murder Crimes per lakh population
- Rate of violent crimes per lakh population
- Cyber Crime
- Rate Crimes against Children per lakh population
- Rate of death due to traffic accidents per lakh population
- Victim or rape rate per lakh population
- Crime against women rate per lakh population

#### **Foundations of Wellbeing**

#### Access to Basic Knowledge

- Pupil Teacher Ratio (PTR)
- Schools per lakh population
- Learning outcomes (class 3)
- Learning outcomes (class 5)
- Learning outcomes (class 8)
- Percentage of schools with connectivity (by all weather road)
- Drop out rates primary

#### **Access to Information & Communications**

- Percentage of households having landlines
- Percentage of households having mobile phones
- Percentage of households having internet
- Percentage of households having computers
- Percentage of households having television

#### **Health & Wellness**

- Women Blood sugar level very high
- Men Blood sugar level very high
- Men -Elevated blood pressure
- Women -Elevated blood pressure
- Women Breast cancer
- Child vaccination
- Prevalence of other diseases

#### **Environmental Quality**

- Percentage of Sources with Chemical Contaminants Above Permissible Limit
- Percentage of Sources with Bacteriological Contaminants Above Permissible Limit
- Water Extraction
- % of forest cover to geographical area

#### **Opportunity**

#### **Personal Rights**

- Births Registered
- Trials completed within 3 years
- Land ownership
- Rate of human trafficking

#### **Personal Freedom & Choice**

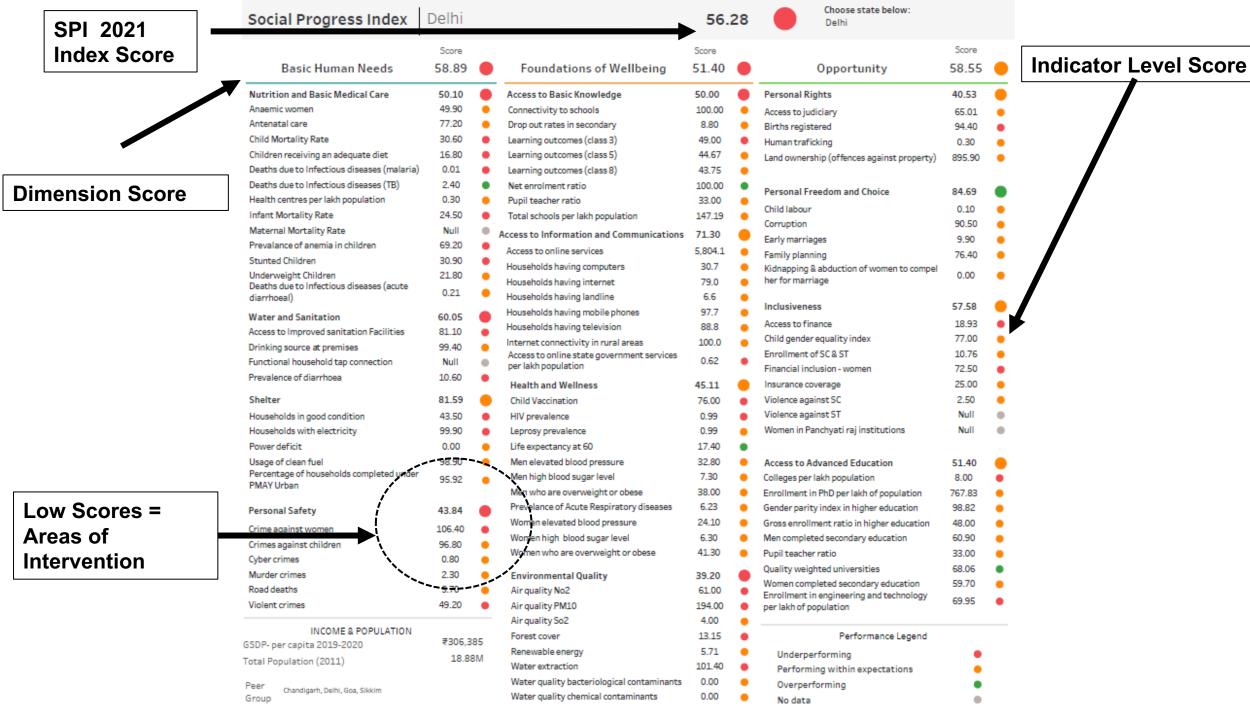
- Crime against children Rate of total IPC crimes against children
- Crime against children Child Labour (Prohibition & Regulation) Act (Conviction rate)
- Kidnapping & Abduction of Women to compel her for marriage
- Percentage of women married by exact age 18 among women aged 20-24
- Current Use of Family Planning Methods

