

SUSTAINABLE  
DEVELOPMENT  
GOALS



Government of Karnataka

# VISION 2030



**STRATEGIES AND ACTION PLAN  
FOR KARNATAKA**

# SUSTAINABLE DEVELOPMENT GOALS - VISION 2030

## STRATEGIES AND ACTION PLAN FOR KARNATAKA

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# **SUSTAINABLE DEVELOPMENT GOALS VISION 2030**

**STRATEGIES AND ACTION PLAN FOR KARNATAKA**





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**B.S. YEDIYURAPPA**

**CHIEF MINISTER**

ಮುಖ್ಯಮಂತ್ರಿ/337/2020



**VIDHANA SOUDHA  
BENGALURU - 560 001**

**Date : 17-02-2020**



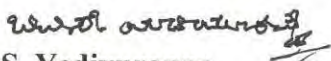
Every state requires a clear vision of what should be achieved in a given period of time and how it is to be achieved. "Sustainable Development Goals 2030: Strategies and Action plan for Karnataka" of the State incorporates the aspirations of its people for a better future and serves as a road map for ensuring sustainable development in next 10 years. An inclusive and shared vision can bring together the people of the state into achieving unity of - minds, purpose and action. Hence, this document serves to identify and delineate the broad outlines of strategies and action plans by which the state can emerge as a more prosperous and equitable society, in the coming years.

The Planning Department has formed Monitoring and Coordination Committee under the Chairmanship of Additional Chief Secretary and State level Steering Committee under the Chairmanship of Chief Secretary for overseeing the formulation of effective and efficient action plans. A separate technical cell has been established and goal specific committees have been formed under the senior retired IAS/IFS Officers to provide technical support to departments through experts that contribute to the Goal, as members.

The Goal-wise Committees have appraised the State Government of the budget requirements to which we are strongly committed. We have created an indicator-wise monitoring system, with baseline values and targets for the year 2022 and 2030. A monthly review of NITI Aayog's 100 priority indicators is a part of the Karnataka Development Programme Review at the District and State level.

Karnataka has been actively working towards spreading awareness about SDGs especially focused on vulnerable population. It has prepared an SDG Calendar, posters, short videos, jingles and public events encouraging institutions to support Sustainable Development Goals. Modules for capacity building of officials, elected leaders and citizens as stakeholders are being prepared by Administrative Training Institute, Mysore for localizing SDGs.

I seek the co-operation of all stakeholders to help in achieving the SDG goals through effective implementation of our action plans. I thank NITI Aayog for its constant guidance and support in helping the State team work towards SDGs.

  
**B.S. Yediyurappa**  
**Chief Minister**







## Karnataka State Planning Board

**B.J. PUTTASWAMY**, Former Minister  
Deputy Chairman (Cabinet Minister Rank)

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No: **No: SPB/V.C/J.L/02/2020/126**

Date:

### MESSAGE

I am glad to note about the release of 'Sustainable Development Goals 2030: Strategies and Action plan for Karnataka'. In my view this will serve as a guiding document for attaining Sustainable Development Goals by 2030 as it contains both strategies and action plans as well as goal-wise budgetary requirements for meeting the set targets of 17 SDGs. Another significant feature of this document is the comprehensive coverage of around 600 indicators as compared to the 306 indicators developed by the Ministry of Statistics and Programme Implementation (MoSPI), Government of India.

It is well appreciated that Karnataka Vision 2020 document brought out for the long-term development of Karnataka by the State Planning Board in 2017 is also being considered while developing indicators of SDGs. This vision document is aimed to initiate actions, while guiding policymaking and accountability for the elimination of poverty, promotion of prosperity, peace and justice, and conservation of the planet's resources for both present and future generations.

I take this opportunity to express gratitude to all the former and current IAS and IFS officers, departments, institutes and experts who were involved in preparing this comprehensive vision document. I would like to acknowledge the sustained efforts of Dr. Shalini Rajneesh, Additional Chief Secretary, Planning, Programme Monitoring and Statistics Department for being a guiding pillar in making this an inclusive and well drafted SDG vision document for 2030.

I support the endeavour of all the departments for the realization of the Sustainable Development Goals and targets by 2030 for accomplishing the aspirations of the people.

**Shri. B.J. Puttaswamy**  
Deputy Chairman  
State Planning Board  
Government of Karnataka





ಟಿ.ಎಂ. ವಿಜಯ್ ಭಾಸ್ಕರ್, ಭಾ.ಆ.ಸೇ.,  
ಮುಖ್ಯ ಕಾರ್ಯದರ್ಶಿ  
**T.M. VIJAY BHASKAR, I.A.S.,**  
Chief Secretary



ಕರ್ನಾಟಕ ಸರ್ಕಾರ  
**Government of Karnataka**




## MESSAGE

Karnataka being one of the progressive states in the country beholds highly to universal developmental programmes of international institutions such as United Nations Development Programme (UNDP), World Bank, Asian Development Bank and others. The State stands as the front-runner in formulating Action Plans, Vision and Targets of SDGs and proactively leading efforts in formulation and implementation of programmes, to achieve the mark targets of SDGs.

“Sustainable Development Goals 2030: Strategies and Action plan for Karnataka” is a road map towards sustainable development which broadly encapsulates equity, efficiency and sustainability. This document is an outcome of rounds of consultations with domain experts from diverse reputed institutes and departments of relevance and repute. The above exercise was completed through rigorous inputs from domain experts from 16 Working Committees with members drawn from different areas of expertise. A total of around 600 indicators have been finalized, of these, data is available for 545 indicators. This is highest so far in the country. The strategies and action plan have been developed through meticulous planning and accordingly annual budgets have been estimated for each goal till 2030.

As regards to SDG 17, Global Partnerships, the State has entered into an MOU with UNDP to get insights into global best practices for localizing the SDGs in Karnataka. The Government is the biggest repository of data. An initiative called Centre for Open Data Research (CODR) has been launched with the help of Public Affairs Centre (PAC) and International Institute of Information Technology (IIITB), Bengaluru for consolidating different resources pertaining to land, people and finance In Karnataka. This open data initiative uses Artificial Intelligence and IT-based applications for big data analytics. This would be extremely useful for predictive analysis as well as evidence-based policy and programme implementation.

I hope this document will help to mobilize everyone everywhere, to design new innovations and solutions, with a sense of urgency and ambition to make SDGs a dream come true!

  
**(T. M. VIJAY BHASKAR)**  
Chief Secretary  
Government of Karnataka





**Dr. Shalini Rajneesh, I.A.S.,**  
Additional Chief Secretary to Government  
Planning, Programme Monitoring  
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Government of Karnataka

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#### MESSAGE

It is my pleasure to present “Sustainable Development Goals 2030: Strategies and Action plan for Karnataka” on behalf of the Planning, Programme Monitoring and Statistics Department. I would like to acknowledge the guidance of Honourable Chief Minister, Chief Secretary and Additional Chief Secretary of Karnataka towards developing this document. My special thanks to SDG committees and concerned departments/institutes in meticulously preparing the strategies and actions plans related to 16 SDGs, Dr. Chaya Degaonkar, Addl. CEO and Dr. A.V. Manjunatha Director(Evaluation) of Karnataka Evaluation Authority, for compiling it into a document.

The core goals of our vision have been identified in line with the SDGs, namely, 1. No Poverty, 2. Zero Hunger, 3. Good Health and Well-being, 4. Quality Education, 5. Gender Inequality, 6. Clean Water and Sanitation, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 9. Industry, Innovation and Infrastructure, 10. Reduced Inequalities, 11. Sustainable Cities and Communities, 12. Responsible Production and Consumption, 13. Climate Action, 14. Life Below Water, 15. Life on Land and 16. Peace, Justice and Strong Institutions. The document postulates specific targets and recommends strategies and action plans to achieve SDG targets 2030 through rational scheme and budget mapping with measurable indicators.

Considering the multidimensional nature (Social, Economic and Environment) of SDG goals, the vertical and horizontal collaboration of 2 or more departments is being ensured. In addition to the supply-based strategy, demand-based strategy for ensuring greater resource use efficiency forms the part of governance strategy through integration of all programs and policies with measurable indicators of sustainable development goals.

Creating awareness (Information, Education and Communication) about all governmental programs of all departments and distribution of governmental benefits through establishment of single window agency forms the core strategy for involvement of people at large. As SDG monitoring requires a huge data management exercise revolving around 606 indicators, the Government has successfully initiated IT platform for obtaining online progress in physical and financial terms from across 20,000 Drawing and Disbursing Officers of the State. Further data analysis is being carried out with the help of International Institute of Information Technology (Bengaluru) and Public Affairs Centre to help in mid-course corrections, as well as evidence-based policy interventions.

The State is committed to inclusive growth with area-based planning to bring about equitable development. The Karnataka Geographical Information System has been embedded into the statistical data collection platform to provide spatiotemporal maps projecting backward areas for different parameters. This enables respective departments to allocate resources for below average regions and bring them on par with at least the State averages.

I hope this document will guide all the departments in achieving synergies as well as focusing on desirable outcomes, over next 10 years.

(Dr. Shalini Rajneesh)



## **SUSTAINABLE DEVELOPMENT GOALS VISION 2030: 30 ACTION POINTS**

Karnataka with its progressive outlook has achieved several goals set in Vision 2020 and is now looking forward to achieve the targets of Sustainable Development Goals (SDGs) 2030. SDGs represent the aspirations of the global community, universally acknowledged as broad agenda for governments in achieving progress across social, economic, and environmental dimensions. NITI Aayog that oversees the implementation of SDGs has computed SDG India index 2019 with 100 indicators to evaluate the State's performance. Karnataka has ranked 6<sup>th</sup> in the country with a composite score of 66 out of 100. The State being front runner in 11 SDGs with 12 indicators in performer category, 34 in front runners, 21 in achievers and 31 in aspirants. The following goals formulate the priority of the State in achieving its vision 2030.

### **SDG 1: No Poverty**

1. 100% coverage of 1.15 Cr households from the present 76 lakhs households (2020) under Ayushman Bharat scheme to reduce health expenditure of the poor.
2. 100% coverage of social protection benefits under maternity benefits from existing 95.7% in 2018-19.
3. 100% coverage of MGNREGA job card holders from 85.2% (2018-19) by way of skilling and upskilling through various skill development schemes like *National Rural Livelihoods Mission (NRLM)*, *Pradhan Mantri Kaushal Vikas Yojana (PMKVY)*, *Chief Minister Kaushalya Karnataka Yojana (CMKKY)*.

### **SDG 2: Zero Hunger**

4. Improve productivity of rice and coarse cereals to 5033.34 kg/ha from 1731kg/ha in 2018-19, by promoting precision and organic farming, watershed development, micro-irrigation, and climate-resilient crops (Millets) in 45 over exploited/critical groundwater blocks.
5. Improve gross value added per worker to 1.36 from 0.54 in 2019 through promotion of Integrated Farming Systems (IFS), agro-processing, organising farmers through Farmer Producer Organizations (FPOs) linking with 'farmpreneurs' in every Gram Panchayats.
6. Reduce anaemia in women and children to zero from 45.4% and 34.7% (2019), respectively through multiple efforts such as diversification of the food basket, Iron-folic acid supplements, fortification, , availability and access to best source of iron, vitamin 'C', and folic acid, periodic de-worming and by strengthening Integrated Child Development Services (ICDS).

7. Reduce Infant mortality rate (IMR) to 10 from 24 per thousand live births (2019) through mother and childcare for first 1000 days of childbirth.

### **SDG 3: Good Health and Wellbeing**

8. Reducing Maternal Mortality Ratio (MMR) to 50 from 97 per lakh live births (2019) through schemes like *Matrupoorna Yojane*.
9. Reduce under five mortality rates to 25 from 32 per 1000 live births (2019) by providing maternity benefits to BPL women registered in Reproductive and Child Health (RCH) portal.
10. Increase preventive care and awareness building by promoting AYUSH enabled handholding, active of Village Health Sanitation and Nutrition Committees (VHSNCs) and Rogi Kalyan Samitis (RKSs).
11. Increase the number of physicians, nurses, and mid-wives to 88 from 72 per 10000 population (2019) through various stakeholder involvement.

### **SDG 4: Quality Education**

12. Reduce the dropout rate at secondary level to zero from 26.18% (2019) by regulated management of the Village Education Register as stipulated by the Right to Education Act.
13. Ensure 100% education of children with special needs from 62.81% (2019) by extending Technology Assisted Learning Programme (TALP), school readiness program and home-based education program to cover all the schools in the State.

### **SDG 5: Gender Equality**

14. Ensuring 50% joint ownership of farms of women from existing 1.2% (2019) for improving of gender equality index.
15. Increase women's work participation (LFPR) to 100% from existing 20.4 (2019) by ensuring equal distribution of work. Strengthening women Self Help Groups, cooperatives, promoting schemes that encourage women entrepreneurship, providing infrastructure and support facilities (credit, legal) for women, and facilitate entry of women in skilled jobs. Panchayat Raj Institutions have achieved more than 33% women elected representatives, legislative strength should be improved either through legal mandate or proactive initiatives by political parties while selecting and grooming women candidates.
16. Reducing sexual crime against women (42 per lakh) and girls (62 per lakh) to zero by training police officials, provision of special courts, women police force, police

stations and advocates for improving conviction rate and reducing the pendency rate to zero from 86.8%, besides introducing modules on Gender Equality in Schools and Colleges. Modules on gender equality in school curriculum, skill development programmes for girls, vocational training, skill up-gradation, capacity building for women in e-commerce, increasing the provision for women from 33 % to 50% under *Chief Minister's Koushalya Karnataka Yojana* skill training and placement, Skill Development, Entrepreneurship & Livelihood (SDEL) to identify gender-friendly courses.

### **SDG 8: Decent work & Economic Growth**

17. Increase Labour Force Participation Rate (LFPR) to 100% from 51.6% (2019) by strengthening linkages between growth centres and workforce.
18. Provide appropriate infrastructure to the migrants who have already registered under the Migrants Registration and Establishment Acts by encouraging the non-registered migrants to register and making the Aadhaar and the PDS available to them.
19. Reduce unemployment rate to less than 1% from 4.8% (2019) by establishing industries to process farm produce under *Atmanirbhar* scheme.
20. Create social infrastructure in health care, education, and skilling by utilizing the increased viability gap funding under *Atmanirbhar* scheme through Public-Private Partnership. Develop industrial estates and establish specific industries suited to the growth centres. Organize local investors meet to attract both global and local capital.

### **SDG 10: Reduced Inequalities**

21. Promote income generating activities for marginalized groups and reduce regional inequalities focusing on *Kalyan Karnataka* Region.

### **Goal 11: Sustainable cities and communities**

22. Complete 100% net demand assessment for houses under *Pradhan Mantri Awas Yojana* (PMAY) from existing 26.27% by promoting housing rental options under new housing scheme, reconstruction of slums, dilapidated houses, and creation of housing cooperatives. Make overall plan for urban and rural infrastructure networks, extend urban public services to rural areas, and gradually unify institutions and harmonize standards for urban and rural public services. Encourage poor slum

dwellers to develop capability for maintaining stable employment and livelihoods to settle in urban areas.

23. Ensure 100% processing waste by Improving household waste management from existing 41% (2019)
24. Upgrade installed sewage treatment capacity in urban areas from existing 0.35(2019) to 1 by creating integrated waste management systems in proportion to the garbage generated.

### **SDG 12: Responsible Consumption and Production**

25. Increase the ratio of recycled hazardous waste vis-à-vis generated to 1 from 0.05 (2019) by strict implementation of Solid Waste Management (Amendment) Rules, 2019.
26. 100% treatment of Municipal Solid Waste (MSW) from existing 34.9% (2019) by creating awareness on requirement of comprehensive waste management system and installing required infrastructure. In education curriculum -create awareness among the future generation about the importance of sustainable resources use. Posters, stickers highlighting the effective water use in the schools, waste segregation all these measures help in nurturing them to become ecologically conscious citizens.

### **SDG 13: Climate Action**

27. Increase the use of LED bulbs to 165 from 37.16 per 1000 population to reduce CO<sub>2</sub> emission.

### **SDG 14: Life below water**

28. Improving coastal water quality index to 80 from 48 (2019) by regulating discharge of industrial effluents and sewage and reducing the diesel subsidy.
29. Strengthen Coastal Regulation Zones (CRZ) and involve coast guard to monitor pollution levels. Introduce legal provisions in the CRZ/Environment Act to increase access to small scale fishermen.

### **SDG 16: Peace, Justice and Strong Institutions**

30. Increase estimated number of courts to 33.76 from 12.2 (2019) per 10 Lakh persons through establishment of courts and other infrastructure facilities.



# EXECUTIVE SUMMARY







## EXECUTIVE SUMMARY

### 1. Background

The Millennium Development Goals (MDGs) marked a historic effort towards achieving development goals and priorities worldwide till 2015. As the MDGs era came to an end, 2016 ushered launch of the bold, broad based and transformative 2030 Agenda with a new approach to sustainable development—threading together economic, social, and environmental dimensions across the generations, acknowledging that decisions and approaches are related and have both synergies and trade-offs. The five Ps that envelop the 17 SDGs and 169 targets are People, Planet, Peace, Prosperity and Partnerships.

Reinforcing India's commitment to the national development agenda and SDGs, NITI Aayog has been assigned the role of developing national indicators, overseeing the implementation by ministries and coordinate with States for the achievement of development targets as enshrined in the SDGs. The Govt. has introduced and implemented several policies, schemes and programmes promoting poverty alleviation, human development, gender and social equity and climate change. India attempts to align and map its programmes under the 'Strategy for New India @ 75' (NITI Aayog, 2018) with the UN SDGs, furthering the motto, '*Sabka Saath, Sabka Vikas*' or 'Collective efforts for Inclusive growth' so that 'no one is left behind'. The national agenda needs to be supported and strengthened by the action plans at the State level. The Karnataka SDG 2030 - Strategy and Action plan is a road map for realizing the goals and targets of the State.

Karnataka is emerging as a vibrant economy with more focus on human development and inclusive growth in recent years. Being one of the progressive states in the country, is highly sensitive to universal developmental programmes initiated by international institutions such as United Nations Development Programme (UNDP), World Bank and other organisations. The State has emerged as front runner on various development sectors and has the potential of emerging as a model for other States in actualization of the Peoples Agenda 2030.

Planning, Programme Monitoring and Statistics Department (PPMS) is the nodal agency responsible for formulating strategies for attainment of Sustainable Development Goals (SDGs) in Karnataka by 2030. The department has set up Monitoring and Coordination Committee and the State level and Steering Committee for formulation of effective action plans for achieving the SDGs. To periodically monitor the progress of SDGs, a separate technical cell and goal specific committees have been set up. The Goal Committees have finalized the strategies and action plans in close consultation with the Departments. The Goal-wise Committees have appraised the State government of the budget requirements and created an indicator-wise monitoring system with base values and targets for the year 2022 and 2030. A monthly review of NITI Aayog's 62 priority indicators (now 100) from the SDG India Index Report of 2018 is part of the Karnataka Development Programme (KDP) Review at the district and State level. Karnataka has been actively working towards spreading awareness about SDGs. It has prepared an SDG Calendar and posters in both, English and the regional language, Kannada and posters on each of the Goals. The government also advertises SDGs through short videos, jingles and public events. Modules for capacity building, officials, elected leaders and citizens as stakeholders are being prepared by Administrative Training Institute, Mysuru for localizing SDGs. The State aims to train 135000 officials and elected representatives in 5 years through 2915 master trainers. The State is also preparing strategies for a

poverty and hunger free state and better inclusion of the vulnerable groups in the budget allocation. The State has included strategies under SDG 10 Action Plan Report for Social Groups (Schedule Caste (SC)/ Schedule Tribes (ST)/ Other Backward Class (OBC)/ Minorities) focusing on skill development and employment generation. (NITI Aayog, 2018 &2019).

To achieve the SDG Goals by 2030, the basic means of implementing the programs, schemes, and actions necessary to realize the goals and targets should be supported by adequate resources. Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement. Budget gap for SDGs (Department-wise) was estimated based on requirements proposed by the SDG Goal Committees and projections made (Business As Usual-BAU) by Planning Department of the Govt. of Karnataka. Required budget is estimated on “back-casting” method assuming targets are met by 2030 through projection of outcomes levels and corresponding budget annually from the baseline values of 2016-17 to 2029-30. Planning Department estimated scheme-wise financial resources estimates (BAU) for SDG schemes for 2020-21 considering the growth rate in 2019-20(BE) against 2018-19 (BE). If the proposed allocations by the Goal Committees is lower than BAU, the same has been taken as requirement proposed for 2020-21 and in this case, gap is treated as zero. If the proposed allocations by the Goal Committees is higher than BAU, the difference between the two has been taken as additional financial requirement for all the goals excepting SDG 8 (budget is covered under other goals because of the cross-cutting nature).

## 2. Sustainable Development Goals and performance of Karnataka

In 2018, NITI Aayog in partnership with UN India developed the SDG India Index Baseline Report and a Dashboard spanning across 13 out of 17 SDGs (excluding Goals 12, 13, 14 and 17) for States and UTs. This base line report is used for designing strategies and Action Plan in the vision document. The SDG Index Score of Karnataka for the estimated SDG-2030 falls in range of 36 and 88. Karnataka stands at the 3<sup>rd</sup> position and is in the category of ‘Performer’ with an overall score of 64 when compared with Kerala (69) and Himachal Pradesh (69) and Tamil Nadu (66). Performance of Karnataka for all SDGs is presented in the table below.

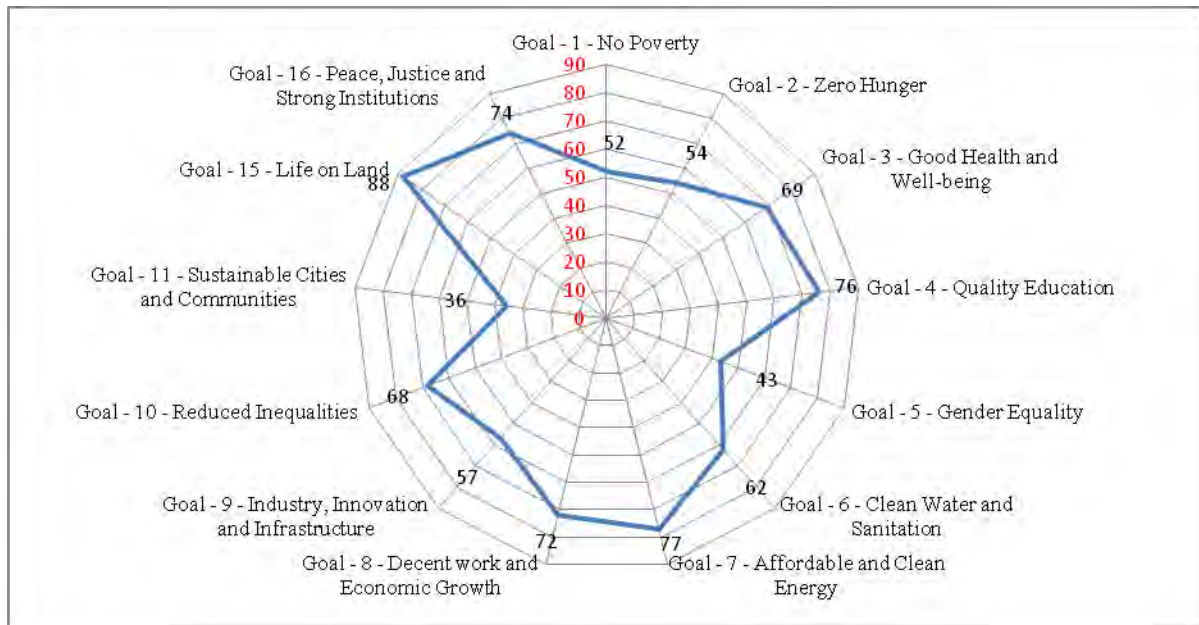
**Performance of Karnataka across all SDGs**

Category Karnataka	SDG Goal	Score Karnataka	Rank
Front Runner (65-99)	SDG 3: Good Health and Well-being	69	5
	SDG 4: Quality Education	76	5
	SDG 7: Affordable and Clean Energy	77	5
	SDG 8: Decent Work and Economic Growth	72	11
	SDG 10: Reduced Inequalities	68	16
	SDG 15: Life on Land	88	8
	SDG 16: Peace, Justice and Strong Institutions	74	12
Performer (50-64)	SDG 1: No Poverty	52	17
	SDG 2: Zero Hunger	54	11
	SDG 6: Clean Water and Sanitation	62	14
	SDG 9: Industry, Innovation and Infrastructure	57	7
Aspirants (0-49)	SDG 5: Gender Inequality	43	6
	SDG 11: Sustainable Cities and Communities	36	16
	<b>Karnataka (All Goals)</b>	<b>64</b>	<b>3</b>

Source: NITI Aayog, 2018

Karnataka is in front runner group for Goal 3 - Good Health and Well-being(69), Goal 4 - Quality Education(76), Goal 7 - Affordable and Clean Energy(77), Goal 8 - Decent work and Economic Growth (72), Goal 10 - Reduced Inequalities (68), Goal 15 - Life on Land(88) and Goal 16 - Peace, Justice and Strong Institutions (74). Performer group in Goal 1 - No Poverty (52), Goal 2 - Zero Hunger (54), Goal 6 - Clean Water and Sanitation (62) and Goal 9 - Industry, Innovation and Infrastructure (57). Conversely aspirant goals are Goal 5 - Gender Equality (43) and Goal 11 - Sustainable Cities and Communities (36). It can be clearly seen from the figure below that we need focus on Goal 5 on 'Gender Equality' and Goal 11 on 'Sustainable Cities and Communities' on priority basis.

**SDG index across Goals**

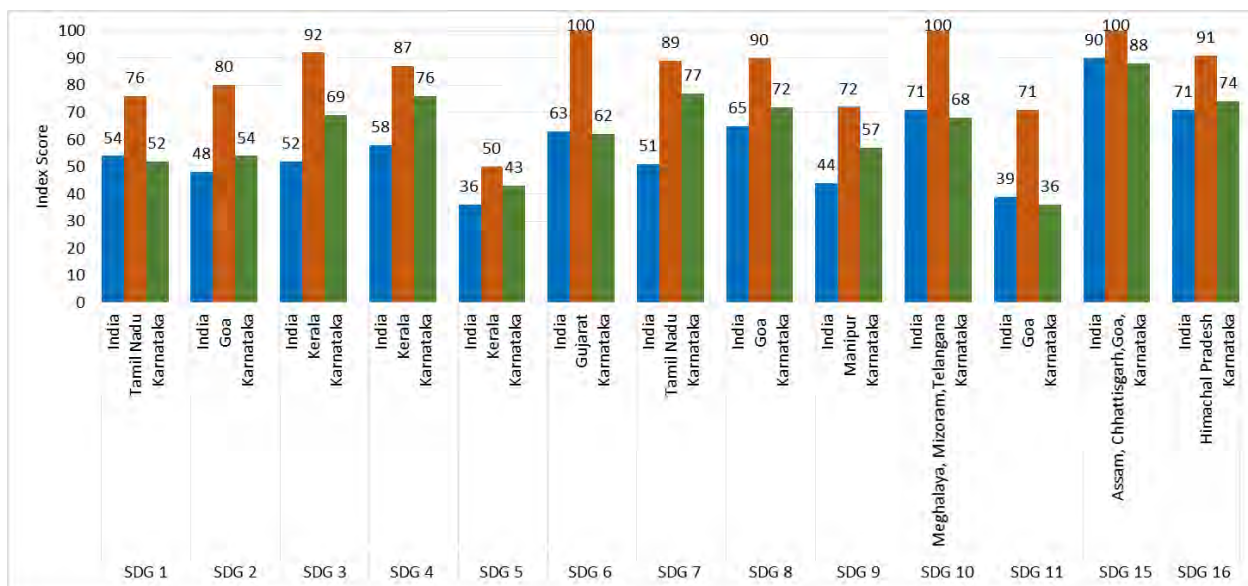


Source: NITI Aayog, 2018

### Goal-wise performance and way forward

The overall India Index indicates that Kerala and Himachal Pradesh are the front runners with a score of 69 and amidst the Union Territories (UT), Chandigarh scored the highest composite score of 68. There are a few states such as Gujarat, Meghalaya, Assam, Chhattisgarh and Goa among others that have achieved targets for SDG 6, 10 and 15 respectively. Figure below depicts status and targets for all India and only status for Karnataka.

### Goal-wise SDG India Index of Karnataka and India



Source: NITI Aayog, 2018

It is observed that Karnataka is way above all India status in many of the goals, however it reported low for SDG 6, 10, 11 and 15 causing an alarming situation. Reducing inequalities would require strategies across all departments and schemes with target oriented and time bound approach.

The SDGs have been broadly clustered and categorized into different groups based on the themes. SDGs 1, 2, 3, 4, 5, 7 are related to **Human development needs and services**; and SDGs 6, 11, 12, 13, 14, and 15 explicitly target **environmental** issues. And the **common drivers and cross-cutting issues** essential to advance sustainable development across all dimensions are addressed in SDGs 8, 9 and 10 and those that promote **peaceful and inclusive societies** are reflected in SDGs 16 and 17. Based on this categorization, strategies for each SDG has been devised (except 17) towards achieving targets by 2030.

## A. Human Development Needs and Services

### SDG 1: No Poverty

The Voluntary National Reviews<sup>1</sup> have explicitly brought out that countries have a prime focus on eradication of extreme poverty. India, over the last two decades has made significant progress in poverty reduction with schemes promoting social spending employment such as *Mahatma Gandhi National Rural Employment Generation Act (MGNREGA)*<sup>2</sup>, *Pradhan Mantri Jan Dhan Yojana*<sup>3</sup>, *Deendayal*

<sup>1</sup>The voluntary national reviews (VNRs) aim to facilitate the sharing of experiences, including successes, challenges and lessons learned, with a view to accelerating the implementation of the 2030 Agenda. The VNRs also seek to strengthen policies and institutions of governments and to mobilize multi-stakeholder support and partnerships for the implementation of the Sustainable Development Goals (<https://sustainabledevelopment.un.org/vnrs/>)

<sup>2</sup>National Rural Employment Guarantee Act 2005 (later renamed as the "Mahatma Gandhi National Rural Employment Guarantee Act", MGNREGA), is an Indian labour law and social security measure that aims to guarantee the 'right to work'. This act was passed in September 2005.

<sup>3</sup>Pradhan Mantri Jan Dhan Yojana (PMJDY), is financial inclusion program of Government of India which is applicable to 10 to 65 years age group that aims to expand and make affordable access to financial services such as bank accounts, remittances, credit, insurance and pensions. This financial inclusion campaign was launched on 28 August 2014.

*Antyodaya Yojana*<sup>4</sup> and *Self-employment programmes like PMGSY* for providing employment. *Mudra Yojana* for development of MSMEs and the beneficiaries of various are brought under *Direct Benefit Transfer*<sup>5</sup> to ensure transparency and quick and efficient service.

In addition to Central schemes, the State has also promoted various self-employment schemes under SCP/TSP programme through Dr. B R Ambedkar Development Corporation, D Devaraj Urs Development Corporation *Maharshi Valmiki* Development Corporation and Chief Minister's Employment Generation Programme. Specific schemes for women include '*Udyogini*'. *Stree Shakti*, etc.

Yet, Karnataka's performance with a score of 52 is far away from Tamil Nadu with a score of 72. The indicator that is below national average is 'the proportion of eligible beneficiaries receiving Maternity benefits', which is at 19%. The other four indicators are in close proximity to the All India scores. The performance on poverty indicators are exhibited in the table below:

#### Performance of Karnataka and India for SDG 1 on 'No Poverty'

Indicators	Raw Data			Score		
	Kar	India	2030	Kar	India	2030
Percentage of population living below National Poverty line	20.91	21.92	10.95	66	62	100
Percentage of households with any usual member covered by any health scheme or health insurance	28.1	28.7	100	26	26	100
Persons provided employment as a percentage of persons who demanded employment under MGNREGA	84.26	84.75	100	64	65	100
Proportion of the population (out of total eligible population) receiving social protection benefits under Maternity Benefit	19.9	36.4	100	19	35	100
<b>SDG 1 Index Score</b>				<b>52</b>	<b>54</b>	<b>100</b>

Source: NITI Aayog, 2018; T-Target

#### Way forward

- Increasing the coverage of social protection under Maternity Benefit at a faster rate to reach the target of 100% by 2030. The coverage has to be increased in construction and informal sector where women are largely employed. Hence, the Health department and labour Department functionaries have to draw Action plans for extension of Maternity benefit services.

<sup>4</sup>DeenDayalAntyodaya Yojana or DAY is a Government of India scheme for helping the poor by providing skill training. It replaces Aajeevika. The Government of India has provisioned ₹500 crore (US\$70 million) for the scheme. The objective of the scheme is to train 0.5 million people in urban areas per annum from 2016.

<sup>5</sup>Direct Benefit Transfer or DBT is an attempt to change the mechanism of transferring subsidies launched by Government of India on 1 January 2013. This program aims to transfer subsidies directly to the people through their bank accounts. It is hoped that crediting subsidies into bank accounts will reduce leakages, delays, etc.

- Target-oriented anti-poverty package of schemes and programmes to be designed for social groups or regions in acute poverty at a disaggregated level using Socio Economic Caste Census (SECC)<sup>6</sup> 2011 database.
- Cent percent coverage of all Below Poverty Line (BPL) holders under health insurance, through the *Aayushman Bharat – Arogya Karnataka*<sup>7</sup> to cover health expenditure of the poor.
- Need to redesign and repackage Self Help Group (SHG) programmes through convergence, skilling and marketing initiatives.

## SDG 2: Zero Hunger

The key strategies to end hunger and malnutrition are resilient food production systems and sustainable agricultural practices. Towards meeting this target, the National Mission on Sustainable Agriculture (NMSA)<sup>8</sup> in collaboration with other Missions under the National Action Plan on Climate Change<sup>9</sup>, aim at sustaining food production through sustainable and adaptive agricultural practices. The RKVY and *Pradhan Mantri Krishi Sinchayee Yojana*<sup>10</sup> are the major schemes for boosting the production and productivity in agriculture. The State schemes like *Krishi Bhagya*, *Pashu Bhagya* also support the initiatives for integrated agriculture.

The distribution strategies with additional impetus on nutrition security include- The country's National Food Security Act<sup>11</sup> and *Antyodaya Anna Yojana*<sup>12</sup>, has helped improve access under the Targeted Public Distribution System<sup>13</sup>. In terms of nutrition, the Integrated Child Development Services (ICDS)<sup>14</sup> and Mid-Day Meal Programmes<sup>15</sup> and *Pradhan Mantri Matru Vandana Yojana*<sup>16</sup>, cater to the nutritional requirement of children, pregnant and lactating mothers.

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<sup>6</sup>The **Socio Economic and Caste Census 2011 (SECC)** was conducted for the 2011 Census of India. The SECC 2011 was conducted in all states and union territories of India and is also the first paperless census in India conducted on hand-held electronic devices by the government in 640 districts

<sup>7</sup>The objective of the scheme is to extend 'Universal Health Coverage' to all residents in Karnataka State. Under this new scheme, primary health care, specified secondary and tertiary health care benefits will be provided.

<sup>8</sup>**National Mission for Sustainable Agriculture (NMSA)** has been formulated for enhancing **agricultural** productivity especially in rainfed areas focusing on integrated **farming**, water use efficiency, soil health management and synergizing resource conservation

<sup>9</sup>The **National Action Plan on Climate Change (NAPCC)** was launched in **2008** by the **Prime Minister's Council on Climate Change**. It aims at creating awareness among the representatives of the public, different agencies of the government, scientists, industry and the communities on the threat posed by climate change and the steps to counter it. There are **8 national missions** forming the core of the NAPCC which represent multi-pronged, long term and integrated strategies for achieving key goals in climate change.

<sup>10</sup>**Pradhan Mantri Krishi Sinchai Yojana** is a national mission to improve farm productivity and ensure better utilization of the resources in the country.

<sup>11</sup>**The National Food Security Act, 2013 (NFSA 2013)** converts into legal entitlements for existing food security programmes of the Government of India.

<sup>12</sup>**Antyodaya Anna Yojana** is a Government of India sponsored scheme to provide highly subsidised food to millions of the poorest families.

<sup>13</sup>**Targeted Public Distribution System (TPDS)** is operated under the joint responsibility of the Central and the State/Union Territory (UT) Governments. Central Government is responsible for procurement, allocation and transportation of food grains up to the designated depots of the Food Corporation of India.

<sup>14</sup> **Integrated Child Development Services (ICDS)** is a government programme in India which provides food, preschool education, primary healthcare, immunization, health check-up and referral **services to children** under 6 years of age and their mothers.

<sup>15</sup>The **Mid-day Meal Scheme** is a school **meal programme** of the Government of India designed to improve the nutritional status of school-age children nationwide.

<sup>16</sup>**Pradhan Mantri Matru Vandana Yojana** is a maternity benefit program run by the government of India. It was introduced in 2016 and is implemented by the Ministry of Women and Child Development. It is a conditional cash transfer scheme for pregnant and lactating women of 19 years of age or above for the first live birth

The State initiatives through ‘Annabhagya’ ‘MatrupoornaYojane’ ‘Ksheerabhagya’ shrushti are also addressing the issues related to malnutrition.

Under this Goal, four indicators were identified that capture three of the eight SDG targets. For these 4 indicators, while the All India score is a low value of 48 the top-performing States Goa and Delhi have scores of 80 and 72 respectively indicating the wide inequalities in food and nutrition security. Karnataka is a performer with a score of 54 which is slightly above the national average.

#### Performance of Karnataka and India for SDG2 on ‘Zero Hunger’

Indicators	Raw Data			Score		
	Kar	India	2030	Kar	India	2030
Ratio of rural households covered under public distribution system to rural households where monthly income of highest earning member is less than Rs.5,000	1.1	1.01	1.29	76	64	100
Percentage of children under age 5 years who are stunted	36.2	38.4	21.03	44	36	100
Percentage of pregnant women aged 15-40 years who are anaemic (11.0g/dl) (%)	45.4	50.3	23.57	51	40	100
Rice, wheat and coarse cereals produced annually per unit area (Kg/Ha)	2157.8	2509.2	5018.44	43	50	100
<b>SDG 2 Index Score</b>				<b>54</b>	<b>48</b>	<b>100</b>

Source: NITI Aayog, 2018; T-Target

#### Way forward

The priorities are ensuring nutrition security and addressing low productivity in agriculture. The strategies designed are:

- Improving nutritional status of pregnant women and children through innovative, demand based and participatory schemes with better coordination between departments.
- Early and continuum care for reduction of under nutrition through Integrated Child Development Scheme (ICDS) platform through convergence and vigorous advocacy for first 1000 days of child- birth.
- Prevention of anaemia in women & children to be checked through multiple efforts such as Iron and Folic Acid (IFA) supplements, fortification, diversification of the food basket, and periodic de-worming.
- Strengthening of IEC Components in the schemes. Dissemination of information to address nutrition insecurity keeping intact the culture-specific behaviours in food habits and diet regimens through Kiosks.
- Replication and scaling up of successful pilot project such as Karnataka Multi-sectorial Nutrition Project implemented in Chincholi and Devdurga Talukas in North Eastern Karnataka region.

- Agriculture department to use precision farming techniques to improve productivity and foster agro-processing, reduce post-harvest losses, and strengthening institutions of FPOs and farmers collectives and market linkages through Value chain development, Public-Private Partnerships, Agro-processing, and others.
- Aggressive promotion of sustainable agriculture to be fostered through integrated farming systems (crop & enterprise diversification), organic farming and climate-resilient crops – 'farmpreneurs'. Additionally, drought proofing – watershed development, efficient resource use (micro-irrigation), and promotion of climate-resilient crops to be practiced.

### SDG 3: Good Health and Well-Being

Public health is a nation's asset and the basis for achieving sustainable development. Under the National Health Mission, a broad spectrum of interventions focused on universalising primary health care is being implemented in India. Some of them include the Aayushman Bharat – *Pradhan Mantri Jan Arogya Yojana*<sup>17</sup>, *Mission Indradhanush*<sup>18</sup>, Integrated Disease Surveillance Programme<sup>19</sup>, National Mental Health Programme, National Programme for control of blindness, National Programme for Prevention and control of cancer, diabetes, cardiovascular diseases and stroke among others.

These are supported by State initiatives- *Aarogya Karnataka*, *Arogya Kavacha* (108) Emergency service (2008), under PPP mode, *Arogya Sahayavani*-104 - toll free number- service with the moto of providing consultancy services for minor ailments.

**Performance of Karnataka and India for SDG3 on 'Good Health and Well Being'**

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Maternal Mortality Ratio (MMR)	108	130	70	77	64	100
Under-Five Mortality Rate (U5MR)	32	50	11	69	42	100
Percentage of children aged fully immunized and three doses of Pentavalent	62.6	62	100	42	41	100
Annual Notification of Tuberculosis cases per 1 lakh population	123	138.33	0	76	74	100
Number of governmental physicians, nurses and midwives per 1,00,000 population	452.93	220.96	549.96	82	39	100
<b>SDG 3 Index Score</b>				<b>69</b>	<b>52</b>	<b>100</b>

Source: NITI Aayog, 2018; T-Target

<sup>17</sup>Ayushman Bharat Yojana or Pradhan Mantri Jan Arogya Yojana or National Health Protection Scheme is a national scheme that aimed at making necessary interventions in primary, secondary and tertiary health-care systems, in a holistic fashion.

<sup>18</sup>Mission Indradhanush is a health mission of the government of India. It was launched on 25 December 2014. The scheme this seeks to drive towards 90% full immunization coverage of India and sustain the same by year 2020.

<sup>19</sup>The Integrated Disease Surveillance program (IDSP) is a disease surveillance scheme under the Ministry of Health and Family Affairs in India, assisted by the World Bank. The scheme aims to strengthen disease surveillance for infectious diseases to detect and respond to outbreaks quickly.



For the SDG3, India stands at 52, Kerala leading with a score of 92 and Uttar Pradesh at the bottom with score of 25. Karnataka is a front runner with a score of 69 on account of low maternal mortality and under five mortality on the one hand and availability of health staff on the other. The pressing challenge for the state is to reduce cases of Tuberculosis (TB) to zero by 2030 adopting “the end TB strategy”. The goal for the state is to reduce Under 5 Mortality Rate from 32 to 11 and Neonatal Mortality Rate (NMR) from 18 to 12 by 2030. The state has also garnered support of NGOs towards improving the quality of mass public health programmes such as polio eradication (Nava Karnataka Vision 2025).

### Way forward

Effective implementation of **The Karnataka Integrated Public Health Policy 2017** that aims to strengthen the state health system and provide access to good healthcare for all.

- Rapid situation analysis to assess the public health infrastructure at all administrative levels and compare with Indian Public Health Association (IPHA) Standards.
- Bottleneck analysis of planning and implementation processes to prioritize addressing specific gaps in the delivery of interventions.
- Improvement of preventive care and awareness building by promoting AYUSH<sup>20</sup>enable handholding and follow-up support for Village Health Sanitation and Nutrition Committees (VHSNCs) and *Rogi Kalyan Samiti* (RKS)/Patient Welfare Committees.
- Coordinated, holistic implementation of different national health programmes in the field of Maternal and Child Health (MCH), Family Planning (FP), Nutrition, Reproductive and Child Health (RCH) and Adolescent Health (AH) ensuring partnerships with all stakeholders with a focus on a community-based epidemiological approach.
- For children less than 6 months, intensify Community-based Management of Acute Malnutrition (CMAM) with screening and treatment of illness.
- Increasing availability of quick TB diagnostic tests CB-NAAT (Cartridge Based Nucleic Acid Amplification Test)
- Documentation of the life course or lifecycle-based, life stage-specific, age-appropriate critical best practices across interventions and target populations.
- Strengthen and transform Civil Registration and Vital Statistics (CRVS) systems, and use decentralized and disaggregated data to achieve universal health coverage.
- Streamline existing national/state/district-level health and nutrition surveys to improve disaggregated tracking of goals and objectives, and use the results for monitoring, evaluation and decision-making.
- Impact assessments of safe transport and land-use plans; providing visible, crash-protective “smart” vehicles; setting and securing compliance with key road safety rules; and delivering post-crash care.

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<sup>20</sup> AYSUH stands for Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa Rigpa and Homoeopathy

## SDG 4: Quality Education

Ensuring inclusive and equitable quality education, SDG 4, continues to be a priority with thrust on improving the access to quality education for low-income and rural students. This further underlines the need to bridge the 'digital gap' to all through computer literacy initiatives. The state beholds the perspective of moving from universal primary education to expand opportunities across all phases including pre-primary to post graduate educational training.

In alignment with the GOI thrust on right-based education through launch on Right to Education Act in 2009, state has also rolled out program and schemes like *Samagra Shiksha*<sup>21</sup>; *Shala Kosh, Shagun, and Shaala Saarthi*<sup>22</sup>; *Kasturba Gandhi Balika Vidyalayas*<sup>23</sup>; among others

### Performance of Karnataka and India for SDG4 on 'Quality Education'

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Adjusted Net Enrolment Ratio at Elementary (Class 1-8) and Secondary (Class 9-10) school (%)	85.54	75.83	100	73	56	100
Percentage correct responses on Learning Outcomes in Language, Mathematics and EVS for Class 5 students	68.67	54.69	67.89	100	50	100
Percentage correct responses on Learning Outcomes in Language, Mathematics, Science and Social Science for Class 8 students	54.5	44.58	57.17	88	45	100
Percentage of children in the age group of 6-13 are out of school	1.49	2.97	0.28	79	54	100
Average Annual Drop-out rate at secondary level (%)	<b>26.18</b>	<b>17.06</b>	10	27	68	100
Percentage of school teachers professional	95.85	81.15	100	94	73	100
Percentage of elementary and secondary schools with Pupil Teacher Ratio less than/equal to 30	<b>76.05</b>	<b>70.43</b>	100	69	62	100
<b>SDG 4 Index Score</b>				<b>76</b>	<b>58</b>	<b>100</b>

Source: NITI Aayog, 2018; T-Target

To measure India's performance on Quality Education, seven national level indicators have been identified capturing 2 of 10 SDG targets. The table below exhibits the state's performance for SDG4.

<sup>21</sup>Samagra Shiksha is an overarching programme for the school education sector extending from pre-school to class 12. The scheme has been prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes. It subsumes the three Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).

<sup>22</sup> These schemes promote digital education focussing on supporting operation digital board, enhanced use of technology in education through smart classrooms, digital boards and DTH channels. ICT infrastructure in schools from upper primary to higher secondary level are given a boost.

<sup>23</sup>The Kasturba Gandhi Balika Vidyalaya or KGBV is a residential girls' secondary school run by the Government of India for the weaker sections in India

India stands at a score of 58, with Kerala leading as a top performer with a score of 87. Karnataka is also ranked high with a score of 76 and has outperformed India in six of the seven indicators. The only indicator which is a cause of concern is concern is the average annual dropout rate at secondary level is 26.18% which is way higher India's score of 17.06%.

### Way forward

- With one of the strongest bases of education and research institutions in India, Karnataka aspires to be a global education and research hub by 2025 (GoK, 2018 B). This would not be possible without ensuring arrest of dropouts at secondary level and career guidance to take them to higher education.
- Each Gram Panchayat to develop a model school.
- Vocationalisation of education to arrest the dropouts and for skilling the youths.
- Regulate management of the Village Education Register stipulated by the Right to Education Act for 100% enrolment.
- There is need for computer education for all, extension of Technology Assisted Learning Programme (TALP) to all the schools. Redevelopment of the pedagogy promoting inquiry based learning and creative thinking, integrated life-skills and vocational training in high schools.
- Regulation of private unaided schools for training status and aided schools for Pupil Teacher Ratio (PTR); periodical (once in 5 years) clearance of National (Teaching) Eligibility Test by all teachers; and mandatory upskilling for in-service teachers.
- Promotion of Corporate Social Responsibility (CSR) funding in the education sector and additional allocation of funds for ensuring learning of 3 R's through *Nali-Kali*.<sup>24</sup>
- Implementation with the focus on career shadowing for higher secondary schools, increase awareness about career options in streams like Arts and Commerce which has comparatively less enrolment.

### SDG 5: Gender Equality

SDG5 pertains to plethora of concerns such as discrimination of women, violence against women, reproductive health, ownership rights and technology. Despite notable progress especially in girl's enrolment ration in primary education, the gender equality in many domains remain a distant target. Women are not able to make a mark in the political sphere and leadership roles, suffer from lack of pay parity and face sexual harassment at work- place and gender-based violence in family and society.

India has enacted several legislations, such as Protection of Women from Domestic Violence Act (2005); Sexual Harassment of Women in Workplace (2013), undertaken targeted schemes and programmes Gender Budget Statement, *BetiBachaoBetiPadhao*<sup>25</sup>, *Sukanya Samridhi Yojana*<sup>26</sup>, *MUDRA Yojana*<sup>27</sup>,

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<sup>24</sup>**Nali-Kali:** It was initiative launched in 1995 by teachers in Karnataka's Mysore district as a strategy adopted for creative learning to help retain children in school and bring in those not attending school.

<sup>25</sup>**BetiBachao, BetiPadhao** is a campaign of the Government of India that aims to generate awareness and improve the efficiency of welfare services intended for girls in India

<sup>26</sup>**Sukanya Samridhi Account** is a Government of India backed saving scheme targeted at the parents of girl children. The scheme encourages parents to build a fund for the future education and marriage expenses for their female child.

*Pradhan Mantri Ujjwala Yojana*<sup>28</sup> and the Maternity Benefits Bill was cleared to increase access to employment.

The State is 'Gender friendly and in addition to central schemes, the State also has taken up State schemes like *Bhagyalaxmi*, *Udyogini*, Marketing Assistance scheme, micro credit, *Dhanashree*, *Chetana*, *Maitri* ( Rehabilitation of Transgender) Interest subsidy scheme to women entrepreneurs, *Samruddhi*, *Santwana* (help line), training programmes for women etc. these are implemented through Karnataka Women Development Corporation. The State has framed Women Empowerment Policy, Girl child policy and Transgender policy to safeguard and promote interests of women and girls.

To assess the performance, India has identified six national indicators that capture four of the nine SDG 5 targets. The national score stands at 36, while the top performing States – Kerala (50), Chandigarh (51) and Sikkim (50) are in performer category. Karnataka is an Aspirant state with a score of 43. Fewer women (2.68%) in Karnataka have won seats in the general elections to state legislative assembly compared to India (8.70%), and the target of 50% is still a distant goal. However, in terms of sex ratio at birth (935) and percentage of women experiencing marital violence (24.40%), Karnataka fares better when compared to All India level statistics (898 and 33.3%).

#### Performance of Karnataka and India for SDG5 on 'Gender Equality'

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Sex Ratio at Birth (female per 1000 male)	935	898	954	84	54	100
Average female to male ratio of average wages/salaries received per day by regular age/salaried employees for rural and urban	0.7	0.7	1	43	44	100
Percentage of ever married women aged 15-49 who have ever experienced spousal violence	24.4	33.3	0	55	39	100
Percentage of seats won by women in the general elections to state legislative assembly*	<b>2.68</b>	<b>8.7</b>	50	5	17	100
Ratio of Female Labour force participation rate to Male labour force participation rate	0.42	0.32	1	34	21	100
Percentage of women in the age group of 15-49 years using modern methods of family planning	<b>51.8</b>	<b>53.5</b>	100	37	39	100
<b>SDG 5 Index Score</b>				<b>43</b>	<b>36</b>	<b>100</b>

Source: NITI Aayog, 2018; T-Target

<sup>27</sup>Pradhan Mantri Mudra Yojana (PMMY) is a flagship scheme of Government of India to "fund the unfunded" by bringing such enterprises to the formal financial system and extending affordable credit to them

<sup>28</sup>Pradhan Mantri Ujjwala Yojana was launched by Prime Minister of India Shri. Narendra Modi on 1 May 2016 to distribute 50 million LPG connections to women of BPL families. A budgetary allocation of ₹800 billion was made for the scheme.

## Way forward

Adopt preventive strategies to eliminate violence by changing the mind-sets and psychology of men.

- Increasing women police stations from 35 to 60 with focus on high incidence areas.
- Increasing Women police force. The target is to give 33% representation to women. (Now reservation given to 25%)
- Effective implementation of prevention of Domestic violence Act 2005 by providing adequate implementation machinery and Protection Officers at district levels,
- Effective legal mechanism for increasing the conviction rate and speedy disposal of pending cases. **Quick disposal of cases by establishing special courts.**
- Implementation of new technologies, like fixing of CCTV cameras at sensitive places and Provision of safe transport and 24/7 helpline for women by Home dept.
- While the target of women representation is achieved in PRIs (50%) but their representation in Legislature has to be improved legally or through a mandate to political parties. More representation in business houses through access to technical and professional education.
- To enhance awareness about modern methods of family planning among women through Women and Child and Health Department.
- To drive effective implementation of *Beti Bachao Beti Padhao* scheme and monitoring of Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act through periodic inspections of scanning centres every three months by District Inspection and Monitoring Committee.
- Increasing Women's work participation and valuation and equal distribution of work in the care economy.
- Increase Women's rights to land and economic resources, strengthen SHGs and cooperatives, promote entrepreneurship, provide for support facilities (credit, legal) for women, and expand coverage of schemes like *Udyogini* (Women entrepreneurship) and training programmes.
- **Education & Skill development:** Modules on gender equality in school curriculum, skill development programmes for girls, vocational training, skill up-gradation, capacity building of women in e-commerce, and increasing the provision for women in skill training and placement from 33 % to 50% under *Chief Minister's Koushalya Karnataka Yojana*<sup>29</sup>.
- **Health:** Improving the intra-partum and post-partum service through *Laqshya*, 100% tracking of all pregnant women and ensuring 100% antenatal care through integration of services of Women and Child Development (WCD) and Health department.
- Institutions like SHGs, NGOs, CSOs to be included in monitoring, participatory and inclusive structure of accountability towards women's safety and empowerment.

## SDG 6: Clean Water and Sanitation

The water sector goal has been more broadly framed and it recognizes conservation needs in addition to provision of drinking water and sanitation and thus sets the performance bar higher than the MDGs by addressing the reliability and quality of water. In addition, problems in demand management with competing demands for water from households, manufacturing, energy, agriculture and food production, coupled with impacts of climate change, conflict, natural disasters and excessive groundwater consumption, pose challenges for water availability to all.

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<sup>29</sup>Kaushalya Karnataka is a new initiative by the current state government of Karnataka aimed at helping youth acquire necessary skills and expertise to improve their employability. It is being administered by the Department of Skill Development Entrepreneurship and Livelihood.

Some of the initiatives taken by the Indian government are *National Rural Drinking Water Programme*<sup>30</sup>, *National Water Quality Sub-Mission*<sup>31</sup>, *Namami Gange*<sup>32</sup>, and *Swachh Bharat Mission –Gramin*<sup>33</sup>.

In addition, the State govt. schemes are: water Purification plants, *Jaladhare* and *Jalamrutha* (A community driven participatory programme for water literacy, Rejuvenation, water conservation and Greenery)

To measure India’s performance towards Clean Water and Sanitation, five national level indicators have been identified that capture 3 of 8 SDG6 targets. Gujarat is the only State that has been able to achieve 100 score along with three UTs (Chandigarh, Dadra and Nagar Haveli, and Lakshadweep). Both India and Karnataka have scored fairly close to 63 and 62 respectively.

Karnataka has declared all the thirty districts as open defecation free in Nov. 2019. However, Karnataka lags on the percentage of population having safe and adequate drinking water in rural areas at only 48.72% compared to the country value of 71.80%. Therefore, it is identified as one of the non-negotiable priorities among the top ten in Karnataka Vision 2025.

#### Performance of Karnataka and India on ‘Clean Water and Sanitation’

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Percentage of population having safe and adequate drinking water in rural areas	<b>48.72</b>	<b>71.8</b>	100	35	64	100
Percentage of rural households with individual household toilets	87.62	82.72	100	73	63	100
Percentage of to be Open Defecation Free	50	31.95	100	50	32	100
Installed sewage treatment capacity as a proportion of sewage created in urban	34.53	37.58	68.79	50	55	100
Percentage annual ground water withdrawal against net annual availability	<b>65.81</b>	<b>61.53</b>	70	100	100	100
<b>SDG 6 Index Score</b>				<b>62</b>	<b>63</b>	<b>100</b>

Source: NITI Aayog, 2018; T-Target

#### Way forward

- Adoption of an integrated approach to tap overall sources of water and extend to areas with no rivers.
- Implement strong legal and administrative measures to curb over exploitation of groundwater along with promotion of decentralised water harvesting.
- Adopting measures to check negative externalities of over exploitation through rejuvenation of surface water bodies, watershed management and quality control measures.
- Efficient demand management of water through incentives, pricing, taxing, and subsidies.

30 National Rural Drinking Water Programme (NRDWP) was launched under Bharat Nirman with objective of ensuring provision of safe and adequate drinking water supply through hand-pumps, piped water supply etc. to all rural areas, households

31 Government launched National Water Quality Sub Mission to provide safe drinking water to all.

32 'NamamiGange Programme', is an Integrated Conservation Mission, approved as 'Flagship Programme' by the Union Government in June 2014 to accomplish the twin objectives of effective abatement of pollution, conservation and rejuvenation of National River Ganga.

33 To accelerate the efforts to achieve universal sanitation coverage and to put focus on sanitation, the Prime Minister of India launched the Swachh Bharat Mission on 2nd October, 2014.

- Support and strengthen the participation of local communities in improving water and sanitation management

### SDG 7: Affordable and Clean Energy

SDG 7 seeks to increase substantially contribution of renewable energy to global energy supply, as well as double the energy efficiency rate. This would broadly cover measures like diversifying energy sources, developing renewable energy sources, improving energy efficiency, awareness-raising activities for the public on sustainable energy consumption, and connecting more households to the energy grid in rural areas.

Initiatives taken by the GOI include National Solar Mission<sup>34</sup>, Green Energy Corridor<sup>35</sup>, Off-Grid and Decentralized Solar PV Applications Programme<sup>36</sup>, National Biogas and Manure Management Programme<sup>37</sup>, Pradhan Mantri *Sahaj Bijli Har Ghar Yojana – Saubhagya*<sup>38</sup>, *LPG Subsidy under PAHAL*<sup>39</sup>, *DeenDayal Upadhyaya Gram Jyoti Yojana*<sup>40</sup> and *Pradhan Mantri Ujjwala Yojana*<sup>41</sup>. In addition, the state has also implemented schemes like *Anila Bhagya*, subsidised electricity to homes under *Bhagya jyothi, Kuteer Jyothi* etc.

#### Performance of Karnataka and India for SDG7 on ‘Affordable and Clean Energy’

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Percentage of households electrified	96.45	94.57	100	85	78	100
Percentage of households using Clean Cooking Fuel	54.7	43.8	100	45	32	100
Renewable share of installed generating capacity (%)	40.77	17.51	40	100	43	100
<b>SDG 7 Index Score</b>				77	51	100

Source: NITI Aayog, 2018; T-Target

To measure India’s performance towards achieving SDG7, three national level indicators have been identified to capture 2 of 5 SDG targets. The overall score for the country is 51, while the top states

<sup>34</sup>The National Solar Mission, is an initiative of the Government of India and State Governments to promote solar power. The mission is one of the several policies of the National Action Plan on Climate Change.

<sup>35</sup>The **Green Energy Corridor** Project aims at synchronising electricity produced from **renewable** sources, such as solar and wind, with conventional power stations in the grid. Its objective is to synchronise electricity produced from **renewable** sources, such as solar and wind, with conventional power stations in the grid.

<sup>36</sup>**Off-grid and Decentralized Solar PV Applications Programme** aims to impact in the rural and remote areas of the country where **grid** power has either not reached or is not reliable.

<sup>37</sup>The National Biogas and Manure Management Programme (NBMMP) aims at setting up of family type biogas plants for providing biogas as clean cooking fuel and a source of lighting. The slurry produced from biogas plants as a by-product is an organic bio-manure for enhancing crop yield and maintaining soil health.

<sup>38</sup> The Saubhagya Scheme or Pradhan Mantri Sahaj Bijli Har Ghar Yojana is an Indian government project to provide electricity to the households.

<sup>39</sup> The scheme was formally launched as Direct Benefit Transfer Scheme for LPG subsidy in 2013 in 291 districts (PAHAL) scheme. The scheme aims at eliminating duplication or bogus LPG connections and its diversion.

<sup>40</sup>DeenDayal Upadhyaya Gram Jyoti Yojana is a Government of India scheme designed to provide continuous power supply to rural India.

<sup>41</sup>Pradhan Mantri Ujjwala Yojana was launched by Prime Minister of India Shri. Narendra Modi on 1 May 2016 to distribute 50 million LPG connections to women of BPL families. A budgetary allocation of ₹800 billion was made for the scheme.

Tamil Nadu and Mizoram achieved score of 89 and 78 respectively. Karnataka falls among the top three states with a score of 77. The State has a higher percentage of households using clean cooking fuel (54.70%) and the renewable share of installed generating capacity as 40 %(All India level 17.51%).

### **Way forward**

The strategies are framed in various policies- Karnataka State Renewable Energy Policy, State Solar Policy State Bio-fuel policy for Affordable and Clean Energy for all.

- Karnataka Power Transmission Corporation Limited (KPTCL) is identified as the nodal agency to plan and monitor the SDG 7. There is need to prepare periodic plans for all ESCOMs to reinforce their distribution infrastructure in a coordinated manner as grid modernization and up-rating of the distribution network for the absorption of power will involve significant capital infusion.
- There is need to rectify the balance sheet of state power utilities by rate-design reforms, plugging revenue leakage, squaring cumulative losses, and issuance of bonds. Additionally, quality-rated distribution transformers are required to reduce the length to ensure optimum efficiency.
- There is need to promote Utility business model to transform from 'generation sales' to 'mediator for sales' for sustenance in the long-term. This would keep the consumers connected to the distribution networks to transact their surplus energy.
- Timely formulation and implementation of action plans.
- Re-assessment of cross-subsidies by cost-effective tariffs and regulatory innovations as electricity to evolve from a public utility model to a product/commodity model.
- Need for application of IT solutions such as SCADA to augment collection and collation of data and reduce manual interventions to ensure maximum uninterrupted power supply
- Change management programmes of local power distribution as well as reactivation of the franchisee system to be promoted by involving local youths under Skill India Mission
- Need to provide cooking gas/fuel at a reasonable cost to the sections not covered under the UJJWALA scheme in close coordination with oil companies through incentives like tax concessions, as appropriate under state scheme.
- There is need to regulate farm power by limiting the number of wells per unit area and checking misuse of subsidy. Also, going forward there is need for increasing testing labs for solar panels as well as innovation labs such as YES SCALE (agritech, cleantech and smart cities) as alternate source of energy.
- The companies to promote initiatives like internet-of-things, block chain, machine learning, mobile intelligence, mini-grids and micro grids in future.
- To ensure sustainable uptake of these technological innovations, there is a need for coherence between institutions and technological processes to ensure satisfactory functioning of electricity infrastructure.

## **B Growth and Equity**

### **SDG 8: Decent work and Economic Growth**

Inclusive growth can be achieved through sustained per capita economic growth complimented with



decent work. This involves ensuring equal pay for work, protection of labour rights, ensuring safe work environment, and eradication of child and forced labour. Decent work opportunities are also essential in all fields of employment, boosting entrepreneurship, accounting informal employment and formalizing MSME's. It is also evident that this goal, given its cross-cutting effects, is linked with SDG 5 and 10 (Grishaw and Kuhn, 2019). Some of the initiatives of the GOI in this endeavour are *Prime Minister's Employment Generation Programme, Start-up India, Skill India* such as *National Apprenticeship Promotion Scheme* and the *Pradhan Mantri Kaushal Vikas Yojana, DDU-GKY*.

*The State has also implemented Chief Minister's Koushalya Karnataka Yojane, Chief Minister's Karnataka Livelihood Scheme, Rajeev Gandhi Chaitanya Yojane* etc. It has a Start Up policy and Bengaluru has emerged as a hub of Start Ups.

To measure India's performance towards achieving Goal 8, four national level indicators have been identified capturing 3 of 12 SDG targets. Among the States, Goa leads with a tally of 90. India and Karnataka have almost reached the target of 100% of households with bank accounts. However, the average unemployment rate per 1000 persons for India for males and females is significantly high with a score of 82. While, Karnataka has better score of 99 for this indicator and a much higher score than the country index in terms of number of ATMs per lakh population.

#### Performance of Karnataka and India for SDG8 on 'Decent Work and Economic Growth'

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Annual growth rate of GDP per capita (at constant price of 2011-12)	6.35	6.50	10.00	56	58	100
Average unemployment rate per 1000 persons for males and females	16.50	63.50	14.83	99	82	100
Percentage of households with a bank account	99.97	99.99	100.00	90	96	100
Number of ATMs per 1,00,000 population	26.22	16.84	50.95	43	22	100
<b>SDG 8 Index Score</b>				72	65	100

Source: NITI Aayog, 2018; T-Target

#### Way forward

- With GSDP per capita of Rs. 2,10,887 (MoSPI, 2020) Karnataka stands at 7<sup>th</sup> place among States and UTs. However, efforts are required to spur growth in Tourism and Service sectors pushing per capita growth of GSDP.
- Capital led growth area: Develop industrial estates & establish specific industries; organize local investors meet; establish cost advantage trade routes
- Labour-led growth areas: For labour with L1 level of education (10<sup>th</sup> fail) there is need for creating non-farm employment, mobile based technical education in villages, and construction centric, garment and textile manufacturing units. This would also include identification of compatible skills and industry lines, and mapping of existing industrial characteristics and nature of skills required in the market

- Karnataka is in the top six ranks on per capita Green Skill Development Program (GSDP) among Indian states (Nava Karnataka Vision 2025).
- There is need to identify and strengthen links between growth centres and farmers moving away from agriculture. There is need to reduce the effect of migration by putting up ad-hoc stay arrangements for labour force commuting from distance and by bridging the knowledge and information gap.
- A Rapid situation analysis of industrial infrastructure including mapping of growth areas, holistic implementation of different skill development and entrepreneurship programs; and streamlining monitoring processes the progress towards SDG 8 targets.

## SDG 9: Industry, Innovation and Infrastructure

The basis of this goal comes from the necessity for a gradual shift the emphasis of industrial growth towards a more equitable integration of innovations resulting in sustainable and improved efficiency in resource extraction and mitigation of negative ecological impacts. Therefore, a diversified, dynamic, inclusive and sustainable industrialization is necessary, without which the SDG paradigm would remain detached from addressing domestic growth, job creation and local self-sufficiency which are interlinked with other goals. Some of the initiatives undertaken by GOI are *Pradhan Mantri Gram Sadak Yojana*<sup>42</sup>, *Bharatmala*, *Sagarmala*<sup>43</sup>, Make in India campaign, *Digital India* (e.g. *Aadhaar programme*). However, India has scored a low index score of 44, while Delhi and Puducherry are Achievers of this Goal with a score of 100. Although, Karnataka stands at zero in terms of percentage of targeted habitations under *PMGSY*, it has achieved the target of 100% coverage of Gram Panchayats under *Bharat Net*<sup>44</sup> and have scored higher than the country, in the other three indicators measured in the State.

Karnataka State has implemented additional schemes to provide transport and communication facilities in rural areas. These include: *Namma Gram Namma Raste* and Chief Minister *Gram Sadak Yojane*. Karnataka Tops the India Innovation Index 2019 among major States and stands second in the country after Delhi (UT). As per the Global Start-up Ecosystem Ranking Report 2015, Bengaluru is the only Indian city to be ranked within the best twenty start up eco systems across the world. Therefore, Karnataka aspires to have a leadership position in software and information technology-enabled services, biotechnology, nanotechnology, and light engineering industry (particularly precision engineering) by 2025, paving the way for the State to achieve SDG 9 by 2030. To measure India's performance towards achieving Goal 9, four national level indicators have been identified that capture 2 of 8 SDG targets.

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<sup>42</sup>The Pradhan Mantri Gram Sadak Yojana is a nationwide plan in India to provide good all-weather road connectivity to unconnected villages.

<sup>43</sup>**Bharatmala Pariyojana** (Project) is a centrally-sponsored and funded Road and Highways project of the Government of India. The **Sagarmala Programme** is an initiative by the government of India to enhance the performance of the country's logistics sector. The programme envisages unlocking the potential of waterways and the coastline to minimize infrastructural investments

<sup>44</sup>BharatNet is a project of national importance to establish a highly scalable network infrastructure accessible on a non-discriminatory basis, to provide on demand, affordable broadband connectivity of 2 Mbps to 20 Mbps for all households and on demand capacity to all institutions, to realise the vision of Digital India, in partnership with States and the private sector.

### Performance of Karnataka and India for SDG 9 on 'Industry, Innovation and Infrastructure'

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Percentage of targeted habitations connected by all-weather roads under <i>Pradhan Mantri Gram Sadak Yojana</i>	0*	47.38	100	0	47	100
Number of mobile connections per 100 persons in rural and urban area (Mobile Tele density)	98.48	82.97	100	97	65	100
Number of Internet Subscribers per 100 population	44.32	33.47	100	33	20	100
Percentage of Gram Panchayats covered under Bharat Net	100	42.43	100	100	42	100
<b>SDG 9 Index Score</b>				<b>57</b>	<b>44</b>	<b>100</b>

Source: NITI Aayog, 2018; Note: \* Proportion of the rural population who live within 2 km of an all-season road is 90%; T-Target

#### Way forward

The need of the hour is to leverage net connectivity and spur economic activities/services in rural areas and ensure expanded coverage of public transport

- Need for investment both, in public and private transport for sustainable infrastructure.
- Promotion of non-motorable transport such as metro transport, bicycle, also walking for short distances.
- Remodelling and restructuring the urban transport design and infrastructure by prioritizing rapid bus transit or light rail over private vehicles and modal shares across different means of transport.
- Energy-efficient public transport and incentivising investment in energy-efficient technologies, industries and infrastructure. This to also include adoption of instruments such as tax, subsidy, pricing of automobiles for the sustainable transport system. Adequate grants and fiscal incentives, such as R&D tax incentives, subsidising research, tax credits etc. to encourage technological and infrastructure innovations. This to include facilitating grants & subsidies specifically for projects with high social returns to be encouraged.
- Industry should promote social & community R&D through setting up of local skill development centres under CSR to meet the industry requirements through local resources.

#### SDG 10: Reduced Inequalities

Growing inequalities across the social groups in income distribution pattern and access to opportunities result in deprivation of human rights. It is a cross-cutting commitment that no one is left behind. The inequalities are addressed through direct and affirmative action and strategies that contribute to development of capabilities and access to opportunities. . Some of the initiatives undertaken by the GOI are *Pradhan Mantri Jan Dhan Yojana*, *Prime Minister Employment Generation Programme*, *Mahatma*

*Gandhi National Rural Employment Guarantee Act, DeenDayal Upadhyaya Grameen Kaushalya Yojana, and Stand-up India Scheme.*

In the State, the access to education, skills, livelihood and employment is ensured through special resource allocations under SCP and TSP schemes covering all human development sectors. Their access to land is promoted under Land Purchase Scheme (1991) for irrigation under *Ganga Kalyan Scheme*.

To measure India's performance towards reduced inequality, five national level indicators have been identified that capture 3 of 10 SDG targets. India has a score of 71 and except for two States a large number of States and UTs are Front Runners with a score above 65, and 3 States (Meghalaya, Mizoram, Telangana) and 3 UTs (Dadra & Nagar Haveli, Daman & Diu, Lakshadweep) with the score tallying to 100. Although lower than the country score, Karnataka has achieved the targeted utilisation of tribal sub plan fund (100), and has scored 86 in terms of utilisation of SC sub-plan fund, which is higher than the India score on this indicator.

The other dimension of inequalities is the geographical spread of growth process and the consequent deprivations experienced by the people living in backward/ aspirational regions. The High-Power Committee on Redressal of Regional Imbalances (HPCRRRI 2000) identified the north Karnataka region having two-thirds of the most backward talukas (26/39) in the State that are arid, less-irrigated and drought-prone. The committee recommended a Special Development Plan of Rs. 31000 crores over a period of 8 years from 2002 to 2010. The plan was implemented from 2007-08 and an amount of Rs. 24519 cores is being spent on the 114 backward talukas (ES 2019-20). Karnataka Human Development Report 2015, Karnataka District Human Development reports 2014 and Karnataka Agricultural Policy 2016 provide steps to improve human development indicators in the State and if implemented with a strong political will, can help to achieve Karnataka Vision 2025 and consequently achievement of SDGs by 2030.

#### Performance of Karnataka and India for SDG10 on 'Reduced Inequalities'

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Palma Ratio of Household Expenditure in Urban India	<b>1.83</b>	<b>1.41</b>	1	<b>0*</b>	<b>50</b>	100
Palma Ratio of Household Expenditure in Rural India	0.84	0.92	1	100	100	100
Ratio of Transgender Labour force participation in labour force participation rate	<b>0.59</b>	<b>0.64</b>	1	<b>56</b>	<b>61</b>	100
Percentage of Scheduled Caste Sub-Plan fund utilized	90.2	77.67	100	86	68	100
Percentage of Tribal Sub Plan fund utilized	105.35	82.98	100	100	76	100
<b>SDG 10 Index Score</b>				<b>68</b>	<b>71</b>	<b>100</b>

Source: NITI Aayog, 2018; T-Target

## Way forward

- Monitor the Special Development Plan (SDP) for backward blocks (HPCRRI) through Special Cell and Area Development Boards. Legislators – MLA / MP constituency development grants to focus on initiatives besides departmental efforts.
- Rationalize district-sector outlays and increase budget outlays to 5 districts of North Eastern Karnataka region- Bidar, Kalaburagi, Koppal, Raichur and Yadgiri (5 districts).
- Rationalize budget allocations on the basis of population share, backwardness, risks (drought) and needs and generate funds through empowerment of the Panchayats.
- Participative micro-level planning and targeting – Panchayat Raj for Gram Panchayat level development. Promote legal/political/environmental/cultural literacy to all and political space for women in elected bodies.
- Poverty alleviation programmes of the State / Schemes across the various development departments and infrastructure development departments (employment) to be intensified in districts on low end of poverty ratios.
- Social groups – SC / ST / OBC / Minorities to gain focus and intensive attention under regional planning and development initiatives. Need based and Capacity building strategies to be implemented under SCP/TSP Plan.
- Government expenditures should be judiciously spent and Planning Department (DES) should take initiative in these efforts.
- There is a strong need to cover the transgender through skill development programs and increase their labour participation ratio. The State has framed Transgender policy and that is to be implemented effectively.

## C. Environment

### SDG 11: Sustainable Cities and Communities

The U.N. Deputy Secretary-General Jan Eliasson stated, “Cities are where the battle for sustainable development will be won — or lost, if we fail”. As the world gradually takes an urban turn, with an increasing number of people moving to the cities, accounting for 55% of the population, produce 85% of the global GDP but also 75% of the greenhouse gas emissions (Franco *et al*, 2020).

Given the magnitude, this goal postulates balanced development across human settlements, covering different dimensions of sustainability. It covers basic concerns related to housing, slums, and transportation in cities. However, it goes further to deal with a host of environmental issues such as air quality, waste management, resilience, and preparedness around natural disasters. It even touches on innovative measures around cultural and natural heritage as well as green and public space.

India has experienced rapid urbanisation, with the urban population increasing by 91 million between 2001 and 2011. It is projected that 416 million urban dwellers will be added between 2018 and 2050. To address the challenge of urbanisation, the GOI have undertaken initiatives such as the *Atal Mission for*

*Rejuvenation and Urban Transformation (AMRUT)*<sup>45</sup>, *Jawaharlal Nehru National Urban Renewal Mission*<sup>46</sup>, *Pradhan Mantri Awas Yojana (PMAY)*<sup>47</sup> and *Smart Cities Mission*<sup>48</sup>.

Though the State has low achievement under PMAY, the State has implemented many housing schemes such as Devaraj Urs Housing Scheme<sup>49</sup>, Dr. B R Ambedkar *Niwaas Yojane Suvarna* Karnataka Yojane (KHB), Chief Minister’s One Lakh Bengaluru Housing Scheme<sup>50</sup>, *Pourkarmikaa Grahabhagya Yojane*<sup>51</sup> etc. to meet the increasing demand for houses in urban areas.

India’s performance towards Goal 11 is measured with four national level indicators capturing 2 of 10 SDG targets for 2030. As per the SDG India Index report, the country’s score is only 39 and Goa is the only Front Runner State with a score of 71, while a majority of the States are Aspirants with scores less than 49. Karnataka is very close to national average in many indicators. The concern is about the houses completed under *PMAY* as a percentage of net demand assessment at 3.3 and 4.6% for India and Karnataka respectively.

#### Performance of Karnataka and India for SDG11 on ‘Sustainable Cities and Communities’

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Houses completed under PMAY as a percentage of net demand assessment for houses	4.63	3.32	100	5	3	100
Percentage of urban households living in slums	5.39	5.41	0	55	55	100
Percentage of wards with 100% door to door waste collection	61.29	73.58	100	61	74	100
Percentage of waste processed	22	24.8	100	22	25	100
<b>SDG 11 Index Score</b>				36	39	100

Source: NITI Aayog, 2018; T-Target

#### Way forward

- A special focus on PMAY house construction, slum development, and waste management in urban areas. Innovative Housing Scheme to include advance the development of public rental housing; complete the rebuilding of slums and dilapidated houses; subsidize the maintenance of poor families; invest in affordable homes for lower middle-class families; form housing cooperative societies with slum dwellers as stakeholders. Promote Green Housing strategies.

<sup>45</sup>Atal Mission for Rejuvenation and Urban Transformation was launched in June 2015 with the focus to establish infrastructure that could ensure adequate robust sewage networks and water supply for urban transformation by implementing urban revival projects

<sup>46</sup>Jawaharlal Nehru National Urban Renewal Mission was a massive city-modernisation scheme launched by the Government of India under Ministry of Urban Development.

<sup>47</sup> Pradhan Mantri Awas Yojana is an initiative by Government of India in which affordable housing will be provided to the urban poor with a target of building 20 million affordable houses by 31 March 2022

<sup>48</sup>Smart Cities Mission, sometimes referred to as Smart City Mission, is an urban renewal and retrofitting program by the Government of India with the mission to develop 100 smart cities across the country making them citizen friendly and sustainable

<sup>49</sup>Under the scheme houses are provided for special category people like HIV affected, Devdasies, Nomadic tribes, widows, orphans etc.

<sup>50</sup>This scheme is to provide Govt. land free of cost and for subsidies convergence of PMAY(U) and Dr. BR Ambedkar AawasYojane (State)

<sup>51</sup>Economic Survey 2019-20.

- **Focus on Public Transport: Implement “public transport first” strategy;** and develop public transport on modal share basis.
- **Integrating the SDGs into existing urban plans and contextualize them to each city’s unique circumstances and Task force to protect and restore heritage buildings/sites.**
- **Prevention of natural disasters:** Reduce disaster impact and offer special protection for affected vulnerable groups in accordance with prevailing laws; prevent forest fires and ensure road traffic safety; prevent and control floods, and reduce the death tolls and the number of affected and economic losses resulting from floods; improve social mobilization for disaster prevention and build channel for social participation in disaster prevention and reduction; and promote low-carbon zones across cities, industrial clusters and communities; Set up experimental zones for climate change adaption in cities.
- **Pollution free cities and waste reduction and Clean and Green Urban region:** Promote green construction in urban areas by continually increasing per capita green park space; at the ratio of green space in urban built-up areas as 30% and to a per capita green space of 10 sq. m.
- Improve household waste treatment; Formulate urban air quality standards to reduce the days of heavy air pollution by 25% Promote integrated air quality management system and Waste management system.
- **Equitable distribution of resources between urban and rural regions:** Promote the coordinated development of new urbanization and equitable distribution of public resources between urban and rural areas.
- **Forge partnerships with civil society, the private sector and NGOs to implement and monitor progress**
- Raise energy-saving standards for buildings and promote low energy consumption buildings.

## **SDG 12: Responsible Consumption and Production**

The attainment of targets enumerated in SDG 12 requires a multi-sectoral approach and integrated efforts. Achieving resource efficiency is the heart of sustainable consumption and production. The goal has a total of 17 indicators and data availability is still a concern for the same.

The SDG 12 exhibits linkages with other 7 SDG goals. It is interlinked with Goal 2, which emphasizes on food production systems to achieve ‘Zero Hunger’. The Goal 6 focuses on the water resource management-clean water and sanitation. Goal 7, i.e., Energy Production-Affordable and Clean Energy, Goals 8 and 9 (Industries and Manufacturing), Goal 11 (solid waste management in urban areas), Goal 13 (Combating Climate Change) and Goal 14 and 15 (Conserving our marine and terrestrial ecosystems). A critical point is that SDG-12 is a multi-sectoral and requires the coordination of various allied sectors in order to fulfil the goals and objectives of the key indicators. The strategies for each of these goals are indicated in the respective goals and these are expected to lead to a system of sustainable consumption and production. Karnataka score is 72 and is placed in Front runner category as per SDG Index 2019.

### **Way forward**

The Government of India has enacted a number of policies, programmes and schemes which contribute to Sustainable Consumption and Production like National Mission on Food processing Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters (SAMPDA), National Policy on Bio

Fuels, National Clean India Fund, National Clean Energy Fund, Soil Health Card Scheme, Mega Food Park Scheme and Smart Cities Mission.

- Sustainable procurement policies (SPP) to reduce the wastage of natural resources (water, food and energy)
- Awareness building and mobilization campaigns
- Promotion of Eco-friendly buildings and constructions
- Encourage adoption of nature savvy lifestyle and induction of fewer consumptive processes and practices
- Efficient water use- both ground and surface and adoption of Water-3R Principle (Reduce, reuse and recycle) and Rainwater harvesting
- In education curriculum -create awareness among the future generation about the importance of sustainable resources use. Posters, stickers highlighting the effective water use in the schools, waste segregation all these measures help in nurturing them to become ecologically conscious citizens.

### **SDG 13: Climate Action**

It is recognized globally and locally “Urgent action” is required to “combat climate change and its impacts”, incorporating both climate change mitigation and climate change adaptation. The goal aims at (a) strengthening resilience and adaptive capacity to climate related hazards and natural disasters in all countries, (b) integrating climate change measures into national policies, strategies, and planning, and (c) improving education, raising awareness and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.

National Action Plan on Climate Change and National Air Quality Monitoring Programme are the major initiatives of the Government of India in addition programmes related to soil and water conservation programmes, protective irrigation, precision farming, afforestation, clean energy and reforestation that are also adopted at the State level.

The Karnataka State Action Plan on Climate Change (KSAPCC) examines climate trends, projected vulnerabilities and adaptation and mitigation priorities. It includes a review of policies and programs for possible mainstreaming of climate change. The Environmental Management and Policy Research Institute (EMPRI), Bengaluru, an autonomous body of the Department of Forest, Ecology and Environment, Government of Karnataka has prepared the State Action Plan on Climate Change (SAPCC) for Karnataka. The Action Plan has been endorsed by the Ministry of Environment, Forests and Climate Change (MoEF&CC), Government of India in 2015. The SPACC has provided Karnataka’s first comprehensive assessment of sectors that could be significantly affected by climate change and various challenges and has also given feasible action points to be implemented by various sectors in the state. (SoER Karnataka, 2015)

As per the Karnataka Climate Change Action Plan, the vagaries of the weather - drought and floods - are going to play havoc on the livelihood of farmers. While the state accounts for 5.83 % of the total area of the country, the Green House Gas emissions in Karnataka are around 4% of the national emissions. Most



of the areas in the state are projected to experience a warming of 1.8 to 2.2°C by the end of 2030 (BCCI-K, 2011). Karnataka score on Goal 13 is 71 and is placed in Front runner category as per SDG Index 2019.

### **Way forward**

#### **Strategies for action in the Agriculture and allied sectors**

- Increase the area under watershed treatment
- Construct rainwater harvesting (RWH) structures
- Increase area under protective irrigation
- Encourage integrated farming systems (IFS) and sustainable agriculture.
- Encourage dry land farming and micro-irrigation
- Reduce the annual consumption of chemical fertilizer
- Promote organic farming
- Promote endemic drought/flood-resistant varieties

#### **Agro-forestry**

- Tree plantation in all vacant private and farmlands that are unfit for productive agriculture;
- Promote dry land horticulture, mulberry
- Soil and water conservation
- Biodiversity conservation

#### **Forest sector**

- Restoration of disturbed forests and plantations
- Increasing focus in farm forestry in order to reduce pressure on natural forest

#### **Natural Disasters**

- Reduce urban flooding (UF) by proper maintenance of the drainage system. Proper solid waste management system and proper implementation of the plastic ban.
- Cleaning storm water drains (SWD) before rains.
- Improving strategies to rescue people stuck in flood situations by establishing rescue teams, equipping the rescue teams with communication systems, vehicles, training, etc.
- Using ICT in developing advance warning systems, dissemination of information through SMS, web portal, radio, wireless communication, etc.
- Educating all sections about disaster management.
- River gauges to be installed across all rivers.
- Proper maintenance of all the rain gauges in the state.

#### **Awareness, Information and Education**

- Creation of a dedicated web portal for dissemination of latest scientific knowledge on adaptation and mitigation to all stakeholders.
- Dissemination of climate variability information and establish early warning systems to the farmers through SMS, radio, television, print media etc.

- Increasing the capacity of vulnerable section of the society to adapt to the climate change impacts by using ICT technologies, social media.
- Preparedness for heat stress and increase of vector-borne (VB) diseases and communicable diseases using vulnerability index and maps.

### **SDG 14: Life below Water**

The maritime state of Karnataka state consisting of three districts with 300 km coastal length has 35,507 active marine fishers and 11,884 numbers of total fishing crafts (CMFRI, 2016). According to Government of Karnataka (2018) 75 % of the total fishers are small-scale fishers contributing to only 15% of the total marine fish production. The inherent rich inland waters and rivers at the foot of the Western Ghats, with shallow continental shelf area contribute to the rich productivity of the marine fisheries.

Karnataka has an index score of 65 as per SDG Index 2019 estimated for maritime states. It is in front runner category and tops the maritime states in the country. For the welfare of fishermen, the state along with central schemes has introduced additional schemes like- differential interest scheme, Distress Relief Fund, *Mastay Ashraya Yojane*, *Matsya Vahini* and exhibition and training.

### **Way forward**

Initiatives by Government of India with respect to the goal 14 on 'Life below water' are National Plan for Conservation of Aquatic Eco-systems, Project *SAGARMALA*, Mangrove forest management, Ratified conventions including UN convention on the Law of the Sea, Online Oil Spill Advisory System, revised National Oil Spill Disaster Contingency Plan-2015, Coastal Ocean Monitoring and Prediction System and Marine Observation System.

- Identification of changes in the pollution level of sensitive aquatic animals and initiate measures to improve the ambient coastal water quality
- Zero discharge of industrial effluents and sewage
- Strengthen CRZ and Coast Guard to monitor pollution levels
- Increase the protected area from 0% to 5% by 2030. Enforce No-Go zones to trawlers and other intensive gears in the fishing grounds which have threatened species
- Limit fishing to a sustainable level and restoration of depleting stocks
- Compensation/insurance mechanism to provide relief for fishers for the loss and damage of assets and income/employment due to frequent climate-related factors.
- Decrease rate of subsidy with an increase in fishing intensity
- Supply potable water, freshwater in auction halls, ETP and Drainages inside the harbor
- The government in consultations with fisher organizations and experts should identify the sustainable fishing practices and those who adopt such practices may enjoy the progressively higher subsidy. It is suggested that the diesel subsidy may be continued in a modified manner to promote sustainable fishing practices.
- Introduce legal provisions in the CRZ/Environment Act to increase access to small scale fishers

## SDG 15: Life on Land

This goal is centred on protection and restoration of terrestrial ecosystems and addresses issues related to forest management, desertification, and land degradation. Some of the initiatives undertaken by the GOI are mainstreaming of environmental concerns through the National Environment Policy 2006, National Agroforestry Policy 2014, Green Highways Policy 2015, National Afforestation Programme, Integrated development of Wildlife Habitats programme such as Project Tiger, Project Elephant, and Programmes on Conservation of Natural Resources and Eco-systems among others.

At present the State is having 20.11% of total geographical area under forest cover with a mean growing stock of 80 cum /ha which is highest in the country. State is ranked third in terms of total growing stock after Arunachal Pradesh and Andhra Pradesh which is very critical for sequestering carbon to combat climate change impacts. It is gratifying to note that the state is home to about 25% of Tiger and elephant population of the country.

The state has initiated various actions to halt the degradation of bio-resources and to protect the biodiversity as per the Bio-diversity Act-2002. The Karnataka bio-diversity Board has been entrusted with the responsibility of ensuring protection and conservation.

Some State level programmes aim to improve land and water management such as *Bhoochetana* and *Bhoosamrudhi*. The aim of these initiatives is to increase farmers' income through skill development, public-private partnerships, science-led development and collective action through farmers' organizations, producers' groups, self-help groups among others.

To measure India's performance towards Goal 15, four national level indicators have been identified that capture 3 of 12 SDG targets. India scored a high 90 and a majority of the States are Front Runners with 6 States and 2 UTs scoring 100, categorizing them as Achievers of SDG 15. Karnataka has also scored 100 on three of the four indicators with a total index score of 88. The only indicator that needs improvement is the percentage of total land area covered under forest, which was only 19.58% compared to the target of 33%.

**Performance of Karnataka and India for SDG15 on 'Life on Land'**

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Percentage of total land area covered under forest	19.58	21.54	33	54	61	100
Decadal change in extent of water bodies within forests from 2005 to 2015 (%)	8.51	18.24	0	100	100	100
Change in forest area from 2015 to 2017 (%)	0.57	0.21	0	100	100	100
Percentage change in estimated population of wild elephants over 5-year period	-0.31	19.53	0	99	100	100
<b>SDG 15 Index Score</b>				<b>88</b>	<b>90</b>	<b>100</b>

Source: NITI Aayog, 2018; T-Target

## Way forward

- Convergence of MGNREGA with territorial forest activities to improve both water resource and vegetation cover along the forest cover
- **Forest cover** - The state has set a goal of greening the vacant waste lands, institutional waste lands, urban spaces, agricultural waste lands, *soppina betta* lands, and rivet catchment areas. The State has formulated number of afforestation schemes funded by the state government (*Krishi Protsaha* planting, Trees outside forests, *Nagarvanas*) in addition to central initiatives (Greening India Mission, Reforestation of degraded areas, Bamboo Mission, Compensatory plantation).
- **Urban planting and Community wood** - To achieve the SDG goal of tree cover outside the Forest area, it is envisaged to promote urban planting on massive scale through supporting the city municipal bodies and Horticulture department. The state has very good ecosystem and technological knowhow to take up massive agro-forestry program in the state under different agro-climatic conditions. The Forest department has a well-structured Social forestry wing to promote the agro-forestry work under various schemes.
- **Restoration of degraded area**- It is estimated that around 25% of the Forest area is under various stages of degradation due to biotic and anthropogenic pressures (Forest Survey India 2017). Under the SDG goal it is envisaged to undertake regeneration works under different ecosystems to restore the original structure and functions.
- Some of the strategies are:
  - Increase in forest tree cover in degraded area
  - increase in forest/vegetation cover in mountain area
  - Restoration of water bodies
  - Conservation of local wild life species
  - Restoration of red list of wild animals
  - Biodiversity conservation- access to benefit sharing agreements, recovery of RET species
  - Reduction in traded wildlife that was poached or illicitly trafficked – Alien species eradication

## D. Peace and Inclusive societies

### SDG 16: Peace, Justice and Strong Institutions

This goal recognizes the central role of effective, accountable and inclusive political institutions in promoting sustainable development. Its associated targets and indicators relate to a wide range of governance issues such as reducing violence and corruption, ceasing trafficking, strengthening institutions and promoting human rights and fundamental freedoms. As this goal is centred on governance and institutions that are essential for implementation of policies that impact various facets of society such as poverty, hunger, education, equality, water and land, the progress of SDG 16 is crucial for achieving other goals.

India's preparedness for framing institutions to accomplish SDGs is critical and challenging. Towards this end, some of the initiatives of the GOI are *Umbrella ICDS National Labour Project*, related to strong

institutions (Target 16.6) - *Digital India Land Record Modernisation Programme, Rashtriya Gram Swaraj Abhiyan, Modernisation of Police Forces, Development of Infrastructure facilities for Judiciary including Gram Nyayalayas and e-courts.*

Karnataka State has achieved major strides in e- governance and increased efficiency and transparency in Governance. Some of the projects are *Bhoomi, Nemmadi, Mobile one, Sakala, e-Janma* (Registration of births and Deaths) *Khajane I & II* etc.

To measure India’s performance towards Goal 16, six national level indicators have been identified that capture 5 of 12 SDG targets. India scores 71, with all States and UTs having scores above 50. The top state was Himachal Pradesh with a score of 91 and UT Pondicherry at 92. Karnataka has a score of 74 and has achieved 100% target for estimated reported corruption crimes per 1 crore population. It has 92.90% population coverage under Aadhaar Scheme. However, it is lagging behind in the number of courts per 10 lakh persons (12.2). Transparency International also ranked Karnataka as the fourth most corrupt state in a recent survey, revealing that more efforts are necessary under this Goal.

#### Performance of Karnataka and India for SDG16 on ‘Peace, Justice and Strong Institutions’

Indicator	Raw Data			Score		
	Kar	India	T2030	Kar	India	T2030
Reported murders per 1 lakh population	2.5	2.4	1.2	61	64	100
Reported cognizable crimes against children per 1 lakh population	22.7	24	0	84	84	100
Estimated number of courts per 10 Lakh persons	12.2	12.83	33.76	24	26	100
Estimated reported corruption crimes per 1 crore population	7.01	34.01	17	100	99	100
Percentage of births registered	94.9	88.3	100	86	67	100
Percentage of population covered under Aadhaar	92.9	89.5	100	92	89	100
<b>SDG 16 Index Score</b>				<b>74</b>	<b>71</b>	<b>100</b>

Source: NITI Aayog, 2018; T-Target

#### Way forward

- Strengthening Institutional Mechanism for safety and security of women and children.
- With effective legislations like *Karnataka Sakala sources Act 2011* of public services, time bound closely monitoring and public awareness to enhance zero tolerance of corruption.
- It is worthwhile to note that Public Affairs Index (PAI-2017) has ranked Karnataka second in transparency and accountability and third in governance based on 10 parameters comprising 25 subjects and 68 development indicators (GoK, 2018B).
- Police – population ratios to be maintained, vacant posts to be filled and periodic training/refresher course for police personnel in the Police Department to be administered
- Operationalize UNICEF’s six general measures to contain and combat all forms of violence against children

- Workshops for schoolteachers to evolve operational guidelines that would be adopted to form a code to empower, support women and children across racial and economic strata.
- Involvement of local institutions, SHGs, NGOs for generating awareness and implementation of prohibition measures.
- Necessitate prison reforms to address injustices, especially for under trial persons in prisons
- Increase number of *Lokayukthas* for these institutions to work autonomously and independently
- PURA (Provision of Urban facilities to Rural Areas) to curtail mass rural urban migration
- Delivery of public services in an effective, transparent and accountable manner, such as SAKALA, PDS etc. needs effective supervision and monitoring
- Constitutional Rights based institutions/commissions to periodically organize workshops on gender-sensitive issues, human rights, safety and security of women and girl child, protection of rights of minorities and also publication of booklets/magazines to educate the concerned population
- Budget provisions for improving the data collection system regarding crimes as reliable up-to-date data is necessary to formulate effective action plans

### **Way Forward and Conclusion - SDG Vision 2030**

The SDG Index was estimated for 2019 for the 16 goals with 100 parameters with overall score of 66 Karnataka has entered Front Runner category from Performer category and stands at 4<sup>th</sup> position. The performance of Karnataka in SDG Goals is indicated below.

## Performance of SDG indicators: Karnataka & India 2019

Goal	Karnataka	India
SDG 1. No Poverty	49	50
SDG 2. Zero Hunger	37	35
SDG 3. Good Health & Well-Being	72	61
SDG 4. Quality Education	67	58
SDG 5. Gender Equality	42	42
SDG 6. Clean Water & Sanitation	88	88
SDG 7. Affordable & Clean Energy	86	70
SDG 8. Decent work & economic growth	78	64
SDG 9. Industry, innovation and infrastructure	40	65
SDG 10. Reduced inequalities	70	64
SDG 11. Sustainable cities & communities	48	53
SDG 12. Responsible consumption & production	72	55
SDG 13. Climate Action	71	60
SDG 14. Life below water	65	NA
SDG 15. Life on land	89	66
SDG 16. Peace, Justice & strong institutions	75	72
Overall score	66	60

Source: NITI Aayog, 2019; NA- Not Estimated; Values are in scores in relation to 100

As per the 2019 Index Karnataka is in Aspirational Category for Goals 1, 2, 5, 9 and 11. The way forward takes into consideration all these facts for preparing the Action Agenda -2030.

- Government of Karnataka is committed to inclusive growth through securing social, economic and political development.
- In line with its development models, the government has launched several successful policies and programmes like -
  - *The Karnataka Sakala Services Act, 2011 and (Amendment) Act,2014 (Karnataka State Legislature to provide guarantee of services to citizens in the State of Karnataka within the stipulated time limit and for matters connected therewith and incidental thereto) (GoK, 2018A).*
  - *Women Empowerment Policy, Girl Child Policy, Karnataka State Child Protection policy and Transgender policy for deprived sections of community.*
  - *Krishi Bhagya, Anna Bhagya, Ksheera Bhagya, Indira Canteens, Runamukta Bhagya, Arogya Bhagya Scheme*
  - *Bhagalaxmi Scheme, Vidyasiri, Nirantara Jyothi Yojana, Basava Housing Scheme*
  - *Citizen Service Centres (Bangalore One and Karnataka One), Unified Market Platform, Mobileone (multi-mode mobile governance platform),*
  - *Pratibimba (track and measure departmental performance on programmes/projects)*

- *Policies for industries such as IT, BT, Aerospace, start-ups, FPOs, animations and visual effects, semiconductors and electric vehicle manufacturing*

Thus, the State has crafted relevant policies, many of them innovative in nature to ensure that all sectors work in an integrated manner to achieve SDG targets and improve State's ranking.

- Creation of reliable databases across SDGs to improve the quality, availability, and timeliness of data which would be necessary to track national and state level goals, thereby aiding in policy formulation and implementation.
- With the current state of the economy, achieving the SDGs would clearly require efforts in meaningful partnerships and collaborative action for transformations across distinct dimensions of SDGs viz. basic human development needs and services, environment, cross-cutting issues and peaceful and inclusive societies. However, it is also evident that all SDGs are cross-cutting, inter-sectoral and complement each other on being localized and integrated with national, subnational, and local plans.
- The major weakness in achieving MDGs was lack of adequate funds, hence targeted financial investments and outcomes have been budgeted till 2030.
- Karnataka is following a comprehensive holistic path with –
  - **Effective implementation strategies** considering the multidimensional nature (Social, Economic and Environment) of SDG goals. A **Sustainable Development Goals Coordination centre is established in partnership with UNDP** to provide knowledge support the Government.
  - The government is ensuring investments across all sectors towards achieving SDGs, through **scheme and budget mapping through reprioritisation of budget resources**
  - **Resource use efficiency approach** and governance strategy form the base for development pathway for achieving SDGs
  - **Integration of all programs and policies** to measurable indicators of sustainable development goals through convergence and modifications
  - Creating **awareness (Information, Education and Communication)** about all governmental programs of all departments and distribution of governmental benefits through establishment of **single window agency**
  - Special focus on **promoting skill development** across sectors in a bigger way through vertical and horizontal coordination with respect to departments of education
- Higher emphasis on **data collection and analytics** related to SDG indicators -**Targeted approach** for development through spatial mapping (GIS), **Karnataka Open Data Initiative (KODI), as a data mining platform, Centre for Open Data Research -for data analytics,**
  - Higher investments on **transport connectivity** (viz., air, road, water) and **creation of development zones** (viz., science city, innovation city, industrial city)
  - **Water Resource Management- West flowing water in rivers to be diverted through River linking projects**



## **Conclusion**

Implementing the SDGs requires new capacities and new ways of working in public institutions and among public servants. To support integrated policies, government officials need to be committed and equipped to identify and analyse inter-linkages, synergies and work across institutional boundaries. Enhanced capacities are also needed to improve sectoral policies, reach those who are furthest behind, envision the long-term impact of policies and possible scenarios as well as to collect and analyse data and statistics. The SDGs also call for renewed efforts to make institutions transparent and accountable and to support participatory decision-making. Effective implementation of the 2030 Agenda therefore requires mobilizing and equipping public institutions, and the government officials and calls for a new way of governance instead of the business as-usual approach. The State is all set in to accept the challenges and work in mission mode to reach the agenda SDG-2030.



## I. BACKGROUND OF SDGs





# I. BACKGROUND of SDGs

In 2015, the United Nations adopted Agenda 2030, with 17 global goals called Sustainable Development Goals (SDGs) as its centre piece, to succeed the Millennium Development Goals as guiding principles for development from 2015-2030. It is a universal, indivisible, and transformative vision to eradicate extreme poverty over 15 years within a framework of sustainable peace for people and planet. The Agenda for Sustainable Development was designed as a plan of action for people, planet and prosperity. The goals are interdependent and cover social, environmental and economic issues of poverty, hunger, health, education, climate change, gender equality, water, sanitation, energy, urbanization, environment and social justice. These goals aim at ending poverty, protecting the planet and ensuring prosperity through equitable development and environmental sustainability.

These Goals are part of a wider 2030 Agenda for Sustainable Development that provides an integrated evidence-based framework that includes 169 targets and 232 indicators to be achieved by 2030 (UN General Assembly, 2015). It entails a non-binding agreement and where countries are expected to set their own priorities and target values. Their implementation primarily takes place at the national level, following the generic stages of the policy-planning cycle, from prioritization of targets and indicators through to policy evaluation, decision making and implementation.

While MDGs concentrated on poverty reduction in developing countries, the SDGs have been characterized as universal, transformative and integrative, which encompasses concerns of all countries and aim to comprehensively link human development goals and environmental sustainability under a single global agenda (Bowen et al, 2017). In addition, the global point of difference between the MDGs and SDGs is the essence of evaluation and accountability in the latter. To address them, a global High-Level Political Forum (HLPF) was established that meets annually to follow-up and review progress at the global level. The voluntary national review is a mechanism through which such follow-ups are examined to encourage improvements towards the 2030 Agenda.

In terms of finance, at the global level, total investment needs as per United Nations Conference on Trade and Development (UNCTAD) calculations amount to around USD 5 to USD 7 trillion per year. The UN estimates the gap in financing to achieve the Sustainable Development Goals (SDGs) at \$2.5 trillion per year in developing countries alone, mainly for basic infrastructure (roads, rail and ports, power stations, water and sanitation), food security (agriculture and rural development), climate change mitigation and adaptation, health, and education. Current investment in these sectors has been around USD 1.4 trillion leaving a gap of around USD 2.5 trillion and implying an annual investment gap of between USD 1.9 and USD 3.1 trillion (Bhamra *et al*, 2015).

Achieving the first seven goals (SDGs 1–7) require provision for basic human development needs and services that began with the MDGs. The common drivers and cross cutting issues that are essential to advance SD across all dimensions are addressed in SDGs 8–10. Promoting peaceful and inclusive societies is dealt with in SDGs 16–17. The SDGs represent a major leap forward compared to the MDGs to sustainably manage natural resources such as water and forests and land which are included in SDG 15.

The SDGs that explicitly target the environment are SDG 6 (clean water and sanitation), SDG 13 (climate action), SDG 14 (life below water) and SDG 15 (life on land).

## 1.1 GLOBAL PERSPECTIVE OF SDGS

As per the UN Sustainable Development Goals Report 2019 based on the data as of May 2019 on selected indicators in the global indicator framework for the Sustainable Development Goal<sup>52</sup>, progress is being made in some critical areas with favourable trends evident. Extreme poverty has declined considerably, the under-5 mortality rate fell by 49% between 2000 and 2017, immunizations have saved millions of lives, and the vast majority of the world's population have gained access to electricity. Countries are taking concrete actions to protect our planet: marine protected areas have doubled since 2010; countries are working concertedly to address illegal fishing; 186 parties have ratified the Paris Agreement on climate change, and almost all have communicated their first nationally determined contributions. About 150 countries have developed national policies to respond to the challenges of rapid urbanization, and 71 countries and the European Union now have more than 300 policies and instruments supporting sustainable consumption and production. And a wide range of other actors-international organizations, businesses, local authorities, the scientific community and civil society-have engaged with the SDGs in a manner that generates great hope for the coming decade.

However, the report also identifies many areas that need urgent collective attention. The natural environment is deteriorating at an alarming rate: sea levels are rising; ocean acidification is accelerating; one million plant and animal species are at risk of extinction; and land degradation continues unchecked. The goal to end extreme poverty by 2030 is being jeopardized as people struggle to respond to entrenched deprivation, violent conflicts and vulnerabilities to natural disasters. Global hunger is on the rise, and at least half of the world's population still lacks essential health services. More than half of the world's children do not meet standards in reading and mathematics; only 28% of persons with severe disabilities received cash benefits; and women in all parts of the world continue to face structural disadvantages and discrimination. Another interesting fact is that there is limited data on Goal 17 related to increasing "significantly" the availability of high-quality, timely data by 2020. Successful implementation of the 2030 Agenda and its leave-no-one-behind ambition depend on this Target. Slow progress on SDG 17 threatens all Goal achievements.

Within the Asia-Pacific region, on its present trajectory, there are signs that all 17 Sustainable Development Goals (SDGs) are unlikely to be achieved by 2030. To live up to the ambition of the 2030 Agenda, accelerated progress is required on all fronts as the current rate of progress is insufficient. Although, steps have been taken towards ending poverty (Goal 1) and ensuring all have access to quality education and lifelong learning (Goal 4). Measures are underway to achieve affordable and clean energy (Goal 7). Yet even where good progress has been made, it is too slow for these goals to be met by 2030. For instance, while the best progress has been registered for delivering quality education (Goal 4), quicker progress is needed towards the Goal's underlying targets.

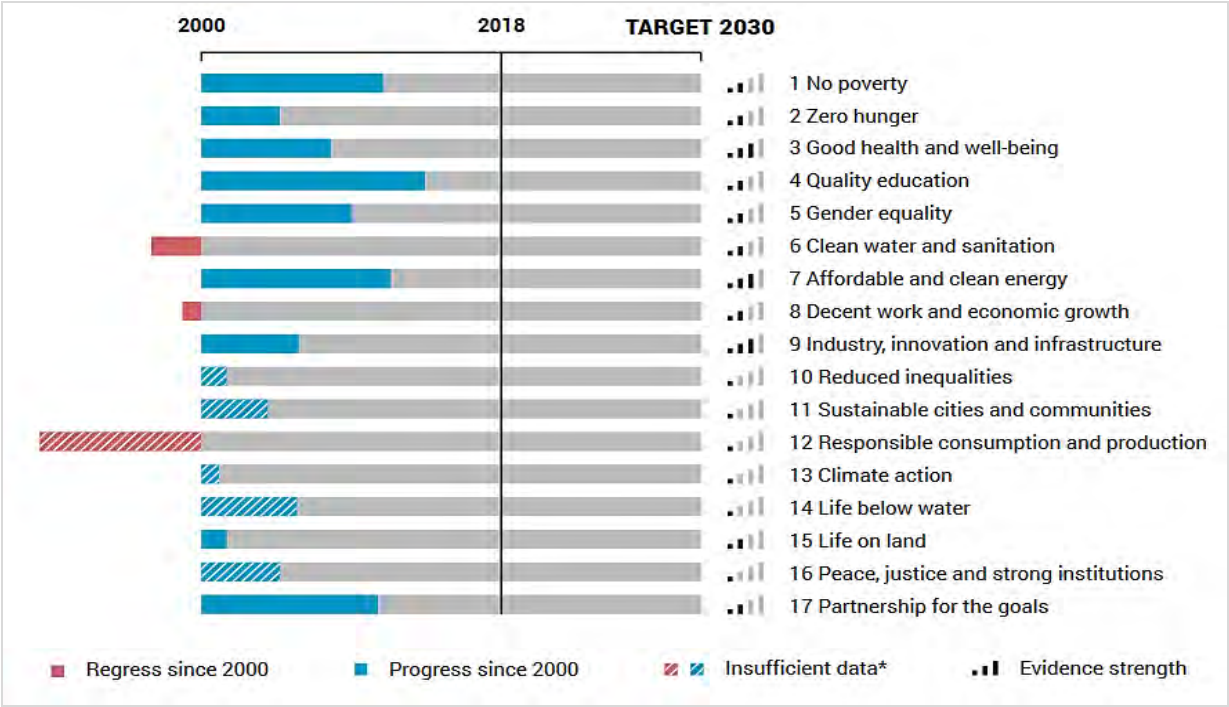
For more than half of the SDGs, progress is stagnant or heading in the opposite direction in Asia and the Pacific. Little progress has been towards ending hunger (Goal 2), supporting industry, innovation and

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<sup>52</sup>It was developed by Inter Agency and Expert Group on SDG indicators (IAEG-SDGs) and adapted by UN (see resolution 71/313, annex). The global indicator framework is used to review progress at the global level.

infrastructure (Goal 9), reducing inequalities (Goal 10), building sustainable cities and communities (Goal 11), combating climate change (Goal 13), protecting life below water (Goal 14) and life on land (Goal 15), or towards supporting peace, justice and strong institutions (Goal 16). For three Goals, the situation has deteriorated. Negative trends have been registered when it comes to providing clean water and sanitation (Goal 6), ensuring decent work and economic growth (Goal 8), and supporting responsible consumption and production (Goal 12). In addition, all SDG Targets under partnerships for the goals (Goal 17) need acceleration, whereas financial resources for statistical capacity building in developing countries (Indicator 17.19.1) remain insufficient. As such, SDG achievement of any goal depends on Goal 17 for tax revenues, statistical development, debt sustainability, technology transfer, international cooperation, favourable trade conditions and policy coherence on sustainable development. Some of these aspects are highlighted in the Report prepared by United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) on SDGs for the region.