#### **Inclusiveness**

- Financial Inclusion Number of banks
- Financial Inclusion Women with bank accounts
- Enrollment of SC & ST
- Crime against SCs
- Crime against STs
- Child sex ratio
- Insurance coverage

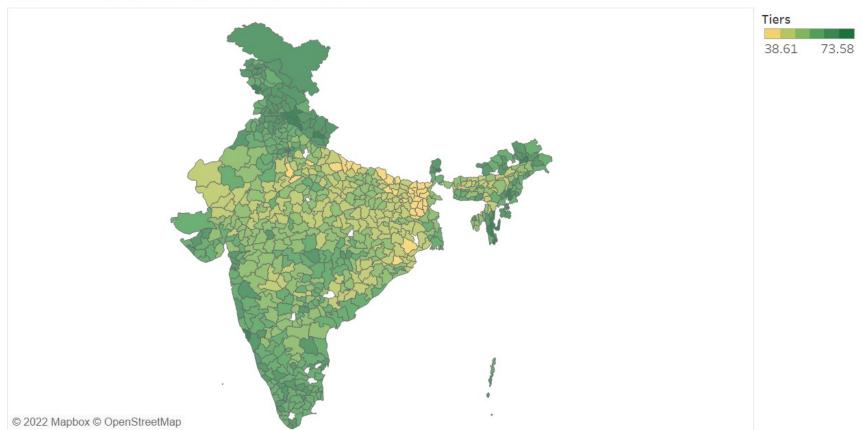
#### **Access to Advanced Education**

- Gross enrollment ratio in higher education
- Gender parity index in higher education
- Colleges per lakh population
- Pupil teacher ratio (PTR) Higher education



#### **Social Progress Index at the district level**

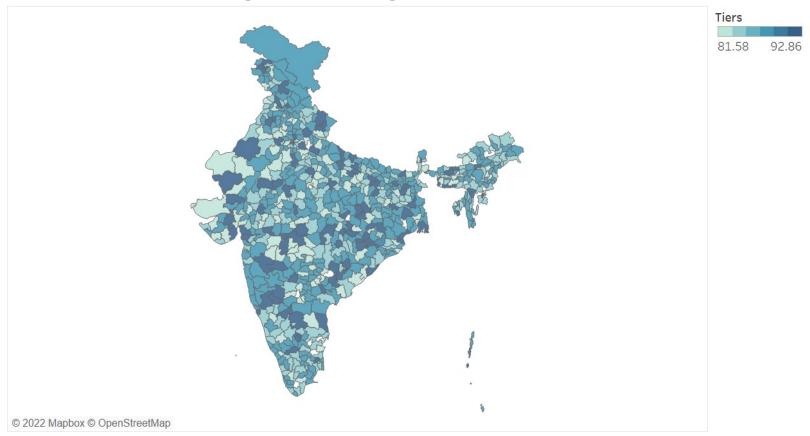
#### Social Progress Index at District Level



- In terms of social progress, the top five best performing districts are Aizawl (Mizoram), Solan (Himachal Pradesh), Shimla (Himachal Pradesh), Srinagar (Jammu and Kashmir), and Lunglei (Mizoram), respectively.
- States like Arunachal Pradesh, Himachal Pradesh, Jammu and Kashmir, Puducherry, Punjab, and Uttarakhand together have over 78 per cent of their districts falling under the **High-Performance category** in terms of social progress.