**UNESCAP report on SDGs by 2030**



Source: UNESCAP 2019 Report (Asia-Pacific Region)

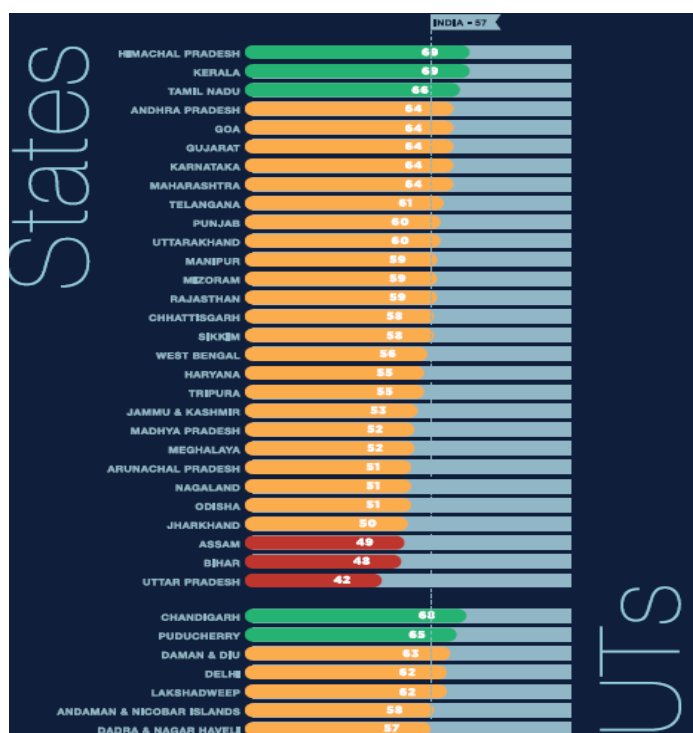
To move forward, the UN SDG Report 2019 suggests leveraging areas that can drive progress across all SDGs such as financing; resilience; sustainable and inclusive economies; more effective institutions; local action and partnerships; better use of data; and harnessing science, technology and innovation with a greater focus on digital transformation. In addition, the integrated nature of the goals and targets means that progress on one goal or target is linked through causal relationships and feedback loops to other goals and targets. An integrated and systems approach to the SDGs is, therefore, needed to ensure that these feedbacks are understood and well managed. If mutually reinforcing actions are adopted, and trade-offs between targets minimized, countries will be better placed to deliver on the transformative potential of the 2030 Agenda (Allen et al, 2018). This can be made transparent when structured baseline data and unstructured citizens’ data be continuously combined and analysed by application of big data analytics and other emerging ICTs (Charru et al, 2017).

## 1.2 INDIA AND THE SDGs

Reinforcing India’s commitment to the national development agenda and SDGs, the Indian Parliament organized several forums to develop policy and action perspectives on elimination of poverty, promoting gender equality and addressing climate change. India attempts to align and map its programmes under the ‘Strategy for New India @ 75’ (NITI Aayog, 2018) with its commitment to the UN SDGs. There is a convergence of India’s national development goals and agenda of, ‘*Sabka Saath, Sabka Vikas*’ or ‘Collective efforts, Inclusive growth,’ with the SDGs. The NITI Aayog, with the Prime Minister as its chairperson, provides the overall coordination and leadership. It has carried out a detailed mapping of the 17 Goals and 169 targets to Nodal Central Ministries, Centrally Sponsored Schemes and major government initiatives. Most sub-national governments have carried out a similar mapping of the SDGs and targets to the departments and programmes in their respective states. The Ministry of Statistics and Programme Implementation has developed a list of draft national indicators in light of the global SDG indicators.

In 2018, NITI Aayog, in partnership with UN India, developed the SDG India Index Baseline Report and an accompanying Dashboard spanning across 13 out of 17 SDGs (excluding Goals 12, 13, 14 and 17). In addition to presenting a snapshot of progress at the national level, the report comprehensively documents and measures the achievements made by States and UTs towards various SDG targets by ranking them on a select set of 62 priority indicators. This Index provides a holistic strategy to measure progress on socio-economic and environmental parameters of development.

SDG Index across States



Source: NITI Aayog, 2018

The SDG India Index has enabled States and UTs to benchmark their progress relative to others, identify priority areas, while promoting competition among them for improving performance. SDG India Index is also expected to keep a real time watch on the trajectory of progress. However, it has not been possible



to establish suitable indicators for three of the 17 goals, including climate action (SDG-13). This is on account of either lack of identification of appropriate indicators or of the inability to compare different States.

In tune with this government's agenda, several of the Government's programmes directly contribute to advancement of the SDG agenda. Some of them include: *Mahatma Gandhi National Rural Employment Guarantee Programme National Rural & Urban Livelihood Mission Pradhan Mantri Jan Dhan Yojana Soil Health Cards, National Food Security Mission National Health Mission, National Education Mission Beti Bachao Beti Padhao Swachh Bharat Mission, National Rural Drinking Water Programme Pradhan Mantri Awas Yojana – Rural and Urban, Pradhan Mantri Gram Sadak Yojana. Pradhan Mantri Krishi Sinchai Yojana Pradhan Mantri Ujjawala Yojana*

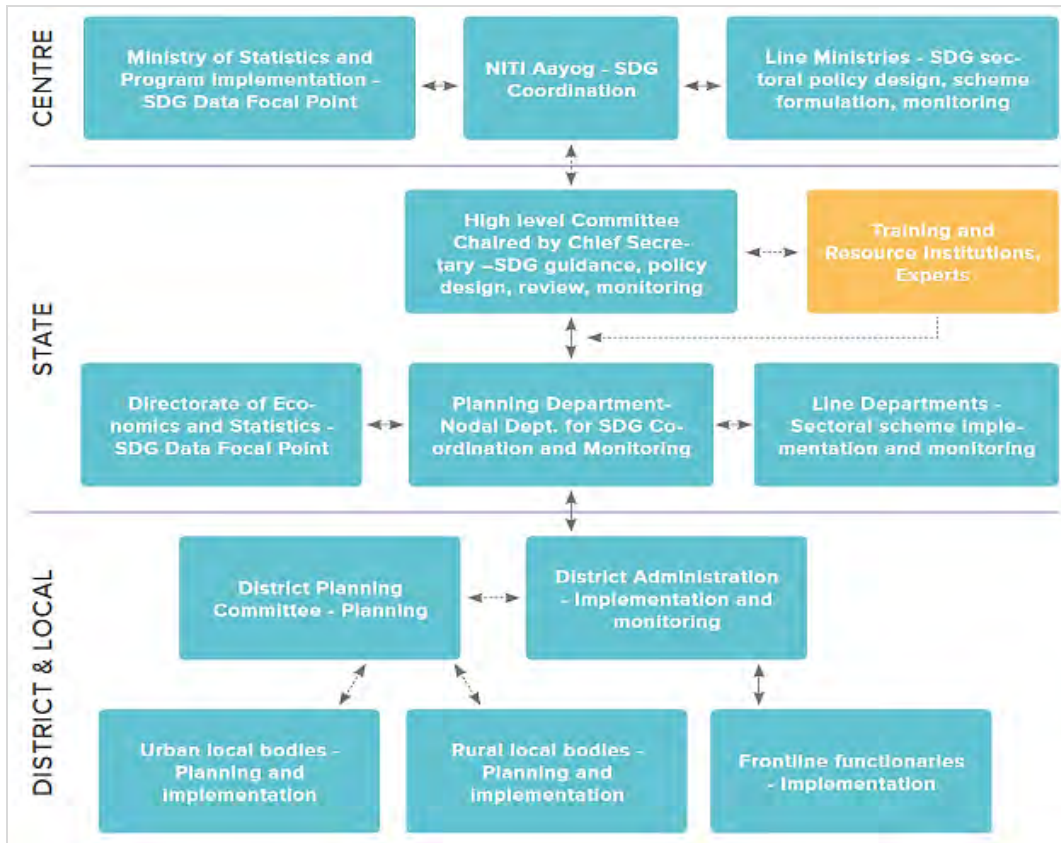
Among them, a noteworthy example is the *Pradhan Mantri Jan Dhan Yojana* (PMJDY) which is the world's largest financial inclusion programme. By leveraging PMJDY, Aadhaar (biometric identity system) and mobile telephony, the Government has disbursed a cumulative amount of INR 1.6 trillion (USD 25 billion) to 329 million beneficiaries through Direct Benefit Transfers. This has helped to significantly enhance the efficiency of Government programmes. While the central government has sponsored schemes to provide employment, connect villages to cities through roads, build houses for the poor and offer education in the states, various sub-groups of Chief Ministers have come forward to give valuable advice to the central government on such important matters as digital payments, skill development and the *Swachh Bharat Abhiyaan* (also known as Clean India Campaign).

The government is also focused on the design and implementation of some of the large-scale programmes that bridge critical development gaps on key SDGs, such as Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (PMJAY), which is the largest government health protection scheme in the world, entitling 500 million Indians to annual health protection coverage of approximately US \$ 7,100. India is aiming to achieve the goal to eliminate tuberculosis (with poor people more at risk) by 2025, five years ahead of the global target of 2030. Considering that in India over 60 million people fall below the poverty line on account of out-of-pocket health expenditures, these initiatives will go a long way in reducing inequality.

To eliminate malnutrition by 2022, the government launched *Poshan Abhiyan*, a National Nutrition Mission for children and women. The program recognizes the interconnectedness of nutrition with other aspects such as water, sanitation, hygiene, mother's education, poverty, and thereby ensures that all the above services converge on a household for reducing under-nutrition in the country.

India has also repeatedly emphasized the need for Climate Justice that involves taking concrete action to protect the poor from the impact of climate change and has taken several actions towards this goal. Further, India is also committed to eliminate single-use plastic by 2022. It has also initiated the International Solar Alliance (ISA), which is expected not only to contribute to India's ambitious solar energy goals but primarily to promote adoption of solar energy across the sun-rich developing countries with India's leadership. Further, to reduce marginalization of vulnerable groups, a number of key legislations were passed by Parliament. In addition, to reduce intra-region disparities, a programme 'Transformation of Aspirational District', across 112 districts has been rolled out to improve service delivery across the lagging regions and is closely related to achievement of some of the SDGs.

### Decentralization of operationalization of SDGs



Source: NITI Aayog, Localizing SDGs

The above chart illustrates the format for decentralization of the operationalization of SDGs, which was recently highlighted in the report ‘Localizing SDGs’ at the HLPF held in July 2019, a forum that meets annually to adopt intergovernmental negotiated political declarations.

A concern, in the process of moving towards the 2030 Agenda is financing such initiatives, schemes and programmes in India. The first level of estimates indicates a financial shortfall of INR 533 lakh crores (US\$ 8.5 trillion) over the mandated 15 years for achieving SDGs. Per year, on average, this works out to INR 36 lakh crores or USD 565 billion (Bhamra et al, 2015). One effort is the use of CSR to garner finance for activities that help SDG related indicators as 15 out of the 17 SDGs are already covered in the Schedule VII of the Companies Act, 2013 not as goals, but as activities pertaining to the macro goals of SDGs (Mitra and Chatterjee, 2020). This is also highlighted by Van-Zanten and Tulder (2018) using the institutional theory, where they build propositions for contribution of multinational enterprises in engaging with SDGs.

The NITI Aayog has prepared SDG India Index for all the 29 states and 7 Union Territories for 13 SDGs. The raw data for each of the selected indicator for State and UT was compiled, data gaps were identified and marked as null and a national target was set for 2030 against each indicator and to make data comparable across indicators State-wise values of each of the priority indicator was rescaled from its raw form into a score ranging from 0 to 100 - with zero indicating lowest performer and 100 indicating

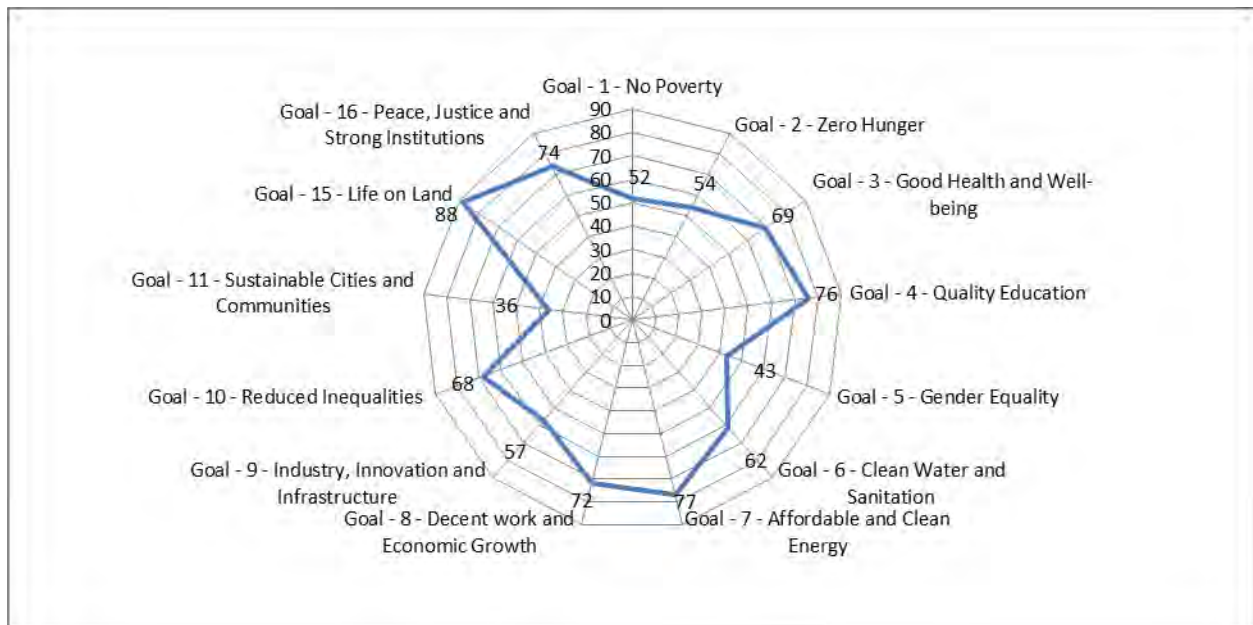
the target has been achieved. Composite SDG India Index was finally computed by calculating the arithmetic mean for the Goal score across all the selected Goals. Equal weight is assigned to every goal score and the arithmetic mean was rounded off to the nearest whole number. Based on the SDG composite Index, States/UTs were later categorized as Achievers (100), Front Runner (65-99), Performer (50-64) and Aspirant (0-49) with regard to Goals.

### 1.3 KARNATAKA AND THE SDGs

As per the 2018 SDG Index score prepared by the NITI Aayog, Karnataka State is a ‘Performer’ with a score of 52 in comparison to Tamil Nadu, the ‘Front runner’ with the highest score of 76 among all the Indian States. In 2018, NITI Aayog, in partnership with UN India, developed the SDG India Index Baseline Report and an accompanying Dashboard spanning across 13 out of 17 SDGs (excluding Goals 12, 13, 14 and 17) for States and UTs. The SDG Index Score for Sustainable Development Goals 2030 ranges between 36 and 88 for Karnataka.

Among the goals in terms of progress, frontrunners are Goal 3 - Good Health and Well-being(69), Goal 4 - Quality Education(76), Goal 7 - Affordable and Clean Energy(77), Goal 8 - Decent work and Economic Growth (72), Goal 10 - Reduced Inequalities (68), Goal 15 - Life on Land(88) and Goal 16 - Peace, Justice and Strong Institutions (74). Performers are Goal 1 - No Poverty (52), Goal 2 - Zero Hunger (54), Goal 6 - Clean Water and Sanitation (62) and Goal 9 - Industry, Innovation and Infrastructure (57). Conversely aspirant goals are Goal 5 - Gender Equality (43) and Goal 11 - Sustainable Cities and Communities (36).

**SDG index across Goals**



Source: NITI Aayog, 2018

### Preparedness of the State to implement SDG 2030

Karnataka being one of the progressive states in the country is highly sensitive to universal developmental programmes initiated by international institutions such as United Nations Development Programme (UNDP), World Bank, UN and other organizations. The state has been the front-runner in

formulating action plan, vision and targets of sustainable development goals and it is proactive in formulating and implementation of programmes to achieve the targets of SDGs.

The State has taken up the implementation and monitoring of SDG goals and targets on priority basis. Planning, Programme Monitoring and Statistics Department (PPMS) is formulating strategies for attainment of Sustainable Development Goals (SDGs) in Karnataka by 2030. The Department has been entrusted with the responsibility of preparing the State Action Plan for the implementation of SDGs. The department has formed the Monitoring and Coordination Committee and the State level Steering Committee for formulation of effective and efficient action plan for achieving the SDGs. In order to monitor the progress of various SDGs a separate technical cell has been established and goal specific committees have been formed to provide technical support. The Karnataka vision 2020 and 2025 is now being integrated with SDGs.

Karnataka has constituted Goal-wise committees (**Annexure-1**) for every SDG, with Nodal officers from the departments and experts that contribute to the Goal as members. The Goal-wise Committees have identified around 600 indicators which contain some of the national indicators and additional State indicators. To further the efforts on formulation of effective and efficient action plans, a separate technical cell has been established and goal wise committees have been set up under the senior retired IAS/IFS officers to provide technical support to departments towards achieving SDGs. The Goal-wise Committees have appraised the State government of the budget requirements and has created SDG monitoring system. The Planning Department has formed Monitoring and Coordination Committee (**Annexure-2**) under the Additional Chief Secretary and State level Steering Committee (**Annexure-3**) under the Chief Secretary for overseeing the formulation of effective and efficient action plans. A monthly review of NITI Aayog's 62 priority indicators from the SDG India Index Report of 2018 is part of the Karnataka Development Programme (KDP) Review at the district and State level. Karnataka has been actively working towards spreading awareness about SDGs.

On Information, Education and Communication (IEC) front, it has prepared an SDG Calendar and posters in both, English and the regional language, Kannada and posters on each of the Goals. The government also advertises SDGs through short videos and jingles. On capacity building, officials and elected leaders of PRIs are being trained on localising SDGs. Modules have been prepared by Administrative Training Institute (ATI-Mysore) for capacity building of government officials and elected representatives. The State aims to train 1,35,000 officials and elected representatives in 5 years through 2915 master trainers. The State is also preparing strategies for better inclusion of the vulnerable groups in the budget allocation. The State has included strategies under SDG 10 Action Plan Report for Social Groups (SC/ ST/ OBC/ minorities) focusing on skill development (NITI, 2018).

Karnataka has been actively working towards spreading awareness about SDGs. This also involves disaggregated data collection from the districts and district specific targets are set to ensure the effective and efficient implementation of SDGs by District Planning Committees (DPC). It is planned to develop new dashboard to ensure effective monitoring and evaluation of development programmes. State is in knowledge Partnership with Public Affairs Centre (PAC) and IIITB through Centre for Open Data Research (CODR) for open data analysis of SDG indicators specifically focused on building data science applications to help in mid-course corrections as well as evidence-based policy interventions.

Karnataka Evaluation Authority is supporting Planning, Programme Monitoring and Statistics Department (PPMS) in preparation of status report and formulating strategies for attainment of SDGs in Karnataka by 2030. A Sustainable Development Goals Coordination Centre for localization of SDG goals and for designing the strategy and action plans for achieving SDGs by 2030 is established in the Planning Department in partnership with UNDP. CSR platform is being developed with technical assistance from UNDP for CSR interventions in achieving the SDG Targets.

The government of Karnataka has been committed to social justice through securing social, economic and political development. In line with its development models, the government has launched several successful policies and programmes like *Krishi Bhagya*, *Anna Bhagya*, *Ksheera Bhagya*, *Indira Canteens*, *Runamukta Bhagya*, *Vidyasiri*, *Nirantara Jyothi Yojana*, *Basava Housing Scheme*, *Arogya Bhagya Scheme*, *Citizen Service Centres (Bangalore One and Karnataka One)*, *Unified Market Platform*, *Mobileone (multi-mode mobile governance platform)*, *Pratibimba* (track and measure departmental performance on programmes/projects), policies for industries such as IT, BT, Aerospace, start-ups, FPOs, animations and visual effects, semi-conductors and electric vehicle manufacturing, *The Karnataka Sakala Services Act, 2011 and (Amendment) Act, 2014* (Karnataka State Legislature to provide guarantee of services to citizens in the State of Karnataka within the stipulated time limit and for matters connected therewith and incidental thereto) (GoK, 2018A). It is to note that Public Affairs Index (PAI-2017) has ranked Karnataka second in transparency and accountability and third in governance based on 10 parameters comprising 25 subjects and 68 development indicators (GoK, 2018B).

The current strategy of TB Control is as envisaged in the SDGs and it is called “The END TB STRATEGY.” While, the Millennium Development Goals for Under 5 Mortality Rate has already been achieved in Karnataka. The current Under 5 Mortality Rate is 29 (SRS 2016 data), Under 5 Mortality Rate has been reduced by 19 points since 2009. The current goal is to reduce Under 5 Mortality Rate from 29 to 25 according to the SDG. The current Neonatal Mortality Rate (NMR) is 18 (Sample Registration System (SRS) 2016) and the current goal is to reduce NMR from 18 to 12 according to Sustainable Development Goal (SDG) 2030 (Economic Survey of Karnataka, 2017-18).

## **1.4 METHODOLOGY**

The introductory sections are based on a review of literature undertaken in several stages. Initially an exploratory and investigative review of the expert and academic literature was undertaken that focuses on recent research, literature and expert guidelines addressing the SDGs. This was followed by a critical and interpretive review of recent experiences in national and Karnataka State SDG implementation based on available national and state reviews and documents. This entails studying specific key priority indicators of the SDGs for which data is available from the 17 Goal Committee’s and line departments in charge of them. Each goal committees have met several times for a period of about two years to prepare state action plan for each of the 17 goals. The committees have prepared the medium-term (2022) and long-term (2030) goals.

This vision document analyses the status, targets and budgets requirement. The baseline data was provided by the concerned departments. Goal committees in consultation with the Departments estimated the Goal-wise State targets for the priority indicators considering past performance overtime, potential, best performing states and national targets. In addition, sub-indicators were also developed

for comprehensive understanding of the Goals and targets. Strategies and action plan has been developed based on the targets. Finally based on the strategies and action plan annual budget requirement was under two scenarios, BAU (Business As Usual) and BRAT (Budget Required for Achieving Targets). Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement.

In order to achieve the SDG Goals by 2030, the basic means of implementing the programs, schemes and actions necessary to realize the goals and targets should be supported by adequate resources. Budget gap for SDGs (Department-wise) was estimated based on requirements proposed by the SDG Goal Committees and projections made (Business As Usual) by Planning Department of the GoK. Required budget has been estimated based on the method of “back-casting” which assumes targets are fully met by 2030 and works backwards projecting appropriate outcomes levels annually from the baseline values of 2016-17 to 2029-30 and corresponding budget required to support them. Planning Department estimated scheme-wise financial resources estimates (Business as Usual-BAU) for SDG schemes for 2020-21 considering the growth rate in 2019-20(BE) as compared with 2018-19(BE).

If the proposed allocations by the Goal Committees is lower than BAU, the same has been taken as requirement proposed for 2020-21 and in this case, gap is treated as zero. If the proposed allocations by the Goal Committees is higher than BAU, the difference between the two has been taken as additional financial requirement for all the goals excepting goal 8 (budget is covered under other goals because of the cross-cutting nature). ‘-’ indicates ‘Not Available’ at present. Concerned departments to develop a strategy/mechanism to collect such information/data.

## **1.5 LIMITATIONS**

The lack of reliable data to effectively measure progress towards the SDGs remains a challenge due to heavy dependence on administrative records. Despite a significant increase in the availability of SDG indicators since 2017, data gaps remain for some of the SDG indicators. Systematic data collection and limited sample survey is required to address the data gaps. Economic data is generally more accessible than social and environmental data. As such, this lack of data prevents a comprehensive analysis of issues ranging from social protection, violence against women and girls, child and forced labour, food waste and loss, marine pollution, national and local planning of forest management, justice for all among others.

## II. SDGs IN KARNATAKA: STATUS, TARGETS, WAY FORWARD AND BUDGET REQUIREMENT









**“Let’s share and care to end poverty and hunger”**



# **GOAL 1. NO POVERTY - END POVERTY IN ALL ITS FORMS EVERYWHERE**

## **1A. Background**

The main objective of Goal 1 is to end poverty in all its forms by 2030 (“Leave no one Behind”). Across the world more than 700 million people, or 11% of the world population, still live in extreme poverty and is struggling to fulfil the most basic needs like health, education, and access to water and sanitation, to name a few. To end extreme poverty worldwide in 20 years, economist Jeffrey Sachs calculated that the total cost per year would be about \$175 billion. This represents less than one percent of the combined income of the richest countries in the world.

Before introducing Sustainable Development Goals (SDG), United Nations at the beginning of the new millennium had a broad vision to fight poverty in many ways, which led to the eight Millennium Development Goals (MDGs). The first MDG goal is to eradicate extreme poverty and hunger with the target to halve, the proportion of people whose income is less than \$1 a day between 1990 and 2015. Progress with respect to this goal was overwhelming and achieved the target 5 years before the 2015 deadline. MDG report 2015, states that “The world’s most populous countries, China and India, played a central role in the global reduction of poverty. As a result of progress in China, the extreme poverty rate in Eastern Asia has dropped from 61% in 1990 to only 4% in 2015. Southern Asia’s progress is almost as impressive—a decline from 52% to 17% for the same period—and its rate of reduction has accelerated since 2008”.

Being successful with the MDG goal by reducing the proportion of people living below the poverty line by half from 1990 to 2015, SDG goal 1 is a bold commitment at eradicating extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day by 2030. This involves targeting the most vulnerable, increasing basic resources and services, and supporting regions affected by conflict and climate related disasters.

As per the Voluntary National Report on the implementation of SDG, progress towards SDG 1 is quite satisfactory in terms of reduction in poverty estimates since reforms. Report clearly indicates that rapid growth is the key weapon in combating poverty. India being one of the fastest growing major economy, which has grown at the rate of 6.2% between 1993-94 to 2003-04 and at 8.3% between 2004-05 and 2011-12 which gets reflected in the substantial decline in poverty. Poverty estimates have declined from 45% to 37% i.e., 8 percentage points between 1993-94 to 2004-05 and from 37% to 22% i.e., 15 percentage points from 2004-05 to 2011-12. If the same trend is going to continue, with the next round of National Sample Survey (NSS) quinquennial data which corresponds to the year 2017-18, poverty estimates may be around 11% to 12%.

Poverty being a complicated measure to understand, reduction in poverty cannot be attributed to any one single dimension. Though economic growth plays a critical role in increasing purchasing power of households, it also helps in increasing spending of the government for poverty alleviation programmes. Thus, tracking the progress of anti-poverty programmes is very critical to understand. In this context the important programmes like *MGNREGA*, *Pradhan Mantri Jan-Dhan Yojana*, *Deendayal Antyodaya Yojana*, *National Social Assistance Programme*, *National Health Mission*, *National Education Mission*, *Housing for all by 2022*, and *Pradhan Mantri Ujjwala Yojana Swatch Bharat Mission* etc. have played an important

role in alleviating poverty at the micro and macro level.

As tracking several indicators which are interlinked is difficult, NITI Aayog, to trace the progress with respect to SDG 1, identified five important indicators and created an index, termed as Base line index in 2018. Indicators identified by NITI Aayog are presented in table below.

#### Indicators and Targets for SDG 1

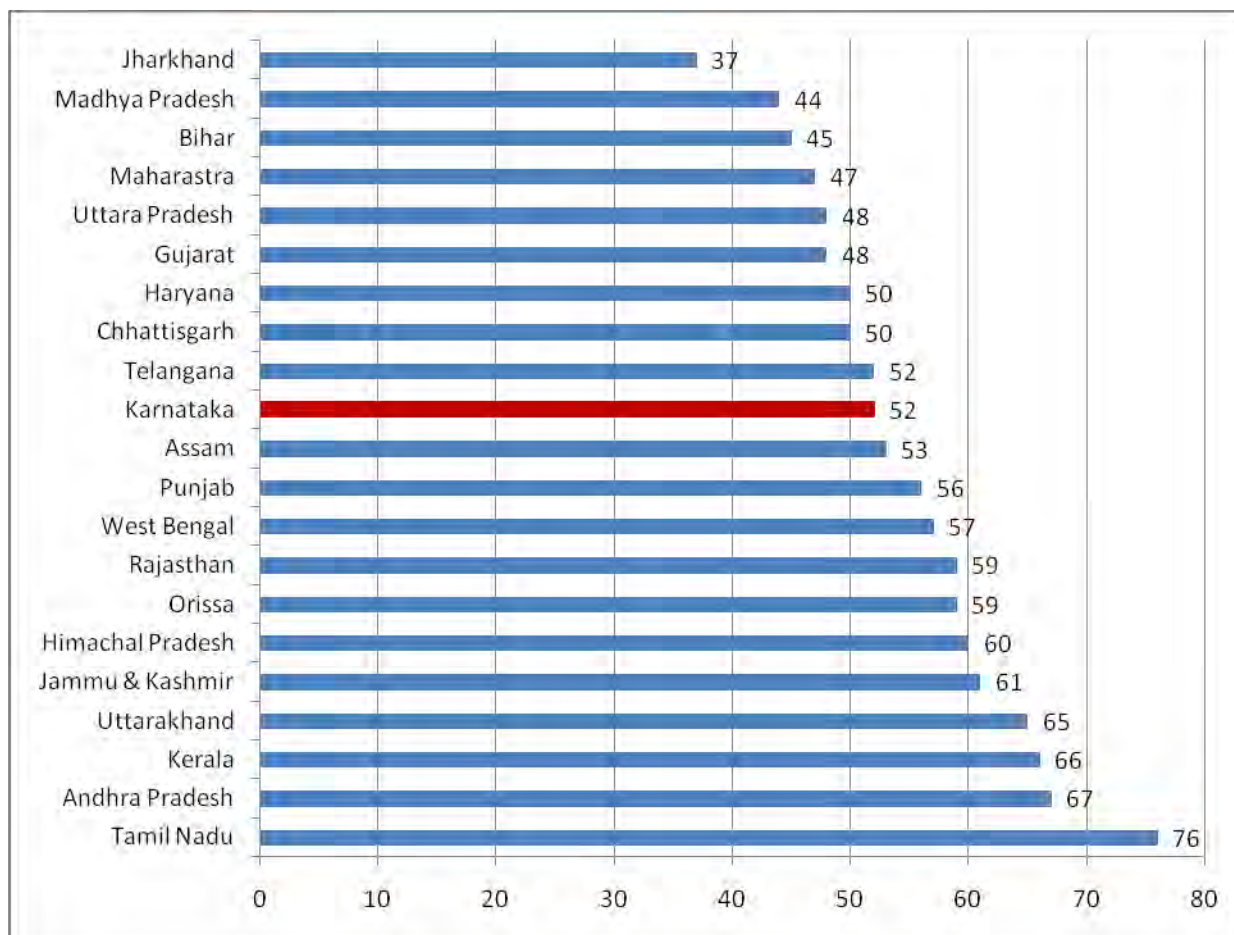
SDG Global Target	Indicators selected for SDG India Index	National Target value for 2030
1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	1. Percentage of population living below National Poverty Line	10.95
1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	2. Percentage of households with any usual member covered by any health scheme or health insurance	100
	3. Persons provided employment as a percentage of persons who demanded employment under MGNREGA	100
	4. Proportion of population (out of total eligible population) receiving social protection benefits under maternity benefit	100
1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	5. Number of homeless households per 10,000 households	0

SDG index is an aggregate measure which is designed to provide an aggregate assessment of the performance and helps to understand the position and how far efforts are required to achieve the target. It can be interpreted as percent of achievement. Score 100 is the ultimate and 100-the score would indicate the distance in percentage that needs to be completed to achieving the goals or targets.

Based on the above indicators an aggregate score for Karnataka is 52, which gets itself classified as

performer (50-64)<sup>53</sup>. Karnataka ranks 19 among 29 major States. State still needs to put an effort to the extent of 48% to achieve the goal.

**Performance of Indian States with respect to Goal 1**

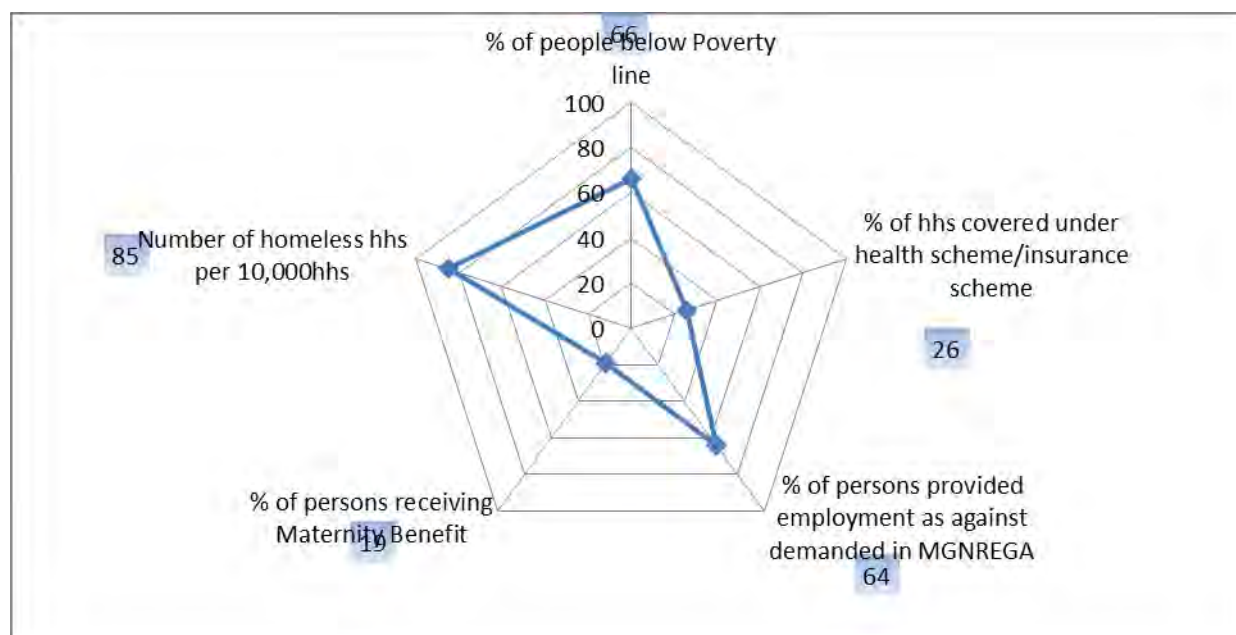


Performance with respect to indicators such as percentage of HHs covered under any health scheme / health insurance and percentage of population receiving social protection benefits is quite poor and requires special efforts in case of Karnataka.

Though Karnataka's achievement is 52 in terms of overall performance, regional disparity across the state is so high that many of the northern Karnataka districts performance is very poor and at par with BIMARU states. Though HPCRRI Committee (Nanjundappa committee) report emphasized on the redressal of regional imbalances through a Special development Plan the performance still doesn't seem to be very encouraging and the state average is pulled down due to these extreme variations in the State.

<sup>53</sup> Score being 100 is an Achiever; 65 to 99 Front Runner; 50-64 Performer and 0-49 are termed as Aspirants

### Performance with respect to SDG 1 Indicators



Source: NITI Aayog, 2018

## 1B. Targets and Indicators for achieving SDG 1

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

National Indicator No.	State Indicator No.	Indicator	Baseline year	State Baseline Value	2022	2030
1.1.1		Proportion of population living below the national poverty line (%)	2011-12	20.91	10.46	0
1.1.2		Poverty Gap Ratio	2011-12	3.26	1.6	0
	1.1.2.1	HDI	2015	0.6176	0.81	1
	1.1.2.2	Per capita NDDP (Rs.)	2017-18	1,81,788	296281	787645

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

National Indicator not yet evolved

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

National Indicator No.	State Indicator No.	Indicators	Baseline year	State Baseline Value	2022	2030
1.3.1		Percentage of households with any usual member covered by a health scheme or health insurance	2015-16	28.10	100	100
1.3.2		Number of Beneficiaries under Integrated Child Development Scheme (ICDS)	2018-19	48,44,202	52,00,000	54,00,000
1.3.3		Persons provided employment as a percentage of persons who demanded under Mahatma Gandhi National Rural Employment Guarantee Act (MGNRGA)	2018-19	85.5	100	100
1.3.4		Number of Self-Help Groups (SHGs) formed and provided bank credit linkage	2017-18	1,40,603	165960 (154000+11960)	213800
	1.3.4.1	Number of Self-Help Groups (SHGs) formed	2018	1,54,000	165960 (154000+11960)	213800
	1.3.4.2	Number of Self-Help Groups (SHGs) provided bank credit linkage	2018	1,40,603	165960 (154000+11960)	213800
1.3.5		Proportion of the population (Out of total eligible population) Receiving social protection benefits under Maternity Benefits	2018-19	95.70	100	100
1.3.6		Number of Senior citizens provided institutional assistance through Old Age Homes/Day Care Centres funded by the Government	2017-18	1375	1427 (1375+52)	1652 (1427+225)

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

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
1.4.1		Proportion of population (Rural) living in households with access to Safe drinking water & Sanitation (Toilets)	2018-19	73.28	100	100
	1.4.1.1	Proportion of population (Rural) living in households with access to Safe drinking water	2017-18	56.04	100	100
	1.4.1.2	Proportion of population (Urban) living in households with access to Safe Sanitation (Toilets)	2017-18	100	100	100
1.4.2		Proportion of population (Urban) living in households with access to Safe drinking water & Sanitation (Toilets)	2011-12	88.55	100	100
	1.4.2.1	Proportion of population (Urban) living in households with access to Safe drinking water	2011-12	92.20	100	100
	1.4.2.2	Proportion of population (Urban) living in households with access to Sanitation (Toilets)	2011-12	84.9	100	100
1.4.3		Proportion of population (Urban/Rural) living in Households with access to electricity	2018-19	100	100	100
1.4.4		Proportion of homeless population to total population	2017-18	28.24	10	0
1.4.5		Proportion of population having bank accounts	2017-18	99.99	100	100
1.4.6		Number of mobile telephones as percentage of total population	2018-19	110.04	132.23	171.42



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

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
1.5.1		Number of deaths, missing persons and persons affected by disasters per 100,000 population	-	-		-
	1.5.1.1	Number of deaths due to flood and drought during 2013 per 100000 population	2016-17	160	0	0
1.5.2		Proportion of States that adopt and implement local disaster risk reduction strategies in line with national disaster reduction strategies				
	1.5.2.1	Proportion of districts that adopt and implement local disaster risk reduction strategies in line with national disaster reduction strategies	2017-18	100	100	100

Note: -: Not Available

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

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
1.a.1		Proportion of resources allocated by the government (Central/ State) directly to poverty reduction programmes	2020-21	30	25	5
1.a.2		Proportion of total government spending on essential services (education, health and social protection)	2017-18	2.0331-	12.5% of GSDP	12.5% of GSDP
	1.a.2.1	Total Govt. spending on education	2017-18	1.85%	6% of GSDP	6% of GSDP
	1.a.2.2	Total Govt. spending on	2017-18	0.18%	3% of	3% of

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
		Health			GSDP	GSDP
	1.a.2.3	Total Govt. spending on Social protection	2017-18	0.0031%	3.5% of GSDP	3.5% of GSDP
	1.a.2.4	Enhancing the farmers income through popularization of intensive and Hi-tech production (Lakh Rs.)	2017-18	184.68	315.44	339.71
	1.a.2.5	Training to farmers and unemployed youths (No.)	2017-18	49615	51600	55569

**1.b - Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions**

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
1.b.1		Proportion of budget earmarked under pro-poor gender specific budgeting	2017-18	12.11%	33%	33%

## 1C. Way Forward

- As far as SDG1, aim is to reduce poverty by half by 2022 and zero rate of poverty by 2030. NSS consumer expenditure data is the only source of available data to estimate poverty. The latest available data is for the year 2011-12. Though NSS has completed its next round of survey in 2017-18, results are yet to be released and one has to keep referring to 2011-12 estimates every time which is outdated. Another disadvantage of NSS data is that survey is not designed to estimate poverty at a level lower than district. Thus, it becomes very difficult to monitor the extent of change in poverty estimates at district level even if the subsequent rounds of data become available.
- UNDP, realign the global MPI which is better suited to monitor Sustainable Development Goal 1. Thus, it is more relevant to target and monitor MPI rather than poverty index based on NSS consumer expenditure data. Many countries are reporting their MPIs to show progress towards this goal. Further Justification as proposed by UNDP to understand SDG goal 1 is as follows:

### How does the MPI support the SDG agenda?

Many countries are using the MPI to measure progress towards the first SDG. Why? Here are some reasons (UNDP, 2018).

- **Leave No One Behind:** MPI analysis tracks progress on poverty for different groups.

Existing MPI data allows us to see poverty by, for example sub-national regions, by rural and urban areas, and by groups such as children, ethnic groups and caste.

- **Monitor Progress:** the MPIs used to track and compare multidimensional poverty over time. National MPIs are used to compare regions and groups within a country; a regional or global MPI can also compare countries.
- **Integrated, coordinated policy:** Whether in China or Colombia the MPI is used by senior policy makers to coordinate policy and to understand and track the impact of their policies on the poor, helping to break down silos and intensify policy impact.
- **Universal relevance:** National and regional MPIs are tailored to the context and policy priorities. They address moderate or acute poverty and reflect contextual values and definitions.
- Added advantage of MPI estimates is that one can get reliable estimates at district level and by social groups. MPI uses NFHS data and the latest available data is for the year 2015-16 which corroborates with the base year of SDG and NFHS-5 would become available by 2022 and can be used for monitoring the interim progress. [It is to be noted here that MPI estimates at district level for the year 2015-16 have been estimated and available]
- Juxtaposing MPI with the percentage of households who have been provided with employment under MGNREGA, for the base year one sees that the State has been able to provide employment only for 59% of the poor households. Though this percentage has improved over the period, the inequality across districts in providing employment to the poor households has remained.
- In majority of the southern districts the percentage has crossed 100% (some districts even 150%) and with respect to most of the northern districts the percentage remains less than 50%. Thus, State should play a major role in adhering to the needs of the very backward districts with suitable allocation of funds. As Multi-dimensional Poverty Index (Health, Education, Water & Sanitation, Social Security, etc.) indicates the extent of deprivation, thereby integrating policy initiatives to tackle multiple aspects of poverty together.
- The table below presents the MPI across districts of Karnataka from the table it can be clearly seen that variation across districts is very wide. Percentage of poor who did not have an access to 1/3<sup>rd</sup> of the indicators ranged from 2.9 %(Bangalore) to 53.6% (Yadgir). Yadgir, Raichur, Kalaburagi, Koppal and Vijayapura are at the lowest end. These districts need to be given focused attention in future. Raichur and Yadgir are already identified as Aspirational districts by Govt. of India.

## Multidimensional Poverty Index across Districts in Karnataka: 2015-16

District	HCR	Average Intensity	MPI	Contribution from different dimension to MPI			Rank within state	Rank across 640 districts in India
				Edu-cation	Health	Living Standard		
Belgaum	16.6	37.8	6.3	18.1	35.0	46.9	14	210
Bagalkot	33.3	39.2	13.0	16.5	38.3	45.2	23	361
Bijapur	34.3	39.4	13.5	21.1	28.8	50.1	26	374
Bidar	29.3	38.7	11.4	14.9	36.2	49.0	22	320
Raichur	40.8	43.4	17.7	26.8	27.4	45.8	29	468
Koppal	34.3	39.9	13.7	19.5	35.5	45.1	27	378
Gadag	33.1	39.7	13.1	19.6	31.4	48.9	25	363
Dharwad	16.1	38.0	6.1	15.0	38.2	46.8	13	208
Uttara Kannada	18.0	39.0	7.0	15.6	37.7	46.7	15	229
Haveri	23.7	39.0	9.2	17.7	34.2	48.1	19	268
Bellary	31.0	42.4	13.1	25.4	32.7	41.9	24	362
Chitradurga	24.0	39.6	9.5	16.4	34.0	49.6	20	276
Davanagere	21.4	38.1	8.1	21.2	35.1	43.6	16	248
Shivamogga	13.6	39.7	5.4	17.2	36.1	46.7	9	180
Udupi	14.1	38.7	5.4	18.4	41.1	40.5	10	181
Chikkamagaluru	15.1	38.9	5.9	17.7	35.6	46.7	12	199
Tumakuru	21.4	39.1	8.4	19.2	35.6	45.2	18	252
Bangalore	2.9	37.8	1.1	32.6	45.8	21.6	1	28
Mandya	11.6	38.7	4.5	25.4	29.8	44.9	7	145
Hassan	11.7	37.5	4.4	25.1	26.5	48.3	5	140
Dakshina Kannada	9.0	38.7	3.5	13.2	41.0	45.8	2	109
Kodagu	10.2	40.5	4.1	24.4	30.3	45.3	4	133
Mysore	10.4	39.0	4.1	22.0	31.2	46.8	3	131
Chamarajanagar	24.3	39.9	9.7	21.5	32.3	46.2	21	279
Gulbarga	35.6	39.8	14.2	20.3	34.6	45.1	28	389
Yadgir	53.6	43.5	23.3	30.8	24.4	44.8	30	562
Kolar	15.8	37.0	5.8	16.6	37.3	46.2	11	198
Chikkaballapura	21.3	38.8	8.3	19.2	33.9	46.9	17	249
Bangalore rural	11.9	37.5	4.5	17.2	38.7	44.2	6	144
Ramanagara	12.8	38.1	4.9	21.5	34.1	44.4	8	165
State	18.9	39.7	7.5	20.9	33.7	45.5		

Source NFHS-4 (2015-16)

- Women are usually employed at the lower end of the productivity scale. Labour Force Participation Rate (LFPR) is very low among females compared to male. Creating employment and income generating activity to women would help in enhancing the livelihood.

- Further it is also noted that (based on 2017-18 PLFS) unemployment rates are very high among youth with higher education levels. The reason being lack of skills required for the job. An integrated approach of skill training and creating job opportunities for both women and youth would help poor. Identifying the social group or regions that experience poverty more severely, can help focus on most vulnerable which further ensures that no one is left behind. Target oriented package of anti-poverty programmes essential to tackle poverty in an effective way.
- It is well known fact that Regional Disparity is quite pertinent in Karnataka and it has been extensively established in Nanjundappa committee report. Sustaining poverty can be handled through Inclusive growth model approach. Growth per se is not adequate enough to take care of poverty. Literature in this regard indicates that trickledown effect is not sufficient to uplift the people from acute poverty. Thus, emphasis on target oriented comprehensive anti-poverty programme becomes pertinent and monitoring any progress should be at district level and if possible, still at lower levels.
- Health expenditure is one of the main reasons to push a household to poverty. Health Insurance *Ayushman Bharat – Arogya* Karnataka, which is newly introduced should adhere to the health needs of the poor. State should play a major role in reducing the out of pocket expenditure of the poor. With wide variation across districts, social and religious groups w.r.t all the indicators discussed above, action needs to be designed at disaggregate level using SECC database.
- All line departments should share online data with Planning Department. Absence of good database is also a hindrance for the implementation of the appropriate policy. Thus, creating a good data base is an immediate requirement to monitor and achieve this goal.
- Access to institutional credit is major issue for poor households. Majority of poor don't get credit from institutional sources, since they don't possess any asset. SHG was one of the sources with which many poor women were able to get access to institutional credit. Though SHGs are not performing the way it started some 10 years ago. However, there are successful models that can be replicated with some additional efforts and precautionary steps that may help in revamping the SHG programme for both men and women SHGs.

## 1D. Budget Requirements

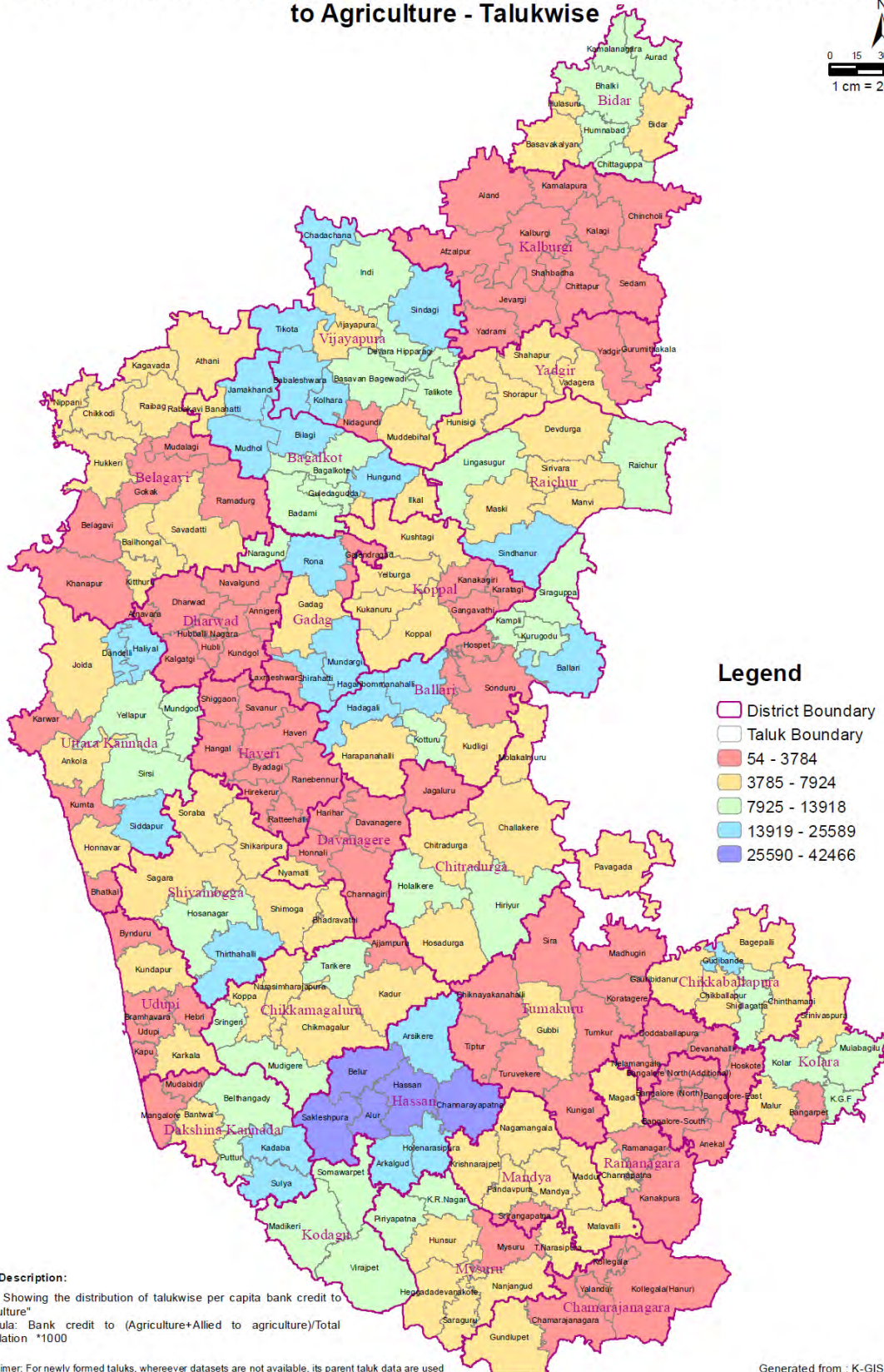
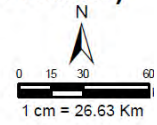
Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below.

**Budget requirements for SDG 1 (In Crores)**

Department	Scheme Name	2020-21			2020-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Appendix 1.1	Appendix 1.2	75551.32	NC	NC	472984.69	NC	NC

Note: NC-Not Considered

# Per capita Bank Credit (Regional Rural Banks, D.C.C Banks & KSCARD Banks) to Agriculture - Talukwise



### Legend

- District Boundary
- Taluk Boundary
- 54 - 3784
- 3785 - 7924
- 7925 - 13918
- 13919 - 25589
- 25590 - 42466

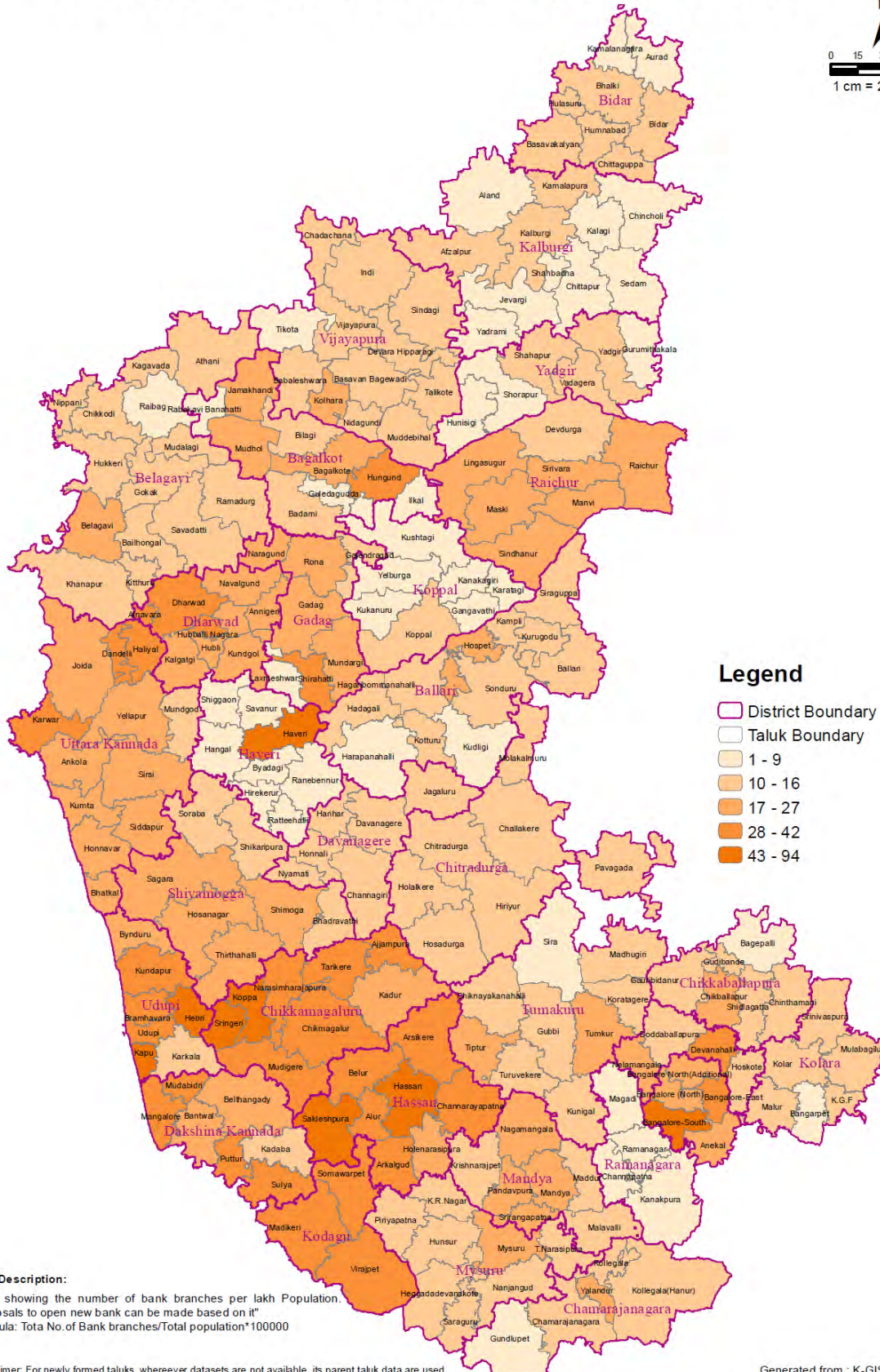
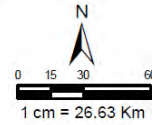
**Map Description:**  
 "Map Showing the distribution of talukwise per capita bank credit to agriculture"  
 Formula: Bank credit to (Agriculture+Allied to agriculture)/Total Population \*1000

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS, KRSRAC



# Number of Bank branches per lakh Population - Talukwise



## Legend

- District Boundary
- Taluk Boundary
- 1 - 9
- 10 - 16
- 17 - 27
- 28 - 42
- 43 - 94

**Map Description:**  
 "Map showing the number of bank branches per lakh Population.  
 Proposals to open new bank can be made based on it"  
 Formula:  $\text{Total No. of Bank branches} / \text{Total population} * 100000$

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS,KRSRAC

## 1E. Appendices

### Appendix 1.1: Indicator-wise data source and nodal department

Sl. No.	National Indicator No.	State Indicator No.	Data Source	State Nodal Department
1	1.1.1		NSSO - 68 <sup>th</sup> round	RDPR, UDD, FCS
2	1.1.2		NSSO – 68 <sup>th</sup> round	RDPR, UDD, FCS
3		1.1.2.1	Human Development Report	Planning
4		1.1.2.2	DES	DES
5	1.3.1		NFHS-4	HFW, Cooperation
6	1.3.2		ICDS	WCD
7	1.3.3		RDPR/ MGNREGS	RDPR
8	1.3.4		DES	RDPR, WCD
9		1.3.4.1	DES	RDPR, WCD
10		1.3.4.2	DES	RDPR, WCD
11	1.3.5		NFHS 4	HFW
12	1.3.6		Social Welfare Dept.	SWD
13	1.4.1		NFHS4 / RDPR	RDPR
14		1.4.1.1	Census India 2011	UDD
15		1.4.1.2	Census India 2011	UDD
16	1.4.2		Census India 2011	UDD
17		1.4.2.1	Census India 2011	UDD
18		1.4.2.2	Census India 2011	UDD
19	1.4.3		NFHS-4/Energy Dept.	Energy
20	1.4.4		Census 2011	Housing
21	1.4.5		SLBC	Finance
22	1.4.6		TRAI	IT&BT
23	1.5.1		Revenue Dept.	Revenue
24		1.5.1.1	Revenue Dept.	Revenue
25	1.5.2		Revenue Dept.	Revenue
26		1.5.2.1	Revenue Dept.	Revenue
27	1.a.1		Planning Dept.	Planning
28	1.a.2		Planning Dept.	Education, Health, SWD
29		1.a.2.1	Planning Dept.	Education
30		1.a.2.2	Planning Dept.	Health
31		1.a.2.3	Planning Dept.	SWD
32		1.a.2.4	Horticulture Dept.	Horticulture
33		1.a.2.4	Horticulture Dept.	Horticulture
34	1.b.1		WCD	WCD
	19	4	-	-

Note: NSSO: National Sample Survey Organisation; RDPR: Rural Development and Panchayat Raj Department; SWD-Social Welfare Department; UDD-Urban Development Department; WCD-Women and Child Development; HFW-Health and Family Welfare; FCS-Food and Civil Supplies; DES-Directorate of Economics and Statistics;



**Appendix 1.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
Development of Agriculture Technical Clusters in Kolar, Chitradurga, Koppal and Gadag Districts on Israel Model	145.92	145.92	145.92	145.92	145.92	145.92	145.92	145.92	145.92	145.92	145.92	1459.20
Rashtriya Krishi Vikas Yojane – RKVY	198.00	198.00	198.00	198.00	198.00	198.00	198.00	198.00	198.00	198.00	198.00	1980.00
National Mission on Agricultural Extension and Training	85.30	85.30	85.30	85.30	85.30	85.30	85.30	85.30	85.30	85.30	85.30	853.00
Agricultural Extension and Training	54.02	54.02	54.02	54.02	54.02	54.02	54.02	54.02	54.02	54.02	54.02	540.20
New Crop Insurance Scheme	845.00	845.00	845.00	845.00	845.00	845.00	845.00	845.00	845.00	845.00	845.00	8450.00
Agricultural inputs and Quality Control	628.23	641.43	654.91	668.67	682.72	697.07	711.72	726.68	741.95	757.54	773.46	7056.15
Revolving Fund for Minimum Support Price of Agro Crops- Revenue	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	5000.00
Revolving Fund for Minimum Support Price of Agro Crops- Capital	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	100.00
Organic Farming-Agriculture	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	970.00
NMSA - Chief Minister's Sookshma Neeravari Yojane	368.18	391.59	416.49	442.97	471.13	501.09	532.95	566.83	602.87	641.21	681.97	5249.10
NMSA - Other Components	60.65	60.65	60.65	60.65	60.65	60.65	60.65	60.65	60.65	60.65	60.65	606.50
Minimum Floor Price Scheme	279.03	279.03	279.03	279.03	279.03	279.03	279.03	279.03	279.03	279.03	279.03	2790.35
Incentive to Milk Producers	1459.00	1604.90	1765.39	1941.93	2136.12	2349.73	2584.71	2843.18	3127.50	3440.25	3784.27	25577.97
Livestock Farms & Training	58.00	63.80	70.18	77.20	84.92	93.41	102.75	113.03	124.33	136.76	150.44	1016.81
Ex-gratia to Sheep Owners for Accidental Death of Sheep and Goat	17.11	17.11	17.11	17.11	17.11	17.11	17.11	17.11	17.11	17.11	17.11	171.10
Pashu Bhagya	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	90.00
National Livestock Mission	16.66	16.66	16.66	16.66	16.66	16.66	16.66	16.66	16.66	16.66	16.66	166.60
Soft Skill Development in College	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	5.00
Exemption from Payment of Full Fees to all Girl Students	81.56	81.56	81.56	81.56	81.56	81.56	81.56	81.56	81.56	81.56	81.56	815.60
Scholarship to Encourage Bright	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	60.00

Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
Students to Study Science at Degree Level												
Living-cum-Work shed	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	30.00
Weavers Package	117.00	117.00	117.00	117.00	117.00	117.00	117.00	117.00	117.00	117.00	117.00	1170.00
Weaver's Package-KHDC	20.00	22.00	24.20	26.62	29.28	32.21	35.43	38.97	42.87	47.16	51.87	350.62
Implementation of Garment Policy	100.00	110.00	121.00	133.10	146.41	161.05	177.16	194.87	214.36	235.79	259.37	1753.12
Housing Scheme for Garment Workers	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	500.00
Promotional Schemes of DICs & Industries	20.60	22.66	24.93	27.42	30.16	33.18	36.49	40.14	44.16	48.57	53.43	361.14
Establishment and Improvement of Industrial Clusters	62.00	68.20	75.02	82.52	90.77	99.85	109.84	120.82	132.90	146.19	160.81	1086.93
Development of Industrial Infrastructure for MSMEs	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00	1700.00
Coaching & Allied Schemes	25.34	27.87	30.66	33.73	37.10	40.81	44.89	49.38	54.32	59.75	65.73	444.24
Various Development Programme for Schedule Caste	534.22	534.22	534.22	534.22	534.22	534.22	534.22	534.22	534.22	534.22	534.22	5342.24
Scheme for Development of Scheduled Castes - Post Matric Scholarship	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00	2640.00
Centrally Sponsored Scheme of Book Banks of Medical and Engineering Colleges	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	10.50
Assistance to College Students, Other Concessions & Assistance to Meritorious Scheduled Caste Students	101.83	102.13	102.42	102.72	103.02	103.32	103.62	103.92	104.22	104.52	104.82	1034.69
Scholarships to Scheduled Caste students	220.00	240.61	263.15	287.80	314.76	344.24	376.49	411.75	450.32	492.50	538.64	3720.25
Training Centres for Women	0.38	0.42	0.46	0.51	0.56	0.61	0.67	0.74	0.81	0.90	0.99	6.66
Scheme for Development of Scheduled Castes - Pre Matric Scholarship	110.54	115.86	121.45	127.30	133.44	139.87	146.62	153.68	161.09	168.86	177.00	1445.19
Incentive to SC Law Graduates	7.71	8.44	9.24	10.12	11.08	12.13	13.28	14.54	15.91	17.42	19.07	131.24
Interest waiver scheme for Defaulter's Loans	52.38	54.87	57.49	60.22	63.09	66.09	69.24	72.53	75.99	79.60	83.39	682.51

Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
Interest Subsidy for Crop Loan and Self-help groups	1137.00	1250.70	1375.77	1513.35	1664.68	1831.15	2014.26	2215.69	2437.26	2680.99	2949.09	19932.94
Development of Particularly Vulnerable Tribal Groups	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	46.00
Centrally Sponsored Scheme of Book Bank for Scheduled Tribes Medical & Engineering Students	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	6.79
Various Development Schemes for Scheduled Tribes-Revenue	330.41	330.41	330.41	330.41	330.41	330.41	330.41	330.41	330.41	330.41	330.41	3304.15
Various Development Schemes for Scheduled Tribes-Capital	142.23	142.23	142.23	142.23	142.23	142.23	142.23	142.23	142.23	142.23	142.23	1422.30
Scheme for Development of Scheduled Tribes - Post Matric Scholarship	109.01	119.91	131.90	145.09	159.60	175.56	193.12	212.43	233.67	257.04	282.74	1911.07
CSS Pre Matric Scholarship to ST Students(9th and 10th)	16.50	18.15	19.97	21.96	24.16	26.57	29.23	32.15	35.37	38.91	42.80	289.26
Scholarships to Schedule Tribe students	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	549.99
Scheme for Development of Scheduled Tribes - Pre Matric Scholarship	50.19	55.21	60.73	66.80	73.48	80.83	88.91	97.81	107.59	118.35	130.18	879.89
Assistance to ST Families	4.16	4.25	4.35	4.44	4.54	4.64	4.74	4.85	4.96	5.07	5.18	47.01
Coaching & Allied schemes	16.00	17.60	19.36	21.30	23.43	25.77	28.34	31.18	34.30	37.73	41.50	280.50
Scholarship to the Students with Disabilities	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	59.60
Financial Assistance to Special Schools for Physically Challenged run by NGO's	60.00	66.00	72.60	79.86	87.85	96.63	106.29	116.92	128.62	141.48	155.62	1051.87
Welfare of Physically and Mentally challenged	30.87	33.44	36.22	39.23	42.49	46.03	49.85	54.00	58.49	63.35	68.62	491.71
Placement cell for the Differently abled	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	6.00
Computer Literacy Awareness in Secondary Schools	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	153.10
Regional Health and Family Welfare Training Centres	14.48	15.93	17.52	19.27	21.20	23.32	25.65	28.22	31.04	34.14	37.56	253.85
Assistance for Development of Inland Fisheries	7.19	7.19	7.19	7.19	7.19	7.19	7.19	7.19	7.19	7.19	7.19	71.90

Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
Establishment of North Karnataka Inland Fisheries Development Centre	1.00	1.10	1.21	1.33	1.46	1.61	1.77	1.95	2.14	2.36	2.59	17.53
Reimbursement of Sales Tax on Diesel for Fishing boats	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	1350.00
Annabhagya for APL beneficiaries towards subsidies for Food Grains	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	200.00
Annabhagya for BPL beneficiaries towards subsidies for Food Grains	3700.00	4070.00	4477.00	4924.70	5417.17	5958.89	6554.78	7210.25	7931.28	8724.41	9596.85	64865.32
Annabhagya for BPL beneficiaries towards subsidies for Other items	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	500.00
Honorarium to Anganawadi and ASHA Workers	203.80	224.18	246.60	271.26	298.38	328.22	361.04	397.15	436.86	480.55	528.60	3572.85
Karnataka Victim Compensation Scheme, 2011	10.00	11.00	12.10	13.31	14.64	16.11	17.72	19.49	21.44	23.58	25.94	175.31
Home Guards Training Centre	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	15.20
Comprehensive Horticulture Development	130.00	130.00	130.00	130.00	130.00	130.00	130.00	130.00	130.00	130.00	130.00	1300.00
National Horticulture Mission	125.49	125.49	125.49	125.49	125.49	125.49	125.49	125.49	125.49	125.49	125.49	1254.90
PMKSY-National Mission on Sustainable Agriculture	264.00	290.40	319.44	351.38	386.52	425.17	467.69	514.46	565.91	622.50	684.75	4628.23
Krishi Bhagya (Horticulture)	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	600.00
Pradhan Mantri Awaas Yojana – Rural	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	5000.00
House Sites for Rural Landless	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	10.00
Ashraya-Basava Vasathi	601.70	601.70	601.70	601.70	601.70	601.70	601.70	601.70	601.70	601.70	601.70	6017.00
Dr. B.R.Ambedkar Nivas Scheme	750.25	750.25	750.25	750.25	750.25	750.25	750.25	750.25	750.25	750.25	750.25	7502.50
Improvement of Slums	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	750.04
Pension to Artists in Indigent Circumstances	24.68	24.68	24.68	24.68	24.68	24.68	24.68	24.68	24.68	24.68	24.68	246.80
Ashadeep	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	43.30
Rehabilitation of Bonded Labour	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	30.00
Stipend to law Graduates	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	30.00

Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
Karnataka Minority Development Corporation-Revenue	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	830.00
Karnataka Minority Development Corporation-Capital	144.40	144.40	144.40	144.40	144.40	144.40	144.40	144.40	144.40	144.40	144.40	1444.00
Backward Class Development Corporation-Capital	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	500.00
Backward Class Development Corporation-Revenue	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	2000.00
Reimbursement of fees to Private Schools under RTE	500.00	550.00	605.00	665.50	732.05	805.26	885.78	974.36	1071.79	1178.97	1296.87	8765.58
Vidya Vikasa Scheme- Incentive for Students	538.11	591.92	651.11	716.22	787.85	866.63	953.29	1048.62	1153.49	1268.84	1395.72	9433.70
National programme for National Support to Primary Education (MDM)	1958.82	1970.55	1982.35	1994.22	2006.16	2018.18	2030.26	2042.42	2054.65	2066.95	2079.33	20245.07
SSA	1267.55	1267.55	1267.55	1267.55	1267.55	1267.55	1267.55	1267.55	1267.55	1267.55	1267.55	12675.50
Remuneration to Contract Teachers	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	4.58
Military Scholarship	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.80
Financial Assistance and Reimbursement of Fees (Including Anglo-Indian Students) and Vidya Vikasa	26.26	28.88	31.77	34.95	38.44	42.28	46.51	51.16	56.28	61.91	68.10	460.29
Mahatma Gandhi National Rural Employment Guarantee	1816.00	1895.32	1978.10	2064.50	2154.68	2248.79	2347.01	2449.53	2556.52	2668.18	2784.72	23147.35
Shyama Prasad Mukherjee RURBAN Mission	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	25.00
Rehabilitation of Bonded Labourers	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	42.20
National Social Assistance Programme (NSAP)-old age pension	1129.00	1241.90	1366.09	1502.70	1652.97	1818.27	2000.09	2200.10	2420.11	2662.12	2928.34	19792.69
Aam Aadmi Bhima Yojana Through L.I.C (Janashri)	14.07	14.07	14.07	14.07	14.07	14.07	14.07	14.07	14.07	14.07	14.07	140.70
Monthly Financial Assistance to the Physically Challenged and	1159.41	1224.49	1293.22	1365.81	1442.47	1523.44	1608.95	1699.27	1794.65	1895.38	2001.77	15849.46

Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
the Disabled Poor (NSAP)												
Mythri	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	11.20
Sandhya Suraksha	3481.30	3829.43	4212.37	4633.61	5096.97	5606.67	6167.34	6784.07	7462.48	8208.72	9029.60	61031.25
Monthly Financial Assistance to Endosulphan Victims	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	194.40
Widow pension to Farmers suicide Cases	8.59	9.45	10.39	11.43	12.58	13.83	15.22	16.74	18.41	20.25	22.28	150.59
Pension to Acid Attack Victims	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	1.20
Destitute Widow Pension(NSAP)	1292.16	1338.64	1386.80	1436.69	1488.37	1541.92	1597.38	1654.85	1714.38	1776.05	1839.94	15775.03
Incentive Scholarship to High School Students for Participating at State/ National Level Sports	3.00	3.30	3.63	3.99	4.39	4.83	5.31	5.85	6.43	7.07	7.78	52.59
Financial Assistance to Sports Persons and Wrestlers in Indigent Circumstances	6.29	6.80	7.36	7.97	8.62	9.33	10.09	10.92	11.81	12.78	13.83	99.51
Self-Employment Scheme-Sc Corporation	130.00	130.00	130.00	130.00	130.00	130.00	130.00	130.00	130.00	130.00	130.00	1300.00
Micro Credit to SCs through Self-help Groups-Revenue	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	140.00
Micro Credit to SCs through Self-help Groups-Capital	5.25	5.26	5.27	5.28	5.29	5.30	5.31	5.32	5.33	5.34	5.35	53.05
Assistance to Sericulturists	13.19	14.51	15.96	17.56	19.31	21.24	23.37	25.70	28.27	31.10	34.21	231.24
Sericulture Development Programme	57.33	57.33	57.33	57.33	57.33	57.33	57.33	57.33	57.33	57.33	57.33	573.34
New Initiatives for Sericulture Development & Assessment to Stake holders	41.10	41.10	41.10	41.10	41.10	41.10	41.10	41.10	41.10	41.10	41.10	411.00
PMKSY-National Mission for Sustainable Agriculture	21.10	21.10	21.10	21.10	21.10	21.10	21.10	21.10	21.10	21.10	21.10	211.00
National Rural Livelihood Mission (NRLM)	150.00	165.00	181.50	199.65	219.62	241.58	265.73	292.31	321.54	353.69	389.06	2629.68
Specialised Skill Development Institutions	145.25	159.78	175.75	193.33	212.66	233.93	257.32	283.05	311.36	342.49	376.74	2546.40
Self-Employment Scheme-ST Corporation	65.00	71.50	78.65	86.52	95.17	104.68	115.15	126.67	139.33	153.27	168.59	1139.53

Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
Micro Credit to STs through Self-help Groups-ST Corporation-Revenue	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	65.00
Micro Credit to STs through Self-help Groups-ST Corporation-Capital	5.00	5.50	6.05	6.66	7.32	8.05	8.86	9.74	10.72	11.79	12.97	87.66
Development of Banaras Community	70.00	75.85	82.19	89.06	96.51	104.57	113.32	122.79	133.05	144.17	156.23	1117.74
Free Bus Travel Facility to the Blind	28.27	28.55	28.84	29.13	29.42	29.71	30.01	30.31	30.61	30.92	31.23	298.73
Free Bus Travel Facility to the Handicapped	25.00	26.01	27.06	28.15	29.29	30.47	31.70	32.98	34.31	35.70	37.14	312.80
Free Bus Pass To Widows Of Freedom Fighters	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
Concessional Bus Travel Facility to Senior Citizens	43.00	44.56	46.19	47.87	49.61	51.42	53.29	55.23	57.24	59.32	61.48	526.19
Subsidy Towards Students & Other Concessions Extended by KSRTC	308.67	309.57	310.48	311.39	312.30	313.21	314.13	315.04	315.97	316.89	317.82	3136.78
Free Bus Travel Facility to Endosulphan affected Victims	8.49	8.49	8.49	8.49	8.49	8.49	8.49	8.49	8.49	8.49	8.49	84.90
Free Bus Pass Facility to Goa Activists	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79	27.90
Issue of Free Bus Passes to the dependents of Martyrs	1.45	1.47	1.49	1.51	1.53	1.55	1.58	1.60	1.62	1.64	1.67	15.66
Free Bus Pass Facility to Freedom Fighters	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	57.80
Compensation to Lorry Drivers	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.40
Compensation to Autoriksha Drivers	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.40
Auto and Taxi Drivers Welfare Authority	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	305.00
Housing Scheme for Auto and Taxi Drivers	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	500.00
National Urban Livelihood Mission (NULM)	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	140.00
Various initiatives for Education improvement including Academy	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	20.00

Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
for Higher Education												
Pradhana Mantri Krishi Sinchayi Yojane-Watershed Development	166.00	166.00	166.00	166.00	166.00	166.00	166.00	166.00	166.00	166.00	166.00	1660.00
ICDS	2150.42	2150.42	2150.42	2150.42	2150.42	2150.42	2150.42	2150.42	2150.42	2150.42	2150.42	21504.20
Manaswini	82.86	91.15	100.26	110.29	121.32	133.45	146.79	161.47	177.62	195.38	214.92	1452.63
Incentive for Minority students	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	200.00
Skill Development Scheme(Mission Programme) – Minorities	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	80.00
Providing Quality Education to Madrasas	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	300.00
Food and Accommodation Assistance-Vidyasiri	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	1500.00
Assistance to BCs nomadic and semi nomadic tribes	81.38	82.78	84.21	85.66	87.14	88.65	90.17	91.73	93.31	94.92	96.56	895.15
Post-Matric Scholarship to Backward Classes Students	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1000.00
Pre-Matric Scholarship to Backward Classes Students	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	500.00
Scheme for Development of OBCs - Scholarship to Backward Class Students	100.00	107.04	114.58	122.65	131.28	140.53	150.42	161.01	172.35	184.49	197.48	1481.84
Training, Awareness and Incentives to BC Students	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	540.00
Stipend to Advocates	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	57.60
Incentive to Hostellers	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	95.00
Poura Karmika's Housing Scheme	50.00	55.00	60.50	66.55	73.21	80.53	88.58	97.44	107.18	117.90	129.69	876.56
Pradhan Mantri Awaas Yojana – Urban	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	2500.00
Special Central Assistance to Tribal Sub-Scheme	32.75	32.75	32.75	32.75	32.75	32.75	32.75	32.75	32.75	32.75	32.75	327.50
National Health Mission	1100.00	1100.87	1101.74	1102.61	1103.49	1104.36	1105.23	1106.11	1106.98	1107.86	1108.74	11048.00
Multi Sectoral Development Programme for Minorities	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	400.00
Bhagyalakshmi	309.42	309.42	309.42	309.42	309.42	309.42	309.42	309.42	309.42	309.42	309.42	3094.20
Devadasi Rehabilitation	8.30	9.13	10.04	11.05	12.15	13.37	14.70	16.17	17.79	19.57	21.53	145.51



Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
Programme												
Women Training Programme	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	35.00
Udyogini Scheme	25.30	25.30	25.30	25.30	25.30	25.30	25.30	25.30	25.30	25.30	25.30	253.00
Rehabilitation of Transgender	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	41.00
Rajiv Gandhi Scheme for empowerment of Adolescent Girls (SABALA)	9.00	9.90	10.89	11.98	13.18	14.49	15.94	17.54	19.29	21.22	23.34	157.78
	35233.22	36878.25	38673.07	40632.05	42770.97	45107.14	47659.58	50449.17	53498.86	56833.84	60481.76	472984.69





**“Let’s share and care to end poverty and hunger”**



## **GOAL 2. ZERO HUNGER - END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE**

### **2A. Background**

Achieving the “zero hunger” goal under Agenda 2030 also requires social protection and food systems that are economically efficient, socially inclusive and environmentally sustainable. Access to sufficient food of adequate quality is a basic human right, and the ‘Right to Food’ is an accepted concept (FAO, 2004).

To ensure that everyone has access to sufficient and nutritious food for present as well as for future, requires a combined strategy on food production and distribution. Widespread promotion of sustainable agriculture, biodiversity conservation, livelihood promotion for small farmers (including fishers, forest dwellers) and increased investments in agriculture related infrastructures. In the context of rapid urbanization, accelerating efforts around SDG1 and SDG2 is required to improve urban -rural linkages through investments in food systems. This would enhance supply of nutritious and affordable food and manifold increase opportunities for rural and peri-urban populations in the value chain.

The Agriculture sector is witnessing radical change and challenges at State, national and global level. The demand for agricultural commodities is steeply rising, food preferences of the next generation consumers are changing and the sector is struggling with decelerating productivity and profitability which are affecting its performance. Agriculture in Karnataka is a pivotal sector for ensuring food and nutritional security. It is the key sector for generating employment opportunities for 55% of the population. However, in recent times, agriculture sector, as a whole, has been confronted with numerous challenges linked to instability in production, food and energy crisis coupled with climate change and degradation of natural resources.

Global food demand is expected to be doubled by 2050, while production environment and natural resources are continuously shrinking and deteriorating. More than one billion people in the world already are earning less than one dollar a day and more than 800 million are suffering from hunger. Majority of them live in rural areas and are largely dependent on agriculture and allied sectors for their survival and livelihood.

An effective agricultural invention and innovation continuum would play a crucial role in addressing a number of supply side obstructions and in harnessing in numerous demand side opportunities. The pre-conditions for making agriculture sector more remunerative and sustainable would be to evolve effective mechanisms for technology delivery and to enhance capacity of all stakeholders.

It is well known that hunger, poverty and malnutrition are inextricably linked. Although not every poor person is hungry, nevertheless nearly all hungry people are generally poor. A sizeable population live with hunger and malnutrition as they merely cannot afford to buy either sufficient or nutritious foods or cannot afford the necessary means or accessories for farming to grow adequate quality and quantity of food for self-consumption. Thus, hunger is to be viewed as a dimension of extreme poverty. Long-term malnutrition leads to stunting and wasting, non-communicable chronic diet related disorders, increased morbidity and mortality and reduced physical work output. Thus, it is a great economic loss to the

country and undermines development.

As SDG 2 aims to end all forms of hunger and malnutrition by 2030, it is critical to have an understanding of 'food and nutrition' which is a basic human need and a prerequisite to a healthy life and recognized for eradication of extreme poverty and hunger. Nutrition constitutes the very foundation of human development by building immunity, reducing morbidity, mortality, disability, as also promoting lifelong learning capacities and enhanced productivity. It is this concern that has led the Nation and the state, to initiate steps to deliver and transform for nutritional wellbeing

India as well as Karnataka in past attempted for achieving SDG2, ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture. The commitment to achieve the Goal 2 is deeply echoed in targeted initiatives, both at the centre and at the State level. The National Food Security Act, 2013 mandates provision of food grains at subsidized rates to nearly 75% of the population in rural areas and 50% of the population in urban areas under the Targeted Public Distribution System (PDS). The Public Distribution System, is one of the largest food security initiatives in the world. Taking the cognizance of many empirical evidences on prevailing gender injustice and that women pay greater attention to household food security; the Government has chosen to issue ration cards in the name of the senior most female member of the household.

*Poshan Abhiyaan* or the National Nutrition Mission which is a newly launched initiative is an attempt at synergizing efforts to combat stunting, wasting, and anaemia among children. Likewise, Mid-day meal programme aims at reducing malnutrition among school children. The NNMP (Mid-Day Meal Programme) provides nutritious cooked meals to 100 million children in primary schools. In addition, National Mission on Sustainable Agriculture, is another landmark effort towards sustainable food production targeting food security.

The provisions under the National Food Security Act is linked to the Integrated Child Development Services Scheme (ICDS), where supplementary nutrition is provided to pregnant women, lactating mothers and children below 6 years of age. The Scheme caters to the nutritional requirements of over 83 million young children and 19 million pregnant and lactating mothers in the country. Despite this, 38.7% of children in India under five years of age are stunted and the goal is to reduce it to 21.3% by 2030. Among the different states in India, Kerala and Goa are the only states that have achieved the target. The prevalence of anaemia is another key indicator, where 50% of pregnant women aged 15-49 years are anaemic. The goal is to reduce it to 23.57% by 2030.

Although Karnataka has meticulously planned and implemented several schemes and programs for poverty alleviation, these efforts are means and to some extent a support to address 'Right to food.' However, the diversity within the state in terms of resources, food availability, access & the priority for nutritional well-being, low female participation in work force compels the system to tackle the issues of hunger, food and nutrition insecurity simultaneously, for addressing the SDG.

Karnataka is one of the economically progressive states in India. Per Capita State Income (i.e. per capita NSDP) of Karnataka at current prices is estimated at Rs. 231, 246 in 2019-20 as against 2,12,477 in 2018-19 with a growth rate of 8,8%. Thus the state has achieved steady economic growth, coupled with impressive strides in poverty reduction (Economic Survey of Karnataka,2020) with 20.9% of the

population below poverty line, defined as the expenditure needed to obtain, an average of 2400 Kilo Calories(Kcal) per capita per day in the rural areas and 2100 Kcal in urban areas (2011-12).

*Anna Bhagya Yojane* is a Scheme of Government of Karnataka, which is designed to implement the provisions of National Food Security Act 2013 enacted by Government of India. From the Year 2017-18, each member of priority household (PHH) is being distributed 7 kg food grains and AAY households are given 35 kg food grains. Food grains are distributed free of cost. These cardholders are also entitled to 1 kg dal per card as subsidized rates. Under this scheme during the month of November-2019 around 1.26 crore BPL (AAY+PHH) families have been the beneficiaries.

Many reforms are being undertaken to improve the effectiveness of food distribution programmes. These include digitization of ration cards, leveraging Aadhaar for authenticated delivery of benefits and online grievance redressal mechanism, SMS system, *Aharavani- toll free number Padithara Khatari Scheme, Annabhagya, Adalath* etc.

In particular to address the challenges of 'food insecurity' and under-nutrition, the state in its programme follows a 'life cycle approach' towards supporting the vulnerable population. In Karnataka the Karnataka Nutrition Mission is established and along with Mid-day meals other nutrition programmes of the State include '*MatrupoornaYojane*' '*Ksheerabhagya*' *shrushti*, etc.

Karnataka's index score for goal 2 is 54 and it stands at 13th position and is above all India scores (48) and categorized as 'Performer' as per SDG India index, baseline report 2018 by NITI Aayog.

## **2B. Targets and Indicators for achieving SDG 2**

Goal 2 aims at ending hunger and attaining food and nutrition security by 2030. Reaching this goal calls for substantial improvement in food productivity and more efficient means of food distribution. Sustainable Development Goal 2 and targets provide a framework for what needs to be achieved in a time bound manner. Needless to state that these are also tools for advocacy, which enables different stakeholders to implement the plan of action being prepared by every state. These are also useful tools and act as instruments for mobilizing the community in the context of their comparison with national and state level policy framework and actual status on the ground.

To measure performance of SDG 2 i.e. "to end hunger, achieve food security, improved nutrition and promote sustainable agriculture", Indicators and targets are presented below.

### **2.1 - By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round**

The per capita calorie intake is lowest in Bidar, followed by Kalaburagi, Yadgir, Gadag, and Bagalkote. Incidentally more than 75% talukas within these districts are drought hit, which can significantly impact on food security.

National Indicator No.	State Indicator No.	Indicators	Baseline year	State Baseline Value	2022	2030
2.1.1		Percentage of children aged under 5 years who are underweight	2015-16	35.20	25	10
2.1.2		Proportion of population (marginalized and vulnerable) with access to food grains at subsidized prices	2017-18	58.05	75	100
	2.1.2.1	Infant Mortality Rate (Per 1000 live births)	2016	24	18	10
	2.1.2.2	Malnutrition & Underweight Children (0-5 years)	2015-16	18.97	15	8
	2.1.2.3	Under 5 Child Mortality Rate	2015	31	23	20
	2.1.2.4	Proportion of Priority households to total households	2017-18	85.64	100	100

**2.2 - By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons**

National Indicator No.	State Indicator No.	Indicators	Baseline year	State Baseline Value	2022	2030
2.2.1		Percentage of children under age 5 years who are stunted	2015-16	36.20	28	12
2.2.2		Percentage of children under age 5 years who are wasted	2015-16	26.10	24	11
2.2.3		Percentage of women whose Body Mass Index (BMI) is below normal (BMI<18.5 kg/m <sup>2</sup> )	2015-16	20.80	18	10
2.2.4		Percentage of pregnant women age 15-49 years who are anaemic (<11.0g/dl)	2015-16	45.40	34	14
2.2.5		Percentage of children age 6-59 months who are anaemic (<11.0g/dl)	2015-16	60.90	50	37
	2.2.5.1	Reduction of low weight (>2.5Kg)	2015-16	17.20	9	0
	2.2.5.2	Percentage of children under age 3 yrs breastfed within one hour of birth	2015-16	56.40	76	96
	2.2.5.3	Percentage of Children under age 6 exclusively breastfed	2015-16	54.20	70	85
	2.2.5.4	Percentage of Children age 6-8 yrs receiving solid or semi-solid food & breast milk	2015-16	46	60	75
	2.2.5.5	Total children age 6-23 months receiving adequate diet	2015-16	8.20	33	55



### **2.3 - By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment**

Considering the present total food grain production (cereals and pulses) achievement of 2017-18(142 lakh tons) and this has to be enhanced to 181 lakh tons by 2030 through adoption of good agricultural practices and indicated strategies. The state level projections have been worked out using trend-based time series data analysis for the nine-year period beginning from 2008-09 to 2016-17. The targeted production is although difficult to achieve, until and otherwise the state Government adopts aggressive approach for systematic transfer of technology with appropriate incentives for production as well as marketing.

Horticulture is an important land-based enterprise and is considered as a critical sector in Karnataka next to agriculture in terms of economic value and employment generation. Karnataka stands third in the horticulture area and seventh in the production in the country. Horticulture occupy an area of 20.37 lakh ha accounting for 16 % of the total cultivated area in the state. The annual production from horticultural crops is 173.6 lakh tones contributing 7.3% production in the country. The average productivity of horticulture crops in Karnataka is 8.53 metric tonne per Ha. Above all, the state has vast potential in the sector as the state is endowed with varied agro-climatic conditions suitable to horticulture crops. Karnataka is a major exporter of Cashew, Rose, Gherkins, Rose Onion, Spices and condiments to the tune of nearly Rs 10000 crores. The expansion of area under horticulture crops and diversification of cropping pattern indicates that the horticulture sector may eventually compete with agriculture sector in the years in terms of production and economic value.

Horticultural production is expected to reach 243.77 lakh tons, from the present level of 173.60 lakh tons by 2025 and 270.14 lakh tons by 2030 by expanding the area under horticultural crops. By adopting micro irrigation, the total irrigated area in the state is expected to increase, part of which could be used to expand the horticultural area. The expected production targets will be mainly achieved by improving the productivity, besides addition of small area of 4.55 lakh ha. The fruit productivity is expected to rise from 16.96 tons/ha to 18.69 tons / ha and vegetable productivity from 18.13 tons/ha to 20.26 tons/ ha. Similarly, the productivity of spices and condiments is expected to rise from the present 3.29 tons / ha to 3.5 tons/ ha, while the productivity of plantation crops will rise from 0.65 tons/ha to 0.69 tons/ha. In the similar manner, the productivity of flower crops and medicinal/ aromatic crops is also expected to rise during this period.

Milk production is set to increase from 71.37 lakh tons in 2017-18 to 134.79 lakh tons by 2030. Likewise, egg production is estimated to from 55664 lakhs to 152872 lakhs and meat production from 228032 tonnes to 668679 tonnes by the year 2030. The total fish production in Karnataka State is 613242 tonnes of which marine fish production accounts to 64% and inland fish shares 36% of the total fish production of the state (2014-15). Dakshina Kannada, Udupi and Uttara Kannada districts have major facilities for marine fisheries which accounts for 66% of fish output. These three districts are coastal districts with highest fish production. The other districts having good scope for inland fisheries are Shivamogga, Raichur, Davanagere, Bellary and Mandya. The target of fish production for the year 2030 is set at 810175 tonnes.

Sericulture is an ancient traditional family occupation of the rural households in Southern Karnataka. The State is number one producer of mulberry silk in India. It is a very important activity because of the massive employment potential of this sector. Secondly, its value-added final product i.e., silk has a tremendous export potential and thus, a major foreign exchange earner. During 2016-17, mulberry was grown in 10795 villages in the state and around 1.29 lakh families were engaged in sericulture activities. By 2025, it is estimated that sector grows substantially to nearly 12000 villages with 1.54 lakh families engaging in sericulture activities.

The area under mulberry cultivation was 91492 hectares during 2016-17 and produced 68380 tonnes of silk cocoons. The value of silk produced during 2016-17 is estimated at Rs. 2522crore. The area under mulberry cultivation is expected to grow to 130000 ha and cocoon production to reach 124000 tonnes by the year 2030.

Cultivation of mulberry is most ideal for Karnataka because it is a rainfed crop and it is also a drought resistant crop. Mulberry cultivation was earlier confined only to the Southern Karnataka - Bangalore, Kolar, Mysore, Mandya, Ramanagara, Channapatna, Chikkaballapur, Doddaballapura and Tumakuru. But now it is being cultivated in almost all the districts of Karnataka. However, cultivation of mulberry and rearing of cocoon is relatively less in coastal and malnad regions of the state.

National Indicator No.	State Indicator No.	Indicators	Baseline year	State Baseline Value	2022	2030
2.3.1		Agriculture productivity of Wheat and Rice (Yield per hectare) in Kgs	2017-18	3082	3694	4402
	2.3.1.1	Agricultural productivity of Rice (Yield per hectare)	2017-18	3082	3694	4402
	2.3.1.2	Agricultural productivity of Ragi (Kg/ha)	2017-18	2122	2345	2794
	2.3.1.3	Agricultural productivity of Jowar (Kg/ha)	2017-18	1223	1542	1837
	2.3.1.4	Agricultural productivity of Pulses (Kg/ha)	2017-18	770	749	893
	2.3.1.5	Agricultural productivity of Oilseeds(Kg/ha)	2017-18	1225	709	844
	2.3.1.6	Agricultural productivity of Millets (Kg/ha)	2017-18	765	537	640
2.3.2		Gross Value Added in Agriculture per worker (In Rs.)	2017-18	125710	1.36	1.36
2.3.3		Ratio of institutional credit to agriculture to the agriculture output (In Lakh Rs.)	2017-18	11618.89	24110.9	44665.8
	2.3.3.1	Total cropped Area under	2017-18	36.59	49	62

National Indicator No.	State Indicator No.	Indicators	Baseline year	State Baseline Value	2022	2030
		Irrigation through ground water and surface water				
	2.3.3.2	Total cropped Area under Irrigation through ground water (Lakh ha)	2017-18	17.95	24	30
	2.3.3.3	Total cropped Area under Irrigation through surface water (Lakh ha)	2017-18	18.64	25	32
	2.3.3.4	Total Cereals (Metric Ton)	2017-18	119.6	127.81	152.29
	2.3.3.5	Total Pulses (Metric Ton)	2017-18	22.12	23.75	28.30
	2.3.3.6	Total Food grains (Metric Ton)	2017-18	141.72	151.56	180.59
	2.3.3.7	Percentage area under rice, ragi, jowar, pulses, oilseeds and millets	2016-17	58.25	63.56	69.59
	2.3.3.8	Percentage are under Rice	2016-17	8.78	9.2	11.07
	2.3.3.9	Percentage are under Ragi	2016-17	5.08	5.45	6.3
	2.3.3.10	Percentage are under Jowar	2016-17	8.05	9.18	9.63
	2.3.3.11	Percentage are under Pulses	2016-17	25.18	27.5	29.3
	2.3.3.12	Percentage are under Oilseeds	2016-17	10.98	11.9	12.75
	2.3.3.13	Percentage are under Millets	2016-17	0.18	0.33	0.54
	2.3.3.14	Mulberry plantation(ha)	2018-19	104578	1,14,500	1,30,000
	2.3.3.15	Cocoon Production (Metric Tonne)	2018-19	83016.68	92590	124000
	2.3.3.16	Cocoon productivity (kg/ha)	2018-19	794	809	954

**2.4 - By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality**

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
2.4.1		Proportion of degraded agricultural land to net sown area (Barren and uncultivable land)	2016-17	8	6-	0-
2.4.2		Percentage of farmers issued Soil Health Card	2017-18 to 2018-	78.32 lakh ha with 82%	17.35 lakh ha	17.35 lakh ha

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
			19	achievement	(20%)	(20%)
2.4.3		Percentage of Net area under organic farming (lakh ha)	2015-16	0.93	1.5	2
	2.4.3.1	Gross Rainfed Area ( Lakh Ha)	2016-17	82.31	80.59	76.8
	2.4.3.2	Area treated with watershed activities (Lakh ha)	2017-18	0.33	25	52.31
	2.4.3.3	No of water harvesting structures constructed (Nos)	2017-18	2105	54120	140713
	2.4.3.4	Area brought under protective irrigation (Lakh ha)	2017-18	0.05	1.31	3.41
	2.4.3.5	Afforestation and Dry land horticulture (Lakh ha)	2017-18	0.15	3.93	10.23

**2.5 - By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed**

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
2.5.1		No. of accessions conserved in the base collection (-18 <sup>0</sup> C) at National Gene bank	-	-	-	-
2.5.2		Conservation of germplasm (number)	-	-	-	-
2.5.3		Conservation of fish genetic resource (number)	-	-	-	-
	2.5.3.1	No of brooders from different gene pools and different species used in the farm	2018-19	26560	51180	54455
	2.5.4.1	Total production in Major livestock products (Metric Tons)	2017-18	7137	9208	13479
	2.5.4.2	Total production in Major livestock products (Lakh no.)	2017-18	55661	82094	152872
	2.5.4.3	Total production in Major livestock products (In Tons)	2017-18	228032	350913	668679

Note: -: Not Available

**2.a - Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in**

**particular least developed countries**

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
2.a.1		Percentage share of expenditure in R&D in agriculture to GVA in agriculture	2017-18	0.7	1	1
2.a.2		Proportion of public investment in Agriculture to GVA in agriculture	2017-18	7.1	15	15

**2.b - Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round**

National Indicator not yet evolved

**2.c - Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility**

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
2.c.1		Percentage of Agriculture Mandis enrolled in e-market	2017-18	2.4	100	100
	2.c.1.1	Quantum of produce traded in e-market	2017-18	147.88	285	760
	2.c.1.2	Percentage of farmers registered in e-market (Number)	2017-18	83586	60 lakhs	60 lakhs

## **2C. Way Forward**

- Effective advocacy is essential to achieve SDG 2 state targets for reduction of stunting and other nutritional problems perpetuating from one phase to the subsequent phase of life cycle. Concerted, well-planned implementation strategies can bring in huge achievements to address the concerns. It is pertinent for the state to design and develop state specific advocacy strategy for promoting life cycle approach bringing about behaviour change.
  - The Hunger Index for Karnataka is estimated by Hanagodimath and Annigeri, 2019. This is indicated below.

### Hunger Index for districts in Karnataka

Category	District	Per capita daily calorie consumption	USMR	Stunting	Wasting	Hunger index	Rank
<b>Alarming</b>	Raichur	1837	81.8	37.2	34.9	88.9	30
	Kalaburagi	1710	59.8	52.2	34.0	86.38	29
	Yadgiri	1710	59.8	55.5	31.3	86.32	28
	Koppal	1861	70.7	55.8	26.4	86.27	27
	Gadag	1756	60.5	34.8	43.1	84.12	26
	Bellary	1807	66.6	49.5	26.9	83.81	25
	Bagalkote	1762	52.3	47.3	24.6	77.23	24
<b>Serious</b>	Chitradurga	1782	51.7	28.6	31.8	73.83	23
	Dharwad	1840	43.1	37.4	33.8	72.73	22
	Vijayapura	1888	41.2	44.9	29.1	71.58	21
	Belagavi	1960	44.8	36.7	31.7	70.50	20
	Bidar	1707	37.2	42.8	23.6	70.40	19
	Davanagere	2007	46.5	46.4	22.4	69.81	18
	Haveri	2011	43.2	43.8	20.4	66.87	17
<b>Moderate</b>	Tumakuru	2179	41.6	28.6	26.2	61.73	16
	Kolar	2103	41.2	32.0	18.4	60.51	15
	Mysore	2117	47.3	25.1	17.3	59.60	14
	Uttara Karnataka	2008	30.5	37.9	18.3	59.16	13
	Chikkaballapura	2426	41.2	37.7	17.2	58.16	12
	Chamarajanagar	2310	41.3	30.5	19.1	57.96	11
	Chikkamagaluru	1905	26.8	21.1	22.3	55.71	10
	Bengaluru Rural	2294	33.0	28.7	22.8	55.64	9
	Shivamogga	2066	29.0	35.3	14.3	55.43	8
	<b>Low</b>	Bangalore	2104	18.5	28.1	28.9	54.15
Kodagu		2340	355.5	29.8	16.4	54.03	6
Ramanagara		2319	33.0	22.0	20.3	52.40	5
Mandya		2287	31.5	18.6	23.3	52.24	4
Hassan		2199	24.2	27.0	19.1	51.18	3
Udupi		1857	13.4	21.1	20.9	50.48	2
Dakshina Kannada		2250	23.1	23.9	17.1	48.45	1

Source: Hanagodimath and Annigeri, 2019

- There is a need to focus on the seven alarming districts on priority basis which is depicted in the above table.
- Poor nutrition during the first 1,000 days—from pregnancy through a child’s second birthday—can cause life-long and irreversible damage, with deep consequences at all levels. There is need to draw impetus for advocacy and convergence of programs at ICDS platform in the first 1000 days child’s birth. Infant and Young Child Feeding (IYCF) protocols to be made an integral part of

all related policies. An accelerated plan to protect, promote and support IYCF practices is to be evolved.

- In the state, more than 60.9% of children aged 6-59 months and 45.4% of pregnant women aged 15-49 years are anaemic. This calls for multiple thronged strategy complementing efforts such as IFA supplements, fortification, diversification of the food basket, availability and access to food that are rich source of iron, vitamin 'C' and folic acid, periodic de-worming etc. Additionally, it is imperative to explore ways to provide continuous and lifelong nutritional support to the vulnerable and needy.
- Comprehensive communication and media strategy for Behaviour Communication Change (BCC) will have to be designed, keeping culture-specific behaviours, food habits and diet regime of the community intact. This would also include setting up information Kiosks for public awareness on 'Nutrition security'. Community leaders, elected representatives, youth leaders and others need to be enlisted to serve as advocates for change.
- The State has many evidence-based initiatives that aim at addressing the issues of malnutrition. One of the successful models is the Karnataka Multi-sectorial Nutrition Project implemented in the Chincholi and Devdurga Talukas in North East Karnataka region. The Karnataka Multi-sectorial Nutrition Project implemented under the aegis of Rural Development and Panchayati Raj Department (RDPR) aims to eradicate the problem of malnutrition in the State. Lessons and best practices are to be drawn from the initiative.
- Identification of priority areas- Nutrition Centric Planning (nutrition outcome,) Community Mobilization and Demand Creation for accessing their entitlements, Capacity building for real time monitoring; Value-added Service Delivery by improving food quality under NFSA platform (all schemes, including state flagship programs )particularly repackaging the PDS basket; ICT enabled Monitoring, and Research &Evaluation -Digital platform as a strategy to promote efforts to integrate technology in a comprehensive and phased manner for ICDS.
- A robust data and its management is the foundation for effective planning and tracking the progress on all key indicators, as also for improved interventions.
- Bringing agricultural linkages to reduce food insecurity, promote sustainable agriculture through integrated farming systems with Livestock (crop & enterprise diversification), and encourage organic farming – 'farm-preneurs'
- Drought proofing – watershed, efficient resource use (micro irrigation), extending cultivable land, and promoting climate resilient crops like millets.
- Increase productivity through strong backward linkages, quality seeds, farm mechanization, micro irrigation, soil health management etc.
- Formation and strengthening of farmer collectives, value chain development, Public Private Partnership for Integrated Agriculture Development (PPP-IAD), and Agro-processing to be measures going ahead.

- Reduction of pre- and post-harvest losses through post-harvest modern management techniques like cold chain development, and up-gradation of technology
- Ease of Farming Index should be developed to safeguard the farmer with remunerative prices and other required support to flourish the sector.
- Selection of crops based on agro climatic zone keeping in view of the rainfall pattern, climate change, soil type, irrigation, labour, pest and disease complex, marketing network etc. The State Government has taken up initiatives for prioritizing crops zone wise by incentivising those who cultivate crops as recommended. Even a scheme of dis-incentivisation is also proposed for farmers not growing crops recommended for the specific zone.
- The State Agriculture Universities should focus on the productivity enhancement through crop improvement programmes, selective hybridization, appropriate crop production technologies, effective soil and water conservation studies including drought proofing, Integrated Farming Systems, efficient water resource management including micro irrigation, establishing gene banks, residue analysis laboratories, high tech mechanization and post-harvest processing, storage, value addition and marketing linkages.
- Encourage alternate farm land arrangements such as contract farming, land leasing and land sharing between farmers and companies to reap the benefit of economies of scale.
- Promotion of agri-business policy for increasing exports through skilling and capacity building efforts.

## 2D. Budget Requirements

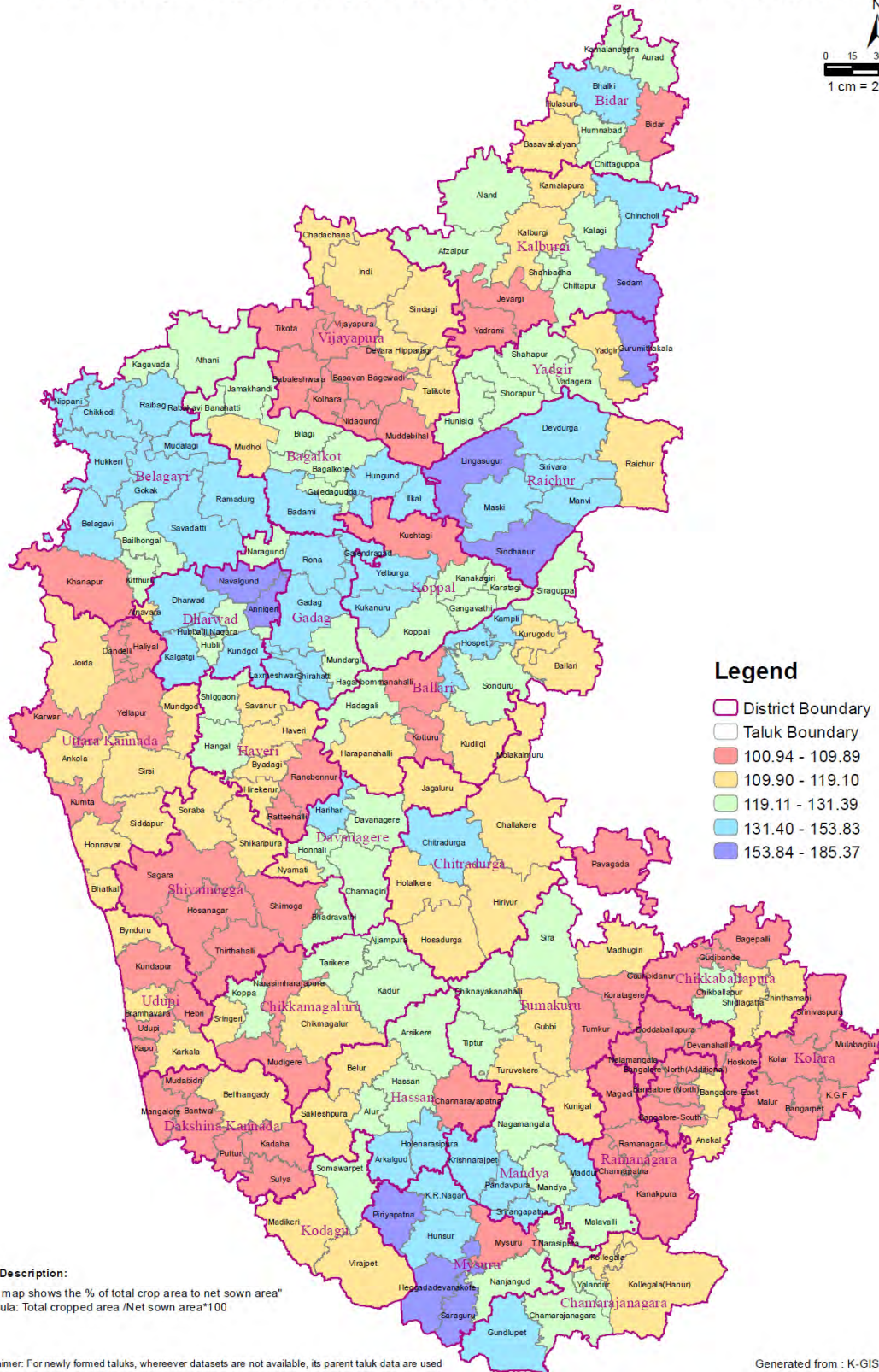
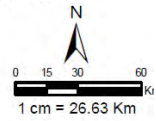
Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below.