#### Financial inclusion at the district level

Women across India having a bank or savings account



- Financial inclusion becomes an important aspect of social progress index, indicative of development the financial sector has gone through over the years. Along with boosting shared prosperity and reducing poverty, financial inclusion, especially that of women, plays a crucial role in achieving high levels of social progress.
- With growing advent of digitalization and reforms to boost financial inclusion at all levels, the percentage of women having bank or savings account that they themselves use has witnessed an **increase from 53 per cent in 2015-16 to 78.6 per cent in 2019-21** as per the National Family and Health Survey.
- Over 15 per cent districts have more than 90 per cent women having a bank or savings account that they themselves use.

## Aspirational District Programme (ADP)

It focuses on evidence-based governance strategies for advancing the socio-economic development of these aspirational districts.

The Social Progress index can act as a tool for **112** aspirational districts to advance their social progress and address the root causes of their social challenges.

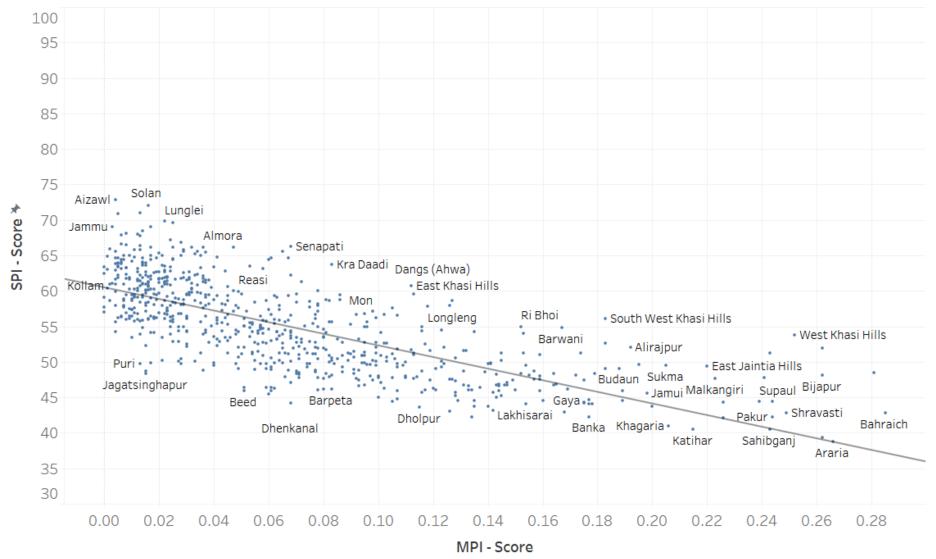
27 out of 112 ADP districts have scored above national average on social progress index.

Among these 27 districts, 5 have ranked in top 100 districts, out of which two districts from the northeastern region of the country lie in Tier 1.