### Budget requirements for SDG 2 (In Crores)

Department	Scheme Name	2020-21			2020-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Appendix 2.1	Appendix 2.2	10943.80	9701.87	1502.20	165594.76	131765.70	40935.50



# Percentage of Total Cropped Area to Net Sown Area - Talukwise



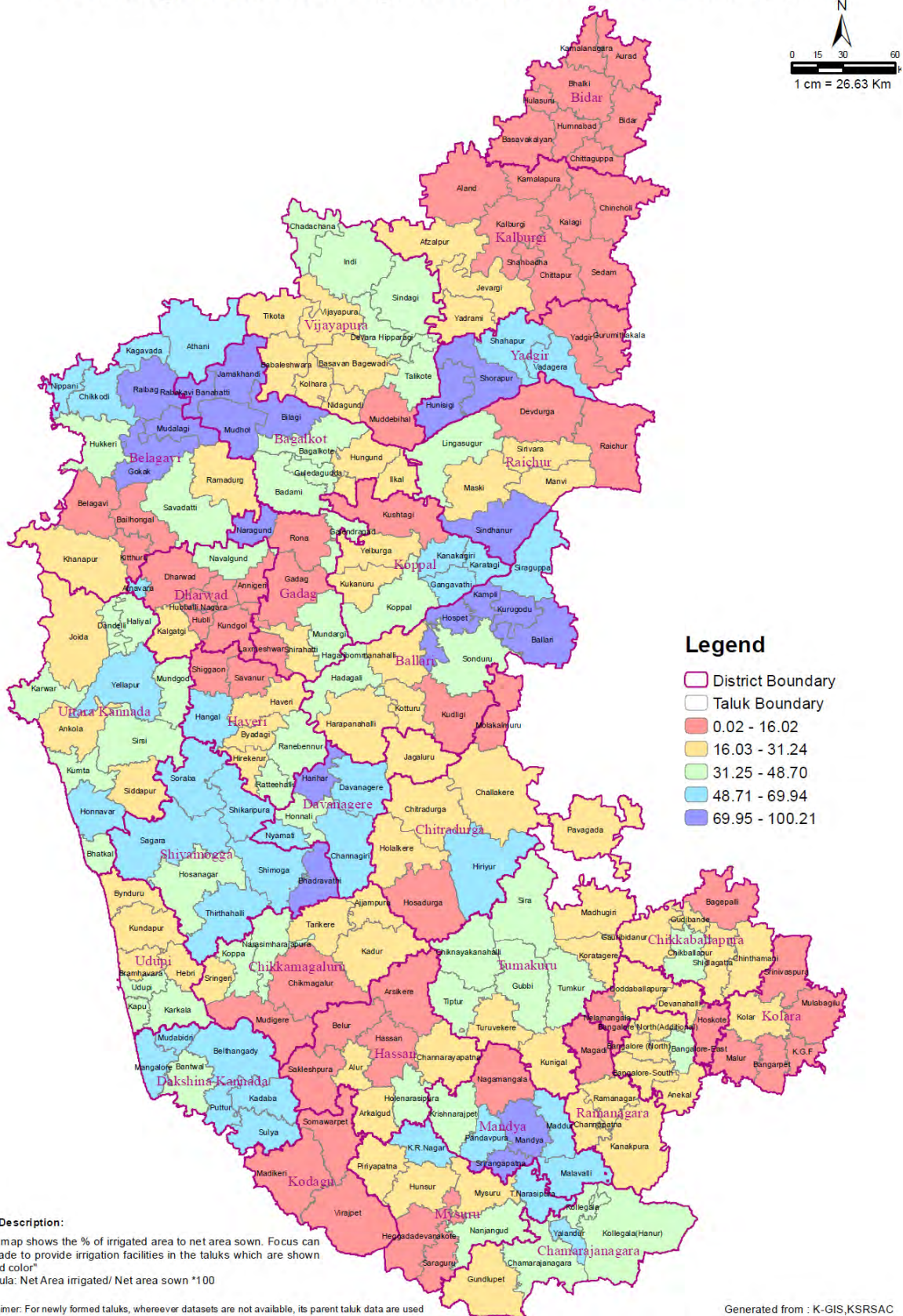
- Legend**
- District Boundary
  - Taluk Boundary
  - 100.94 - 109.89
  - 109.90 - 119.10
  - 119.11 - 131.39
  - 131.40 - 153.83
  - 153.84 - 185.37

**Map Description:**  
 "This map shows the % of total crop area to net sown area"  
 Formula: Total cropped area / Net sown area \* 100

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS.KRSRAC

# Percentage of Net Area Irrigated to Net Area Sown - Talukwise



**Map Description:**

"This map shows the % of irrigated area to net area sown. Focus can be made to provide irrigation facilities in the taluks which are shown in Red color"

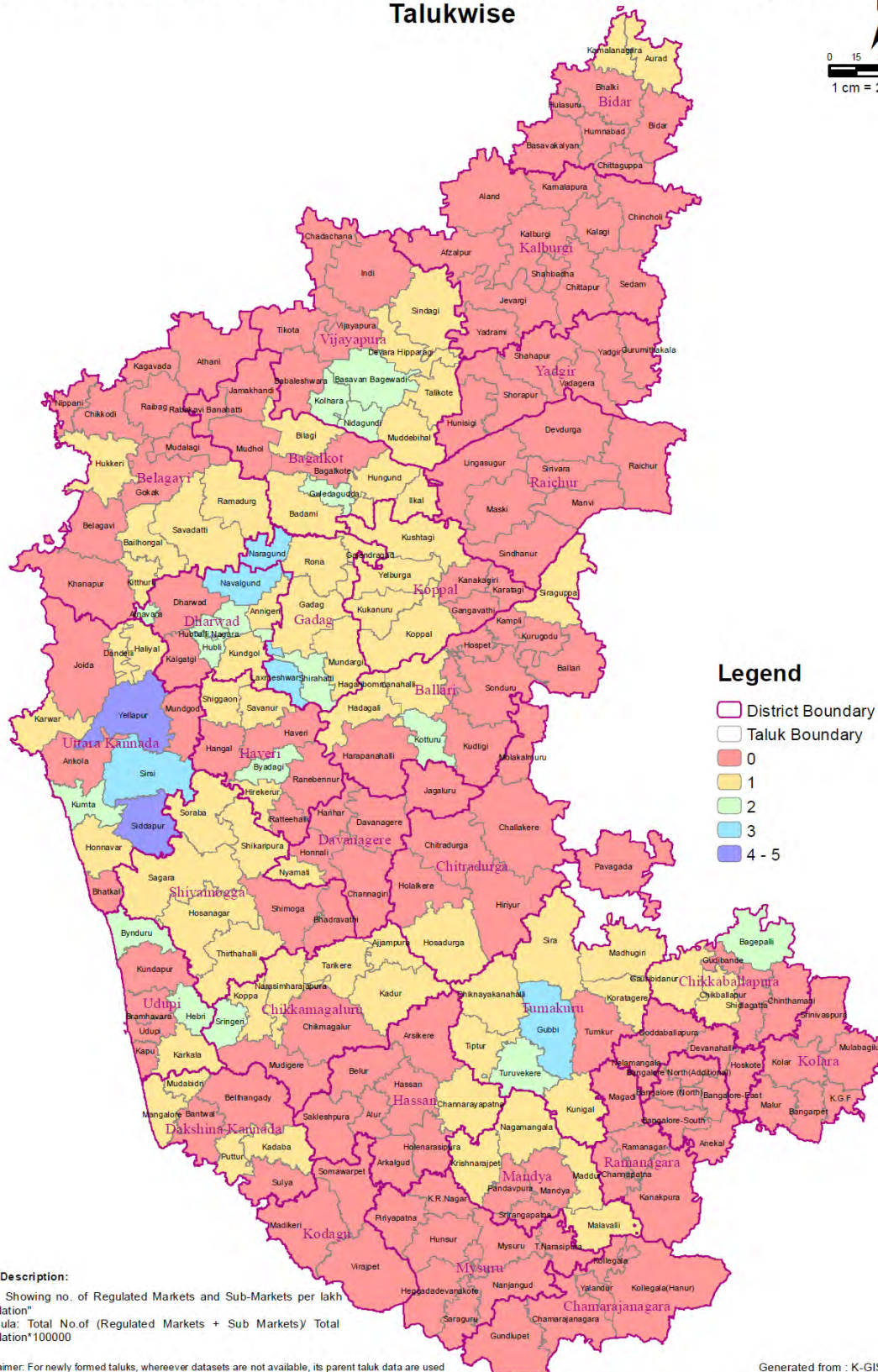
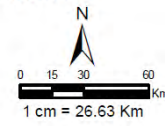
Formula:  $\text{Net Area irrigated} / \text{Net area sown} * 100$

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS, KRSRAC



# Number of Regulated Markets and Sub Markets per lakh Population - Talukwise



### Legend

- District Boundary
- Taluk Boundary
- 0
- 1
- 2
- 3
- 4 - 5

**Map Description:**  
 "Map Showing no. of Regulated Markets and Sub-Markets per lakh population"  
 Formula:  $\frac{\text{Total No. of (Regulated Markets + Sub Markets)}}{\text{Total population} * 100000}$

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS, KRSRAC

## 2E. Appendices

### Appendix 2.1: Indicator-wise data source and nodal department

Sl.No.	National Indicator No.	State Indicator No.	Data Source	State Nodal Department
1	2.1.1		ICDS	WCD
2	2.1.2		FCS	Consumer Affairs, FCS
3		2.1.2.1	SRS- Census	HFW
4		2.1.2.2	ICDS	WCD,HFW
5		2.1.2.3	SRS-Census	WCD,HFW
6		2.1.2.4	FCS Dept.	Consumer Affairs, FCS
7	2.2.1		NFHS-4	WCD,HFW
8	2.2.2		NFHS-4	WCD,HFW
9	2.2.3		NFHS-4	WCD,HFW
10	2.2.4		NFHS-4	WCD,HFW
11	2.2.5		NFHS-4	WCD,HFW
12		2.2.5.1	NFHS-4	WCD,HFW
13		2.2.5.2	NFHS-4	WCD,HFW
14		2.2.5.3	NFHS-4	WCD,HFW
15		2.2.5.4	NFHS-4	WCD,HFW
16		2.2.5.5	NFHS-4	WCD,HFW
17	2.3.1		DES	Agriculture, DES
18		2.3.1.1	DES	Agriculture, DES
19		2.3.1.2	DES	Agriculture, DES
20		2.3.1.3	DES	Agriculture, DES
21		2.3.1.4	DES	Agriculture, DES
22		2.3.1.5	DES	Agriculture, DES
23		2.3.1.6	DES	Agriculture, DES
24	2.3.2		DES	Agriculture, DES
25	2.3.3		Co-operation Dept.	Agriculture, Cooperation
26		2.3.3.1	DES	Agriculture, DES
27		2.3.3.2	DES	Agriculture, DES
28		2.3.3.3	DES	Agriculture, DES
29		2.3.3.4	DES	Agriculture, DES
30		2.3.3.5	DES	Agriculture, DES
31		2.3.3.6	DES	Agriculture, DES
32		2.3.3.7	DES	Agriculture, DES
33		2.3.3.8	DES	Agriculture, DES
34		2.3.3.9	DES	Agriculture, DES
35		2.3.3.10	DES	Agriculture, DES
36		2.3.3.11	DES	Agriculture, DES
37		2.3.3.12	DES	Agriculture, DES
38		2.3.3.13	DES	Agriculture, DES
39		2.3.3.14	Sericulture	Sericulture
40		2.3.3.15	Sericulture	Sericulture
41		2.3.3.16	Sericulture	Sericulture
42	2.4.1		Agriculture	Agriculture

Sl.No.	National Indicator No.	State Indicator No.	Data Source	State Nodal Department
43	2.4.2		Agriculture	Agriculture, DES
44	2.4.3		Agriculture	Agriculture, DES
45		2.4.3.1	DES	Agriculture, DES
46		2.4.3.2	WDD	Agriculture, WDD
47		2.4.3.3	WDD	Agriculture, WDD
48		2.4.3.4	WDD	Agriculture, WDD
49		2.4.3.5	WDD	Agriculture, WDD
50	2.5.1		Agriculture	Agriculture
51	2.5.2		Agriculture	Agriculture
52	2.5.3		Fisheries	Fisheries
53		2.5.3.1	Fisheries	Fisheries
54		2.5.4.1	Animal Husbandry	Animal Husbandry
55		2.5.4.2	Animal Husbandry	Animal Husbandry
56		2.5.4.3	Animal Husbandry	Animal Husbandry
57	2.a.1		Agriculture, DES	Agriculture, DES
58	2.a.2		Agriculture, DES	Agriculture, DES
59	2.c.1		APMC	Co-operation
60		2.c.1.1	APMC	Co-operation
61		2.c.1.2	APMC	Co-operation
	19	38		

Appendix Table 2.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)

Scheme Name	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
National Food Security Mission	174.77	187.50	201.50	211.00	217.50	222.05	226.25	231.50	237.25	242.00	248.70	2225.25
Annabhagya for BPL beneficiaries towards subsidies for Other items	50.00	55.00	60.50	66.55	73.21	80.53	88.58	97.44	107.18	117.90	129.69	876.56
Annabhagya for APL beneficiaries towards subsidies for Food Grains	20.00	22.00	24.20	26.62	29.28	32.21	35.43	38.97	42.87	47.16	51.87	350.62
Annabhagya for BPL beneficiaries towards subsidies for Food Grains	3700.00	4070.00	4477.00	4924.70	5417.17	5958.89	6554.78	7210.25	7931.28	8724.41	9596.85	64865.32
Ksheera Bhagya	310.00	320.00	330.00	340.00	350.00	360.00	390.00	420.00	445.00	470.00	500.00	3925.00
National programme for National Support to Primary Education (MDM)	1958.82	2356.00	2591.67	2850.84	3135.92	3449.51	3794.46	4173.91	4591.30	5050.43	5555.47	37549.52
Rajiv Gandhi Scheme for empowerment of Adolescent Girls (SABALA)	9.00	9.90	10.89	11.97	13.18	14.49	15.94	17.54	19.29	21.22	23.34	157.77
Pradhana Mantri Matru Vandana Yojane	10.00	11.00	12.10	13.31	14.64	16.11	17.72	19.49	21.44	23.58	25.94	175.31
Maatrushree Yojane	470.00	517.00	568.70	625.57	688.13	756.94	832.63	915.90	1007.49	1108.24	1219.06	8239.65
Maatru-poorna Yojane	709.59	780.55	858.62	944.48	1038.98	1142.82	1257.10	1382.81	1521.09	1673.20	1840.52	12440.15
Rashtriya Krishi Vikas Yojane – RKVY	198.00											
Micro Irrigation-Agriculture	366.67	400.00	435.07	450.00	466.67	487.27	50.33	534.00	551.67	563.33	574.97	4513.30
Micro Irrigation-Horticulture	366.67	400.00	435.07	450.00	466.67	487.27	50.33	534.00	551.67	563.33	574.97	4513.30
Micro Irrigation-Sericulture	366.67	400.00	435.07	450.00	466.67	487.27	50.33	534.00	551.67	563.33	574.97	4513.30
Krishi Bhagya	250.00	282.00	300.00	350.00	400.00	450.00	480.00	510.00	540.00	570.00	610.00	4492.00
National Mission for Oil Seeds and Oil Palm (from 2019-20 onwards merged with NFSM)	7.40	7.90	8.30	8.70	9.15	9.50	9.70	9.90	10.15	10.40	10.65	94.35
Krishi Yantradhare	75.73	76.75	77.50	78.50	79.50	80.50	81.50	82.00	83.00	84.00	85.00	808.25
Mechanisation & Agro Processing	346.85	355.00	365.00	375.00	385.00	395.00	405.00	417.00	423.00	435.00	451.00	4006.00
Comprehensive Horticulture Development	130.00	140.50	146.50	152.00	158.00	164.50	170.00	175.50	182.50	189.00	195.00	1673.50
Hightech Horticulture	120.00	135.00	150.00	165.00	180.00	200.00	210.00	220.00	230.00	240.00	250.00	1980.00
National Horticulture Mission	125.49	0.00	153.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	172.00	325.60
Organic Farming	97.00	111.55	128.28	147.52	169.65	195.10	224.37	258.02	296.73	341.23	392.42	2264.88
Pradhana Mantri Krishi Sinchayi Yojane	166.00	190.90	219.54	252.47	290.34	333.89	383.97	441.56	507.80	583.97	671.56	3875.98
National Livestock Mission	17.00	17.50	18.00	18.30	18.60	18.90	19.20	19.50	19.80	20.10	20.40	190.30
Animal Husbandry Statistics and Livestock Census	2.95	3.92	3.96	4.00	4.04	4.08	4.12	4.16	4.20	4.25	4.30	41.03
Animal Husbandry Statistics and Livestock Census	0.01	0.00	1.14								1.27	2.41
National Mission on Agricultural Extension and Training	85.30	93.83	103.21	113.53	124.89	137.38	151.11	166.23	182.85	201.13	221.25	1495.41
Total	10133.91	10943.80	12115.41	13030.06	14197.17	15484.18	15502.86	18413.68	20059.21	21847.21	24001.19	165594.76

**3 GOOD HEALTH  
AND WELL-BEING**



**“Let’s learn to prevent all diseases”**





## **GOAL 3. GOOD HEALTH AND WELL-BEING - ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES**

### **3A. Background**

Attainment of good health and well-being is integral to many SDGs and contributes to the progress in sustainable development. It has been argued that the challenges of the wider social determinants and risk factors to health can only be successfully tackled through a “grand convergence” by using a public health system approach. While the SDG goals and targets set a global context, they have been designed in a way so that they can be adapted locally to meet the region-specific challenges. Goal 3 of the SDGs agenda is to ‘ensure healthy lives and promote well-being for all at all ages’ by achieving 13 health targets. The state is performing better than the national average on several key indicators of health. However, there is room for improvement in many areas to accelerate the achievement of the global goals for health and development.

Although the state has progressed significantly in terms of reducing the burden of many diseases and their associated risk factors, it still faces a number of healthcare challenges. While it is important to offer support to underprivileged and disadvantaged, the key strategy is to provide effective health interventions to all. Some of the key challenges faced by the government are as follows:

- Improving the quality and coverage of essential health services
- Strengthening the management and organization of health systems
- Enhancing transparency and accountability
- Addressing proper distribution and utilization of human resources for health at all levels
- Overcoming poor health literacy

**The Karnataka State Public Health Policy:** Karnataka’s health policy aims to strengthen the state health system and provide access to good healthcare for all. The state endeavours to provide quality health uniformly to its population. Karnataka’s health policy goals include:

- Providing integrated and comprehensive primary healthcare
- Establishing a credible and sustainable referral system with follow up mechanism
- Ensuring equity in the delivery of quality healthcare
- Encouraging greater public-private partnership in the provision of quality healthcare in order to better serve the underserved area
- Addressing the emerging issues in public health
- Strengthening basic services including education, transportation & communication, food & agriculture, water supply & sanitation
- Developing health human resources
- Improving access to safe and quality drugs at affordable prices
- Increasing access to systems of alternative medicine

#### **Current Initiatives by the Government of India**

Various initiatives by the Government of India towards achieving SDG Goal 3 include reducing mortality,

reducing the spread of communicable and non-communicable diseases and ensuring universal health coverage. Some of these initiatives are listed out below:

- The **National Health Mission (NHM)** has two sub-missions, the National Rural Health Mission (NRHM) and the National Urban Health Mission (NUHM), aims to provide universal access to healthcare.
- **Ayushman Bharat - Pradhan Mantri Jan Aarogya Yojana (PMJAY)** is a National Health Protection and Universal Health Coverage scheme which aims to provide coverage of up to 5 lakh rupees per family per year for secondary and tertiary hospitalization care.
- **Mission Indradhanush** is a scheme which works at providing full immunization coverage in India to at least 90% of all children by December 2018.
- The **National Tuberculosis Control Program (RNTCP)** provides affordable and appropriate TB treatment to those in need.
- The **National Leprosy Eradication Program** aims to reduce the number of leprosy cases.
- The **Integrated Disease Surveillance Program (IDSP)** monitors disease trends and aims to detect and respond to contain outbreaks in the early rising phase.
- The **National Mental Health Program (NMHP)** improves access to mental healthcare services.
- The **National Program for Control of Blindness and Visual Impairment (NPCBVI)** aims to reduce the prevalence of blindness.
- The **National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)** works to reduce premature mortality and morbidity from non-communicable diseases.

### **Performance of Goal 3 of Karnataka State**

To measure Karnataka's performance on the Goal of Good Health and Well-being, five national-level indicators have been identified by NITI Aayog's "SDG India Index, Baseline Report, 2018". The report captures four out of the 13 health targets outlined for 2030. The five indicators identified in the report are as follows:

- Maternal Mortality Ratio
- Under-five mortality rate per 1,000 live births
- Percentage of children aged 12-23 months that are fully immunized (BCG, Measles and three doses of pentavalent vaccine)
- Annual notification of Tuberculosis cases per 1,00,000 population
- Number of governmental physicians, nurses and midwives per 1,00,000 population

According to the report, Karnataka is one of the front runners among Indian states (scoring 66 out of 100), just behind Kerala (92 out of 100) and Tamil Nadu (77 out of 100). The national average score for progress on SDG 3 (Health) is 52. Although Karnataka has done well compared to the national average, much remains to be done in order to resonate statistics as to Kerala and Tamil Nadu.

The Karnataka State Matrix for SDG 3 presented below provides the list of SDG targets and indicators along with the current status in the state, as well as the targets to be achieved by the years 2022 and 2030. The designing and planning of desired interventions for Karnataka to achieve the targets needs to

be guided by the principles and objectives as follows:

**Principles:** (i) Professionalism, Integrity and Ethics; (ii) Equity: They must aim at reducing inequity through affirmative action to minimize disparity; (iii) Accessibility and Affordability: Household healthcare expenditures need to be within 10% of its total monthly consumption expenditure or 40% of its monthly non-food consumption expenditure;(iv) Universality: the systems and services should be designed to cater to the entire population, including special groups, to ensure that no one is left behind; (v) Community-based, Patient-centered, Comprehensive and Integrated High-Quality Care; (vi) Accountability: There must be financial and performance accountability, transparency in decision-making, and elimination of corruption in healthcare systems, both public and private; (vii) Inclusive Partnerships: This approach would include partnerships with academic institutions, not-for-profit agencies, and the healthcare industry; (viii) Pluralism: Patients who so choose and when appropriate, should have access to AYUSH care providers based on documented and validated local, home and community-based practices; (ix) Decentralization: The decentralization of decision-making to a community level (PRI or Local Self Governance) should be consistent with practical considerations and institutional capacity, and commoditization in health planning processes should be promoted side by side; (x) Dynamism and Adaptability: The dynamic organization of healthcare should be continuously improved based on new knowledge and evidence with learning from the communities and from national and international knowledge partners.

To improve the population health status through concerted action in all sectors and to expand preventive, palliative, curative, and rehabilitative services provided with a focus on quality and service delivery.

**Objectives:** (i) Progressively achieve Universal Health Coverage; (ii) Reinforcing trust in the Public Health Care System; (iii) Align the growth of private health care sector with public health goals; and (iv) Set up the specific Quantitative Goals and Objectives.

### **3B. Targets and Indicators for achieving SDG 3**

The following section outlines the key health targets to be achieved by Karnataka by 2030. These targets and indicators have been developed based on extensive consultations by expert groups and covers public health, communicable diseases, NCDs, road traffic accidents, reproductive health, the ratio of healthcare professionals to the population, and the provision of 100% essential drugs. The achievement of these targets will require integration of both the modern system of medicine as well as AYUSH systems of health care.

#### **3.1 - By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births**

- To reduce the MMR from 97/100,000 live births in 2015–2016 to 78/100,000 by 2022 and to 50/100,000 by 2030.
- To increase the proportion of births attended by skilled health personnel from 99.40% in 2015–2016 (one year) to 100% by 2022 and to 100% by 2030.
- To increase the percentage of women aged 15–49 years with a live birth (last birth) who received antenatal care four times or more from 70.10% in 2015-2016 to 80% and 100% by 2022 and 2030 respectively.

- To increase the proportion of institutional deliveries from 94.3% in 2016-2017 to 100% by 2022 and retain the same level through 2030.
- To reduce the proportion of home deliveries to nil by 2022 and ensure that any home deliveries (if there) can be attended by skilled health personnel.
- To maintain the proportion of pregnant women beyond 20 weeks of gestation screened for anaemia at 100% by 2022.
- To increase the proportion of pregnant women beyond 28 weeks of gestation screened for gestational hypertension from 4.2% in 2017-2018 to 100% by 2022 and retain the same level through 2030.
- To increase the proportion of pregnant women beyond 28 weeks of gestation screened for gestational diabetes from 1.2% in 2016-2017 to 100% by 2022 and retain the same level by 2030.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.1.1		Maternal Mortality Ratio per lakh population	2015-16	97	78	50
3.1.2		Percentage of births attended by skilled health personnel (Period 5 Years)	2015-16	93.70	95	100
3.1.3		Proportion of births attended by skilled health personnel (Period 1 Year)	2015-16	99.40	100	100
3.1.4		Percentage of women aged 15-49 years with a live birth, for last birth, who received antenatal care, 4 times or more (Period 5 years/ 1 year)	2015-16	70.10	80	100
	3.1.4.1	Percentage of home deliveries	2016-17	0.41	2.5	0
	3.1.4.2	Percentage of institutional deliveries	2016-17	99.59		97.5
	3.1.4.3	Proportion of Home deliveries (if any) attended by a skilled birth attendant.	2015	3.10	25	100
	3.1.4.4	Proportion of all pregnancy outcomes beyond 20 weeks who had a Haemoglobin checked	2017-18	137.73	100	100
	3.1.4.5	Proportion of all pregnancy outcomes beyond 28 weeks who were screened for PIH/Gestational Hypertension	2017-18	4.21	100	100
	3.1.4.6	Proportion of all pregnancy outcomes beyond 28 weeks who were screened for Gestational Diabetes	2016-2017	1.17	100	100

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

- To reduce the under-5 mortality rate from 30/1000 live births in 2017 to 23/1000 and 20/1000 by 2022 and 2030 respectively.
- To reduce the neonatal mortality rate from 18/1000 live births in 2017 to 18/1000 and to 14/1000 by 2022 and 2030 respectively
- To reduce the infant mortality rate from 24/1000 live births in 2016 to 16/1000 and to 12/1000 by 2022 and 2030 respectively.
- To increase the percentage of children aged 12-23 months that are fully immunized (received 1 dose of BCG, 3 doses of Pentavalent Vaccine and 1 dose of Measles vaccine) from 62.60% in 2015-16 to 100% by 2022 and retain the same level through 2030.
- To reduce the proportion of children under 5 with moderate and severe malnutrition from 35.2% (underweight) and 36.2% (stunted) in 2016 to 24% and 12% by 2022 and 2030 respectively.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.2.1		Under-five mortality rate per 1000 live births	2017	30	23	20
3.2.2		Neonatal mortality rate per 1000 live births	2017	18	14	10
3.2.3		Percentage of children aged 12-23 months fully immunised (BCG, Measles and three doses of Pentavalent vaccine)	2015-16	62.60	100	100
	3.2.3.1	IMR (per 1000 live births),	2016	24	16	12
	3.2.3.2	Child Mortality Rate (per 1000 live births)	2016	29	23	20
	3.2.3.3	Proportion of Under 5 children with under weight	2016	35.2	33.2%	23.2
	3.2.3.4	Proportion of Under 5 children with stunted	2016	36.2	34.2	24.2
	3.2.3.5	Proportion of Under 5 children with wasted	2016	26.1	24.1	14.1

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

- To reduce the absolute number of TB deaths from levels in 2015 by 35% and by 90% in 2022 and

2030 respectively.

- To reduce the TB incidence rate (new cases per 100,000 population per year) from 118 in 2017 to 104 in 2022 and 44 in 2030.
- To increase the percentage of TB cases successfully treated (cured plus treatment completed) among TB cases notified to the national health authorities during a specified period from 85% (2016) to 90% to 95% by 2022 and 2030 respectively.
- To combat Hepatitis and achieve state-wide elimination of Hepatitis C by 2030.
- To achieve a significant reduction in the infected population, morbidity and mortality associated with Hepatitis B and C viz. Cirrhosis and Hepatic-cellular carcinoma (liver cancer).
- To reduce the risk, morbidity and mortality due to Hepatitis A and E.
- To reduce new HIV infections from levels in 2010 by 75% and by 80% by 2022 and 2030 respectively.
- To increase the percentage of People Living with HIV (PLHIV) currently receiving ART among the detected number of adults and children living with HIV to 100% by 2022.
- To link 95% of estimated PLHIV to services by 2022.
- To achieve complete elimination of mother-to-child transmission of HIV and syphilis by 2030.
- To achieve the elimination of stigma and discrimination.
- Malaria: For all sub-centers to attain less than 1 API status by 2022 and to sustain API = 0 level in all villages, with no indigenous cases, by 2030.
- Dengue: To maintain CFR less than 1 by 2022 and retain the same level through 2030.
- Leprosy: To reduce the proportion of Grade 2 cases amongst new cases of leprosy from levels in 2016-2017 by 3% by 2022 and by another 3% by 2030.
- Fluorosis: To reduce incidence by around 12 -15% in endemic districts by 2022 and by 30-45% by 2030.
- To reduce the disease-specific incidence of Kyasanur Forest Disease (KFD) by 50% by 2022 and complete elimination of KFD (100% reduction in disease-specific incidence) by 2030

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.3.1		Number of HIV infections per 1,000 uninfected population	2017	0.08	0	0
3.3.2		Tuberculosis incidence per 100,000 population	2017	118	104	44
3.3.3		Malaria incidence per 1,000 population (API)	2006	1.3	<1	0
3.3.4		Viral Hepatitis (including A, B, C, D, E) incidence per 100,000 population	-	-	-	-
	3.3.4.1	Viral Hepatitis - B incidence per 100,000 Pregnant	Jan 2017 to Dec 2017	4	2.66	1.33

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
		Women				
	3.3.4.2	Viral Hepatitis - C incidence per 100,000 Pregnant Women(HCV)	Jan 2017 to Dec 2017	0.09 to 15%	Reduce 0.33% of base value	Reduce 0.66% of base value
	3.3.4.3	Viral Hepatitis - (Including A, D, E) incidence per 100,000 Pregnant Women	-	-	-	-
3.3.5		Dengue: Case Fatality Ratio (CFR)	2006	6.40	<1	<1
3.3.6		Number of Chikungunya Cases	2006	305	0	0
3.3.7		Number of Kala-azar/ V Leishmaniasis	-	-	-	-
3.3.8		Number of Lymphatic Filariasis (Mf rate)	2017	16059	< 0.5%	< 1 %
3.3.9		Proportion of Grade -2 cases amongst new cases of Leprosy	2018	3.91	3	<2
3.3.10		HIV Prevalence Rate	2017	0.47	0	0
	3.3.10.1	Number of new cases of leprosy	April 2017 to Feb 2018	2682	0.21	0.1
	3.3.10.2	Number of Fluorosis cases (%)	2013-14	20%	12-15	32-45%
	3.3.10.3	Number of Geriatric care centres	--	--	--	--
	3.3.10.4	Kyasanur Forest Disease Virus specific to Karnataka	--	--	--	--

Note: - Not Available

### 3.4 - By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

- Relative reduction in Cardiovascular Disease, Cancer, Chronic Respiratory Diseases and Diabetes from levels in 2018 by 10% in 2020, 25% by 2025 and 30% by 2030.
- Halt the rise in obesity and diabetes prevalence.
- Relative reduction in prevalence of raised blood pressure from levels in 2018 by 10% in 2020, 25% in 2025 and 30% in 2030.
- Relative reduction in mean population intake of salt from levels in 2018 by 20% in 2020, 30% in 2025 and 50% by 2030 with the aim of reaching the recommended level of less than 5g per day.
- Relative reduction in household use of solid fuels as the main source of energy for cooking from levels in 2018 by 25% in 2020, 50% in 2025 and 70% by 2030.

- To reduce the prevalence of dental caries and periodontal diseases from their current levels to less than 30% by 2030 and to maintain the current DMFT levels.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.4.1		Number of deaths due to cancer per lakh population	2015 - 16	330 women; 81 men	--	--
3.4.2		Suicide mortality rate per lakh population	2018	17.7	20	0
3.4.3		Percentage distribution of leading causes groups of deaths	2017	30.4	25	10
	3.4.3.1	Proportion of COPD	-	-	-	-
	3.4.3.2	Mortality attributable to mental disorders	-	-	-	-
	3.4.3.3	Mortality rate attributed to Stroke	2016 - 17	50.7	45	16.9
	3.4.3.4	Mortality rate attributed to cardiovascular disease per 100000-Male	2015 - 16	739	650	275
	3.4.3.5	Mortality rate attributed to cardiovascular disease per 100000-Female	2015- 16	821	700	300
	3.4.3.6	Mortality rate attributed to Diabetes Mellitus per 100,000	2016 - 17	42.7	38	18

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

- There is paucity of data on most of the indicators proposed in the SDGs under this target. The state will endeavour to generate data on the following indicators and continually improve on yearly statistics:
  - The percentage of adults (15+ years) who have had at least 60 millilitre or more of pure alcohol on at least one occasion weekly (approximately equivalent to standard alcoholic drinks);
  - The number of persons treated in de-addiction centres.
  - A relative reduction in alcohol consumption by 5% in 2022 and by 10% by 2025 (National Indicator).
  - Coverage of treatment interventions (pharmacological, psychosocial and AYUSH rehabilitation and aftercare services) for substance-use disorders.



National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.5.1		Percentage of adults (15+ years) who have had at least 60 millilitre or more of pure alcohol on at least one occasion weekly (approximately equivalent to standard alcoholic drinks) (Women; Men)	2015-16	13.8; 51.9	-	-
3.5.2		Number of persons treated in de-addiction centres	2017-18	32934	-	-
3.5.3		Percentage of population men (15-54 years) and women (15-49 years) who consume alcohol (Women; Men)	2015-16	1;29.5	-	-
	3.5.3.1	Coverage of treatment interventions (pharmacological, psychosocial and AYUSH rehabilitation and aftercare services) for substance use disorders	-	-	-	-

### 3.6 - By 2020, halve the number of global deaths and injuries from road traffic accidents

- A reduction in death rate due to road traffic accidents from 16.34 in 2017 to 10 in 2022 and further 5 in 2030.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.6.1		Death rate due to road traffic accidents per lakh population	2017	16.34	10	5

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

- Increase the percentage of currently married women aged 15-49 years who use any modern family planning methods from 51.30 % (2015-16) to 60% and 70% by 2022 and 2030 respectively.
- Reduce the percentage of women aged 15-19 years who are already mothers or pregnant from 7.80% (2015-16) to 5% by 2022 and further reduce it to less than 3% by 2022 and 2030 respectively.
- Increase the percentage of eligible population covered by publicly-funded health insurance schemes (Rajiv Aarogyarashri, CGHS, ESIS etc.) from 93% (2017) to 100% by 2022 and 2030 respectively.
- Increase the number of hospital beds (in government hospitals) from 9 beds per 10000 population (2017) to 15 per 10000 by 2022 and 30 per 10000 by 2030.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.7.1		Percentage of currently married women (15-49 years) who use any modern family planning methods	2015-16	51.30	60	70
3.7.2		Percentage of women aged 15-19 years who are already mothers or pregnant	2015-16	7.80	5	< 3
3.7.3		Institutional births (%) ( 5 years;1 year)	2015-16	94;96.20	99;99	100;100
	3.7.3.1	Percentage of eligible population covered by publicly funded health insurance schemes (Rajiv Aarogyashri, CGHS, ESIS, etc.)	2017	93	100	100
	3.7.3.2	Hospital beds per 10000 population In Govt. Hospitals	2017	9	15	30

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

- Ensure continued and equitable access to disease prevention, promotion, treatment and rehabilitation throughout all stages of life.
- To increase the proportion of women aged 30-49 years who report they were ever screened for cervical cancer and the proportion of women aged 30-49 years who report they were screened for cervical cancer during the last 5 years from 15.6% in (2015-16) to 50% by 2022 and 70% by 2030.
- To increase the total number of doctors, nurses and midwives as follows: 2 doctors, 10 staff-nurses and 2 midwives, all per 1000 population; to 5 doctors, 12 staff-nurses and 2.5 midwives, all per 1000 population, by 2030.
- To provide 100% of the essential drugs on the Essential Drugs List recommended by the World Health Organisation by 2022.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.8.1		Percentage of currently married women (aged 15-49 years) who use any modern family planning	2015-16	51.30	60	70

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
		methods				
3.8.2		Percentage of TB cases successfully treated (cured plus treatment completed) among TB cases notified to the national health authorities during a specified period	2016	58	90	95
3.8.3		Percentage of people living with HIV currently receiving ART among the detected number of adults and children living with HIV	2018-19	83	100	100
3.8.4		Proportion of population in age group 15-49 years who are currently taking antihypertensive medication among age group 15-49 with systolic blood pressure $\geq$ 140 mmHg, or with diastolic blood pressure $\geq$ 90 mmHg	2015-16	12.70	20	50
3.8.5		Proportion of population in age group 15-49 years who are currently taking antihypertensive medication diabetes (insulin or glycaemic control pills) among number of adults 15-49 years who are having random blood sugar level - high (>140 mg/dl)	2015-16	10.82	20	40
3.8.6		Proportion of women aged 30-49 years who report they were ever screened for cervical cancer and the proportion of women aged 30-49 years who report they were screened for cervical cancer during the last 5 years	2015-16	15.6	50	70
3.8.7		Prevalence of current tobacco uses among men	2016-17	16.8 & 0.7	10.4 & 0.3	4&0.2

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
		and women aged 15-49 years (%)				
3.8.8		Total physicians, nurses and midwives per 10000 population	2017	7609, 11519, 10408 (total)	130,200, 170	260,400, 350
	3.8.8.1	Average availability of drugs as per Essential Drug List	2017	450	100	100

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

This is a national target and the specific indicators for Karnataka are in line with the national indicators which are:

- Incidence of deaths due to unintentional poisoning.
- The proportion of men and women aged 15-49 years reporting asthma.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.9.1		Mortality rate attributed to unintentional poisoning per lakh population	2018	2.49	1	0
3.9.2		Proportion of men and women reporting Asthma 15-49 years (Women; Men)	2015-16	1.5;0.7	-	-

### 3. a - Strengthen the implementation of the World Health Organisation Framework Convention on Tobacco Control in all countries, as appropriate

This is a national target and the specific indicator for Karnataka is in line with the national indicator which is, reducing the age-standardised prevalence of current tobacco use among persons aged 15 years and older from its current levels by 15% by 2022 and by 30% by 2030.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.a.1		Prevalence of current tobacco uses among men and women aged 15-49 years	2015	22.8	19.38	16.2

**3.B - Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.**

This is an aspirational target and the proposed specific aspirational indicators for Karnataka State are:

- A percentage of the state health budget allocated to bio-medical & AYUSH research.
- A percentage of the state health budget allocated to basic health sector and the validation of AYUSH.
- A percentage of the state health budget allocated to strengthening the practice, professional education and overall development of AYUSH systems of medicine.
- Budget expenditure on health as a percentage of the state GDP (as per National Health Policy 2017 and the Karnataka State Health Policy).
- Reduction in out-of-pocket expenditure on health as per the advised national norms.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.b.1		Total net official development assistance to medical research and basic health sectors	-	-	-	-
	3.b.1.1	% of state health budget allocated to medical research & AYUSH research	-	-	-	-
	3.b.1.2	% of state health budget allocated to basic health sectors & Validation of AYUSH	-	-	-	-
	3.b.1.3	% of state health budget allocated to AYUSH- clinical Practice; Professional Education; Research & Development (Cr)	2018-19	146	1925	7900
	3.b.1.4	Budget expenditure on health as a % of State GDP (Crore Rs.)	2017-18	5118.24	8198.65	8707.10
	3.b.1.5	Rate of Out - of - Pocket expenditure on health	2015-16	4824	-	-

**3. c - Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and Small Island developing States**

This is an aspirational target and the proposed specific aspirational indicators for Karnataka State are:

- Total physicians, AYUSH specialists, nurses and midwives per 10000 population in 2022 and 2030 as per National/WHO norms.
- Percentage of public investment in health as proportion of GDP as per national norms.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
3.c.1		Total physicians, nurses and midwives per 10000 population	2017	7609, 11519, 10408	130,200, 170	260,400, 350
	3.c.1.1	Total AYUSH physicians, AYUSH nurses and Therapists per 10000 population	2018-19	A-1073, B-46, C-1129, D-1650	-	-
3.c.2		Percentage of public investment in health as proportion to GDP	-	-	-	-

### 3. d - Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

- To increase surveillance (in the government sector), preparedness and response to 100% by 2022.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
	3. d.1.1	Percentage of attributes of 13 core capacities				
	3. d.1.2	National legislation, policy and financing	-	-	-	-
	3. d.1.3	Coordination and national Focal Point Communications	-	One SSU & 26 DSUs	-	-
	3. d.1.4	Surveillance	2017	Reporting Units- S-Forms:9679, P-Forms: 3667, L-Forms:3252	100% in govt. sector; Private reporting to be improved.	100%
	3. d.1.5	Response	2017	152 no.	100%	100%
	3. d.1.6	Preparedness	2017	31 RRTs	100%	100%
	3. d.1.7	Risk Communication (Early Warning Signals (EWS) , Analysis Alert, Media Scanning)	2017	192,29, 28	-	-
	3. d.1.8	Human Resources (Regular	2017	-	-	-

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Base Line Value	2022	2030
		posts & NHM Posts)				
	3. d.1.9	Laboratory (District Surveillance Lab, District Public Health Lab, Referral Lab)	2017	12,14,8	-	-
	3. d.1.10	Point of entry	-	-	-	-
	3. d.1.11	Zoonotic events	2017	-	-	-
	3. d.1.12	Food safety	2017	14000	42000	154000
	3. d.1.13	Chemical events	-	-	-	-
	3. d.1.14	Radio nuclear emergencies that have been attained at a specific point in time	-	-	-	-
	3. d.1.15	Availability of District and State Disaster Management Plans	2017-18	100	100	100

### 3C. Way Forward

The achievement of the targets will require a relevant, integrated Health Management Information System which should be designed for the Department of Health and associated departments so that this array of targets can be monitored.

- Comprehensive package of evidence-based interventions with effectiveness determined by availability, accessibility, actual utilization, quality of services and the outcomes achieved. This is required to reduce MMR, Neonatal Mortality and Under 5 Mortality.
- Focus on the first 1000 days – pregnancy plus two years of child's life
- Greater public-private partnership for provision of quality healthcare in underserved areas.
- Strengthening health infrastructure and developing health human resources
- Improving access to safe and quality drugs at affordable prices and full stock of essential medicines
- Coordinated, holistic implementation of different national health programs in the field of Mother and Child Health (MCH), Family Planning (FP), Nutrition, RCH (Reproductive and Child Health) and Adolescent Health ensuring partnerships with all stakeholders including NGOs and research organizations with a focus on community-based epidemiological approach to manage the program implementation.
- Ensuring universal access to comprehensive HIV care and ARV treatment adherence
- Intensify community-based management of acute malnutrition (CMAM) with screening and treatment of illness for children less than 6 months
- Documentation of the life course or life cycle-based, life stage-specific, age-appropriate critical best practices across interventions and target populations
- Strengthen and transform Civil Registration and Vital Statistics (CRVS) systems, use the decentralized, disaggregated data to achieve universal health coverage, as well as strategize the

programs for women and children

- State forum on Health and Nutrition Statistics should be set up to improve the quality, availability, and timeliness of data necessary to track health goals
- Streamline existing state/district-level health and nutrition surveys in a way that will improve disaggregated tracking of goals and objectives, and use the results for monitoring, evaluation and decision-making for improvement
- Effectively use Indian systems of medicine (AYUSH) and enable hand-holding and follow-up support for VHSNCs (Village Health, Sanitation and Nutrition Committees) and RKSs (*Rogi Kalyan Samitis*). Effective use of Indian Systems of Medicine (AYUSH) to assist in achieving Universal Health Coverage
- Upgrade and strengthen basic infrastructure in sub centers, PHC's and District hospitals.
- Ensure actions plans listed for AIDS, tuberculosis, and malaria neglected tropical diseases, and combat hepatitis, water-borne diseases, other communicable and non-communicable diseases through adoption of multi-sectoral cooperation and advocacy, multi sector response, Health Systems Strengthening and Universal Health Coverage, surveillance and monitoring.
  - Increasing availability of quick TB diagnostic tests CB-NAAT (Cartridge Based Nucleic Acid Amplification Test)
  - Promoting hepatitis vaccination to healthcare workers and high-risk groups
  - Ensuring safety of blood and blood products, injection safety, providing safe drinking water, sanitary toilets and good hygiene
  - Ensuring universal access to comprehensive HIV care
  - Ensuring ARV treatment adherence
- Safety impact assessments of transport and land-use plans, provision of visible, crash-protective, "smart" vehicles, setting and securing compliance with key road safety rules, and delivery of post-crash care.
- Increase tobacco excise taxes in order to reduce affordability and ban on tobacco through advertising, promotion and sponsorship.

### 3D. Budget Requirements

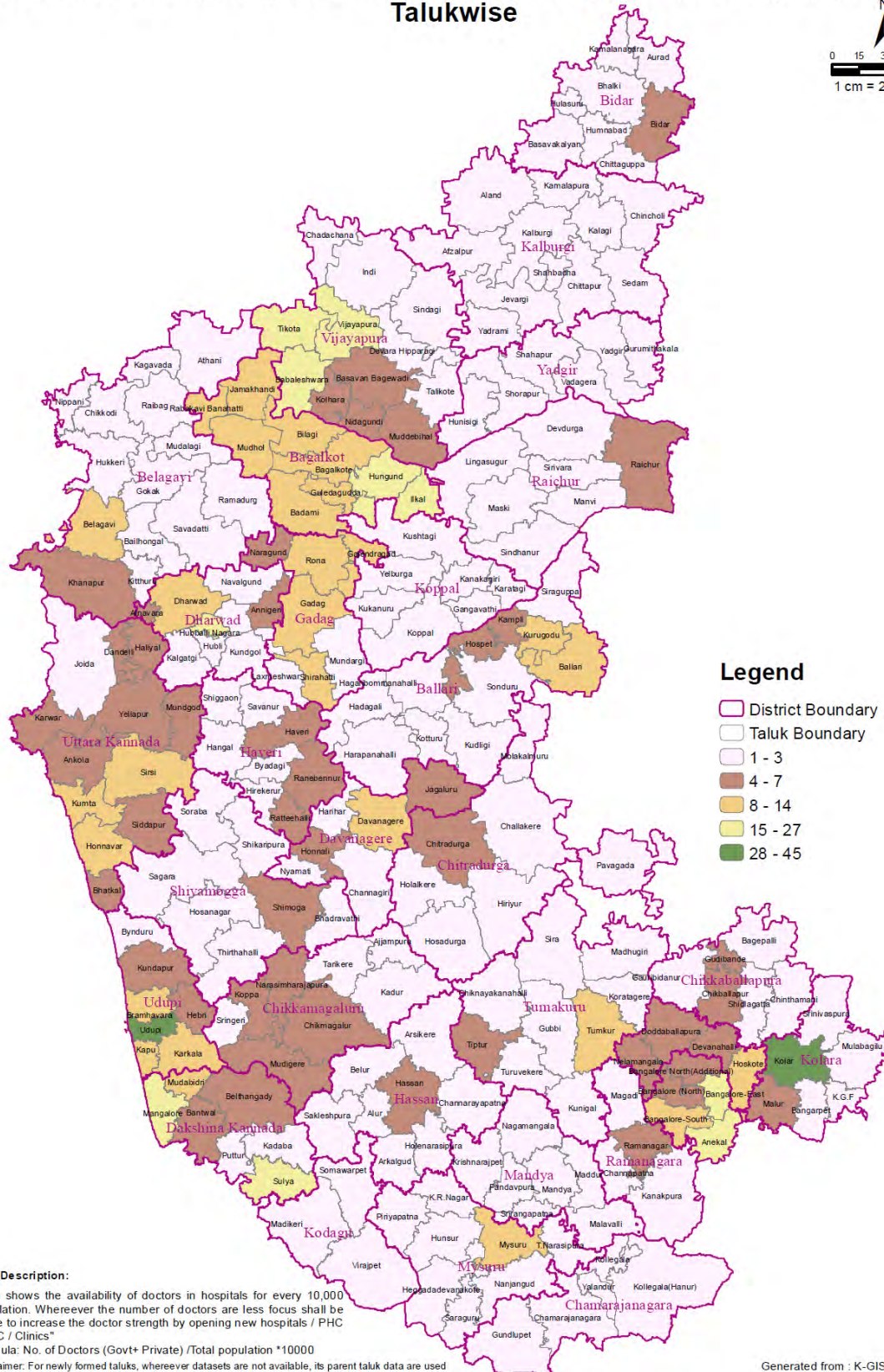
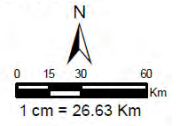
Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below. There are also aspirational targets which will require appropriate budgetary allocations by the State Government.

#### Budget requirement for SDG 3 (In Crores)

Department	Scheme Name	2020-21			2020-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Appendix Table 3.1	Appendix Table 3.2	975.08	861.01	114.07	15484.14	10653.91	4841.30



# Number of Doctors (Government and Private) per 10000 Population - Talukwise



- Legend**
- District Boundary
  - Taluk Boundary
  - 1 - 3
  - 4 - 7
  - 8 - 14
  - 15 - 27
  - 28 - 45

**Map Description:**  
 \*Map shows the availability of doctors in hospitals for every 10,000 population. Wherever the number of doctors are less focus shall be made to increase the doctor strength by opening new hospitals / PHC / CSC / Clinics\*  
 Formula: No. of Doctors (Govt+ Private) /Total population \*10000  
 Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS,KSRSAC

### 3E. Appendices

#### Appendix 3.1: Indicator-wise data source and nodal department

Sl. No.	National Indicator No.	State Indicator No.	Source of Data	State Nodal Dept.
1	3.1.1		SRS-2014-16	HFW
2	3.1.2		NFHS-4	HFW
3	3.1.3		Health Management Information System	HFW
4	3.1.4		NFHS-4	HFW
5		3.1.4.1	HMIS	HFW
6		3.1.4.2	HMIS	HFW
7		3.1.4.3	NHFS	HFW
8		3.1.4.4	HMIS	HFW
9		3.1.4.5	HMIS	HFW
10		3.1.4.6	HMIS	HFW
11	3.2.1		SRS	HFW
12	3.2.2		SRS	HFW
13	3.2.3		NFHS-4	HFW
14		3.2.3.1	SRS	HFW
15		3.2.3.2	SRS	HFW
16		3.2.3.3	NFHS-4	HFW
17		3.2.3.4	NFHS-4	HFW
18		3.2.3.5	NFHS-4	HFW
19	3.3.1		SIMS	HFW
20	3.3.2		RNTCP performance reports	HFW
21	3.3.3		National Vector Borne Disease Control Programme (NVBDCP)-Annual Report	HFW
22	3.3.4		Central Bureau of Health Intelligence (CBHI) portal	HFW
23		3.3.4.1	CBHI portal	HFW
24		3.3.4.2	CBHI portal	HFW
25		3.3.4.3	CBHI portal	HFW
26	3.3.5		NVBDCP-Annual Report	HFW
27	3.3.6		NVBDCP-Annual Report	HFW
28	3.3.7		NVBDCP-Annual Report	HFW
29	3.3.8		NVBDCP-Annual Report	HFW
30	3.3.9		NLEP Annual Report	HFW
31	3.3.10		Global Burden of Disease, 2017	HFW
32		3.3.10.1	MPR (Monthly Progress Report)	HFW
33		3.3.10.2	RDWSS	HFW
34		3.3.10.3	HFW	HFW
35		3.3.10.4	HFW	HFW
36	3.4.1		NFHS – 4	HFW
37	3.4.2		Global Burden of Disease, 2016	HFW
38	3.4.3		HFW	HFW
39		3.4.3.1	HFW	HFW
40		3.4.3.2	HFW	HFW
41		3.4.3.3	Global Burden of Disease, 2016	HFW
42		3.4.3.4	NFHS -4	HFW
43		3.4.3.5	NFHS -4	HFW
44		3.4.3.6	Global Burden of Disease, 2016	HFW
45	3.5.1		HFW	HFW, Social Justice & Empowerment
46	3.5.2		HFW	HFW, Social Justice & Empowerment
47	3.5.3		HFW	HFW
48		3.5.3.1	HFW	HFW
49	3.6.1		Home Dept. - Road Safety cell	Home
50	3.7.1		NFHS - 4	HFW
51	3.7.2		NFHS-4	HFW

Sl. No.	National Indicator No.	State Indicator No.	Source of Data	State Nodal Dept.
52	3.7.3		NFHS-4	HFW
53		3.7.4.1	Health Department	HFW
54		3.7.4.2	Health Department	HFW
55	3.8.1		NFHS - 4	HFW
56	3.8.2		RNTCP performance reports	HFW
57	3.8.3		NACO/ SIMS	HFW
58	3.8.4		NFHS-4	HFW
59	3.8.5		NFHS-4	HFW
60	3.8.6		NFHS-4	HFW
61	3.8.7		Global Adult Tobacco Survey (GATS) 2	HFW
62	3.8.8		Health Department	HFW
63		3.8.8.1	Health Department	HFW
64	3.9.1		Health Department	HFW
65	3.9.2		Health Department	HFW
66	3.a.1		GATS-2	HFW
67	3.b.1		Health Department	HFW
68		3.b.1.1	Health Department	HFW
69		3.b.1.2	Health Department	HFW
70		3.b.1.3	State Budget	HFW
71		3.b.1.4	State Budget Volume I & II	HFW
72		3.b.1.5	NFHS - 4	HFW
73	3.c.1		HFW	HFW
74		3.c.1.1	HFW	HFW
75	3.c.2		Finance	Finance
76	3.d.1		Refer State Indicator	Refer State Indicator
77		3. d.1.1	HFW	HFW
78		3. d.1.2	HFW	HFW
79		3. d.1.3	HFW	HFW
80		3. d.1.4	IDSP Portal	HFW
81		3. d.1.5	RRT (Rapid Response Team)	HFW
82		3. d.1.6	RRT	HFW
83		3. d.1.7	IDSP Portal	HFW
84		3. d.1.8	GOs, GOI guidelines	HFW
85		3. d.1.9	IDSP Portal-DSL/DPHL, RL	HFW
86		3. d.1.10	HFW	HFW
87		3. d.1.11	GOI notification and communications from Animal Husbandry dept.	HFW
88		3. d.1.12	HFW	HFW
89		3. d.1.13	HFW	HFW
90		3. d.1.14	HFW	HFW
91		3. d.1.15	Revenue (Disaster Management Cell)	Revenue
	41	43		

Note: HFW-Health and Family Welfare Department

**Appendix 3.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Schemes	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Direction and Administration SFWB (CSS)	5.70	6.27	6.90	7.59	8.35	9.18	10.10	11.11	12.22	13.44	14.78
City Family Welfare Bureau		0.34	0.37	0.41	0.45	0.50	0.55	0.60	0.66	0.73	0.80
Regional Family Welfare Training Centres	14.48	15.93	17.52	19.27	21.20	23.32	25.65	28.22	31.04	34.14	37.56
Training of ANM/LHV's		7.59	7.59	7.59	7.59	7.59	7.59	7.59	7.59	7.59	7.59
CSS for Training of Multipurpose Workers (MPW-Male)		2.35	2.59	2.84	3.13	3.44	3.78	4.16	4.58	5.04	5.54
Urban Family Welfare Services (CSS)	5.62	6.18	6.80	7.48	8.23	8.64	9.07	9.53	10.00	10.50	11.03
Urban FW centres run by Local Bodies & Vol Org (Grant - in - Aid) (CSS)	11.85	13.04	14.34	15.77	17.35	19.08	20.99	23.09	25.40	27.94	30.74
Women Health Care		0.22	0.24	0.26	0.29	0.32	0.35	0.39	0.42	0.47	0.51
Honorarium to anganawadi and ASHA Workers	203.80	224.18	246.60	271.26	298.38	328.22	361.04	397.15	436.86	480.55	528.60
State Health Transport Organisation		3.04	3.34	3.67	4.04	4.45	4.89	5.38	5.92	6.51	7.16
India Population Project III											
State Institute of HFW & DTCs	10.68	11.75	12.92	14.22	15.64	17.20	18.92	20.81	22.89	25.18	27.70
India Population Project I	8.54	9.39	10.33	11.37	12.50	13.75	15.13	16.64	18.31	20.14	22.15

Schemes	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
District Family Welfare Bureau	54.66	60.13	66.14	72.75	80.03	88.03	96.83	106.52	117.17	128.89	141.77
Rural Family Welfare Centres at PHCs	131.15	144.27	158.69	174.56	192.02	211.22	232.34	255.57	281.13	309.24	340.17
Rural Sub-Centres (Opened Under Family Welfare)	289.44	318.38	350.22	385.24	423.77	466.15	512.76	564.04	620.44	682.48	750.73
PHC's run by NGOs-GIA	21.84	24.02	26.43	29.07	31.98	35.17	38.69	42.56	46.82	51.50	56.65
PHCs run by NGO-GiA, Urban Family Welfare run by State Government and State Health Transport Organisation	70.51	77.56	85.32	93.85	103.23	113.56	124.91	137.40	151.14	166.26	182.88
Population Centres		20.98	23.08	25.39	27.92	30.72	33.79	37.17	40.88	44.97	49.47
Continuation of Health Centres under CHCs created under IPP-VIII		26.67	29.34	32.27	35.50	39.05	42.95	47.25	51.97	57.17	62.89
Executive Establishment - IPP3		0.83	0.91	1.00	1.10	1.22	1.34	1.47	1.62	1.78	1.96
Supply of Drugs and Syringes and Pulse Polio Immunisation	1.60	1.76	1.94	2.13	2.34	2.58	2.83	3.12	3.43	3.77	4.15
Transportation of Vaccine for Regional District Stores	0.19	0.21	0.23	0.25	0.28	0.31	0.34	0.37	0.41	0.45	0.49
Total	830.06	975.08	1071.83	1178.25	1295.32	1423.68	1564.86	1720.13	1890.91	2078.74	2285.33





**“Knowledge through education is a road to success”**





## **GOAL 4. QUALITY EDUCATION - ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL**

### **4A. Background**

SDG4 focuses on ensuring inclusive, equitable and quality of education to all. Quality education for all is one of the ten 'non-negotiable' indicators considered for inclusive growth by the State ('Nava Karnataka', Vision 2025). The main aim of the Government is to attain SDG4 within a span of 4 to 12 years, by 2022 or 2030. There are seven broad areas of concern within this goal : (a) School Education including OOSC, (b) Quality ECCE to all, (c) Quality Technical / Vocational / Tertiary education, (d) Skill Training and Employment, (e) Elimination of all types of disparities including gender, vulnerable groups, persons with disabilities, backward castes, SC/ST and minorities, (f) Literacy and Numeracy among youth and adults, (g) promotion of knowledge and skills in society for a culture of sustainable development, sustainable life – styles, human rights, gender equality, peace, non-violence, global citizenship, cultural diversity and finally sustainable growth and development. Additionally, concerns of infrastructure in schools, scholarships and qualified and subject – specific trained teachers at all levels need attention.

At national level, the District Primary Education Programme (DPEP) initiatives are absorbed under the *Sarva Shiksha Abhiyan* (SSA) with access to school for all and quality education as the priority in the program. Elementary education which had a constitutional status as Article 45 under the Directive Principle of the State Policy in 1950, was accorded the status of fundamental right under Article 21 (A) in April 2009. Since the initiative, the enrolment has improved in the State ensuring education facilities to all. Departments of Primary and Secondary Education and Higher Education had launched program like *Rashtriya Madhyamik Shiksha Abhiyan (RMSA)* and *Rashtriya Uchtar Shiksha Abhiyan (RUSA)* with the aim to universalize education to all. Another initiative, Sakshara Bharat Mission was launched in September 2009 to educate the non-literate, neo-literate persons, especially women.

The quality of education being imparted was never focused upon, until recently NCERT has been engaged in periodical achievement survey of students in school education. Annual Survey of Education and Research (ASER), a national level NGO tests learning levels of children in 3Rs through sample surveys conducted across country (in 596 districts) in 2018. The survey revealed that 96% of the kids go school, however, 25% of the students attending Class VIII are poor in basic reading skills and more than 50% of the students cannot do basic mathematics like subtraction and simple division. This depressing scenario highlights the fact that the quality of education being imparted needs focus and rigor. Additionally, learning levels have not improved significantly for the last 4 years despite improvement in basic amenities. Karnataka is relatively better than many other States including Madhya Pradesh and Gujarat.

Karnataka is classified as a front runner under SDG4 to 'Ensure Inclusive, Equitable, and Quality Education Promoting Life-Long Learning for All'. The state has secured rank 4 on SDG 4 following Kerala, Himachal Pradesh and Andhra Pradesh. NITI Aayog has identified 68 priority (out of 169) indicators of which 7 are identified for Goal 4. Position of the State vis-à-vis India average on these 7 indicators is given below.

Indicators		Adjusted NER 1 to 8 and 9 to 10	Right Response in L/M/EVS Class 5	Right Responses in L/M/SS in Class 8	6 to 13 OOSC	Average Annual DoR – Secondary	Teachers professionally Qualified	PTR Elementary & Secondary Schools
Percent Achievement	K	85.54	68.67	54.50	1.49	26.18	95.85	76.05
	I	75.83	54.69	44.58	2.97	17.06	81.15	70.43
SDG Index Score	K	73	100	88	79	27	94	69
	I	56	50	45	54	68	73	58

**Note:** (1) NER means Net Enrolment Ratio; L – Language, M – Mathematics, EVS – Environmental Science, SS – Social Studies; OOSC – Out of School Children; DoR – Dropout Rates, PTR – Pupil – Teacher Ratio; K – Karnataka, I – India. (2) Karnataka has performed well above national average values / levels on all priority indicators except on annual average drop-out rates at secondary stage.

Comparisons of Karnataka with other States or all India average values would be useful only to understand relative position and rankings. Comparative standings cannot be standalone guide for improving performance, as performance need to be seen in context to absolute standards, capacities and state declared timelines. Wrap up exercises on absolute standards / performance should set a limit of 2030 with resources and efforts geared in the desired direction.

## 4B. Targets and Indicators for achieving SDG 4

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

Net Enrolment Ratio (NER) in primary level was 95.08 in 2017-18 with the target being 100% by 2022 and 2030 respectively. Out of the 34 districts, 8 districts are between 95%-100%; 12 districts are between 90-95%; 6 are between in 85-90% and 6 districts between 80-85%. Mandya is the only district with NER of 79.07%.

Net Enrolment Ratio in upper-primary level was 81.75 in 2017-18 with the target being 100% by 2022 and to maintain the same till 2030. NER in upper primary level is less compared to the NER in primary level which implies that there are students who are either failing or are dropping out of the education system.

Net Enrolment Ratio in secondary level was 64.07 in 2017-18 with the target being 100% by 2022 and to maintain the same till 2030. NER in secondary level is showing a decreasing trend in the NER from the primary and the upper primary level. This shows that more students are falling behind the standard according to their official age standard. The analysis also sheds light on the disparities across the districts; reflecting on the need to adopt differential approaches and strategies across districts.

NER in higher secondary level was 60.50 in 2017-18 with the target being 100% by 2022 and 2030. The analysis sheds light on the disparities among the districts; hence the disparities should be considered by the department and a differential approach needs to be strategized. The department also needs to consider the strategies to increase the NER at primary, upper primary and secondary levels as it would pose a positive impact on the NER at higher secondary level.

A drop in enrolment has been witnessed for girl students as they move from primary to upper primary

level in districts- Bellary, Kalaburagi, Raichur, Yadgir and Bidar and in regional pockets where minorities, Scheduled Caste (SC), Scheduled Tribes (ST) communities dominate.

However, drop in NER is observed when male students move from upper primary to secondary in these districts. The above concern definitely presses for more schools, teachers and better supporting structures. Hence, in context to that following is proposed.

Seeking permission for more upgradation of schools from upper primary to secondary level with relaxation of the existing norms to Ministry of Human Resource Development (MHRD) Continued recruitment of teachers to KK region, (North East) Seeking more support from KKDB board in all levels from primary to secondary for *Nali-kali*, additional Teaching, Learning Materials (TLMs) and digital education, Seeking support from NGOs and wider community to track drop outs /missing children and bring them back to schools

Gross Enrolment Ratio (GER) in higher secondary level was 63 in 2017-18, and is targeted to increase to 90% by 2022 and 100% by 2030. GER at Secondary and NER at all stages can be considerably improved [100% by 2030] by setting up 1 to 12 stages schools at every GP village [6000 GPs], provide roads, point-to-point transport to all satellite villages and habitations.

GIR (Gross Intake Ratio) is the proportion of children who are expected to enter the last grade (say 5<sup>th</sup> or 8<sup>th</sup> or 10<sup>th</sup>) of schooling from first standard as the reference year. From last year onwards, the admission to 1st grade is restricted to the children between 5 years 10 months and 6 years 10 months. Earlier this was not there and therefore more children between 5 years to 7 years were getting admitted to 1<sup>st</sup> grade. The dropout rate increases as the students move higher. And in secondary level, there is detention in 9<sup>th</sup> and 10<sup>th</sup> grades. The way these issues can be addressed are recruitment of a greater number of subject teachers and re-deployment of teachers to areas wherein there is demand for teachers and remedial teaching using extra instructional hours. Availability of vocational courses as per the aptitude of children at the school level with industry linkages and support, preventing further students drop out.

Proportion of students enrolled in Grade 1 who reaches the last grade is referred to as the retention rate. Retention rate depends on various factors like social, economic, geographical and cultural. The most significant factor is the quality of learning in the school. Proportion of students enrolled in Grade 1 who reaches primary level was 93.98 in 2017-18 with the target for 2022 being 100 and to be maintained the same till 2030. This will be achieved once the strategies for NER are implemented.

Proportion of Students enrolled in Grade I who reach Upper Primary Level is 84.71 and the target set for 2022 and 2030 is 100%. Retention rate from 6<sup>th</sup> to 8<sup>th</sup> standard is 95.32%. This decrease in the retention rate is because of failing and dropping out of the education system. To ensure that the target is achieved and there is a significant improvement in the situation, change in the teaching pedagogy is needed. It will also be improved once the retention rate in the primary level is improved with improvement in NER; thus, the strategies should be in line with these. Education for migrants need to be facilitated for schooling and re-entry of their children.

As per the Govt. data, proportion of student enrolled in 8<sup>th</sup> standard who reach the 10<sup>th</sup> standard is currently 88.06%. The target of 100% by 2022 is ambitious given the fact that the retention rate in primary and upper primary level is not currently 100%. Once the target of retention rate in primary and upper primary level is

met, then retention rate target for secondary level can be achieved. However, ensuring this will need an analysis of the method of instruction. The school needs to provide student friendly environment; activity based/ digital friendly methods of teaching which could help in improving the value of the indicator over time.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
4.1.1		Net Enrolment Ratio (NER) in Primary/ Upper-Primary	2017-18	95.08/81.75	100	100
	4.1.1.1	Net Enrolment Ratio (NER) in Primary Level	2017-18	95.08	100	100
	4.1.1.2	Net Enrolment Ratio (NER) in Upper-Primary Level	2017-18	81.75	90	100
4.1.2		Adjusted Net Enrolment Ratio (NER) at Primary/ Upper-Primary and secondary education	2017-18	64.07/60.05	75/70	98/80
	4.1.2.1	Net Enrolment Ratio (NER) at secondary level	2017-18	64.07	75	98
	4.1.2.2	Net Enrolment Ratio (NER) at higher secondary education level	2017-18	60.5	70	80
4.1.3		Gross Enrolment Ratio (GER) in higher secondary education	2017-18	63	90	100
4.1.4		Percentage of students in grade 3,5,8 and 10 achieving at least a minimum proficiency level in terms of nationally defined learning outcomes to be attained by pupils at the end of each of above grades (English, Maths, EVS)	2017-18	3 <sup>rd</sup> - 95.4, 94.3, 93.9; 5 <sup>th</sup> -94.8, 92.7, 92.9; 8 <sup>th</sup> - 90.4(eng), 76.9(math) 79.5(ss), 79.8(sci)	100	100
4.1.5		Gross intake ratio to the last grade (Primary, Upper primary, secondary, higher)	2017-18	100;93.99; 82.37;88	100;100; 100;90	100;100; 100;95
	4.1.5.1	Gross intake ratio to the primary level	2017-18	100	100	100
	4.1.5.2	Gross intake ratio to upper primary level	2017-18	93.99	100	100
	4.1.5.3	Gross intake ratio to the secondary level	2017-18	82.37	100	100
	4.1.5.4	Gross intake ratio to higher secondary level	2017-18	88	90	95
4.1.6		Proportion of students enrolled in Grade 1 who reaches last grades or primary / upper	2017-18	93.98; 95.32; 88.06	100; 100; 100	100; 100; 100

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
		primary/secondary level)				
	4.1.6.1	Proportion of students enrolled in Grade 1 who reaches primary level	2017-18	93.98	100	100
	4.1.6.2	Proportion of students enrolled in Grade 1 who reaches upper primary level	2017-18	95.32	100	100
	4.1.6.3	Proportion of students enrolled in Grade 1 who reaches secondary level	2017-18	88.06	100	100
4.1.7		Out of School ratio (primary, upper primary, elementary, secondary, higher secondary)	2017-18	1.62; 2.56; 2.87& 6.30; 12.80	0;0;0;10	0;0;0;7.5
	4.1.7.1	Out of School ratio - primary education	2017-18	1.62	0	0
	4.1.7.2	Out of School ratio - upper-primary education	2017-18	2.56	0	0
	4.1.7.3	Out of School ratio - secondary education ( 8 <sup>th</sup> to 9 & 9 <sup>th</sup> to 10 <sup>th</sup> )	2017-18	2.87& 6.30	0	0
	4.1.7.4	Out of School ratio - higher secondary education	2018-19	12.80	10	7.5
4.1.8		Number of years of (i) free education and (ii) compulsory education guaranteed in legal frameworks	2017-18	Up to 8 <sup>th</sup> std; Up to 8 <sup>th</sup> std	10;10	12;12
	4.1.8.1	Number of years- free education is guaranteed in legal frameworks for female	2017-18	Up to 8 <sup>th</sup> std	10	12
	4.1.8.2	Number of years- free education is guaranteed in legal frameworks for male	2017-18	Up to 8 <sup>th</sup> std	10	12
	4.1.8.3	Proportion of state budget allocated to education to total GSDP	2017-18	1.23	-	-
	4.1.8.4	Proportion of state budget allocated to higher education to total GSDP	2016-17	0.34	4	5

Note: - : Not Available

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

Early Childhood Care and Education (ECCE) has been on top of the agenda of child care and education in Karnataka since 1975, since the launch of ICDS all over the country. ECCE is one of the six components of Integrated Child Development Scheme (ICDS). In 2017-18, there were 65911 Anganwadi Centres (AWC)

across 204 educational blocks (181 rural, 12 tribal and 11 urban ICDS projects) in 34 educational districts.

Children in 4 to 6 age-group are the beneficiaries of ICDS scheme with milk and mid-day lunch is given to all children. Eggs are given on 2 days to every child while underweight children in 5 backward districts – Raichur, Bidar, Kalaburagi, Koppal, and Yadgiri – are served eggs on 5 days in a week.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
4.2.1		Participation rate in organised learning one year before official primary entry	-	-	-	-
4.2.2		Gross early childhood education enrolment ratio	2017-18	62.21	100	100
	4.2.2.1	AWCs (lakh)	2013-14	16.34	20	20
	4.2.2.2	GER	2013-14	-	73.27	80

Note: -- Not Available

(1) Children enrolled in AWCs 4 and 5 years is 16.34 lakhs in 2013-14.

(2) 2011 Census calibrated child population, 2013-14, for ages 4 and 5 is 22.30 lakhs.

(3) GER for ECCE is over 73%, 2013-14.

(4) GER Targets for 2022 and 2030 are fixed at 69500 and 72000 AWCs while enrolments rates are fixed at 80 and 85%. These values keep in view, child population growth and private sector pre-school education provisions.

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

Karnataka State has been working incessantly toward ensuring that education and training is accessible to all. The target set for the same is 20 % by 2022 and 30% by 2030 which is achievable given the focused schemes being implemented by the State.

In that endeavour, the State Government has set up the Skill Development, Entrepreneurship and Livelihood Department in 2016 (KSDEL). KSDEL is responsible for coordinating activities with 4 wings: (a) employment and training, (b) entrepreneurship and livelihood development, (c) tool room and training centre and (d) skill development activity. Additionally, the state has placement services providers like Employment Exchanges, Udyog Melas, etc.

Data available with the government is limited to government and aided colleges and hence there is a need to collect the data from the private colleges for future monitoring and evaluation process. Proportion of Female enrolments exceeds male enrolments (GER) at degree level courses. The GER in tertiary education was 1.5 in

2016-17 and the target set for 2022 and 2030 is 3% and 5% respectively. The GER in higher education was 26.4% in 2016-17 and the target set for 2022 and 2030 is 30% and 35% respectively.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
4.3.1		Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months	2017-18	11.51; 1.46	25; 10	30; 20
	4.3.1.1	Participation rate of youth and adults in formal education and training (%)	2017-18	11.51	25	30
	4.3.1.2	Participation rate of youth and adults in non-formal education and training	2017-18	1.46	10	20
4.3.2		Proportion of male & female enrolled in higher education, technical and vocational education	2017-18	12.41; 13.47	15; 15	25; 25
	4.3.2.1	Percentage of female enrolled in higher, technical and vocational education in the age group of 15-36 years	2017-18	12.41	15	25
	4.3.2.2	Percentage of male enrolled in higher, technical and vocational education in the age group of 15-36 years	2017-18	13.47	15	25
4.3.3		Gross Enrolment Ratio for tertiary education	2016-17	1.50	3	5
	4.3.3.1	Gross Enrolment Ratio (GER) in higher education level	2016-17	26.40	30	35

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

The indicator focuses on the initiatives undertaken by the Government through various schemes. The state has set up Skill Development, Entrepreneurship and Livelihood Department (KSDEL) in 2016. The major functions of the KSDEL are employment, training, entrepreneurship, livelihood development, and skill development. Additionally, the state has Livelihood Mission - Rural (National Rural Livelihood Mission) and Urban (National Urban Livelihood Mission) for creating livelihood opportunities for rural and urban households.

The indicator on proportion of employment generated after skill training will show the impact of the schemes being implemented by the Government. The objective of the department is to ensure that commensurate employment is generated after the skill training. However, the target for the department should be increased so that 100% skill people are provided employment through the government schemes. There is need for more inputs on the same needs by the department.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
4.4.1		Proportion of Computer Literate Adults (Number)	2017-18	477500	535000	609000
	4.4.1.1	Proportion of employment generated after skill training	2017-18	70	75	100
	4.4.1.2	Enrolment ratio of children with disabilities in secondary	-	-	-	-
	4.4.1.3	Number of people who have undergone skill training under various Government Schemes	-	-	-	-
	4.4.1.4	Number of people who have undergone skill training under various Government Schemes	2017-18	477500	535000	700000
	4.4.1.5	Proportion of employment generated after skill training	2017-18	70	90	100

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

Care concerns and schooling of the Children with Special Needs (CWSN) is the priority concern of the State. It is also mandated by Section 3 of the Right to Education Act and also supported by Article 41 of the Constitution, a directive principle of State Policy. In that context, State has set up 9 government and 34 voluntary organizations/NGO special schools for hearing impaired, vision impaired, persons with locomotor disability and mentally retarded children in Karnataka. Even for vulnerable groups including scheduled castes, scheduled tribes, backward classes, minorities, women and children, state has earmarked budget to ensure inclusiveness in the education sector.

In the state, 8114 CWSN were enrolments in special schools (2017-18). Targets of enrolments of CWSN is 11000 and 14000 for 2022 and 2030 respectively. Budget earmarked during 2017-18 was Rs.52.36 crores and is expected to increase to Rs.750 lakhs (75 crores) and Rs.1250 lakhs (125 crores) by 2022 and 2030 respectively.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
4.5.1		Enrolment ratio of children with disabilities in primary and secondary education	2017-18	100&23	100&25	100&35
	4.5.1.1	Enrolment ratio of children with disabilities in primary school (%)	2017-18	100	100	100
	4.5.1.2	Enrolment ratio of children with disabilities in secondary school (%)	2019-20	23	25	35
4.5.2		Percentage share of central budget to vulnerable groups.	2017-18	8.46	9.33	10.92



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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
4.6.1		Literacy rate of youth in the age group of 15-24 years.	2010-11	90.07	95	100
	4.6.1.1	Literacy rate of youth in the age group of 24 years and above	2010-11	71.88	90	100

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

National indicator not yet evolved

**Indicator 4.7.1.1: Inclusion of appropriate curriculum at the school level**

The Karnataka Curricular Framework lays down the curriculum for the students and is developed as per the National Curriculum Framework (NCF), 2005 which addresses most of the issues mentioned in the target. This student-centered learning framework was published in 2009 and the following are the major highlights from the same:

Five guiding principles are proposed for customization of NCF by the State: (i) connect knowledge in school to life outside, (ii) recession in rote learning, (iii) learning beyond text books, (iv) life- connect for tests and examinations and (v) identity with democratic polity.

Students are provided opportunities and experiences to create and construct knowledge within the framework of the curriculum like focusing on activities as a medium of learning. Stress free examination reforms are an essential curricular reform. It emphasizes that the examination should promote creative abilities of children and grading should be preferred over marking.

Mother-tongue to be the medium of education to develop multi-lingual proficiency in the students.

Ensure that child’s experience at home and in the society to be marshalled for school learning. Importance to outdoor excursions, project work, visits to natural and heritage sites are also recommended.

**Indicator 4.7.1.2: Inclusion of appropriate curriculum for teacher’s training**

Following the NCF 2005, a national framework of adequate curriculum for Teacher Education was rolled out in 2009. The same is adopted in the State and the following are the highlights from the document:

It emphasizes concerns of inclusive, equitable and sustainable education; gender equality; connect with the community and e-learning.

Teacher learning centres to be established to ensure teacher education and on job training. This will ensure continuous professional development of the teachers. It emphasizes on organizing periodic academic enrichment activities for teachers and integrated teacher training.

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

Basic infrastructure facilities are prerequisite for quality schooling and the State is good with respect to providing infrastructural facilities in the State. The set targets can be reached within time frame, given that schemes are implemented in that light. This initiative helps in reducing the drop-out rate in the state and ensuring learning to all.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
4.a.1		Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical Purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and Materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic hand washing facilities	2017-18	97.5; 1750; 1750; 49.24; 100; 100; 56.8	98.5; 1750; 1750; 75; 100; 100; 70	100; 1750; 100; 100; 100; 100; 90
	4.a.1.1	Proportion of schools with access to: (a) electricity; (b) adapted infrastructure and Materials for students with disabilities; (c) basic drinking water; (d) functional single-sex basic sanitation facilities	2017-18	93.74; 49.24; 98.71; 96.10	100; 75; 100; 100	100; 100; 100; 100
	4.a.1.2	Proportion of schools with access to: (a) electricity; (b) the Internet for teachers; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) functional single-sex basic sanitation facilities; and (g) Proportion of good classrooms	2018	97.5-a; 1750; (b&c); 100-e; 100-f; 56.8-g	98.5-a; 1750; (b&c); 100-e -; 100-f; 70-g	100-a; 1750; (b&c); 100 -e; 100-f; 90-g

**4.b-By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, Small Island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries**

The target is to be achieved at global level.

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

This indicator primarily focuses on the issue of quality of education being imparted in the schools and one of the ways to ensure the same is having trained teachers in schools. The table below shows the values and targets of the indicator for the different levels of education.

At the pre-primary level, all teachers are trained and given on the job training with the support of the National Institute of Public Cooperation and Child Development (NIPCCD). All the elementary grade teachers are Teacher Certificate Higher (TCH) certified teachers, while secondary stage teachers are B.Ed. trained in government/ aided schools. All the teachers at higher education stage need post-graduation and are exposed to Orientation Programmes in Academic Staff Colleges.

In Karnataka, Pupil teacher ratio is comparatively better in Government schools than in private schools. Right to Education Act mandates 1 teacher per 15 students which is currently the standard of the state. There are no targets set for these indicators as the same will be changed as and when Education Policy of the country changes. There is a need to regulate pupil-teacher ratio in Government aided schools and private schools to ensure that quality education is imparted to all.

There are disparities across the districts which need to be reviewed and monitored by the department. Pupil teacher ratio in secondary level is not calculated as the teachers are subject-wise appointed. This type of data is not being calculated currently, but the same can be calculated by the department for future monitoring purposes.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
4.c.1		Proportion of trained teachers, by education level (pre-primary, primary, upper primary, elementary, secondary and higher secondary education)	2017-18	99.87; 100; 100; 100; 100; 100	100; 100; 100; 100; 100; 100	100; 100; 100; 100; 100; 100
	4.c.1.1	Proportion of trained teachers at pre-primary education level	2017-18	99.87	100	100
	4.c.1.2	Proportion of trained teachers at primary education level	2017-18	100	100	100
	4.c.1.3	Proportion of trained teachers at upper-primary education level	2017-18	100	100	100
	4.c.1.4:	Proportion of trained teachers at secondary education level	2017-18	100	100	100
	4.c.1.5	Proportion of trained teachers at higher education level	2017-18	100	100	100
4.c.2		Pupil/ trained teacher ratio by education level				
	4.c.2.1	Pupil/trained teacher ratio at pre-primary education level	2018	1 Anganwadi teacher for each Anganwadi centre which consists average of 25 children	2	3
	4.c.2.2	Pupil/trained teacher ratio at primary education level	2017-18	15 students per teacher	1:22	1:15

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
	4.c.2.3	Pupil/trained teacher ratio at upper primary education level	2017-18	24 students per teacher	1:22	1:15
	4.c.2.4	Teacher/ subject ratio at secondary education level	--	--	Subject Teachers	1:20
	4.c.2.5	Pupil/trained teacher ratio at higher education level	2017-18	1:20 Polytechnics 1:15 Engineering 1:23 Collegiate Education	As per AICTE EMIS, DCE	As per AICTE EMIS, DCE

## 4C. Way Forward

### A.100% Enrolment

- The CEO, ZP/BEO, CRP needs to regulate the management of the Village Education Register which is mandated under Right to Education Act. This will ensure reduction in the drop-out rates and attainment of 100% Net Enrolment Ratio by 2022.
- Sensitization programs need to be conducted in schools like awareness about career options in different streams like Arts and Commerce which has less enrolment comparatively. Poor course completion ratio (around 50% in Engineering/Polytechnic education/students in 4/3 years) needs to be arrested. (See Human Development Report Chapter ES/GoK, 2014-15).

### B. Quality learning

- A model school to be established at each Gram panchayat level.
- Computer education for all is must for all in this technological changing environment. The existing Technology Assisted Learning Programme (TALP) to be extended to cover all the schools.
- Learning levels in schools and drop out at critical stages of schooling / college education need to be addressed. Analysis/Research in this regard is needed.
- To ensure quality learning in standards I and II, rich and strong Nali-Kali environment is needed. Oral reading should be practised in classes III- IV to improve the pronunciation and build confidence among the students.
- Reading newspapers, story books, competition in essay writing and elocution should be encouraged in classes V-VIII to improve reading and writing skills.
- CSAS/National Achievement Surveys/X Board examination results should be treated as 'guide' for corrective actions.

### C. Teacher training

- It is necessary to ensure that the teachers teaching in classes 5th to 9th standards are trained.

On the job training needs to be given to the teachers and the same shall be given during school hours to ensure training to all.

- Private unaided schools and other aided schools to be regulated for running training courses and maintain Pupil Teacher ratio (PTR). National (Teaching) Eligibility Test to be made mandatory for teachers once in every 5 years.

**D. Budget Allocation**

- Corporate Social Responsibility fund from the corporate sector should be legislated to be tapped in for education sector.
- Allocation for higher education should be increased to incentivize the students
- Additional allocation should be provided for ensuring learning of 3 R’s through Nali-Kali.
- Allocations for supporting the infrastructural needs of the schools to be increased as per requirement. Rich/academic milieu to be brought in the schools. Syllabus/Curriculum-friendly/compliant science/language laboratories, mathematics rooms, Geography kits, digital labs to be provided to all schools.
- A new scheme should be implemented focusing on career showcasing for higher secondary schools by establishing career guidance cells and holding seminars regularly.

E. The model of Akshara Foundation is to be up-scaled in the education space. The foundation so far has organized over 4500 GP level Mathematics (contests) tests in 7710 villages covering 3.45 lakh children from grade 4<sup>th</sup>-6<sup>th</sup>. These tests are evaluated in public view of community and students are rewarded for the performance. The model can be extended to promote other kind of skills (reading, writing)

F. Cultural contextualization of curricular experience to be integrated with both teaching – learning and Akshara Foundation’s Testing Programmes.

G. Besides setting up schools till 12<sup>th</sup> standard in all 6000 GPs of the State, there is need to provide transport and better rural road connectivity.

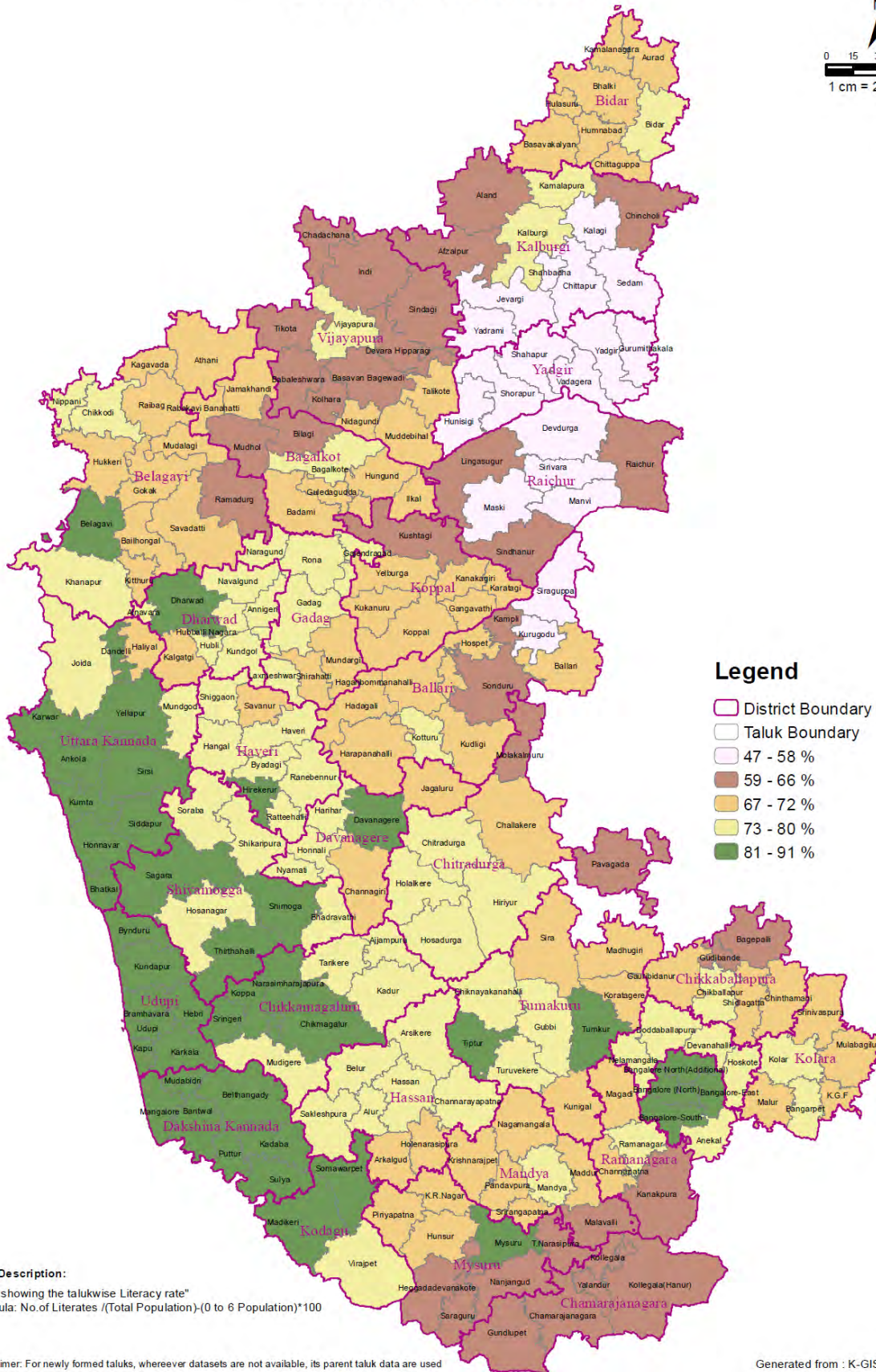
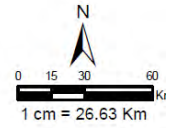
**4D. Budget Requirements**

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below.

**Budget requirement for Goal 4 (In Crores)**

Department	Scheme Name	2020-21			2020-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Appendix 4.1	Appendix 4.2	5772.84	5007.27	1177.84	80004.25	57147.54	28779.62

# Literacy Rate - Talukwise



- Legend**
- District Boundary
  - Taluk Boundary
  - 47 - 58 %
  - 59 - 66 %
  - 67 - 72 %
  - 73 - 80 %
  - 81 - 91 %

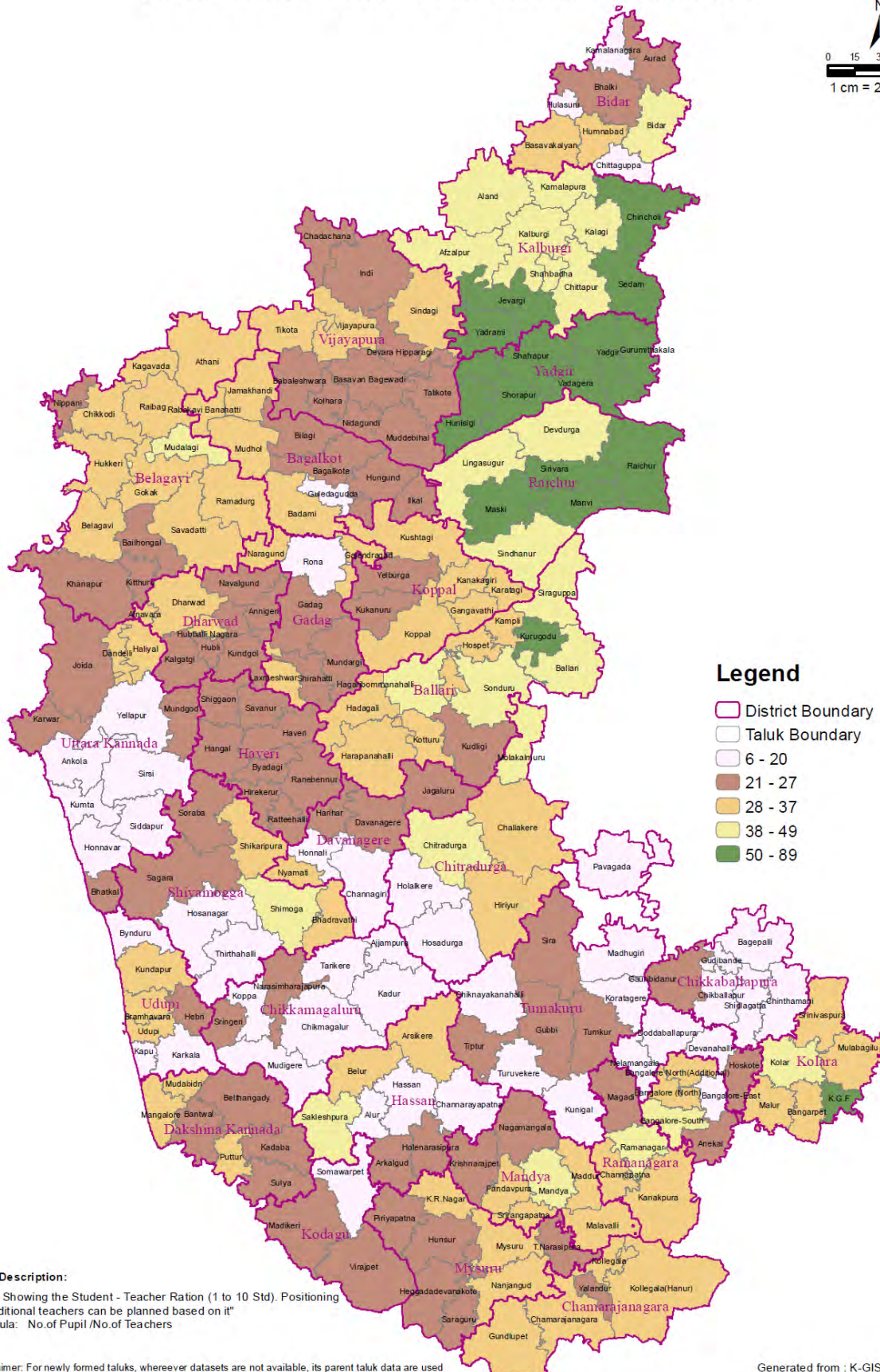
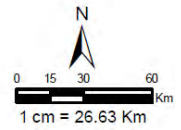
**Map Description:**  
 "Map showing the talukwise Literacy rate"  
 Formula:  $\frac{\text{No. of Literates}}{(\text{Total Population} - (0 \text{ to } 6 \text{ Population}) * 100}$

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS.KSRASAC



# Pupil - Teacher Ratio (1-10 standard) - Talukwise



**Legend**

- District Boundary
- Taluk Boundary
- 6 - 20
- 21 - 27
- 28 - 37
- 38 - 49
- 50 - 89

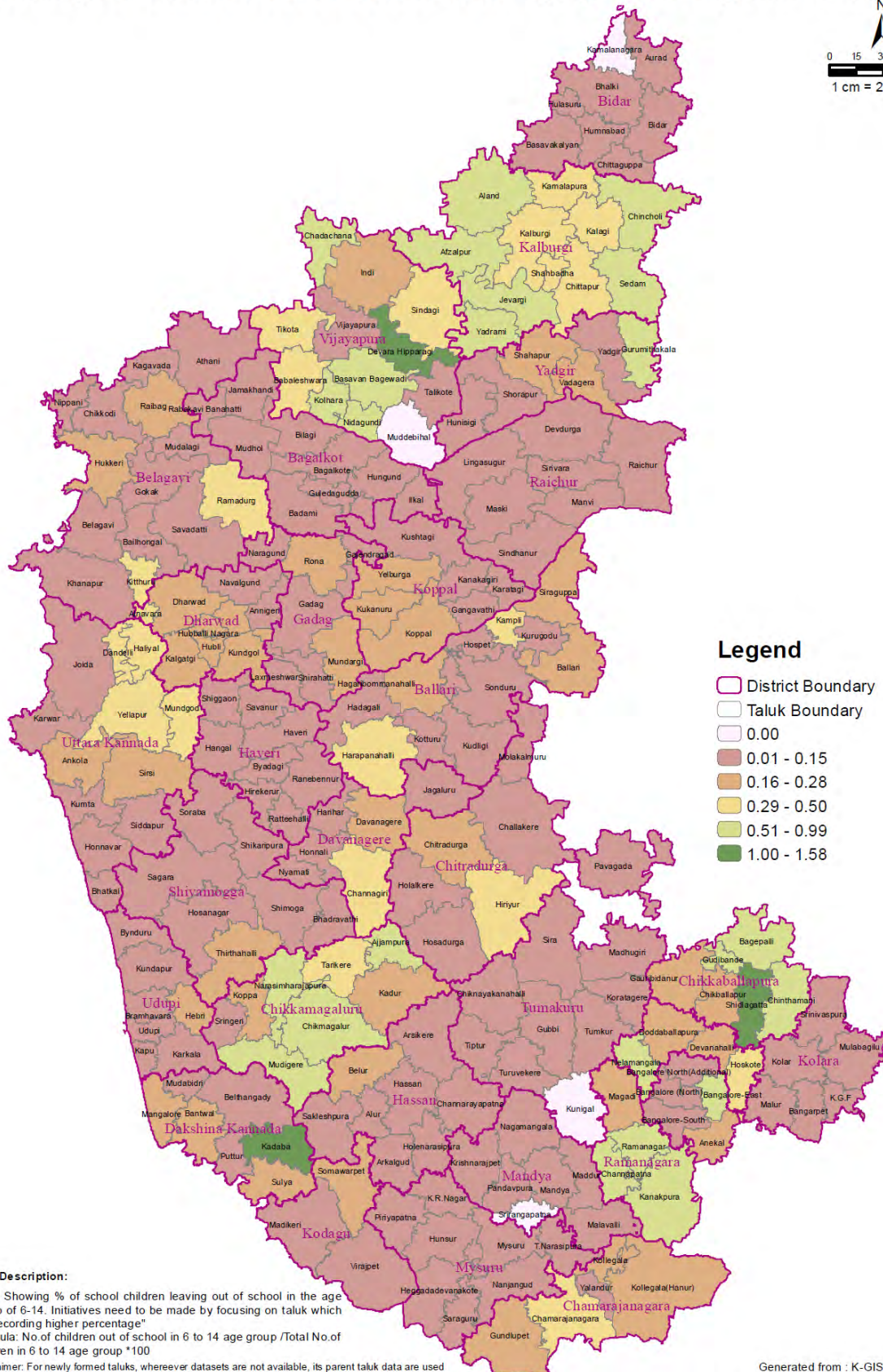
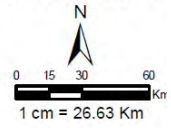
**Map Description:**  
 "Map Showing the Student - Teacher Ration (1 to 10 Std). Positioning of additional teachers can be planned based on it"  
 Formula: No. of Pupil / No. of Teachers

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS, KRSRSC



# Percentage of Children out of School in the age group 6-14 years - Talukwise



**Map Description:**  
 "Map Showing % of school children leaving out of school in the age group of 6-14. Initiatives need to be made by focusing on taluk which are recording higher percentage"  
 Formula:  $\frac{\text{No. of children out of school in 6 to 14 age group}}{\text{Total No. of children in 6 to 14 age group}} \times 100$   
 Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS, KRSRSC



## 4E. Appendices

### Appendix 4.1: Indicator-wise data source and nodal department

Sl. No.	National Indicator No.	State Indicator No.	Data Sources	State Nodal Department
1	4.1.1			PSE
2		4.1.1.1	Unified –District Information System for Education(U-Dise)	PSE
3		4.1.1.2	U-Dise	PSE
4	4.1.2		PSE	PSE
5		4.1.2.1	U-Dise	PSE
6		4.1.2.2	Secondary Education Department	PSE
7	4.1.3		Secondary Education Department	PSE
8	4.1.4		National Achievement Survey (NAS) report	PSE
9	4.1.5		PSE	PSE
10		4.1.5.1	U-Dise	PSE
11		4.1.5.2	U-Dise	PSE
12		4.1.5.3	U-Dise	PSE
13		4.1.5.4	PU Department Portal	PSE
14	4.1.6		PSE	PSE
15		4.1.6.1	U-Dise	PSE
16		4.1.6.2	U-Dise	PSE
17		4.1.6.3	U-Dise	PSE
18	4.1.7		PSE	PSE
19		4.1.7.1	U-Dise	PSE
20		4.1.7.2	U-Dise	PSE
21		4.1.7.3	U-Dise	PSE
22		4.1.7.4	Department online portal	PSE
23	4.1.8		Department online portal	PSE
24		4.1.8.1	Department online portal	PSE
25		4.1.8.2	Department online portal	PSE
26		4.1.8.3	SSA	PSE
27		4.1.8.4	AISHE	Higher Education
28	4.2.1		WCD	WCD
29	4.2.2		HE,SD, PSE, Planning	HE,SD, PSE, Planning
30		4.2.2.1	HE,SD, PSE, Planning	HE,SD, PSE, Planning
31		4.2.2.2	HE,SD, PSE, Planning	HE,SD, PSE, Planning
32	4.3.1		HE,SD, PSE, Planning	HE,SD, PSE, Planning
33		4.3.1.1	HE,SD, PSE, Planning	HE,SD, PSE, Planning
34		4.3.1.2	HE,SD, PSE, Planning	HE,SD, PSE, Planning
35	4.3.2		HED	HED
36		4.3.2.1	HED	HED
37		4.3.2.2	HED	HED
38	4.3.3		AISHE	HED
39		4.3.3.1	AISHE	HED
40	4.4.1		Skill Development Department	SDD
41		4.4.1.1	SDEL	SDD
42		4.4.1.2	SDEL	SDD
43		4.4.1.3	SDEL	SDD

Sl. No.	National Indicator No.	State Indicator No.	Data Sources	State Nodal Department
44		4.4.1.4	SDEL	SDD
45		4.4.1.5	SDEL	SDD
46	4.5.1		U-Dise	SDD
47		4.5.1.1	DES	Planning
48		4.5.1.2	DES	Planning
49	4.5.2		Planning	Planning
50	4.6.1		2011 Census	PSED
51		4.6.1.1	2011 Census	PSED
52	4.7		PSE, Higher Education	PSE, Higher Education
53		4.7.1.1	PSE, Higher Education	PSE, Higher Education
54		4.7.1.2	PSE, Higher Education	PSE, Higher Education
55	4.a.1		PSE, Higher Education	PSE, Higher Education
56		4.a.1.1	PSE, Higher Education	PSE, Higher Education
57		4.a.1.2	PSE, Higher Education	PSE, Higher Education
58	4.b		PSE, Higher Education	PSE, Higher Education
59	4.c.1		PSE, Higher Education	PSE, Higher Education
60		4.c.1.1	PSE, Higher Education	PSE, Higher Education
61		4.c.1.2	PSE, Higher Education	PSE, Higher Education
62		4.c.1.3	PSE, Higher Education	PSE, Higher Education
63		4.c.1.4	PSE, Higher Education	PSE, Higher Education
64		4.c.1.5	PSE, Higher Education	PSE, Higher Education
65	4.c.2		PSE, Higher Education	PSE, Higher Education
66		4.c.2.1	PSE, Higher Education	PSE, Higher Education
67		4.c.2.2	PSE, Higher Education	PSE, Higher Education
68		4.c.2.3	PSE, Higher Education	PSE, Higher Education
69		4.c.2.4	PSE, Higher Education	PSE, Higher Education
70		4.c.2.5	PSE, Higher Education	PSE, Higher Education
	20	10		

Note: PSE-Primary and Secondary Education; SDD-Skill Development Department; HED-Higher Education Department

**Appendix 4.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Scheme Name	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Vidya Vikasa Scheme		465.56	538.11	563.33	619.66	681.63	749.79	824.77	907.24	997.97	1097.77	1207.54
Sarva Shiksha Abhiyana Society	1478.14	1509.17	1545.90	1700.49	1870.53	2057.60	2263.35	2489.70	2738.70	3012.51	3313.77	3645.14
Students Motivation Initiatives	14.14	8.73	11.00	12.10	13.31	14.64	16.11	17.72	19.49	21.44	23.58	25.94
State Literacy Programme	0.00	0.00	55.00	60.50	66.55	73.21	80.53	88.58	97.44	107.18	117.90	129.69
Jana Shikshana Nilaya	4.78	5.09	5.79	6.37	7.00	7.70	8.48	9.32	10.25	11.28	12.41	13.65
Computer Literacy Awareness in Secondary Schools	30.00	15.31	36.30	39.93	43.92	48.32	53.15	58.46	64.31	70.74	77.81	85.59
Rashtriya Madhyamika Shikshana Abhiyan (RMSA)	347.28	302.83	287.79	316.57	348.22	383.04	421.35	463.48	509.83	560.81	616.90	678.59
Education Quality Improvement Program	14.00	9.15	16.94	18.63	20.50	22.55	24.80	27.28	30.01	33.01	36.31	39.94
Infrastructure facilities for High Schools and PU Colleges	234.76	322.46	284.06	312.47	343.71	378.08	415.89	457.48	503.23	553.55	608.91	669.80
Rashtriya Uchchar Shiksha Abhiyana	176.93	240.81	214.09	235.49	259.04	284.95	313.44	344.79	379.27	417.19	458.91	504.80
Gnana Sangama- Computer Literacy	109.60	7.00	142.62	160.88	175.40	191.51	199.16	218.58	239.94	263.43	289.27	317.70
Government of India National Scholarships	0.10	0.10	0.12	0.13	0.15	0.16	0.18	0.19	0.21	0.24	0.26	0.29
New Government First Grade Colleges	434.47	334.47	150.00	100.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Promoting Science Courses	6.00	6.00	15.00	15.00	15.00	15.00	15.00	20.00	20.00	20.00	20.00	20.00
Establishing of Research Centres			50.00	50.00	60.00	75.00	30.00	35.00	30.00	30.00	30.00	30.00
Training for competitive exams			3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Laboratories for Skill training			15.00	15.00	15.00	15.00	10.00	10.00	10.00	10.00	10.00	10.00
Integrated Child Development Scheme	948.97	1547.45	1547.45	1547.45	1547.45	1547.45	1547.45	1624.82	1706.06	1791.37	1880.94	1974.98
National programme for National support to Primary Education			10.56	11.61	12.78	14.06	15.46	17.01	19.56	22.49	25.86	34.21
To prepare manual			0.79	0.83	0.87	0.91	0.96	1.01	1.06	1.11	1.16	1.22
Printing of Manual			0.13	0.14	0.15	0.15	0.16	0.17	0.18	0.19	0.20	0.21
1 Day Workshop			0.92	0.97	1.02	1.07	1.12	1.18	1.23	1.30	1.36	1.43
Miscellaneous			0.05	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08
Formal Courses Schemes			187.00	200.28	214.50	229.73	246.04	263.51	282.21	302.25	323.71	346.69
Vocational Courses Schemes			630.00	675.00	723.00	774.00	829.00	888.00	951.00	1018.00	1091.00	1168.00
	4264.73	4846.68	5772.84	6103.55	6473.78	6937.98	7370.46	7997.58	8666.02	9399.92	10201.87	11080.25



**5** GENDER  
EQUALITY



**“Let’s break down the social and mental barriers”**



## **GOAL 5. GENDER EQUALITY - ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS**

### **5A. Background**

Gender inequalities manifest themselves in every dimension of sustainable development. When households cannot access sufficient food, women are often the first to go hungry. While girls are increasingly doing better in school and university than boys, this has not translated into gender equality in the labour market. The gender pay gap stands at 23% globally and, without decisive action, it will take another 68 years to achieve equal pay. While women have made important inroads into political office across the world, their representation in national parliaments at 23.7% is still far from parity, and women politicians and voters face threats and attacks, persistent sexual harassment and online abuse. One in every five women and girls have experienced physical and/or sexual violence by an intimate partner within the last 12 months. Yet, 49 countries have no laws that specifically protect women from such violence. Despite their increasing presence in public life, women continue to do 2.6 times the unpaid care and domestic work that men do. Women and girls are also the main water and solid fuel collectors in households without access to an improved water source and clean energy. Implementing new legal frameworks regarding female equality in the workplace and the eradication of harmful practices targeted at women is crucial to ending the gender-based discrimination prevalent in many countries around the world. (Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development UN Women 2018).

#### **Gender Equality and empowerment – International perspectives**

The exclusion of women places half of the world's population outside the realm of opportunity to partner in building prosperous societies and economies. By investing in the empowerment of women, it is also possible to make gains on the alleviation of poverty and promote sustainable economic development. Achieving greater equality between women and men will require changes at many levels, including changes in attitudes and relationships, changes in institutions and legal frameworks, changes in economic institutions, and changes in political decision-making structures.

Under international human rights law and agreements, notably the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the Beijing Declaration and Platform for Action, States have committed to eliminating discrimination against women and promoting gender equality. The five-year review and appraisal of the Beijing Platform for Action (Beijing + 5) established 2005 as the target date for the repeal of laws that discriminate against women. Yet the progress achieved was insignificant.

Since 2000, UNDP together with the UN partners and the rest of the global community has made gender equality as a global agenda. The Millennium Development Goals (MDGs) marked a historic and effective method of global mobilization to achieve a set of important social priorities worldwide. The agenda of MDGs was further carried forward in a broad based and quantifiable form through Sustainable Development Goals. Goal 3 of MDG covered Gender equality. The task is carried forward in SDG-5.

In India and Karnataka, in recent years more focused interventions (laws, policies and schemes) inclusive of gender budgeting have been undertaken to address the issues of women which result from their situation of subordination, oppression and marginalization in the gender, class and caste hierarchies. The transgender groups also have been brought into the gender related development discourse and the

State has directed welfare actions during the last decade through a policy framework. Yet the progress achieved is not enough to ensure gender equity and empowerment. Gender inequality continues to exist at significant level in the country as evident from the Gender Inequality Index (GII) value of 0.524 and the world ranking of India among 127 countries and in the Global Gender Gap index India is placed at 108<sup>th</sup> position among 144 countries. These inequalities are evident in access to paid employment and significant gaps between men and women in the labour market.

Karnataka, after re-organization in 1956 has crossed many milestones in social and economic development. Many welfare programs and policies have been framed and implemented to take care of the poor, the downtrodden and marginalized group, the State has introduced Women Empowerment Policy, Girl Child policy and the Transgender policy to provide a secure life and better livelihood conditions for the women and girls.

## 5B. Targets and Indicators for achieving SDG 5

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
5.1.1		Rate of crimes against women per every 1,00,000-female population	2018	41.90	-0-	0 0-
	5.1.1.1	Number of Pendency and Pendency rate for crime against women	2016	40061	--	0- 0
5.1.2		Proportion of women subjected to dowry related offences to total crime against women	2018	5.53	0-	0- 0
	5.1.2.1	Conviction rate of women subjected to dowry related offences to total crime against women	2016	2.07	--	-- 100
	5.1.2.2	Number of Pendency & pendency rate of women subjected to dowry related offences to total crime against women	2016	6693	--	-0
5.1.3		Sex Ratio at Birth	2017	935	945	954
5.1.4		Whether or not legal framework are in place to promote, enforce and monitor quality and non - discrimination on the basis of sex	2017-18	Yes	Yes	Yes

Note: -- Not Available

#### Crimes against Women

Karnataka shares 4.2% of total crimes against women in the country (National Crime Bureau (NCRB) 2016). The reported crimes are less and the rate is 47.2 per lakh, as compared to national average of 55.2 (NCRB 2016) & Karnataka ranks 19<sup>th</sup> in the country among 29 States. The conviction rate is very low i.e. 4.6%. The pendency rate is high i.e. 86.8% but still below the national average of 89.8. The



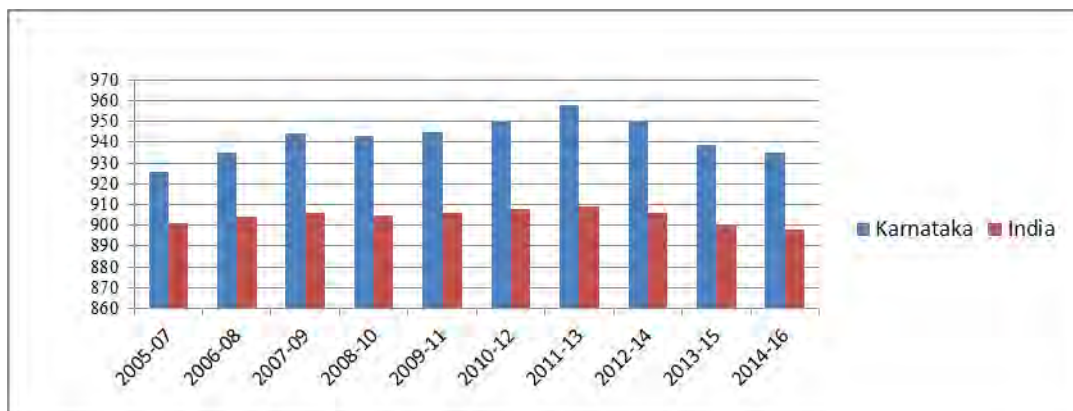
proportion of crimes against women to total crimes reported in the State during the year 2016 is 7.92%. Sexual crimes against women form 12.12% of the total crimes (1725). In rape cases, the charge sheet was filed in 1311 cases and 1339 cases were disposed of and 598 cases were pending at the end of the year. A comparative analysis of crimes against women over the period 2011-2016 indicates that the total number of crimes against women has increased from 9597 in 2011 to 14043 in 2016 indicating a growth of 46.3%.

The dowry related violence reported in total crimes is 13.78%. There is lack of effective implementation of the Dowry Prohibition Act 196 due to many reasons including lack of awareness and knowledge about legal provisions among women and reporting mechanism. Further there is no dedicated staff for quick disposal of cases and there are huge loop holes in the legislation. The conviction rate is 2.07% and the pendency rate is 88.25%. The low conviction rate and the high pendency rates may also affect the reporting of cases as women find reporting do not help to get justice and solution to their problems.

### Discriminatory Practices- Sex Ratio at Birth

A major concern is about the declining sex ratio at Birth. The declining sex ratio is a clear indication of discriminatory practices existing in the society putting the life of the girl baby at stake. As per the data given by Sample Registration System (2014-16) the SRB in Karnataka is 935 and at all India level it is 900. It is better in rural area (965) but lower in urban area (883).

Sex Ratio at Birth-Karnataka & India



Source: SRS Bulletins

Sex Ratio has fallen from 906 in 2009-11 to 900 in 2013-15 at the national level, at the State level it has fallen from 945 to 935 during the same period. The child sex ratio has marginally increased from 946 to 948 in the State.

Effective enforcement of laws such as PCPNDT, schemes like *Bhagyalakshmi* and save the girl child (*Beti Bachao, Beti Padao*) campaigns have contributed to increase the sex ratio to some extent, but this is not enough. Holistic interventions that seek an end to prejudices and discriminations against women and transform institutionalized relations of power based on gender are essential if women have to live with safety and dignity.

Legal framework is in place to promote, enforce and monitor quality and non - discrimination on the basis of sex. Legal framework is in place to provide security and to promote the interests of women. The major Acts being implemented in this direction are:

- The Immoral Traffic (Prevention) Act 1956.
- Dowry Prohibition Act 1961
- Maternity Benefit Act 1961 & Amendment 2017
- Equal Remuneration Act 1975
- Karnataka Marriage Act (1976 State Act) Implemented from 2004 for registration of marriages.
- Indecent representation of Women (Prohibition) Act 1986
- Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act (PCPNDT Act) 1994.
- Prohibition of Child Marriage Act 2006.
- Protection of Women from Domestic Violence Act 2005 & Rules 2006
- Right to Education Act -2009
- National Food Security Act (NFSA) 2013
- The Sexual Harassment of Women at Workplace (Prevention Prohibition & Redressal) Act 2013.

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
5.2.1		Proportion of crime against women to total crime reported in the state during the calendar year	2018	8.27	4-	0 0-
5.2.2		Proportion of sexual crimes against women to total crime against women during the calendar year	2018	25.01	0-	0 0-
	5.2.2.1	Rape Cases in which charge sheet submitted, Total cases disposed off, Cases pending investigation at the end of the year	2016	1311 1339 598	100%-	100%-
5.2.3		Proportion of cruelty/ physical violence on women by husband or his relative to total crime against women during the calendar year	2018	6.36	0-	0- 0
5.2.4		Proportion of sexual crime against girls children to total crime against children during the calendar year	2017	45.36	0	0
5.2.5		Proportion of Trafficking of girl children to total children trafficked during the calendar year	2018	62.50	0-	0- 0
5.2.6		Percentage of currently partnered girls and women aged 15-49 years	2015-16	21.60	0-	0- 0

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
		who have experience physical and / or sexual violence by their current intimate partner in the last 12 months				
5.2.7		Child Sex Ratio (0-6 years)	2011	948	943	954
	5.2.7.1	Number of complaints registered and disposed at Private/Public sector (the Local Complaint's Committees (LCCs) and Internal Complaint's committees (ICCs))	2017-18	45& 0; 36&0	60%	100%

It is to note that no specific targets are fixed for 2022 and 2030 as the mission is to reduce the crimes to zero tolerance level.