#### ADP districts with SPI scores above national average

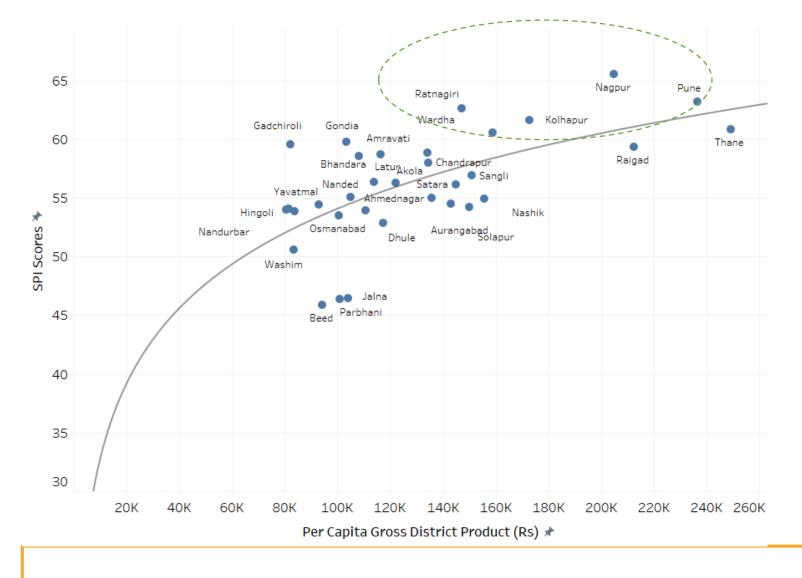
State	District	SPI	Tiers	Ranking SPI
Mizoram	Mamit	64.84	Tier 1	43
Manipur	Chandel	64.58	Tier 1	49
Sikkim	West Sikkim	63.58	Tier 2	69
Himachal Pradesh	Chamba	63.38	Tier 2	77
Punjab	Moga	62.89	Tier 2	86

# Measuring Well-Being: Examining the Relationship between Social Progress and Multidimensional Poverty



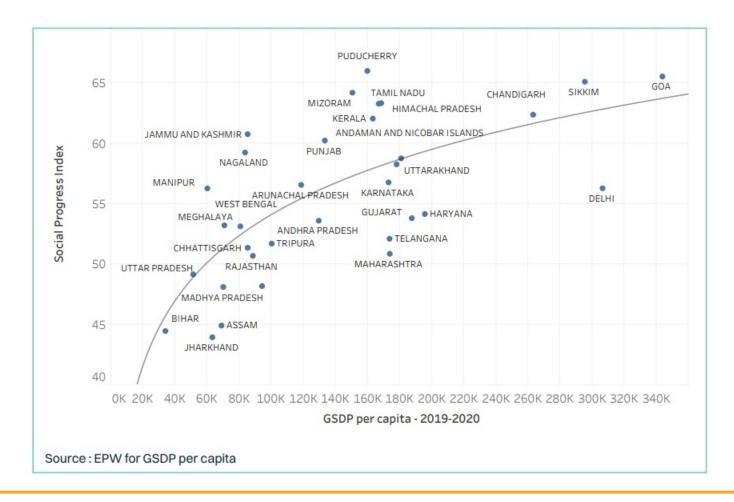
- The correlation coefficient is -0.72, indicating an inverse relationship between SPI and MPI scores.
- This suggests that districts with improved social progress improve in multidimensional poverty reduction.

Relationship Between SPI and **District GDP** per Capita Maharashtra



• The relationship between economic development and social progress is non-linear at district level of Maharashtra.

# Relationship Between SPI and GDP per Capita



 There is a positive and strong relationship between the two variables. On average, states with higher income tend to have higher social progress. However, some states and UTs, such as Delhi, have high GSDP per capita but relatively low social progress, and vice versa.

## Aspirational District Programme (ADP)

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## Methodology

#### Stage 1:

Data Collection and Validation





#### Stage 2:

**Data Transformation** and Scoring

- Filling the Missing Values and Outliers Treatments done through statistical means.
- Data Transformation
- Standardization



#### Stage 3:

**Computing Scores** 

- Component scores by aggregating respective indicators using <u>Principal</u> Component Analysis.
- Dimension Scores by taking the average of its respective components
- Index Scores by averaging the scores of 3 dimensions

The final scores of each component and dimension are scaled from 0 to 100 to provide an intuitive scale for the interpretation of absolute performance across regions.

# Principal Component Analysis: Alpha and KMO values

The Social Progress Index's structural integrity is ensured through statistical tests, ensuring no single indicator significantly impacts a geographic unit's component, dimension, or overall score. This is achieved through correlations between indicators, Cronbach's alpha, and the Kaiser-Meyer-Olkin measure of sampling adequacy.