**Crimes against Women:** The proportion of crimes against women to total crimes reported in the State during the year 2016 is 7.92%. Sexual crimes against women form 12.12% of the total crimes (1725). In rape cases, in 1311 cases the charge sheet was filed, and 1339 cases were disposed-off. 598 cases were pending by the end of the year.

**Proportion of cruelty/ physical violence on women by husband or his relative:** Proportion of cruelty/ physical violence on women by husband or his relative to total crime against women during the calendar year is 18.03%. SDG 5 target is to reduce it by 15.57% by 2022 and by 10. 32% in 2030. Only 22% of women who have ever experienced physical or sexual violence by anyone have sought help. More than three-fifths of women have neither sought help nor told anyone about the violence. (NFHS-4) This indicates the hold of patriarchal institutions and value systems on women in the society. Abused women who have sought help most often seek help from their own families. Only 4% of abused women who sought help for the violence from the police. (NFHS-4 P-165).

**Special Treatment Units (Gelathi)** are established by the Government of Karnataka to provide necessary services for women and children who are victims of atrocity and sexual abuse. The functions of Gelathi are similar to the one stop Centre i.e. providing integrated services to the needy, which include medical treatment, police help, legal assistance, and counselling. These units are established in all district hospitals and 145 taluk hospitals of the state.

#### Sexual or other Trafficking of girl children

Particulars	Child victims of kidnapping and abduction			Adult victims of kidnapping and abduction		
	Male	Female	Total	Male	Female	Total
Karnataka	682 (30.1%)	1585 (69.9%)	2267 (100)	975 (32.6%)	2023 (67.4%)	2998 (100)
India	14486 (26.7%)	39842 (73.3%)	54328 (100)	23350 (26.0%)	66525 (74.0%)	89875 (100)

Source: Home Department

A look at the above table indicates that how much is the insecurity of life for women and girls in India and Karnataka. Out of total cases of kidnapping of children 70% are cases of girls' kidnapping. The incidence kidnapping is significantly high among women than men. These cases are 67.4% of total cases in Karnataka and 74% at the national level.

The Integrated Child Protection Scheme (ICPS) and of Trafficking of Women (Prevention) Act have been implemented in the State effectively. However, still trafficking among the girl children and adult women is observed with higher incidence.

**The Percentage of currently partnered girls and women aged 15-49 years who have experience physical and / or sexual violence by their current intimate partner in the last 12 months is 24.4%.**

Name of the institution	No.	Cases reported
Swadhar Homes	48	1283 (women) 354 (children)
One Stop Centre	7	338
Special Treatment Unit for Women (Gelathi) help line 181	33	2015
Sweekar Kendra	3	581
State Homes for Women	8	740
Districts with Help line & No.1091	196 All Districts and talukas	

Source: Annual Report Women & Child Development Dept-2018

Recently, the Government of Karnataka has upgraded All Women Police Stations as One Stop Centres and in 2018-19 all the districts are covered under One Stop Centre.

**Number of complaints registered and disposed at Private/Public sector (the Local Complaint's Committees (LCCs) and Internal Complaint's committees (ICCs)**

The POSH Act requires an employer to set up an 'internal committee' ("IC") at each office or branch, of an organization employing 10 or more employees, to hear and redress grievances pertaining to sexual harassment. At the district level, the Government is required to set up a 'local committee' ("LC") to investigate and redress complaints of sexual harassment from the unorganized sector or from establishments where the IC has not been constituted, the target is to increase the coverage of ICC to 50% by 2022 & to 100% by 2025.

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
5.3.1		Proportion of cases reported under the Prohibition of Child Marriage Act (early marriage of children below 18 years of age) to total crime against children.	2018	1.19	0	0
5.3.2		Proportion of women aged 20-24 years who were married or in a union before age 18	2015-16	21.40	0	0

Source: Home Dept. & NFHS-4

## Early marriages

The proportion of cases of early marriages to total crimes reported against children is 1.14%. This indicates that the phenomenon of child marriage is declining. The data from DLHS – 4 (2012-13) shows that 14% women (18% in rural and 7.4% in urban areas respectively) were married below legal age in the State of Karnataka. Compared to the corresponding data from DLHS-3 conducted in 2007-08 showed a decline by 8.3% over the last five years. However, a higher incidence of child marriage in the State is revealed by the NFHS-4 (2015-16) – which places the percentage of women (age 20-24 years) married before legal age at 21.4% against the national average of 26.8%. There is an urgent need to generate awareness about the evil effects of child marriage among the parents and girls through media and education.

As per the Judgment of High court of Karnataka a core committee was formed under the chairmanship of honourable retired Supreme Court judge Dr. Shivaraj V Patil to prepare the action plan for the effective implementation of child marriage act, 2006. As per the recommendation of this core committee Child Marriage Prohibition and Monitoring Cell is established in the Department of Women and Child Development in November 2011. The main function of the Cell is to prevent child marriages and create awareness about child marriage prohibition. Core committees are formed at the State, District, Taluka and gram Panchayat level to prevent and monitor child marriages and generate awareness about the law and against child marriages.

## Early Motherhood

Proportion of women (aged 15-19 years) experience motherhood in Karnataka is 7.8% (both urban and rural) and 9.6% in rural area. It is slightly below the national average of 7.9%. Further, the proportion of women aged 20-24 years who were married or in a union before age 18 has come down from 41.8 in 2005-06 to 21.4 in 2015-16. It is well below the national average of 26.8.

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
5.4.1		Proportion of time spent on unpaid domestic and care work	--	--	--	--
	5.4.1.1	Ratio of female labour force participation rate to male LFPR	2011	0.42	0.6	1

Unpaid care work refers to all unpaid services provided within a household for its members, including care of persons, housework and voluntary community work (Elson, 2000). These activities are considered work, because the activity involves mental or physical effort and is costly in terms of time and resources. It is unpaid because it is not for exchange in the market and the individual performing this activity is not remunerated.

A rough estimate indicates that, in India, for example, men devote 36 minutes to unpaid care responsibilities, out of which 36% goes into housework, with the remaining time spent on shopping, care for household members, and travel related to household activities. Out of the six hours women devote to unpaid care activities, the portion of time specifically spent on housework reaches 85%. (Unpaid Care Work: The missing link in the analysis of gender gaps in labour outcomes OECD Development Centre, December 2014).

**Labour Force Participation rate:** The labour force participation rate is a measure of the proportion of a country's working-age population that engages actively in the labour market, either by working or looking for work; it provides an indication of the size of the supply of labour available to engage in the production of goods and services, relative to the population at working age (ILO). Labour market opportunities provide access to income, assets and empowerment. The labour market is getting sharply divided into skilled and unskilled segments and the gap in terms of wages and salaries, work conditions and work rights is widening.

The Labour Force Participation Rate (LFPR) for female in the age group of 15-19, as indicated by Usual Principal & Subsidiary Status (UP&SS) is 339 per thousand for female as against 775 for male. The gender gap is 436. The Periodic Labour Force Survey Report (PLFS-2019) reports the LFPR 77.8% for male and 26% for female and the gender gap is 51.8%. It is to be reduced to zero by providing equal space for women and men in labour market. The low LFPR is due to low labour force participation rate of female in urban labour market which is 265 per thousand for women as against 743 for men. It is still above the national average of 166. However, it is also low in rural area which is 381 per thousand. The male female gap is significant in rural area also. This indicates that women in urban area lack the necessary skills to access the job opportunities in the market and also the supporting services to enable her to work outside home. As it is very low in urban areas implies that the dependency syndrome continues to exist for women in the process of urbanization.

**Increasing work Participation and promoting Occupational shift:** Strategic intervention is through promoting education- general, technical and vocational and enhanced resource allocation.

**Education -Technical & Higher Education:** The Gross Enrolment Ratio for girls in Higher education is 28.5 which is above the GER of 27.2 for boys and also above the national average of 25.4. The gender Parity Index is 1.05. The GER for SC category is 19.4% and for ST Category it is 17.4%. The gender parity index is 0.97 in SC & ST category (AISHE 2017-18). Though the overall GER is low in higher education, the girls outnumber the boys in Karnataka and the Gender Parity Index is 1.05. But their participation in technical education is low.

Particulars	2017	Gender Gap	2022	2030
Proportion of females in technical Education to Total*	32.5 ** 28.86***	35.0 42.28	20.0 32.0	5.0 10.0
Proportion of women in higher education to men	GER 28.5	- 01.3	35	45

\*Annual Report DTE; \*\* Engineering courses; \*\*\* Engineering & Polytechnic courses

There is a need to increase girls' enrolment in technical education which is less than a third in engineering courses and less than 30% including Polytechnic courses.

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
5.5.1		Proportion of seats held by women in national parliament, State legislation and Local Self Government				
	5.5.1.1	Proportion of Women seats in State assembly	2013	8 (3.57)	33	33
	5.5.1.2	Proportion of Women seats in State legislative council	2013	4 (5.33)	33	33
	5.5.1.3	Proportion of women members in Zilla Panchayats/ ULBs	2017-18	51.14	50	50
	5.5.1.4	Proportion of women members in Taluk Panchayats	2017-18	51.19	50	50
	5.5.1.5	Proportion of women members in Gram Panchayats	2017-18	50.60	50	50
	5.5.1.6	Proportion of women in Urban Local Bodies	2015-16	274 CC - 10 CMC - 57 TMC - 113 TP - 90 NACs - 4	50	50
5.5.2		Number of women in Board of listed companies per 1000 persons	2017-18	153	330	500
	5.5.2.1	Proportion of women members in Joint Forest Management Committee	2017-18	46	48	50
	5.5.2.2	% Females in essential public services (IAS, IPS, IFS)	2016-17	29 13 13	35 30 35	50 50 50
	5.5.2.3	Proportion of female judges in the State High Court	2016-17	28.46	38	50
	5.5.2.4	Proportion of female police officers in the State	2017 - 18	7	30	50
	5.5.2.5	% of Female Employees to Total Working Employees	2016-17	27.75	40	50
	5.5.2.6	Proportion of females in technical education (Engineering Courses)	2017-18	32.5	20	5
	5.5.2.7	Proportion of females in technical	2017-	28.86	32	10

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
		education (Engineering & Polytechnic courses)	18			
	5.5.2.8	Proportion of women in higher education to Men	2017-18	28.5	35	45
	5.5.2.9	Proportion of women in Medical education to Men	2016-17	50.40	51.54	58.38
	5.5.2.10	Proportion of female attend to skill training	2017-18	2,95,393 no.	80%	100%

**Participation in decision-making process- political, economic and public life:** Women’s participation in decision making process is a basic requirement of their empowerment. To enable the State to function as women’s agency, political participation of women is essential. Participation of women in Governance at various levels, offers options for women to utilize State resources and services for their development.

**Women in Governance:** The Proportion of women in state legislative assembly is only 3.57%. There are 8 women members out of 224-member house as on 2018. With regard to Proportion of women in legislative council, there are only four women members in the 75-member legislative council as on 2018. They constitute 5.33% of total members.

**Women in Local self –Government:** Karnataka was the first State in the country to implement the Panchayat Raj Act which mandated 25% of seats reserved for women in 1987. The 73<sup>rd</sup> and 74<sup>th</sup> Amendments to the Constitution implemented in 1993 made a provision for 50% of reservation of seats for women. The elections are held regularly to the various bodies of the Local Self Government. One-third offices of chairpersons of the bodies at all levels are reserved for women.

**Women in Zilla, Taluka and Gram panchayats and Urban Local Bodies:** Women have been able to consolidate their position in Local Self Government due to the reservation policy implemented effectively in the State. The trend is increasing over time. Their representation is 51% in Gram Panchayats and Taluka Panchayats and 50.6% in Zilla Panchayats. They are being trained to participate effectively in governance and decision-making process.

Year	GP	TP	ZP
2000	44.75	42.20	38.10
2005	43.00	41.20	37.10
2010	43.39	55.15	53.21
2015 & 2016	51.14	51.17	50.60

Further, at village level, the proportion of women participating in Joint Forest Management Committees is 46% which is also significant. As per NFHS-4 (2015-16) more than 80% of the women in Karnataka claim that they participate in household decisions. The percentage of women who reportedly, do so, increased by 11.8 points from 68.6 in 2005-06 (NFHS-3). Urban women are able to do so to a relatively



higher extent (83.5%) compared to rural (78%), implying that they have more freedom to direct their own lives. In comparison relatively more rural women in Kerala (92.4%), Tamil Nadu (84.7%) and Andhra Pradesh (80.4%) were found to participate in household decisions compared to Karnataka.

**Participation in essential public services:** Women’s participation in higher level governance with Women IAS (29%), IPS (-) and IFS (13%) officers is comparatively low. The target is to increase it to 35% by 2022 and 50% by 2030. The strategy is to increase women’s access to higher education and train them to take up competitive examinations.

**Number/Proportion of female judges** in the State High Court is 279 which is 28.46% of the total. The target is to increase it to 38% in 2022 and 50% in 2030.

**Number/ Proportion of female police officers in the State:** The proportion of female police officers is 7%. Now with the reservation policy of 25% women in the Police dept. (in 2019-20), target is to increase it to 30% by 2022 and 50% by 2030.

**Percentage of Female Employees to Total Working Employees.** Among employees in various categories of Govt. posts in administrative departments, their percentage is above 30 only in group C employees. This is an area where more focused approach is required to bring women in mainstream administration.

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
5.6.1		Percentage of currently married women (15-49 years) who use modern methods of family planning	2015-16	51.3	80	100
5.6.2		Unmet need for family planning for currently married women aged 15-49 years	2015-16	10.40	0	0
5.6.3		Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV / AIDS (Women; Men)	2015-16	10;27.90	50;50	100;100
	5.6.3.1	Proportion of pregnant women who received ante-natal, post- natal care	2015-16	70.3 65.6	75	100
	5.6.3.2	Infant Mortality Rate	2014-16	24	18	16
	5.6.3.3	Maternal Mortality Ratio	2014-16	108	78	50

The Beijing conference came out with an action Agenda focusing on the four qualitative and quantitative goals- **Universal education, Reduction of infant and child mortality, reduction of maternal mortality, Access to reproductive and sexual health services including family planning.** The basic indicators of reproductive health are awareness, knowledge and use of modern methods of family planning, access to prenatal and post-natal care and knowledge about HIV/AIDS.

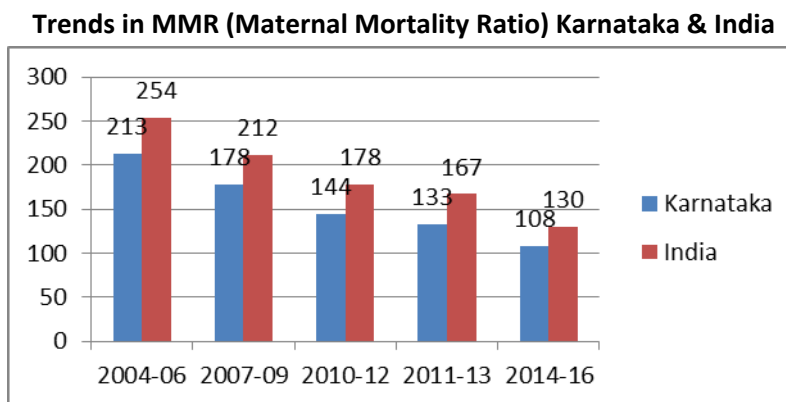
**Use of modern methods of family planning & unmet need:** As per NFHS-4 report the data indicates 51.3% of currently married women (both urban and rural) use modern methods of family planning, which is 54.3% in rural area. The target is to increase it to 80% & 100 % respectively and to reduce unmet need to zero percent by 2022 & 2030.

**Knowledge about HIV/AIDS:** The knowledge about HIV/AIDs is very low as only 9% of women know about it. There is an urgent need for generating awareness about it through a mission mode and the Government as well as civil society organizations have to play an active role in this awareness.

**Anti-natal and Post-natal care:** Mothers who had at least 4 anti-natal care visits is 70.1% (both urban and rural) and 70.7 % in rural areas. The percentage of mothers who received the post-natal care within two days of delivery is 65.6%. There is an urgent need for expanding the coverage to 100% and institutional delivery to 94% by 2030.

**Infant Mortality Rate:** The infant mortality rate has come down significantly due to improved reproductive health care, child nutrition and coverage of immunization. The IMR has come down to 24 from 48 in 2007. The State Government is implementing ICDS programme effectively and a large proportion of children are covered under the programme. Under *Ksheerabhagya* – A State scheme -milk is provided to the children in *anganwadi* Centres covering over 1 crore children across state from AWCs and Schools. However, the State IMR is above the IMR of Kerala (10). More intensive efforts are required to reduce it to 10 in future.

**Maternal Mortality Ratio:** The Maternal Mortality ratio (MMR) in the State is 108 per lakh live births. The MMR has come down from 213 in 2006 to 108 in 2016 and to 97 in 2017.



Source: SRS Bulletins respective years

This is on account of many positive interventions by the State along with implementation of central schemes. It is also declining due to increased coverage of institutional delivery to 94.3% due to Government interventions. *Matru Vandana Yojana* contributes to better health for women by providing cash incentives for improved health and nutrition to pregnant and 0-6 months lactating mothers.

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
5.a.1		Operational land holdings – female operated (%)	2015-16	20.07	25	40
	5.a.1.1	Proportion of Area Operated by women	2010-11	15.60	22	35
5.a.2		Proportion of female agricultural labourers	2010-11	54	40	30-
5.a.3		Wages of casual labourers (Rs. Per day) Male; Female; Person	2018	305; 168; 263	-	-
	5.a.3.1	Average female to male ratio of average wages/ salaries received per day by regular wage/ salaried employees of age 15-49 years for rural and urban	2011-12	0.7	0.8	1
5.a.4		Agricultural wages (Male; Female; Person in Rs/day)	2018	250; 163; 207	-	-
5.a.5		Exclusive women SHGs in Bank linked SHGs (%)	2018	94.1	100	100
5.a.6		Percentage of adult having an account at a formal financial institution	March 2018	95	100	100
5.a.7		Percentage of women having an account at a formal financial institution	2018-19	59.4	100	100
5.a.8		Percentage of no. of borrowers per 1,00,000 adults (male and female-wise)	-	-	-	-

Note: - : Not Available

**Economic Empowerment:** Economic empowerment is a more focused strategy for promoting gender equality. World Economic Forum estimates that it will take 202 years to close the economic gender gap if left to market forces. A separate study by McKinsey Global Institute calculated that the potential benefit of closing the gender gap in the workforce would amount to \$28 Trillion in Global GDP by 2025. The figures clearly indicate the importance and utility of eliminating gender discrimination.

**Access to Ownership & Control over Land and other Assets:** Women's access to land resources as indicated by operational land holdings owned by women is 18.97% and the area operated is 15.6%. The target is to increase it to 22% by 2022 and 35% by 2030. The access to land is very limited and therefore

54% of women work as agricultural labourers where the wages are very low and the employment is seasonal and irregular. A woman who worked and received payment in cash for last 12 months is only 29.1%. However, women owning a land and or house alone or jointly with others is 51.8% (NFHS-4).

**Wage Gap:** Gender based division of labour and traditional stereotype patterns of hiring of women workers has contributed to gender-based differences in wage rates. Women therefore, largely earn lower wage than men doing the same work. It has been estimated that women’s wage rate is only 70% of men’s wage rates and constitute only one fourth of the family income. In no State women and men earn equal wages in agriculture. Also, women generally work in the informal sector where wages are low and they are not covered by labour laws. Within organizations, women workers are also engaged in piecework and subcontracting at exploitative rates. **The average female wage is 70 % of male wage rate. The gap is 30%.** Several schemes have been launched to promote women’s access to income generating assets in Agriculture and allied sectors.

**Women in Self Help Groups:** Self Help groups are being formed under *Stree Shakti* Programme of women and child Development Dept., under other schemes such as Micro credit scheme under NRLM and schemes of Cooperation Dept., Commercial Banks and Regional Rural Banks. There are 954547 Women Self Help Groups in the State constituting 94 % of total SHGs, with 11454560 women members. Out of the total SHGs linked to the banks, the number of women SHGs is about 85%. Thus, women SHGs constitute the major proportion of bank linked SHGs. Studies on SHGs have indicated a positive impact of bank linkage and micro credit on economic conditions of the group members and the social effect is quite significant.

**Percentage of Adults and women having an account in formal financial institution:** Percentage of adults having an account in formal financial institution is 95% in the State and the target is to increase it to 100% by 2022. About 59.4% of women have a bank account that they operate themselves (NFHS-4). The target is to increase it to 100% by 2022 and 100% by 2030.

**5.b - Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women**

Women’s access to technology is increasing with their increased employment in IT and ITeS sectors. Their share in total jobs in these sectors is 35%. The increased access to these better paid jobs has led to their increased self-confidence and economic independence. But their number has to increase further to cover 50% of the total employment.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
5.b.1		Percentage of women employed in IT and ITeS industry	2017-18	35	40	50

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

Women are marginalized because they lack sufficient core capabilities: education, health, command over land and productive assets and personal security. This deficiency in women’s core capabilities

originates with and continues to be reinforced by social norms and institutions which have persisted over time (UNDP, 2014).

National Indicator No.	State Indicator No.	Indicator	Base Line Year	Baseline Value	2022	2030
5.c.1		Number of Central Ministries and State having Gender Budget Cells (GBCs)	2018-19	Yes	Yes	Yes
	5.c.2.1	Transgender policy.	2017-18	Yes	Yes	Yes
	5.c.2.2	Women Empowerment Policy	2018	Yes	Yes	Yes
	5.c.2.3	Girl Child Policy	2018	Yes	Yes	Yes

Karnataka State had introduced a scheme of inter sectoral allocation of budgetary resources for women under the label Karnataka *Mahila Abhivradhi Yojane* (KMAY) in 1995-96. The Finance Department, Government of Karnataka has established Gender Budget Cell in 2007 to undertake gender analysis of government budgets and has been submitting GB documents to the State legislature since 2007-08. The government programmes and schemes under the 25 Demands for Grants are classified into three categories in the GB document as Category-A B and C Category A schemes are for Women only and in Category B the provision for women is 30-99%.

**Karnataka State Transgender Policy, 2017:** The State Government of Karnataka has issued a landmark Policy for Transgender (TG). The Karnataka State Policy for Transgenders, 2017 aims to integrate the TG communities into mainstream society and guarantee a secure future for them. The policy is a significant step towards ensuring a stigma-free, inclusive and equitable environment for the transgender. It addresses their vulnerabilities holistically and proposes initiatives for their social, psychological, financial welfare.

**Girl Child Policy:** The State has formulated and implemented the Girl Child Policy. The basic objectives are to empower girls to participate actively in decisions that affect their lives and to take control of their life situation. Protect girl children from all forms of violence, abuse and discriminatory practices through effective enforcement of legislation and policies; promote change in attitudes and behaviour within families, communities and society.

**State Policy for Empowerment of Women -2018:** It aims at creating an enabling environment through progressive economic and social policies for the holistic development of women to enable them to realize their full potential and lead lives with dignity. Ensuring equal access to health care, quality education career and vocational guidance and employment, equal and fair remuneration, occupational health and safety, and social security. Ensuring equal access to and control of economic resources including common property, forest, land, water and other means of production.

## 5C. Way Forward

Preparing the Action Plan for achieving gender equality and empowerment of women and girls is surmounted by many challenges as this goal is linked with many other goals to attain the final outcomes. A close nexus is observed across Goal 5 & the goals 1, 2, 3, 4, 6, 7, 8, 10, 11, 12, & 16. Therefore, achieving the outcomes in SDG 5 depends on the performance of the State across other Goals and

indicators. This also requires integration of Action Plan of Goal 5 of WCD with other closely connected departments like Home Department, health, education, Agriculture, Rural development and Panchayat raj, urban development. The implementation and monitoring of the action plan also require proper coordination across these Departments.

- **Reducing Crimes, discrimination and providing safe environment**

- Adopt preventive strategies to eliminate violence by changing the mind-sets and psychology of men.
- Increasing women police satiations from 35 to 60 with focus on high incidence areas.
- Increasing Women police force. The target is to give 33% representation to women. (Now reservation given to 25%)
- Effective implementation of prevention of Domestic violence Act2005 by providing adequate Implementation machinery and Protection Officers at district levels,
- Gender sensitization and giving special training/ refresher course to existing police officers/staff to face the present situation of crimes and violence.
- Implementation of new technologies, like fixing of CCTV cameras at sensitive places. Provision of safe transport and 24/7 helpline for women by Home dept.
- Increase the coverage of One Stop centres, *Santwana* Centres, Special Diagnostic Centres and establishing comprehensive institutional set up to provide immediate assistance to women in distress.
- Effective legal mechanism for increasing the conviction rate and speedy disposal of pending cases. Quick disposal of cases by establishing special courts.
- Effective implementation and monitoring of PC&PNDT Act. Dept. to conduct Inspections to all Scanning Centres once in a 3 Months by District Inspection and Monitoring Committee.
- Involvement of NGOs for random verification of Suspicious Scanning Centres in Various districts in Karnataka (that have Low Sex Ratio at Birth).
- Conducting PC&PNDT awareness program / workshops for *ASHA/Anganawadi* workers and among the people through strengthened IEC.
- To reduce the MMR, an important programme has been launched by the National Health Mission to improve the skills of the service providers in all Government delivery points and also improve the intra partum and postpartum services.
- 100% tracking of all pregnant women and ensuring high quality in antenatal care is planned. All High-Risk Pregnancy identification will be done with the support of all front-line health workers such as *ASHA, Anganawadi* workers and Health Assistants (Female).
- 100% tracking of all pregnant women and ensuring high quality in antenatal care is planned with the integration of IT services of WCD and Health department.
- Adopting multi-sectoral approach through SHGs for addressing Malnutrition. Replication/scaling up of successful Initiatives such as Karnataka Multi-sectorial Nutrition

Project implemented in Chincholi and Devdurga Talukas by Karnataka Nutrition Mission.

- **Increasing Labour Force Participation rate- Education and Skill Development Provision of enabling facilities to reduce the burden of domestic work.**
  - **Providing support** facilities like Shishu Vihars, crèches, old age care to help women to reduce their burden in care economy and enable their participation in labour market. **Strengthening of Anganwadi** Centres to take care of children in 0-3 age group
  - To bring about social and attitudinal change for changing the stereo type gender roles through awareness, **Gender Sensitization** Programmes. **Introducing modules** on gender equality in family and society in school curriculum.
  - Increasing access of girls to education at all levels by creating enabling environment- Girls hostels at Hobli/ sub taluka levels, more female teachers in schools, safe transport facilities.
  - The Skill Development Department will take up effective **IEC measures to generate awareness** and facilitate the enrolment of girls in various skill development courses.
  - Skill Development Entrepreneurship and Livelihood (SDEL) is established in 2016 to enable the state's youth to acquire necessary skills for decent employment, and to promote sustainable livelihood. **SDEL will identify gender friendly courses** and promote enabling factors to increase the access of women to these courses.
  - **Increasing the provision for women from 33 % to 50%** under **Chief Minister's Koushalya Karnataka Yojane** skill training and placement of 5 lakh candidates is targeted under this programme and is being implemented in following two streams. **Specific targets** will be fixed for women and girls in all the programmes of Central and State Governments- RGCY, DDUGKY.
- **Increasing Political Participation**
  - **Establishment of coaching centres, training institutes** to train girls for competitive examinations.
- **Women Entrepreneurship**
  - **Promoting** and strengthening women co-operatives. Promoting **entrepreneurship** among women- **focused schemes in Animal Husbandry, Dairy, Household industries. Expanding coverage of Udyogini scheme,**
  - Provision of **support facilities** like **Special Industrial Parks, infrastructure** facilities higher subsidies, marketing facilities, raw materials to women individual entrepreneurs and groups.
  - **Capacity building, Re-training and skill up-gradation** of women in e-trading and e-commerce.
  - Government should adopt a **single window approach** to overcome the procedural and other barriers to accessing facilities and loans by women, especially those belonging to marginalized groups and communities. **Cooperative entrepreneurship** to be promoted among SHG groups in both urban and rural areas. Promoting production and marketing models in economic sector.
  - As per the industrial policy 2014-19, 5% **additional investment promotion subsidy**, interest subsidy & other incentives concessions are also provided for encouragement of women entrepreneurs.

- Labour legislation and social security measures for women in unorganized sector.
- **Women's Access to Resources**
  - **Women's access to land rights** should be ensured through property and inheritance rights; direct government transfers (for poverty alleviation, resettlement, rehabilitation etc.); and credit support to poor women to purchase or lease land from the market. Incentivizing joint ownership of farms for gender equality index improvement.
  - **Legal awareness** and legal support should be provided to women about their property and inheritance rights.
  - Promoting registration of individual assets in the name of women under different government schemes- housing, Animal Husbandry etc.
  - Maintaining **gender disaggregated data** in all programmes and schemes for effective and evidence-based gender policy.
  - Preparation of Gender report card providing the gender data base in all the sectors and updating it on annual basis.
  - Additional resources secured through CSR funds, convergence across departments & schemes and gender responsive budgeting.

## 5D. Budget Requirements

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below.

### Budget Requirement for SDG 5(In Crores)

Department	Scheme Name	2020-21			2020-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Appendix 5.1	Appendix 5.2	56.10	43.90	11.50	429.30	422.44	219.86

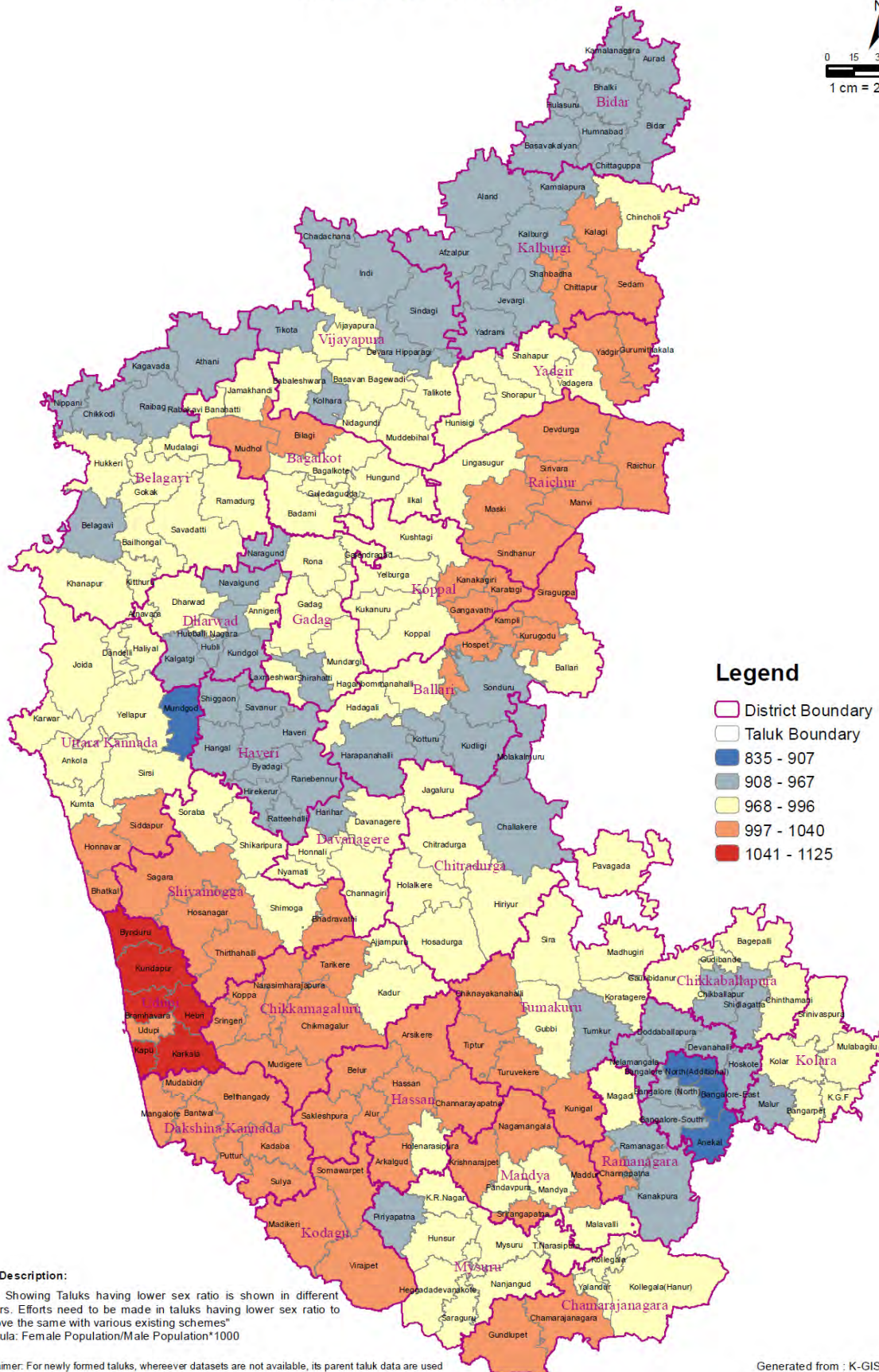
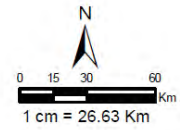
The size of gender budget of the State is indicated below.

Year	No. of Depts.	Category A			Category B		
		No. of schemes	Allocation (Rs. lakhs)		No. of schemes	Allocation (Rs. lakhs)	
			Plan	Non-Plan		Plan	Non-Plan
2014-15	39	59	319988	45003	798	3273692	3355467
2015-16	36	54	469419	92846	720	3330329	2307027
2016-17	36	57	400455	108652	664	3719885	2440455
2017-18	32	58	590183	-	650	6979108	-
2018-19	29	56	510840	-	698	941461	-

Source: WCD



# Sex ratio - Talukwise



## 5E. Appendices

### Appendix 5.1: Indicator-wise data source and nodal department

Sl.No.	National Indicator No.	State Indicator No.	Data Sources	State Nodal Department
1	5.1.1		Home Dept.	Home
2		5.1.1.1	Home Dept.	Home
3	5.1.2		Home Dept.	Home
4		5.1.2.1	Police-IT	Home
5		5.1.2.2	Home Dept.	Home
6	5.1.3		Home Dept.	Home
7	5.1.4		DES	DES
8	5.2.1		Home Dept.	Home
9	5.2.2		Home Dept.	Home
10		5.2.2.1	State Crime Report Bureau (SCRB)	Home
11	5.2.3		Police-IT	Home/WCD
12	5.2.4		Police-IT	Home
13	5.2.5		Home Dept.	Home/WCD
14	5.2.6		NFHS	Health
15	5.2.7		NFHS	HFW
16		5.2.7.1	KSWC	WCD
17	5.3.1		Police-IT (Home Dept.)	Home
18	5.3.2		NFHS	HFW
19	5.4.1		WCD/Labour	WCD/Labour
20		5.4.1.1	Census 2011	WCD/Labour
21	5.5.1		State Election Commission	SEC/RDPR
22		5.5.1.1	Chief Electoral Office, DPAR	SEC/RDPR
23		5.5.1.2	NA	SEC/RDPR
24		5.5.1.3	SEC	SEC/RDPR
25		5.5.1.4	SEC/RDPR	SEC/RDPR
26		5.5.1.5	SEC/RDPR	SEC/RDPR
27		5.5.1.6	KAG (DES)/DMA	SEC/RDPR
28	5.5.2		-	Industry & Commerce
29		5.5.2.1	Forest	DES, FEE
30		5.5.2.2	DES	DES
31		5.5.2.3	DES	DES
32		5.5.2.4	DES	DES
33		5.5.2.5	DES	DES
34		5.5.2.6	Technical Education	Technical Education
35		5.5.2.7	-	Technical Education
36		5.5.2.8	Higher Education	Higher Education
37		5.5.2.9	Medical Education	Medical Education
38		5.5.2.10	SDEL	SDD
39	5.6.1		NFHS-4	HFW
40	5.6.2		NFHS-4	HFW
41	5.6.3		NFHS-4	HFW
42		5.6.3.1	NFHS-4	HFW
43		5.6.3.2	SRS	HFW
44		5.6.3.3	SRS	HFW
45	5.a.1		DES	Agriculture, DES, Revenue
46		5.a.1.1	DES	Agriculture, DES, Revenue
47	5.a.2		Census 2011	DES
48	5.a.3		Commerce & Industry	Commerce & Industry
49		5.a.3.1	Labour NSSO 68th Round	Labour
50	5.a.4:		Labour Dept.	DES / Labour/Agriculture

Sl.No.	National Indicator No.	State Indicator No.	Data Sources	State Nodal Department
51	5.a.5		NRLM - RDPR	RBI SLBC
52	5.a.6		SLBC, NFHS-4	RBI (SLBC)
53	5.a.7		SLBC, NFHS-4	RBI (SLBC)
54	5.a.8		RBI (SLBC)	RBI (SLBC)
55	5.b.1		NASSCOM	IT & BT, Labour
56	5.c.1		FPI WCD	WCD
57		5.c.2.1	KSWDCL	WCD
58		5.c.2.2	WCD	WCD
59		5.c.2.3	WCD	WCD
	29	21		

**Appendix 5.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Chetana	2.05	10.00	10.00	11.00	11.00	12.00	12.00	13.00	13.00	14.00	14.00
Training Programme for Women Entrepreneurs Through Women's Development Corporation	3.50	4.00	4.00	5.00	5.00	6.00	6.00	7.00	7.00	8.00	8.00
Udyogini - Women Development Corporation	25.30	26.00	28.00	28.00	30.00	30.00	32.00	32.00	35.00	35.00	38.50
Samruddhi- KWDC	5.00	6.00	6.00	7.00	7.00	8.00	8.00	9.00	9.00	10.00	10.00
Dhanashree	5.00	6.00	6.00	7.00	7.00	8.00	8.00	9.00	9.00	10.00	10.00
Rehabilitation of Transgenders	4.10	4.10	4.10	4.10	5.00	5.00	5.00	5.00	5.00	6.00	6.00
Total	44.95	56.10	58.10	62.10	65.00	69.00	71.00	75.00	78.00	83.00	86.50

**6** **CLEAN WATER  
AND SANITATION**



*“Let’s use natural resources wisely”*



## GOAL 6. CLEAN WATER AND SANITATION - ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

### 6A. Background

SDG 6 seeks to “Ensure availability and sustainable management of water and sanitation for all” and includes targets which seek to address critical components of the freshwater cycle. SDG 6 calls upon all signatory states to improve the standard of Drinking Water, Sanitation and Hygiene (WASH) services (6.1 and 6.2); increasing treatment, recycling and reuse of wastewater (6.3); improving efficiency and ensuring sustainable withdrawals (6.4); and protecting water-related ecosystems (6.6) as part of an integrated approach to water resources management (6.5). The goal also includes means of implementation that enable the achievement of the targeted development outcomes (6.a and 6.b). The goal builds upon human rights to water and sanitation while placing obligations on member States to ensure that services are affordable and inclusive with these dimensions being reflected in SDG target 6.1, which calls for universal and equitable access to safe and affordable drinking water for all.

Karnataka is one of India’s most water-stressed states, and its rapid urbanization and industrialization call for the effective management of available water resources. Karnataka is one of the Indian States which is most prone to drought, as 16 of its 30 districts have found a place in the list of 24 districts in the country that are eternally drought-prone. Recognizing the impending issue and the role of agriculture in achieving water and food security, the Government of Karnataka has declared the period from 2011 to 2020 as the “Irrigation Decade” for achieving water and food security. Further, the year 2019 has been declared as the year of ‘water’ by the State Government. Since the last about one decade, the Government has envisaged the introduction of an “Integrated Water Resources Management (IWRM) approach in the water resources sector to achieve the objectives which includes the integration of issues related to irrigation, agriculture, industrial, energy, drinking water and other allied demands for water. Karnataka has been performing well on a few basic indicators of SDG6 while opportunities exist to improve the State’s achievements on other fronts.

### 6B. Targets and Indicators for achieving SDG 6

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
6.1.1		Percentage of population having safe and adequate drinking water within premises (Rural; Urban)	2018	42.61; 88.23	60; 93	96; 98
	6.1.1.1	Percentage of households with safe drinking water sources within premises in Rural Areas	2018	42.61	60	96
	6.1.1.2	Percentage of households with safe drinking water sources within premises	2018	88.23	93	98

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
		in Urban Areas				
6.1.2		Percentage of population using an improved drinking water sources (Rural)	2018-19	99.37	100	100
	6.1.2.1	Percentage of households that received at least prescribed standard quantity of water (lpcd) within premises (>70lpcd in rural)	2018-19	1.87	14	64
	6.1.2.2	Percentage of households that received at least prescribed standard quantity of water (lpcd) within premises (>135lpcd in rural)	2018-19	47.65	65	80
	6.1.2.3	Percentage of population that received at least prescribed standard quantity of water (lpcd) of standard quality (BIS 10500:2012) within premises on all days of the year in Rural Areas	2017-18	1.87	14.11	64.42
	6.1.2.4	Percentage of population that received at least prescribed standard quantity of water (lpcd) of standard quality (BIS 10500:2012) within premises on all days of the year in Urban Areas	2018-19	100	100	100
	6.1.2.5	Proportion of population in water quality affected habitations in Rural Areas	April 2018	4.23	1	0.5
	6.1.2.6	Proportion of population in water quality affected habitations in Urban Areas	2018-19	0	0	0
	6.1.2.7	Share of expenditure on drinking water in total household consumption expenditure in rural areas	2011	0.18	0.10-	0.05-
	6.1.2.8	Share of expenditure on drinking water in total household consumption expenditure in urban areas	2011	0.56	0.50	0.50
	6.1.2.9	Share of expenditure on drinking water in total household consumption expenditure in the State	2011	0.43	0.35-	0.25-
	6.1.2.10	Percentage of schools with drinking water facility	2018-19	97.92	100	100

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



National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
6.2.1		Proportion of Households having access to an improved sanitation facility (urban & rural)				
	6.2.1.1	Percentage of population having access to an improved sanitation facility in Rural Areas	2017-18	100	100	100
	6.2.1.2	Percentage of population having access to an improved sanitation facility in Urban Areas	2018-19	73.30	80	90
6.2.2		Percentage of Districts achieving Open Defecation Free (ODF) target.	2017-18	100	100	100
6.2.3		Proportion of Schools with separate toilet facility (with water availability) for girls	2018-19	99.59	100	100
	6.2.3.1	Number of public toilets (free or paid, not within public or private establishments) per lakh population in Urban Areas	2018-19	53	66	75
	6.2.3.2	Percentage of Bus stations and terminals that conform to sanitation convenience (BIS 1172:1993)	2018-19	61	71	89
	6.2.3.3	Percentage of schools with a hand washing facility with soap and water	2017-18	96.6	100	100

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
6.3.1		Percentage of sewage treated before discharge into surface water bodies	2018-19	56	80	90
6.3.2		Percentage of industrial wastewater that is treated in-	2018-19	87.33; 92.46;	100; 100;	100; 100;

		situ (as per CPCB regulations) before discharge (Red:17;GPI)		100	100	100
	6.3.2.1	Percentage of groundwater samples that are found to be unsuitable as drinking water (CPCB)	2018	0.92	0.50	0
6.3.3		Percentage of sewage treatment capacity created vis-à-vis total generation in urban areas	2018-19	56	75	90
	6.3.3.1	Proportion of water demand that is met by recycled or reused wastewater (Households, Industries)	2018-19	30	35	40
	6.3.3.2	Percentage of surface drinking water sources which conform to at least Quality Class C (as per CPCB standards)	2018-19	83	95	95

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
6.4.1		Percentage of groundwater withdrawal against availability	2013	65.81	70	80
	6.4.1.1	Gross value added per unit of water used by agriculture (USD/m <sup>3</sup> )	2018	0.27	0.40	0.75
6.4.2		Per capita Storage of water (M <sup>3</sup> /person)				
	6.4.2.1	Percentage of freshwater withdrawal from groundwater sources (%) against availability (incl. agriculture)	2018	69.87	68	65
	6.4.2.2	% of districts with groundwater withdrawals more than 90% of the annual extractable groundwater resource (incl. agriculture)	2018	33.33	20.00	0.00
6.4.3		Per capita availability of water				

		(M <sup>3</sup> /person)				
	6.4.3.1	Percentage of water demand met through groundwater sources (households and industry)	2018	36.66	20	5
	6.4.3.2	Per capita availability of freshwater (m <sup>3</sup> /person) for non-agricultural purposes	2018-19	154	165	200
	6.4.3.3	Per capita water storage capacity in surface water bodies (m <sup>3</sup> /person)	2018	477	500	500

**6.5 - By 2030, implement integrated water resources management at all levels, including through trans-boundary cooperation as appropriate**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
6.5.1		Percentage area of River basins brought under Integrated Water Resource Management				
	6.5.1.1	Percentage of river basin area which have an inter-state operational arrangement for water cooperation (Tungabhadra and Cauvery)	2018	38.26	38.26	38.26

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
6.6.1		Area under overexploited blocks	2018	23.6	18	10
6.6.2		Percentage sewage load treated in major rivers				
	6.6.2.1	Percentage of ponds and lakes under restoration/ conservation programmes	2018	0.32	10	100
6.6.3		Biological assessment information of surface water bodies	-	-	-	--
	6.6.3.1	Percentage of aquifer area covered under a management plan (conservation, harvesting and artificial recharge)	2018	44.83	66.66	90

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
6.a.1		Amount of water and sanitation related official development assistance that is part of a government-coordinated spending plan	2018-19	-	-	-
	6.a.1.1	Percentage of water and sanitation-related investments undertaken in the State in partnership with multilateral agencies and international private sector entities	2018-19	65	70	70
6.a.2		Number of MOU/Cooperation agreements for capacity building and technology transfer	-	-	-	-

Note: - : Not Available

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

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
6.b.1		Percentage of developed Irrigated Command Area brought under Water Users Association (WUAs)	2018	61	75,25	95,25
6.b.2		Proportion of villages with village water and sanitation committee (VWSC)				
	6.b.2.1	Percentage of Drinking Water schemes handed over to Gram Panchayat (for subsequent management by Village Water & Sanitation Committee (VWSC)	2018	61.87	75	95

**6C. Way Forward**

The Government of Karnataka is committed to implement new initiatives and consolidate past achievements so as to achieve the committed SDG6 targets as per the defined timelines. With respect to water, it is recognized that achievement of SDG 6 would be enabled by the implementation of water resources development and management plans that consider hydrological unit such as drainage basin as

a whole or for a sub-basin, with a focus on the multiple sources of demand and the available surface and ground water that can be utilized in a sustained manner on the dimensions of quantity and quality and environmental requirements.

The plans would derive from this framework while also considering the existing agreements / awards for a basin or a sub-basin and intra-basin and inter-basin transfers of water (subject to national laws) so that the water development/management and utilization plans promote water use efficiency and source security. Also, the focus of the sanitation interventions would be on sustaining the state's achievements with respect to household-level infrastructure while also implementing new programs that drive desired behaviours. Additional interventions for the safe disposal of wastes would be taken up with a view to prevent contamination of water sources. On the whole, considering the stressed water resource endowments of the State and the challenges that exist across regions and river basins, the strategy for achieving the desired outcomes would be built on the following-

**Universal and equitable access to safe and affordable drinking water for all**

- a. The provision of adequate quantities of piped safe drinking water to households, both rural and urban, would be based on local-level plans (village/Gram Panchayat, ward/block), developed using a participatory approach. The plans would be developed upon the identification of suitable infrastructure options including those relating to storage, purification and delivery. The plans, which would incorporate guidelines for operations, maintenance and management including a cost recovery policy, would also provide for equitable distribution, and transparent arrangement for renewal, replacement and expansion of the water source and/or the systems, with a constant focus on performance measurement for monitoring.
- b. It would be attempted to build capacities of Gram Panchayats and Village Water and Sanitation Committees / Urban local bodies to prepare the water management plans with technical support and training by Block Resource Centres and District Water and Sanitation Missions.
- c. In rural areas, the current focus on multi-village schemes would be accelerated in regions wherein reliable surface or groundwater sources are available during all months of the year.
- d. Towards ensuring the supply of adequate quantities of safe water (as per quality standards), source protection shall be undertaken on the basis of water safety plans that are developed at the local level (both rural and urban) subsequent to the identification of existing and emerging risks.
- e. Affordability of water would be enabled by differential pricing and expansion of the current base of accounted water users through renewed attempts for water metering (both bulk and individual) and, by furthering the efficiency and viability of local utility service providers through the use of modern technologies to reduce Unaccounted for Water
- f. Local infrastructure development and management plans would be developed in partnership with school management committees to ensure that all schools of the state have adequate and safe drinking water facilities
- g. It is recognized that the sustainability of water supply through a renewed focus on conservation of water bodies and recharge of groundwater is essential to achieve target 6.1 especially considering the fluctuations being witnessed in rainfall across the state's regions during the last few years.

**Access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations**

- a. The State shall consolidate its achievements in sanitation infrastructure by launching programmes that promote behaviour change to ensure the sustained use of the created infrastructure in households and at the community levels, and to prevent slippages in the ODF status
- b. Focused attempts would be made to design and implement local participatory programmes for the safe treatment and disposal of solid and liquid wastes in both rural and urban contexts, with a focus on prevention on contamination of surface and sub-surface water bodies
- c. Programmes would be launched to improve the state of public conveniences, especially in urban areas, public utilities and schools, with programmes that also involve the private sector in infrastructure creation and effective O&M being launched/consolidated.

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

- a. The state shall ensure the creation of adequate infrastructure for the collection, treatment (decentralized and bulk) and safe disposal of sewage by implementing local sewage management plans in urban and rural areas, and preventing the contamination of drinking water sources
- b. Opportunities for use of treated wastewater for industrial and domestic (non-potable) applications would be created and exploited so as to reduce the demand for freshwater and to provide a reliable source of affordable water
- c. Attempts would be made to implement suitable water tariff plans, incentives and penal provisions to encourage households (e.g. apartments) and industries to utilize recycled/treated water and ensure zero discharge of untreated effluents from industrial units.
- d. The state shall build upon tested mechanisms for monitoring, surveillance and testing of water quality by strengthening sub-divisional water quality testing laboratories at all levels, and utilization of modern technologies for remote monitoring etc.
- e. Renewed attempts would be made to enforce the available legal, institutional and regulatory measures in an effective manner while addressing loopholes/leakages to ensure compliance with wastewater management practices and by building capacities of all stakeholders.

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

- a. The prevailing pricing of water and electricity in agriculture would be reviewed and realigned along with taking steps to improve the irrigation efficiency of canal and groundwater irrigation by adoption of precision irrigation technology (e.g. micro irrigation). Developing region-specific plans based on water audits and hydrological suitability of the crops to further promote cropping systems that lead to water use optimization would also be emphasized at all planning levels.
- b. Conjunctive use of surface and groundwater would be promoted the along with the augmentation of surface and groundwater sources by adopting a set of local strategies including artificial recharge

of groundwater by promoting the effective utilization of existing structures such as lakes, tanks, dug wells, bore wells, recharge trenches/pits and, as required, by establishing new such structures which promote the percolation and conduction of water

- c. Modern technologies would be utilized for metering, prevention of leakages along with the rationalization of water tariffs that promote water use efficiency while also emphasizing the stringent implementation of regulations to prevent over-exploitation of ground water especially in the critical and over-exploited regions and coastal districts while considering inclusiveness and equity. Strong legal and administrative measures are needed to curb 25% taluks with over exploitation of groundwater while promoting decentralized water harvesting for rejuvenation of surface water bodies.
- d. Water sustainability plans would be adopted at the block, watershed and village levels to implement water harvesting and groundwater recharge measures, and build capacities of citizens, public and private sector in water security planning and implementation.

**Implement integrated water resources management at all levels, including through trans-boundary cooperation as appropriate**

- a. Implementing participatory Integrated Water Resource Management at village, district and State levels to cover all major basins / sub-basins as per a defined timeframe would be a focus area of the state's water policy. The management plans would be based on the Karnataka Water Resource Information System to address challenges in water demand and supply in specific hydrological units while also considering inter-unit linkages and inequalities in access.
- b. The state shall adopt pro-active approaches to promote collaboration among the state's water users at the basin, block, and district levels while also furthering agreements with riparian regions (including states) to prevent conflicts and to encourage cooperation.

**Protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes**

- a. Conservation and increase in forest cover in critical watersheds and implementation of additional programmes for tree plantation (within and outside recorded forest areas) while also implementing mechanisms to address the negative environmental impacts of commercial agriculture in hilly areas would be an integral component of all regional development plans
- b. The concept of aquifer-level planning would be integrated in all water development and management programmes with a focus on regulating extraction and to encourage recharging of aquifers through development of recharge structures and increase in tree cover
- c. Existing institutional roles and responsibilities would be streamlined to address gaps/overlaps in implementation of programmes for water bodies' conservation and management with a focus on water security planning and implementation along with an emphasis on results-based or outcome-based financing of drinking water security plans and inclusiveness.

**Expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies**

- a. The state shall take proactive steps to expand international cooperation and support to generate additional funds for operation and maintenance of existing infrastructure and services and, creation of new infrastructure. However, the extent of loan-based ODA would be subject to the state’s fiscal considerations as defined by various legal frameworks.

**Support and strengthen the participation of local communities in improving water and sanitation management**

- a. Community participation in water and sanitation management would be promoted in all WASH subsectors while ensuring the integration of policies to promote inclusiveness, access and affordability. Renewed efforts would be made to improve the effectiveness of the existing community-based organizations to develop local plans and resource and management programmes through capacity building initiatives and by use of technological solutions for monitoring and evaluation (vis-à-vis outcomes)
- b. Consolidate the state’s achievement in participatory and decentralized planning and management in the water and sanitation sectors through a combination of approaches including those that are based on financial guidelines and legal provisions

**6D. Budget Requirements**

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below.