# Structural Integrity of the Social Progress Index

- Throughout the indicator assessment and calculation process, we conduct statistical tests to ensure the structural integrity of the Social Progress Index.
- However, in some cases, the correlation between the indicators is low because of the specific characteristics of the indicator.
- Rather, we assess goodness of fit using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy.
- In this way, the district's performance is compared to the median performance of all the districts that are part of the same state.
- In our data, the mean KMO score is above 0.5 for all components, suggesting that the grouping of indicators chosen for the components of the Social Progress Index provides a good measure of the underlying construct.

# State-Level Components

Components	Cronbach's Alpha	КМО
Nutrition and Basic Medical Care	0.9	0.78
Water and Sanitation	0.77	0.7
Shelter	0.82	0.78
Personal Safety	0.84	0.7
Access to Basic Knowledge	0.85	0.65
Access to Information and Communications	0.84	0.73
Health and Wellness	0.85	0.69
Environmental Quality	0.78	0.72
Personal Rights	0.6	0.61
Personal Freedom and Choice	0.47	0.48
Inclusiveness	0.73	0.59
Access to Advanced Education	0.88	0.68

# District-Level Components

Components	Alpha	КМО
Nutrition and Basic Medical Care	0.73	0.67
Water and Sanitation	0.42	0.59
Shelter	0.67	0.63
Personal Safety	0.67	0.7
Access to Basic Knowledge	0.74	0.73
Access to Information and Communications	0.83	0.77
Health and Wellness	0.85	0.57
Environmental Quality	0.45	0.54
Personal Rights	0.35	0.49
Personal Freedom and Choice	0.31	0.56
Inclusiveness	0.59	0.55
Access to Advanced Education	0.55	0.52



# WHAT IS INDEX ON QUALITY OF LIFE FOR ELDERLY?

India can turn the challenges of population ageing into opportunities. Policymakers require reliable data on the situation of the elderly to develop an understanding of issues ranging from affordable health services, pensions, social security measures to policies on digital literacy and labour markets.

There is an immediate need to incorporate the agespecific needs of the old aged population to understand how well India is doing to support active ageing.

Several specialized frameworks and indexes focus on well-being in old age, including the World Health Organization's Active Ageing framework. However, there exists no national-level framework in India to measure the same.



The *Index on Quality of life for Elderly* broadens the way we understand the needs and opportunities of the elderly population in India. It goes far beyond the adequacy of pensions and other forms of income support, which, though critical, often narrows policy thinking and debate about the needs of this age group.

It measures the core domains of economic, health, and social well-being of older people, and can help nation identify areas that need to be addressed. Such an index will identify regional patterns of ageing observed across states and assess the overall ageing situation in India.

The Index shows that the best way to improve the lives of the current and future generations of older people is by investing in health, education and employment for young people today. It presents an assessment of elderly well-being based on45 different indicators spread across four key domains identified as being of utmost importance for older people: Financial Well-being, Social Well-being, Health system and Income security,

# NEED TO FOCUS ON THE ELDERLY

The prospect of population ageing for most middle-income countries like India is a source of concern as it might obstruct fiscal sustainability and further hinder the nation's economic development, accompanied by a significant strain on existing resources and institutions.



There is urgency in putting in place the proper institutional and policy framework for two main reasons:

The Structural reforms in institutions take a long time to change. In addition, political realities typically impose an extended transition period until a new regulatory framework is fully implemented.

Population entering the workforce today will be the elderly in 2050, and the rules of the current system are shaping their choices. Decisions they make over their entire working years will be framed by the social and economic institutions, actual and expected, that influence economic security in old age.

India needs to seize the current opportunity to plan on turning the "problem of the elderly" into a solution for ease and care in the long run. Timely action will stop them from becoming an underutilized human capital to enhance a region's social and economic conditions. This initiative will prepare us for the structural changes of the coming decades.



#### **Economic Empowerment**

- Percentage distribution of aged persons by state of economic independence - fully dependent
- Mean Monthly Individual Earnings from all sources
- Percentage distribution of economically independent aged persons by number of dependents- not dependent on others

## Education Attainment & Employment

- Work Force
   Participation Rate of people aged 60+
- Percentage of Aged Persons
   Currently working
- Percentage of Aged Persons
   seeking job
- Percentage of Employed Persons under MNREGA -(60-80 years)



#### **Social Status**

- Sex ratio (60 years and above)
- Percentage of Elderly Currently married
- Percentage of Elderly Persons satisfied with their own life
- Percentage of Elderly Persons satisfied with their current living arrangement
- Percentage of Elderly Persons who need helpers for ADL and IADL limitations

#### **Physical Security**

- · Crime against the elderly
- Experience of Ill-Treatment (for age 60 and above only)
- Living arrangements of the elderly - Living alone



#### **Basic Health**

- Life Expectancy at 60+ years of age
- Percentage distribution of ailments at 60+ years of age
- Percentage distribution of aged persons with chronic illness by own perception about current state of health
- · Physical mobility of the aged
- Percentage of people aged 60+ years who engage in physical exercise
- Percentage of people aged 60+ years with Health insurance coverage
- Poor Self Rated Health (SRH)

#### **Psychological Well-being**

- · Prevalence of Depression
- Prevalence of Alzheimer's disease and dementia
- Prevalence of Psychiatric problems
- Prevalence of Neurological problems
- Out of pocket expenses for healthcare (not restricted to elderly)
- · Hospitalization cases for the elderly
- Mean expenditure on last hospitalization



#### **Social Security**

- Received any concession or benefit
- Percentage of elderly covered under Provident Fund
- Expenditure for activities under National Program for Healthcare of Elderly under National Health Mission - (2018-19)
- Percentage of elderly Currently receiving retirement pension

#### **Enabling Environment**

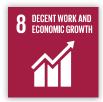
- Aware of any concession given by government to elderly
- Percentage of elderly Covered under work related pension scheme
- Awareness of Indira Gandhi National Old Age Pension Scheme
- Awareness of Indira Gandhi Widow Pension Scheme
- Aware of "Maintenance and Welfare of Parents and Senior Citizens Act"
- Percentage of Elderly BPL Receiving Benefits from Indira Gandhi National Old Age Pension Scheme
- Percentage of Elderly BPL Receiving Benefits from Indira Gandhi Widow Pension Scheme

# MAPPING FRAMEWORK WITH SDG GOALS

To improve the lives of older people and foster active ageing, this report highlights the areas that require to be worked upon to ensure better health and nutrition, personal and financial security, skills and knowledge, social connectivity, and personal dignity. We have mapped Quality of life for Elderly framework with the relevant Sustainable Development Goals on the basis of Implications for healthy ageing provided by the UN (Decade of Health ageing, 2020).

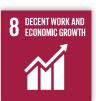
#### **Financial Well-being**

**Economic Empowerment** 



Education attainment and Employment





#### **Social Well-being**

**Social Status** 



Physical Safety



#### **Health System**

**Basic Health** 







Psychological Well-being and care



#### **Income Security**

**Social Security** 

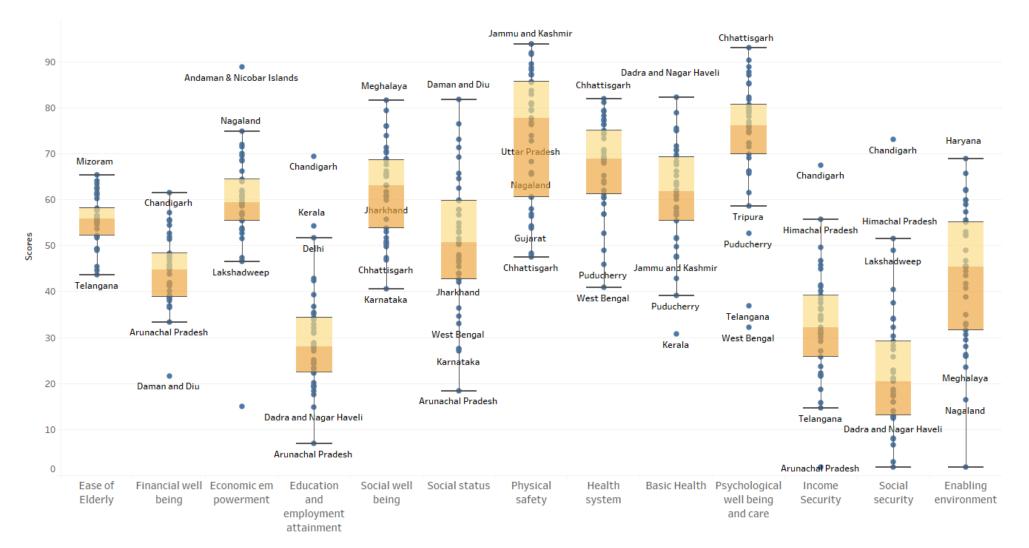




Enabling Environment



# VARIATION OF QUALITY OF LIFE FOR ELDERLY SCORES







#### INDEX ON FOUNDATIONAL LEARNING



**Educational Infrastructure** 



**Learning Outcomes** 



Access to **Education** 



**Governance** 



Basic Health







#### **FRAMEWORK**



- Percentage of schools with functional drinking water
- Percentage of schools with hand wash facility
- · Percentage of schools with library facility
- Percentage of schools with medical checkups
- Percentage of schools with functional toilets
- Percentage of schools with functional computer facility
- Percentage of schools with internet facility available
- Percentage of Schools with functional CWSN friendly toilet
- Percentage of schools with electricity connection
- Per 1000 distribution of households by distance from school having primary classes for each State/UT



- Primary level schools per lakh population
- Percentage of teacher for primary level education
- Pupil Teacher Ratio (PTR) Primary
- Percentage of enrollment of Children With Special Needs (CWSN) in primary
- Gross Enrollment ratio (GER) Primary

- Percentage of all minority group's enrolment to total enrolment Primary
- Pre school education Percentage
- Dropout Rate Primary
- Adjusted(NER) Primary level for girls



- Percentage of fully immunized children in the agegroup 0-5years
- Children under 5 years who are stunted (height-forage)
- Children under 5 years who are severely wasted
- · Children under 5 years who are underweight
- IMR
- U5MR



#### Learning Outcomes

- NAS Scores: class 3
- Language
- Mathematics
- Environmental Studies
- NAS scores: class 5

- Language
- Mathematics
- Environmental Studies
- Transition Rate Primary
- Gender Parity Index (GPI) Primary



- Expenditure on Education As Ratio to Aggregate Expenditure
- Percentage to total expenditure on primary education for Govt schools
- Percentage of expenditure on teacher training (BE)
- Percentage of total assistance to non govt primary schools
- Percentage of expenditure -Mid day meal state share
- Percentage to total expenditure on primary education under SSA revenue account
- · Central fund utilization under poshan scheme



#### MAPPING OF SDG GOALS WITH INDEX ON FOUNDATIONAL LEARNING INDICATORS

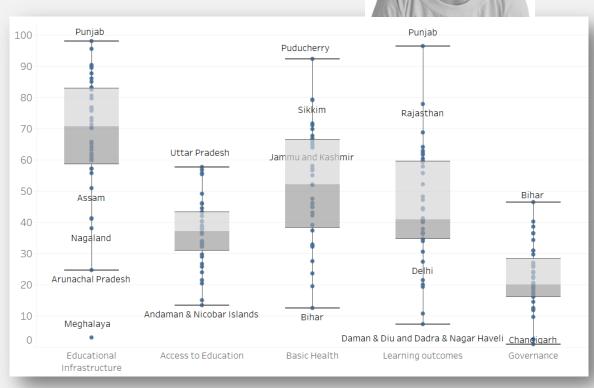
SDG	PILLAR	INDICATORS	
4 QUALITY Zero Hunger		Children under 5 years who are stunted	
	Basic Health	Children under 5 years who are underweight Children under 5 years who are severely wasted	
	Access to	Gross Enrollment Ration (GER) - Primary	
3 GOOD HEATH AND WELL-BEING Quality	Education	Pupil Teacher Ration (PTR ) - Primary	
		Percentage Of Schools With Drinking Water	
		Percentage Of Schools With Hand Wash Facility	
		Percentage Of Schools With Library Facility	
Education	Educational	Percentage Of Schools With Medical Checkups	
_	Infrastructure	Percentage Of Schools With Functional Toilets	
		Percentage Of Schools With Functional Computer Facility	
		Percentage Of Schools With Internet Facility Available	
		Percentage Of Schools With Functional CWSN Friendly Toilets	
Good Health and Well-being	Learning	Gender Parity Index (GPI) - Primary	
	Outcomes	Percentage Of Fully Immunised Children In The Age Group 0-5 Years For Each State/UT	
	Basic Health	Under-five Mortality Rate (U5MR)	



#### **VARIATION OF INDEX SCORES ACROSS ALL THE STATES AND UTS**

- There appears to be a lack of consistency in states across different pillars. Many states have fared high in Educational Infrastructure. Most states and union territories have a below-par performance in Access to education, Learning outcomes and Governance.
- The variance not only showcases an overall score but also helps us to identify areas that should be regional priorities by providing scores for areas ranging from learning outcomes to good governance. Developmental issues are often unique to their regional location, and it, therefore, remains critical to address challenges based on their distinct properties.
- It can be observed that Punjab features as a positive outlier in index's pillar scores, thus demonstrating its robust performance in the area of education due to the state's emphasis on improving learning outcomes, education infrastructure and focus on the quality of education for all.

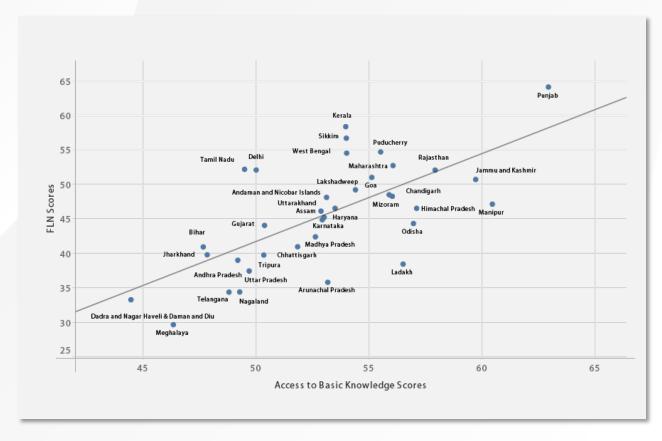
# The impact of Covid-19 has been observed across all states/UTs.





## IS THERE ANY RELATIONSHIP BETWEEN SOCIAL PROGRESS PILLAR - ACCESS TO BASIC KNOWLEDGE AND FLN INDEX SCORES?

- The Social Progress Index (SPI) is explicitly focused on non-economic aspects of national performance. It alludes to three broad elements of social progress, which we refer to as dimensions: Basic Human Needs, Foundations of well-being, and Opportunity.
- Access to Basic Knowledge is one of the most important aspects of foundations of well-being. The component's evaluation considers variables related to a child's education, which is critical for maintaining the foundations in place for long-term social progress.
- On a personal level, an educated person can make wise decisions about their health, nutrition, and welfare, directly affecting their quality of life.
- There is a positive correlation between Access to Basic Knowledge and Foundational Learning and Numeracy scores.



- The model has an R-squared value of 0.44, i.e., only 44.% of the changes in SPI – Access to Basic Knowledge component scores can be explained by FLN index scores.
- For e.g., Punjab ranks above in both the index. Whereas Meghalaya, Dadra and Nagar Haveli and Daman and Diu, Jharkhand and Bihar have scored the lowest on both the index.