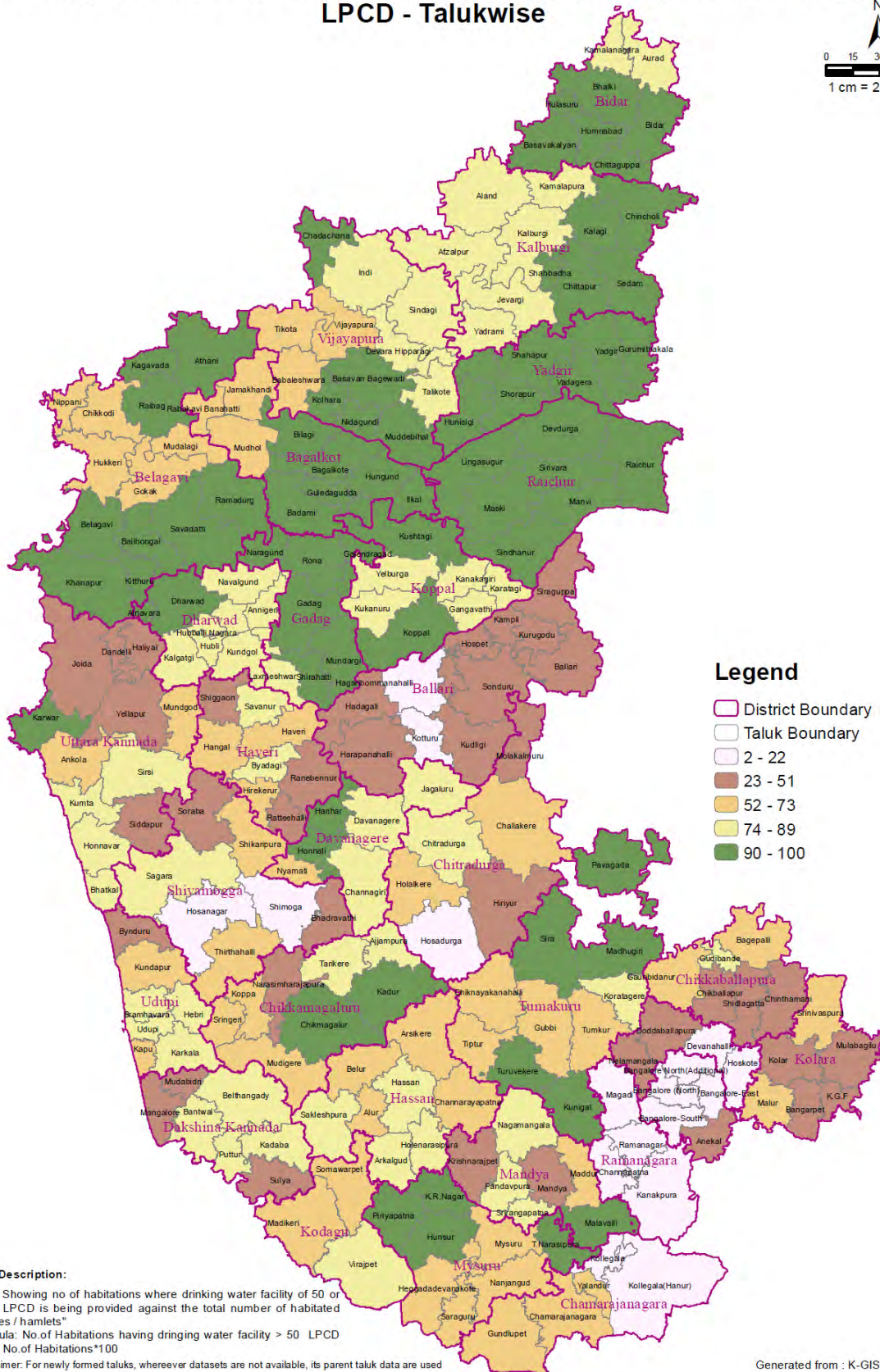
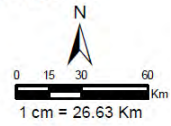
**Budget requirements for SDG 6 (In Crores)**

Department	Scheme Name	2020-21			2020-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Appendix 1.2	Appendix 1.2	5959.3	NC	NC	160797	NC	NC

Note: NC- Not considered



# Percentage of Habitations having Drinking Water Facilities of 50 or more LPCD - Talukwise



- Legend**
- District Boundary
  - Taluk Boundary
  - 2 - 22
  - 23 - 51
  - 52 - 73
  - 74 - 89
  - 90 - 100

**Map Description:**  
 "Map Showing no of habitations where drinking water facility of 50 or more LPCD is being provided against the total number of habitated villages / hamlets"  
 Formula:  $\frac{\text{No of Habitations having drinking water facility} > 50 \text{ LPCD}}{\text{Total No of Habitations}} \times 100$

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS,KSRSAC

## 6E. Appendices

### Appendix 6.1: Indicator-wise data source and nodal department

Sl.No.	National Indicator No	State Indicator No.	Data Sources	State Nodal Department/s
1	6.1.1		RDPR	RDPR
2		6.1.1.1	Integrated Management Information System	RDPR
3		6.1.1.2	BWSSB and DMA	UDD (DMA)
4	6.1.2		RDPR/UDD	RDPR, UDD(DMA)
5		6.1.2.1	RDPR/UDD	RDPR
6		6.1.2.2	RDPR/UDD	RDPR/UDD
7		6.1.2.3	BWSSB and KUWS&DB	UDD (DMA)
8		6.1.2.4	RDPR/UDD	RDPR, UDD(DMA)
9		6.1.2.5	RDPR/UDD	RDPR Department
10		6.1.2.6	RDPR/UDD	RDPR/UDD
11		6.1.2.7	68th NSSO	RDPR, UDD(DMA)
12		6.1.2.8	68th NSSO	RDPR
13		6.1.2.9	68th NSSO	RDPR/UDD
14		6.1.6.10	BWSSB and KUWS&DB	UDD(KUWSDB)
15	6.2.1		RDPR/UDD	RDPR
16		6.2.1.1	RDPR	RDPR
17		6.2.1.2	BWSSB and KUWS & DB	UDD (DMA)
18	6.2.2		RDPR	RDPR
19	6.2.3		SATS / U-DISE	PSE
20		6.2.3.1	UDD Dept.	UDD (DMA)
21		6.2.3.2	Transport Dept.	Transport
22		6.2.3.3	SATS / U-DISE	PSE
23	6.3.1		BWSSB and KUWS&DB	UDD (DMA,BWSSB)
24	6.3.2		SPCB	FEE
25		6.3.2.1	BWSSB and KUWS&DB	UDD
26	6.3.3		RDPR	RDPR
27		6.3.3.1	BWSSB and KUWS&DB	UDD
28		6.3.3.2	BWSSB and KUWS&DB	UDD, (BWSSB/KUWSDB)
29	6.4.1		Irrigation	Irrigation
30		6.4.1.1	Irrigation	Irrigation
31	6.4.2		Dynamic Groundwater Resources report	Directorate of Ground Water
32		6.4.2.1	Dynamic Groundwater Resources report	Directorate of Ground Water
33		6.4.2.2	UDD Dept.	UDD, RDPR
34	6.4.3		RDPR/UDD	RDPR/UDD
35		6.4.3.1	RDPR/UDD	RDPR/UDD
36		6.4.3.2	Water Resources Dept.	Directorate Of Ground Water
37		6.4.3.3	Water Resources Dept.	UDD/RDPR
38	6.5.1		Water Resources	Water Resources
39		6.5.1.1	Water Resources	Water Resources
40	6.6.1		Dynamic Groundwater Resources report	FEE
41	6.6.2		Minor Irrigation	Minor Irrigation
42		6.6.2.1	Minor Irrigation	Minor Irrigation

Sl.No.	National Indicator No	State Indicator No.	Data Sources	State Nodal Department/s
43	6.6.3		Minor Irrigation	Minor Irrigation
44		6.6.3.1	Minor Irrigation	Minor Irrigation
45	6.a.1		BWSSB & KUIDFC	RDPR/UDD
46		6.a.1.1	BWSSB & KUIDFC	RDPR/UDD
47	6.a.2		RDPR/UDD	RDPR/UDD
48	6.b.1		NITI	WRD
49	6.b.2		RDPR	RDPR
50		6.b.2.1	RDPR	RDPR
	19	20		

Note: WRD-Water Resources Department

**Appendix 6.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Scheme Name	Dept.	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2020-30
Setting up of Water Supply and Sanitation Engineering Department	RDPR	116.23	127.85	140.64	154.70	170.17	187.19	205.91	226.50	249.15	274.06	301.47	2037.65
Rural Water Supply Scheme-Capital	RDPR	1895.58	2085.14	2293.65	2523.02	2775.32	3052.85	3358.14	3693.95	4063.34	4469.68	4916.65	33231.73
Rural Water Supply Scheme-Revenue	RDPR	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	9000.00
Swachh Bharat Mission-Rural	RDPR		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maintenance of Borewells	RDPR		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maintenance of Mini-Water Supply Scheme	RDPR		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Support to BWSSB to Provide Drinking Water to Slums	BWSSB	18.37	18.37	18.37	18.37	18.37	18.37	18.37	18.37	18.37	18.37	18.37	183.70
Underground Drainage (Laterals) for 110 Villages under BBMP	BWSSB	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1000.00
Loans for Underground Drainage (Laterals) for 110 Villages under BBMP	BWSSB	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1000.00
Support for BWSSB STP Project	BWSSB	116.78	128.46	141.30	155.43	170.98	188.07	206.88	227.57	250.33	275.36	302.90	2047.28
Providing Water Supply to 110 Villages including UFW	BWSSB	500.00	550.00	605.00	665.50	732.05	805.26	885.78	974.36	1071.79	1178.97	1296.87	8765.58
Cauvery Water Supply Scheme-Stage-IV- Phase-II & Stage-V- EAP	BWSSB	557.00	612.70	673.97	741.37	815.50	897.05	986.76	1085.44	1193.98	1313.38	1444.71	9764.86
Grants for Urban Water Supply Schemes	KUWSDB	234.73	234.73	234.73	234.73	234.73	234.73	234.73	234.73	234.73	234.73	234.73	2347.30
KUWSDB Sanitary	KUWSDB	180.06	180.06	180.06	180.06	180.06	180.06	180.06	180.06	180.06	180.06	180.06	1800.60
Mukhya Mantri Nairmalaya Yojane (Swachh Bharat)	UDD	346.98	346.98	346.98	346.98	346.98	346.98	346.98	346.98	346.98	346.98	346.98	3469.80
Smart City Proposal under Smart City Mission	UDD	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	4000.00
AMRUT for JNNURM Projects	UDD	175.00	175.00	175.00	175.00	175.00	175.00	175.00	175.00	175.00	175.00	175.00	1750.00
<b>Total</b>		<b>5640.73</b>	<b>5959.29</b>	<b>6309.70</b>	<b>6695.16</b>	<b>7119.16</b>	<b>7585.56</b>	<b>8098.61</b>	<b>8662.95</b>	<b>9283.73</b>	<b>9966.59</b>	<b>10717.74</b>	<b>80398.50</b>

**7 AFFORDABLE AND  
CLEAN ENERGY**



**“Let’s go for clean and green energy”**



## **GOAL 7. AFFORDABLE AND CLEAN ENERGY ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL**

### **7A. Background**

Energy is fundamental for any form of human development and the derived services are essential for the functioning of the economic world. **As Ban Ki-moon, Secretary General to the UN stated, “Energy is the golden thread that connects economic growth, social equity, and environmental sustainability.....”.** As such, **the SDG 7 aims to provide affordable and clean energy based on three specific targets viz.**

- (i) Ensure universal access to affordable, reliable and modern energy,
- (ii) Enhance the share of clean and renewable energy, and
- (iii) Promote energy efficiency. It entails four dimensions viz. affordability, reliability; sustainability and modernity are not mutually exclusive and overlap. The global targets to be achieved by 2030 are as indicated in the box below:

**The global targets to be achieved by 2030 are as indicated below:**

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

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

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

7a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, and promote investment in energy infrastructure and clean energy technology

7b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support.

At the national level, demand for energy in India is ever increasing and the sector is faced with several challenges like of lack of electricity and clean cooking fuel with an enormous disparity between the urban and rural contexts. Therefore, to alleviate these challenges through the implementation of SDGs, the NITI Aayog has been mandated to synergistically coordinate the work on SDGs with central ministries, State/UTs, civil society organizations, academia, and the business sector. The national targets for SDG7 have been set based on (a) A quantifiable national target specified by the Government of India, or (b) A quantifiable UN SDG target specified under the UN SDGs for 2030, or (c) The average of the values of the top 3 performing States/UTs. The national target values and indicators are presented below. In terms of the first target, India is very close to meeting its universal electrification of households with an achievement of 94.57% (SDG India Index Baseline Report 2018, NITI Aayog). Additionally, as per the National Family Health Survey, 43.8% of Indian households use clean cooking fuels. However, there is a wide rural-urban divide with only 24% rural households compared to 81% urban households are using clean cooking fuels. Among the States, Goa and Delhi are the best performing States.

Indicator	National Target Value	Value of Karnataka State
Percentage of households electrified	100	96.45
Percentage of households using Clean Cooking Fuel	100	54.70
Renewable share of installed generating capacity (%)	40	40.77

Source: SDG India Index Baseline Report 2018, NITI Aayog

In terms of the second target and in keeping with India's Intended Nationally Determined Contribution (INDC) at the UN Paris Climate Agreement in 2015, the country to meet 40% of its energy demand with renewables by 2022. It is estimated that from an overall 175 GW of renewable energy generation, 57% will be from solar, 34% from wind, 6% from biomass and 3% from hydro power. Conventionally, small hydro projects up to 25 MW capacities were categorized as 'renewable energy'; but recently, GoI has decided to categorize all hydro power projects, regardless the installed capacity, as 'Non-solar renewable energy'.

Reckoned on the basis of the revised categorization, the share of renewable energy in the total energy mix would be considerably higher over the last five years, there has been a consistent growth in installed electricity generation capacity. The installed capacity in non-fossil-fuel sectors has grown by 51.3% and more than doubled in the renewable energy sector viz. solar, wind, bio- and small hydro power (UNHLPD, 2017). With 69 GW installed capacity of renewable energy as of March 2018, this source of energy accounts for a little over 20% of the total installed capacity and has grown by 77% from 38.9 GW since March 2015.

At present, Tamil Nadu, Mizoram and Karnataka are the top three performers with respect to SDG7 with a score of 89, 78 and 77, respectively (NITI, 2018). The national efforts towards achieving SDG 7 targets at the macro level has initiatives built into the National Electricity Plan, National Energy Policy and National Solar Mission.

To achieve universal access to electricity, the *Pradhan Mantri Sahaj Bijli Har Ghar Yojana - Saubhagya* (PM's Programme for Easy Electricity for Each Household) was launched and as of October 2018, 95% of the households have been electrified under this scheme. Moreover, *Deen Dayal Upadhyaya Gram Jyoti Yojana* scheme related specifically to provision of continuous power supply to rural households and agricultural consumers. For clean cooking solutions, schemes like the National Biogas and Manure Management Programme, LPG Subsidy under PAHAL and *Pradhan Mantri Ujjwala Yojana* were created. The latter scheme aims to provide LPG connections to 50 million women from poor families over a three-year period (2016-19). A dedicated Green Energy corridor has also been constructed to improve the inter-State transmission system.

The other efforts/schemes related to achieving SDG 7 in India are provided in table below. These schemes are also linked to SDGs 9, 10, 12 and 13.



**Efforts/schemes related to achieving SDG 7**

<b>SDG Targets</b>	<b>Centrally Sponsored/Central Sector schemes</b>	<b>Concerned Ministry/Dept.</b>
7.1 By, 2030, to ensure universal access to affordable, reliable and modern energy services	1. Deen Dayal Upadhyaya Gram Jyoti Yojana 2. Sahaj Bijli Har Ghar Yojana (Urban) Saubhagya 3. Integrated Power Development Scheme	Power
	4. Grid Interactive Renewable Power 5. Off-Grid/Distributed and Decentralised 6. Renewable Power 7. Research & Development	New & Renewable Energy
	8. LPG Subsidy 9. Pradhan Mantri Ujjwala Yojana	Petroleum & Natural
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	1. Grid Interactive Renewable Power 2. Off-Grid/Distributed and Decentralised Renewable Power 3. Research & Development	New & Renewable Energy
7.3 By 2030, double the global rate of improvement in energy efficiency	1. Bureau of Energy Efficiency 2. Energy Conservation 3. UJALA	Power
	4. Human Resources Development and Training 5. Information, Education and Communication	New & Renewable Energy
	6. Pradhan Mantri Ujjwala Yojana	Petroleum & Natural
7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	1. Research, Development and International Cooperation	New & Renewable Energy
	2. Bureau of Energy Efficiency 3. Energy Conservation	Power

## Initiatives and schemes implemented by GoK towards achieving SDG 7

With the increase in demand for electricity being evident and consequently an increase in generation and imports. **The GoK has taken various measures to meet the demand from various sources. Some of the measures are:**

- Installation of energy efficient street lights
- Adoption of high voltage distribution systems in rural areas
- Encouragement to use solar water heaters
- Mandatory use of LED in government buildings
- Promotion of energy efficient building designs
- Implementation of solar rooftop programme
- Surya Raitha scheme, for arranging power supply to IP sets through solar.

The government also extends subsidies to ensure greater access to all. A total of 29, 11,778 **Bhagya Jyothi/ Kutira Jyothi** connections and 25, 87,657 irrigation pump sets were provided in the state in 2016-17. Also, power supply to IP sets have been made free since 2008, and beneficiaries of **Bhagya Jyothi/ Kutira Jyothi** have been provided free access to power. During 2017-18, a total subsidy of 8841 crore was released and up to November 2018 in the following year the subsidy amounted to Rs.6018.20 crore.

Particularly, in terms of meeting the SDG7, the GoK has taken up various measures to make electricity accessible to all. Programmes like

- **Niranthara Jyothi Yojana** is a State initiative that intends to provide 24 hours 3 phase electricity to non-agricultural loads of rural areas like domestic, commercial, water supply, street light, rural industries by segregating the agricultural loads. This scheme would help in reduction of transformer failures, technical losses and improve load management and metered sales. It would also provide definite hours of power supply to the irrigation pump sets.
- A similar scheme titled **Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA)** also aims at achieving universal household electrification by providing last mile connectivity to all households in rural and urban areas
- **New National Biogas and Organic Manure Programme (NBOMP), Nutana Soura Belaku Yojana** and **The Karnataka State Bio-fuel Policy – 2009** have been implemented under the Rural Energy Programmes.
- The central government scheme - **Deendayal Upadhyaya Gram Jyothi Yojana (DDUGJY)** also aims at electrifying the rural villages. Its components include separation of agriculture and non-agriculture feeders, strengthening and augmentation of sub-transmission and distribution infrastructure in rural areas.
- There are other State schemes related to energisation of water supply such as the **Ganga Kalyana Scheme** and **solar pumpsets schemes**.

## 7B. Targets and Indicators for achieving SDG 7

Ensuring affordable, reliable, sustainable and modern energy to all by 2030 being one of the goals of SDGs, the State aims at ensuring energy supply in a sustainable manner. Karnataka is a front runner among the other States in India in terms of SDG India Index for SDG 7, with a score of 77 which is above the national value of 51. Specifically, when compared to the three national indicators of SDG 7, Karnataka has scored above national values.

Indicators	Households electrified (%)	Households using clean cooking fuel (%)	Renewable energy share of installed generating capacity (%)
India	94.57	43.80	17.51
Karnataka	96.45	54.70	40.77

Source: SDG India Index Baseline Report 2018, NITI Aayog

In order to achieve this goal and measure the progress of the achievements, the State has developed eight indicators based on the global and national indicators. The data for arriving at the State's baseline values pertain to the year 2017-18. The details of these targets and their indicators are as follows and greater details are provided the Annexure.

### 7.1 - Proportion of the population with access to electricity

#### 7.1.1: Proportion of households with access to electricity

Electricity access refers to the percentage of population in a given area that has relatively stable access to electricity (International Energy Agency, 2017). In the year 2017-18, 89% of the population in the State had access to electricity. The value was obtained by dividing the population with access to electricity by the total population of the State. The estimated number of energized households in the State was 1,49,72,533 during 2017-18, which was multiplied with the average household size of 4 to derive the population with access to electricity at 6,71,54,911.

#### 7.1.2: Percentage of households using clean cooking fuel

Clean fuels are clean burning, sustainable, emission free and efficient fuels. Among them, LPG and kerosene are considered as clean cooking fuels. As on February 2019, there were 26,29,073 and 1,03,18,755 ration card households using kerosene and gas for cooking purposes, respectively in the State. Efforts are being made to switch rural household's traditional cooking practices of fuel wood usage (such as firewood, crop residue and cattle dung cakes) to clean fuel. Availability of fuel wood has decreased over time preventing health hazards and deaths as a result of unclean fuel usage. Programmes like *Pradhan Mantri Ujjwala Yojana* (PMAY) aims at distribution of clean cooking fuel in the rural areas with State schemes like *Anila Bhagya* (MMABY) and *Gas Bhagya* also providing free LPG connections to BPL families. In the present context, households with LPG connections in the State stand as 9686361.

#### 7.1.2.2: Per capita power consumption

Electricity consumption per capita measures the average kilowatt-hours (kWh) of electrical power

generated per person in a particular region. The total power consumption during 2017-18 was 70825 MU and per capita power consumption was 1055 units. Assuming an average increase of 5% per year in overall demand in the coming years, the per capita consumption in 2022 and 2030 will be about 1,282 units and 1894 units, respectively.

### 7.1.2.3: Ratio of urban household energy consumption to the rural household consumption

This gives the share of urban domestic consumption and the share of rural domestic consumption in the total consumption. The urban domestic consumption is 8943.81 MU and the rural domestic consumption is 3524.68 MU which is of the ratio 2.5:1. It is assumed that urban domestic consumption will decrease relative to rural in future due urban-rural migration due to shift of orientation of development in rural areas.

### 7.1.2.4: Number of hours of electricity access

At present, the hours of electricity available in urban areas is around 22 to 24 hours and in the case of rural, where the *Niranthara Jyothi Yojana* is implemented, it is about 22 to 24 hours. In the case of other rural areas, 18 hours of electricity is available.

### 7.1.2.5: Power transmission infrastructure

Currently, there are 36124.346 Circuit Kilometre (Ckms) transmission lines, 1172 substations (66kV & above) and a transmission capacity of 19763 MWs (2017-18). At present, the power generation is more than 27000 MW. The State has a transmission network of 21000 MW, which is adequate for the scheduled supply of 7 hours power to agriculture sector. For supply of uninterrupted power to agriculture, this transmission capacity is not adequate. The peak load recorded on this network as on 1st March, 2019 was 12476 MW per hour, which is the highest ever recorded.

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
7.1.1		Proportion of population with access to electricity	2017-18	89	95	100
	7.1.1.1	Proportion of households with access to electricity	2017-18	95.86	100	100
7.1.2		Percentage of household using clean cooking fuel	2017-18	80	95	100
	7.1.2.1	Per capita power consumption (units)	2017-18	1055	1282	1894
	7.1.2.2	Ratio of Rural/urban domestic consumption in total consumption	2017-18	2.5:1	1.75:1	1.50:1
	7.1.2.3	No of Domestic installations	2017-18	17885177	2,22,07,420	3,51,55,546
	7.1.2.4	Share of rural domestic	2017-18	6.55	9.19	12.40

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
		consumption in total consumption				
	7.1.2.5	Share of Urban domestic consumption in total consumption	2017-18	16.62	18.15	21.65
	7.1.2.6	Number of hours of uninterrupted electricity access	2017-18	18-24	24	24
	7.1.2.7	Number of hours of uninterrupted electricity access (Rural)	2017-18	7	24	24
	7.1.2.8	Number of hours of uninterrupted electricity access (Urban)	2017-18	24	24	24
	7.1.2.9	Transmission Lines (above 66 KV)	2017-18	36124.346 CKms	40171	49675
	7.1.2.10	Transformation capacity	2017-18	19763 MW	31354 MVA	48155 MVA

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

### 7.2.1: Renewable energy share of installed generating capacity

The total Renewable share of installed generating capacity (%) during 2018-19 is 49.38% which is targeted to increase by 55% in 2022 and 65% in 2030. Thus, the share of renewable energy in the total energy is 19.61%. The national target for renewable share by 2030 in the total installed capacity is 40% (SDG Index India, 2018). Among the States, Arunachal Pradesh, Mizoram, Nagaland, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Lakshadweep has achieved 100% of installed generation capacity from renewable resources.

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
7.2.1		Renewable share of installed generating capacity (%)	2018-19	49.38	55	70

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

### 7.3.1: energy intensity measured in terms of primary energy and GDP

Energy Intensity is defined as the amount of energy consumed for generating one unit of Gross Domestic Product (at constant prices). At the national level, the energy intensity (at 2011-12 prices) decreased to 0.2401 MJ per rupee in 2016-17 from 0.2732 MJ in 2011-12. This decline may be attributed to GDP growing faster than energy demand especially due to service sector and use of energy efficiency

programmes among others. In Karnataka, the Gross Value Added (GVA) from electricity is 18003 Crore and the Gross State Value Added (GSVA) is 1014944 Crore. Thus, it is Rs. 1.77 worth of electricity per Rs. 100 worth of GDP.

National Indicator No.	State Indicator No.	Indicators	Baseline Year	State Baseline Value	2022	2030
7.3.1		Energy intensity measured in terms of primary energy and GDP	2017-18	1.77	1.50	1

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

**7. a.1- Official Development Assistance on Clean Energy**

National Indicator yet to be evolved

**7.b - By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support**

National Indicator yet to be evolved

**7C. Way Forward**

For SDG 7, eight indicators have been taken from both; the National indicators set as well as state generated indicators. Following which, the challenges, action strategies and implementation framework have been discussed that aid in achieving and sustaining these Goal targets. They include **State policies and schemes/programmes such as the State Renewable Energy Development Policy, Karnataka Solar Policy, Niranthara Jyothi Yojana, SAUBHAGYA, MMABY, IPDS, Surya Raitha and Nava Karnataka Vision 2025 among others.** To further the targets of the SDG7, the State Action Plan also suggests tweaking the prevailing electricity infrastructure as well as institutional and governance structures.

Action points for improvement are highlighted below -

- Additional quality-rated distribution transformers needed to reduce lengths to ensure optimum efficiency. Also, grid modernization and up-rating of the distribution network for absorption of power will involve significant capital infusion. Therefore, it is necessary to draw up periodic plans for all Electricity Supply Companies (ESCOMs) to reinforce their distribution infrastructure in a coordinated manner.
- Clear the balance sheet of state power utilities by rate-design reforms, plugging revenue leakage, squaring cumulative losses, issue of bonds as well as the bid to stop runaway populism and open-ended subsidies in tariffs. Better performing utilities may attract

investments from infrastructure investment trusts and Low Tension (LT) investors such as pension funds. In addition, strengthen the sub-distribution systems wherever necessary by adequate capital infusion. Public-Private Partnerships should be encouraged.

- Utilities business model should transform from 'generation for sales' to 'mediator for sales' to ensure sustenance in the long-term. They should keep the prosumers connected to the distribution networks to transact their surplus energy.
- Refrain from sanctioning ad hoc projects just before the end of the financial year as the only progress that is possible is calling for tenders, leaving the project in limbo by the end of each financial year.
- Universal metering including agricultural supply of electricity and installation of Rural Load Management Systems where feasible
- Re-assess cross subsidies by cost effective tariffs and regulatory innovations as electricity is evolving from a public utility model to a product/commodity model.
- With decreasing rooftop costs, there could be subsidy savings entailed in situations where supply of power through decentralized rooftop solar is lower than the marginal cost of supply (including network losses) to such consumers through conventional means. Such consumers could be incentivized to adopt rooftop systems with the view to decrease the overall subsidy/cross-subsidy implications for the state. Innovative financing models/business models can be devised in such situations to ensure minimum upfront investments by DISCOMs/consumers.
- Universal application of IT solutions such as Supervisory Control And Data Acquisition (SCADA) to augment collection and collation of data and reduce manual interventions to ensure maximum uninterrupted power supply
- Change management programmes of local power distribution as well as reactivation of the franchisee system by involving local youths by building their capacities on technical and managerial aspects under Skill India Mission.
- The need to make cooking gas / fuel at a reasonable cost to the deserving strata of society, not covered under the UJJWALA scheme by providing incentives including tax concessions, as appropriate. Regulation in usage of farm power by individuals through limiting number of wells per unit area and varying subsidy rates
- Technocrats should head the organization and not personnel based on extraneous political interventions as political capture generally directs resources away from its most efficient use.
- Consider nominating KPTCL as a nodal agency to plan and monitor the task of achieving the SDGs.

In addition, major strides in technological innovations have also paved the way for effective optimum generation of renewable energy to meet the NDCs. Increasing testing labs for solar panels as well as its manufacturing capacity, encourage innovation labs such as YES SCALE (agritech, cleantech and smart

cities) deployment of rooftop solutions for rationalization of the costs associated with supplying electricity to subsidized consumer categories are some areas to be addressed. In future, utility companies can promote initiatives like internet-of-things, block chain, machine learning, use of mobile intelligence, mini-grids and micro grids as well as earn revenues from electric vehicle charging infrastructure. To ensure sustainable uptake of these technological innovations, there is a need for coherence between institutions and technological processes to ensure satisfactory functioning of electricity infrastructure.

## 7D. Budget Requirements

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below.

**Budget requirement for SDG 7 (In Crores)**

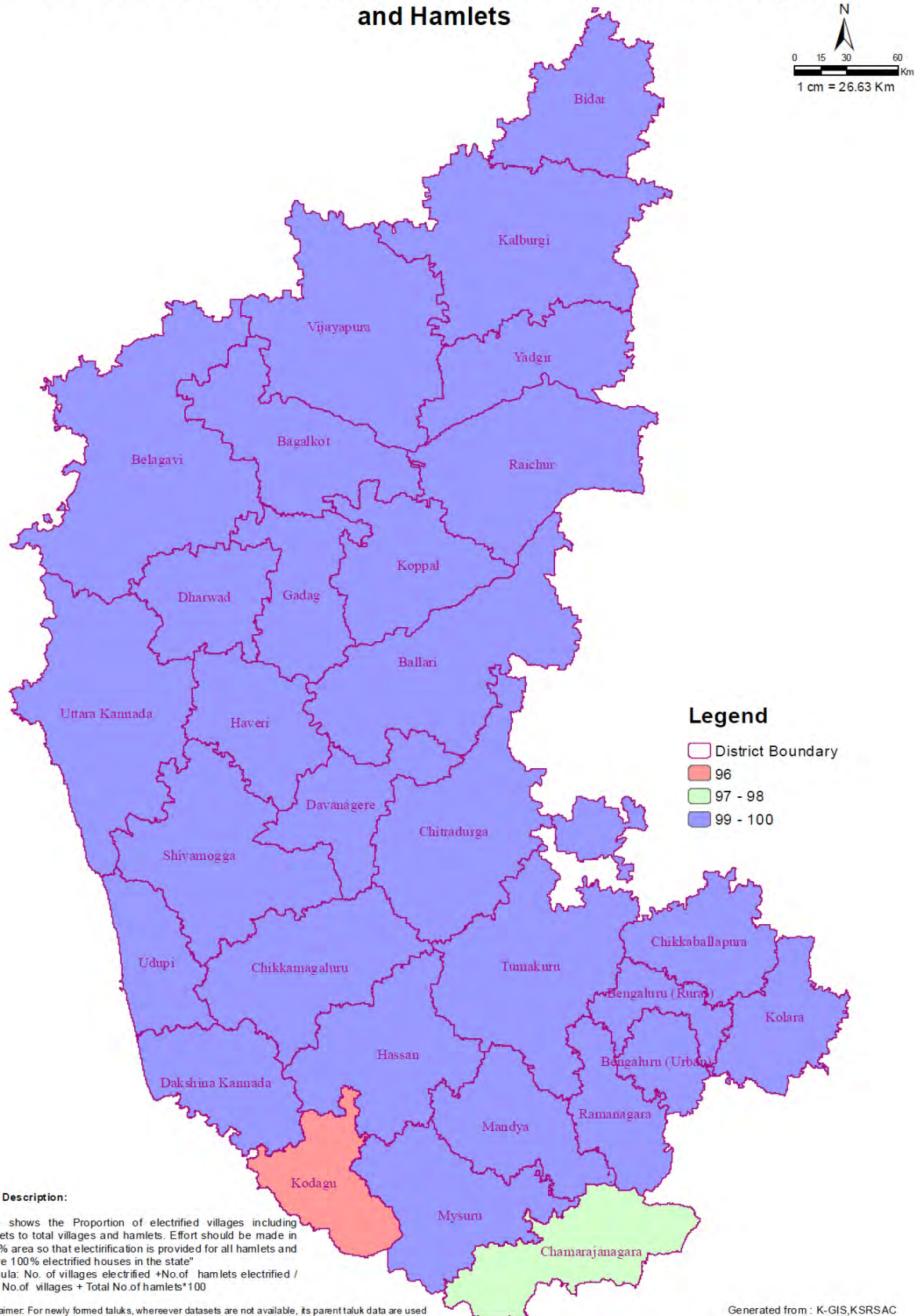
Department	Scheme Name	2020-21			2020-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Energy	Subsidy for Supply to IP Sets, BJ/KJ Consumers	11750.00	12375.00	NC	135000.00	197225.63	NC
Energy	Solar Energy	20.00	NC	20.00	200.00	0.00	200.00
	<b>Total</b>	<b>11770.00</b>	<b>12375.00</b>	<b>20.00</b>	<b>135200.00</b>	<b>197225.63</b>	<b>200.00</b>

Note: NC- Not considered

Indicator-wise data source and nodal department and Annual estimated budget for achieving the targets till 2029-30 is presented in Appendix 7.1 and Appendix 7.2 respectively.



# Proportion of Electrified Villages and Hamlets to Total Villages and Hamlets



**Map Description:**

"Map shows the Proportion of electrified villages including hamlets to total villages and hamlets. Effort should be made in less % area so that electrification is provided for all hamlets and achieve 100% electrified houses in the state"  
 Formula: No. of villages electrified + No. of hamlets electrified / Total No. of villages + Total No. of hamlets \* 100

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS, KRSAC

## 7E. Appendices

### Appendix 7.1: Indicator-wise data source and nodal department

Sl.No.	National Indicator No.	State Indicator No.	Data Source	State Nodal Department
1	7.1.1		Energy Dept.	Energy
2		7.1.1.1	Energy Dept.	Energy
3	7.1.2		FCS	FCS
4		7.1.2.1	Energy Dept.	Energy
5		7.1.2.2	Energy Dept.	Energy
6		7.1.2.3	Energy Dept.	Energy
7		7.1.2.4	Energy Dept.	Energy
8		7.1.2.5	Energy Dept.	Energy
9		7.1.2.6	Energy Dept.	Energy
10		7.1.2.7	Energy Dept.	Energy
11		7.1.2.8	Energy Dept.	Energy
12		7.1.2.9	Energy Dept.	Energy
13		7.1.2.10	Energy Dept.	Energy
14		7.1.2.11	Energy Dept.	Energy
15	7.2.1		Energy Dept.	Energy
16	7.3.1		Energy Dept.	Energy
	5	12		

Note: FCS- Food and Civil Supplies Department

### Appendix 7.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)

Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Subsidy for Supply to IP Sets, BJ/KJ Consumers	11250	11750	12250	12750	13250	13750	14250	14250	14250	14250	14250
Solar Energy	5	20	20	20	20	20	20	20	20	20	20
Grand Total	11255	11770	12270	12770	13270	13770	14270	14270	14270	14270	14270

**8** DECENT WORK AND  
ECONOMIC GROWTH



**“Promote infrastructure and skill for our growth”**



## **GOAL 8. DECENT WORK AND ECONOMIC GROWTH - PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL**

### **8A. Background**

At the heart of the economic drive towards sustainability need is to promote “sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all”, as envisioned in Goal 8 of the Sustainable Development Goals. This goal is central to the larger objective of sustainability for several reasons. It is difficult to envisage a sustainable society if the economic growth that maintains it is not sustainable. Even as this goal lies primarily in the economic dimension of the SDGs, the manner in which it is implemented has clear social and environmental implications. The goal makes it clear that growth is not to be seen as an end in itself but in terms of what it does, especially ensuring decent conditions for work. There is also a macroeconomic dimension incorporated in this goal with its emphasis on full employment.

In a society that is transitioning out of agriculture, the demand for full employment would imply not just high growth rates but also absorbing the labour that is being released from agriculture. A comprehensive effort to achieve this goal would demand that it is seen from two perspectives. The first perspective would emphasize its multiple components ranging from efficiency related elements, such as economic productivity, to socially critical ones, like the abolition of modern slavery. Evaluating these components periodically would be essential to monitor progress under this goal. The second perspective would focus more on the question of how this goal is to be achieved, that is the strategies for generating inclusive growth. It is this latter perspective that is reflected in NITI Aayog’s view that India needs to focus on the dual aspects of urbanization and manufacturing in order to achieve this and other goals, apart from an emphasis on innovation, particularly in the domain of education. If the first perspective focuses on the when and where of Goal 8, the second concerns itself with why growth follows a particular pattern and how that can be transformed in the direction Goal 8 of the SDGs desires.

The first perspective is reflected in the targets set by the agenda, and their corresponding indicators. These targets and their indicators cover a wide range of concerns over inclusive and sustainable economic growth. They begin with setting growth targets that are to be measured in terms of real per capita Gross Domestic Product. They move on to the components of this growth, ranging from labour productivity to innovations and resource efficiency. The targets then move on to economic considerations that have greater social implications, such as full employment, particularly of youth. The social dimensions get stronger with the targets covering the eradication of forced labour and the protection of migrant labour. The list of targets of Goal 8 finally moves into the domain of sector specific initiatives calling for sustainable tourism and a more inclusive financial system.

The second perspective on Goal 8 focuses on the strategies that generate these indicators. The strategies for specific goals need to be consistent with each other and flow from a larger view of the Karnataka economy as a whole. In developing such a macro strategy this report fully endorses and

follows the advice of Agenda 2030 to recognize the nature of local conditions in the effort to address global concerns. With the state government having to set and achieve specific targets the interventions will necessarily be based on the local dynamics of the economic, social and environmental aspects of the Sustainable Development Goals, including, and particularly, Goal 8. At the same time, it will recognize that global challenges are the result of global processes. The overall strategy for Goal 8, and its target-specific strategies, must necessarily be based on thinking globally even as the government acts locally.

The basic premise is that inclusive growth can be achieved through sustained per capita economic growth in combination with decent work. This involves ensuring equal pay for work of equal value, protection of labour rights, ensuring work environments are safe, and eradication of child and forced labour. Decent work opportunities are also essential in all fields of employment, boosting entrepreneurship, accounting informal employment and formalizing MSME's. It is also evident that this goal, given its cross-cutting effects, are linked with SDG 5 and SDG 10 (Grimshaw and Kuhn, 2019). Some of the initiatives undertaken by the GOI towards achieving this goal are Prime Minister's Employment Generation Programme, Start-up India, Skill India such as National Apprenticeship Promotion Scheme, PM *Jan Dhan Yojana* and the Pradhan *Mantri Kaushal Vikas Yojana*. Chief Minister Self Employment Generation Programme is to provide government subsidy on loans to individual entrepreneurs in rural areas. Each beneficiary can avail subsidy ranging from 25% to 35% on a single project costing up to Rs. 10 lakhs. Goal 8 performance of Karnataka, top performing states and India is presented below.

#### Performance of SDG8

Indicators/Goal	Andhra Pradesh	Gujarat	Karnataka	India	Target 2030
Annual growth rate of GDP per capita (at constant price of 2011-12)	10.35	9.68	6.35	6.50	10.00
Average unemployment rate per 1000 persons for males and females	39.50	10.00	16.50	63.50	14.83
Percentage of households with a bank account	100.00	100.00	99.97	99.99	100.00
Number of ATMs per 1,00,000 population	22.37	17.20	26.22	16.84	50.95
<b>Scores</b>	<b>81</b>	<b>80</b>	<b>72</b>	<b>65</b>	<b>100</b>

Source: NITI Aayog, 2018

## 8B. Targets and Indicators for achieving SDG 8

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

Considering the need for Karnataka to retain its historical leadership role in inclusive growth, the target for Annual growth rate of real GDP per capita (at constant prices of 2011-12) is set at 9% for 2022 and 10% for 2030. If current development trends continue 18 of the 21 sectors will see a lower annual growth rate in 2030 than in 2022 and hence annual growth rate of real GDP would be 6.43% in 2022 and 5.23% in 2030. Thus, there is urgent need to develop an effective strategy to step up growth to the

levels that will be needed to achieve the targets.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.1.1		Annual growth rate of GDP (adjusted to price changes) per capita (at constant prices of 2011-12)	2016-17	6.3	8.51	9.6
	8.1.1.1	Annual growth rate of real GDP (2016-17 over 2015-16)	2016-17	7.49	9	10

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

Setting this target has proved to be difficult due to the inadequacy of data on the Unemployment Rate, the Workforce Participation Ratio, and Wages earned by men and women in employment.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.2.1		Annual growth rate of GDP per employed person	-	-	-	-
8.2.2		Total number of patents issued	2017	174	385	723
8.2.3		Annual growth rate in industry (manufacturing) sector	2017-18	4.9	6.33	7.48
8.2.4		Annual growth in Agriculture sector	2017-18	4.9	3.34	4.65
	8.2.4.1	Annual growth in service sector	2017-18	10.4	9.5	10.38
	8.2.4.2	Annual Growth of Total Factor Productivity of GSDP	2017-18	-	-	-
	8.2.4.3	Per capita Annual growth in agriculture and allied sector	2017-18	19161.32	18325.33	27608.22
	8.2.4.4	Per capita Annual growth in industries sector	2017-18	38427.30	60023.27	108812.85
	8.2.4.5	Per capita Annual growth in service sector	2017-18	114964.07	161889	337365.4
	8.2.4.6	Percentage Share of agriculture and allied in GSDP	2017-18	11.10	11.00	10.15
	8.2.4.7	Percentage Share in Industries in GSDP	2017-18	22.27	22.25	26.41
	8.2.4.8	Percentage Share of service sector in GSDP	2017-18	66.62	62.58	64.65

Note: - : Not Available

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

The creation of meaningful targets is impaired by data deficits on the growth of organized workforce in non- agricultural sectors, the annual growth of registered micro, small and medium size enterprises, and the increase in turnover of registered MSME.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.3.1		Proportion of unorganized employment in non-agricultural sectors	2017-18	65.3	-	-
8.3.2		Coverage under ESI and EPS	-	-	-	-
8.3.3		Coverage of NPS	-	-	-	-
8.3.4		No. of MSME units registered under the online Udyog Aadhaar registration	2018-19	85006	-	-
8.3.5		Number of start-ups recognized under Start-up India	-	-	-	-
8.3.6		Total number of patents issued	-	-	-	-
8.3.7		Growth of Registered Micro, Small and Medium Size Enterprises	2017-18	23.77	-	-
8.3.8		Total loans outstanding to micro, small and medium enterprises (Rs. Crore)	2018-19	89094.96	-	-
8.3.9		Outstanding Credit to Micro, Small and Medium Enterprises	-	-	-	-

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

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.4.1		Renewable energy share in the total final energy mix (Excluding large Hydro)	2017-18	18.94	30	48
8.4.2		Per capita fossil fuel consumption (Kg)	2018-19	216	-	-
8.4.3		Proportion of waste recycled vs. waste generated	2017-18	0.21	-	-
8.4.4		Proportion of sewage recycled vs. sewage generated	2017-18	-	-	-



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

The goal committee suggested that the state should conduct a regular labour force survey to generate reliable, frequent, and measurable data to monitor progress for the above indicators. For the unemployment rate, the state has set the target as 12% for 2022 and 10% for 2030 but the committee was of the view that target cannot be set for the said indicator unless reliable data is generated. The committee also suggested that the state should carry out a MSME survey to capture the actual growth of MSME and not just the growth in their registrations.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.5.1		Unemployment rate	2017-18	4.8	--	--
	8.5.1.1	Male unemployment rate	2011-12	16	12	4
	8.5.1.2	Female unemployment rate	2011-12	12	10	2
8.5.2		Workforce participation Ratio (Male;Female;Person)	2017-18	56.8; 19.5; 38.1	-	-
	8.5.2.1	Male Workforce participation Ratio	2011-12	600	-	-
	8.5.2.2	Female Workforce participation Ratio	2011-12	243	-	-
8.5.3		Wages earned by male; female; person in regular / casual employment (Rs/Person)	2018	18806; 13243; 17377	-	-
8.5.4		Number of employed persons with disabilities in public services.	-	-	-	-
8.5.5		Total population with disabilities covered under social protection schemes	-	-	-	-
8.5.6		Share of unemployed persons in population aged 15-24 (%)	2017-18	6.9	-	-

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

Setting this target has been impaired by the inadequacy of data on the share of unemployed persons in the population aged between 15 and 35 years. There is also inadequate data on the proportion of youth (15-35 years) not in education, employment or training (NEET).

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.6.1		Unemployment Rate (15- 24 years)				
	8.6.1.1	Share of unemployed persons in population aged 15-35 (%)	2017-18	23.7	-	-
8.6.2		Proportion of youth (15-24 years) not in education, employment or training (NEET)				
	8.6.2.1	Proportion of youth (15-35 years) not in education, employment or training (NEET)	-	-	-	-

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

The number of reported cases of manual scavenging or death should be brought down from 3 in 2017 to 0 in 2022 and 2030. Similarly, the number of reported cases of forced human trafficking had to be brought down from 214 in 2017 to 0 in 2022 and 2030.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.7.1		Total crimes relating to human trafficking	2018	0.41	0	0
	8.7.1.1	No. of reported cases of child labour in the age group 5-14 as a proportion of total child population	2016	101	0	0
	8.7.1.2	Child labour (prohibition & regulation act) 1986	2017	82	-	-
	8.7.1.3	Forced/bonded labour system	2017	11	-	-
	8.7.1.4	Juvenile Justice Act	2017	45	-	-
	8.7.1.5	POSCO	2017	1708	-	-
8.7.2		Number of missing children	2018	1623	0	0
	8.7.2.1	No. of reported cases of forced labour as a proportion of total working population	-	-	-	-
	8.7.2.2	Number of reported labour manual scavenging or death	2017	3	0	0
	8.7.2.3	Number of reported cases of forced human trafficking	2017	214	164	0

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

The flip side of removing unacceptable practices is to ensure universal coverage of the efforts to protect the rights of individuals. Target 8.8 seeks to “Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment”. A target has now been set to ensure the proportion of workers covered under Social Protection schemes and Acts must be 100% by 2022 and 2030.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.8.1		Number of workers covered under Employees State Insurance (ESI) Act (Lakhs)	2017-18	30.73	-	-
8.8.2		Number of migrant workers	2018	123,84,828	-	-
	8.2.2.1	No. of Cases reported and prosecuted under Sec 28 of Inter-state migrant workers Act	2017-18	9	0	0
8.8.3		Number of accidents in factories	2016	518	0	0
	8.8.3.1	No. of accidents reported per million man-days workers	2017-18	0.1139	0	0
	8.8.3.2	No of cases filed and prosecuted under Section 88 and 88A of the Factories Act.	-	-	-	-
8.8.4		Employment generated under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)	2019-20	33.05	-	-
	8.8.4.1	Number/ proportion of workers covered under Social Protection schemes and Acts	2017-18	-	100	100
	8.8.4.2	Number/ proportion of workers covered under EPFO/NPS/EPS (Disaggregated by Gender)	2017-18	-	-	-

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

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.9.1		Percentage change in number of tourists (domestic and foreign)	2018 over 2017	19	-	-
8.9.2		Direct contribution of Tourism to total GDP and in growth rate (in %)	-	-	-	-

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

State has set a target of raising the percentage of households with a Bank account from 99.99% in 2017 to 100% in 2022 and 2030. It has also set a target for increasing the access to ATMs. Keeping in mind the fact that it is not just the number of ATMs that is important but also their dispersal, a target had been set to raise the number of ATMs per lakh population from 24.37 in 2017 to 35 in 2022 and 50.95 in 2030.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.10.1		Indicator on Financial Inclusion	-	-	-	-
8.10.2		Proportion of population having Bank accounts	-	-	-	-
	8.10.2.1	Proportion of households with a Bank account	2017-18	99.99	100	100
8.10.3		Number of banking outlets per 1,00,000 population	2018-19	164.7	-	-
8.10.4		Automated Teller Machines (ATMs) per 1,00,000 population	2018-19	27.3	35	50
	8.10.4.1	No. of ATMs per lakh population taluk wise	2017-18	24.37	35	50.95
8.10.5		No. of accounts with Nil/1-5/more than 5 transactions	-	-	-	-

**8.a - Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries**

National indicator not yet evolved

**8.b - By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization**

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
8.b.1		Number of man days created under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)	2018-19	53711697	-	-

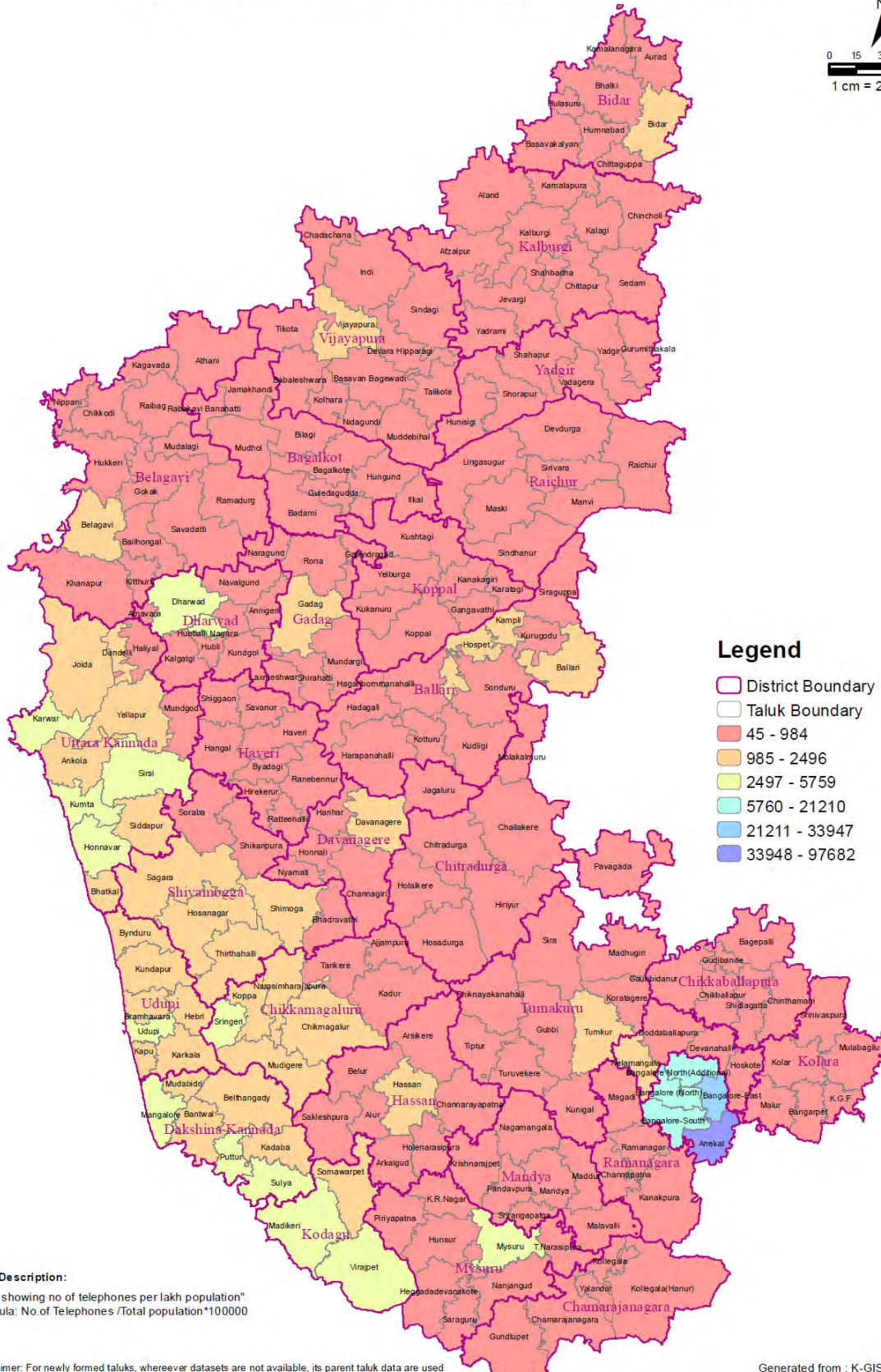
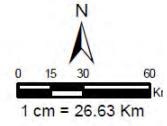
## 8C. Way Forward

- **Capital led growth area** by developing industrial estates & establishing specific industries suited to the particular growth centres; organizing local investors meet; establishing trade routes in the State with comparative cost advantage; and promoting ease of doing business
- **Labour led growth areas:**
  - Labour with L1 level of education (up to 10th fail)- Creating Non-farm employment; Mobile technical education provided in villages; Construction centric, garment and textile manufacturing, create a buzz around provision of cheap labour and ability of competing with global markets; Process of learning skills does not go sector wise. Need to identify compatible skills and industry lines and map existing industrial characteristics and nature of labour with demand in the market.
  - Labour with L2 level of education (10th pass to graduate fail) & Labour with L3 level of education (graduates and above) - 21st century skills to be imparted in situ training
- **Natural resource led growth areas:** The effect on health conditions of the people living in those areas should be recognized and investment in health care facilities should be done through use of local resources.
- **Rest of the Karnataka excluding these identified potential growth areas:**
  - **Reduce the risk of price fluctuations** by promoting forward market, procurement system with market price rather than remunerative price
  - **Reduce fallow land in agriculture:** Benefit of scale for farmers in the village (protection from predatory pricing) and benefits for those leaving the village (higher returns/unit of land)
  - **Strengthen links between growth centres and farmers leaving agriculture:** Reduce the effects of distance; promote hostels for workers from villages beyond commuting distance: and reduce the knowledge & information gap.
  - **Recognize the continuing role for state support** by mapping of growth areas
- **General Recommendations:**
  - A Rapid situation analysis of industrial infrastructure and key strengths of Karnataka at the entire administrative levels; state, district, sub-district and at village level.
  - Coordinated, holistic implementation of different skill development and entrepreneurship programs with all stakeholders at national, state, and district level to deliver at scale and achieve their objectives.
  - Streamline existing national / state / district level data collection means and methods and implement addition surveys (as outlined in the targets section) for efficient, regular, reliable and disaggregated tracking, monitoring and evaluation of progress towards SDG 8 targets and indicators resulting in evidence-based decision making for further improvement

## 8D. Budget Requirements

Budget requirement for this goal has been reflected in others goals and hence budget estimates not provided under BAU and BRAT scenarios. Indicator-wise data source and nodal department is presented in Appendix 8.1.

# No. of Telephones per lakh Population - Talukwise



**Legend**

- District Boundary
- Taluk Boundary
- 45 - 984
- 985 - 2496
- 2497 - 5759
- 5760 - 21210
- 21211 - 33947
- 33948 - 97682

**Map Description:**  
 "Map showing no of telephones per lakh population"  
 Formula: No. of Telephones / Total population \* 100000

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS, KRSAC

## 8E. Appendices

### Appendix 8.1: Indicator-wise data source and nodal department

Sl. No.	National Indicator No.	State Indicator No.	Data sources	Nodal Department
1	8.1.1		DES	DES
2		8.1.1.1	DES	DES
3	8.2.1		DES	DES
4	8.2.2		DES	DES
5	8.2.3		DES	DES
6	8.2.4		DES	DES
7		8.2.4.1	DES	DES
8		8.2.4.2	DES	DES
9		8.2.4.3	DES	DES
10		8.2.4.4	DES	DES
11		8.2.4.5	DES	DES
12		8.2.4.6	DES	DES
13		8.2.4.7	DES	DES
14		8.2.4.8	DES	DES
15	8.3.1		Labour	Labour
16	8.3.2		Labour	Labour
17	8.3.3		Finance	Finance
18	8.3.4		Skill	Skill
19	8.3.5		Commerce & Industry	Commerce & Industry
20	8.3.6		Commerce & Industry	Commerce & Industry
21	8.3.7		Commerce & Industry	Commerce & Industry
22	8.3.8		RBI/ Commerce & Industry	RBI/ Commerce & Industry
23	8.3.9		Commerce & Industry	Commerce & Industry
24	8.4.1		Energy	Energy
25	8.4.2		Energy	Energy
26	8.4.3		UDD	UDD
27	8.4.4		UDD	UDD
28	8.5.1		DES/Labour	DES
29		8.5.1.1	DES	DES
30		8.5.1.2	DES	DES
31	8.5.2		DES	DES
32		8.5.2.1	DES	DES
33		8.5.2.2	DES	DES
34	8.5.3		Labour,/RDPR	Labour,/RDPR
35	8.5.4		Labour	Labour
36	8.5.5		Social Justice & Empowerment	Social Welfare
37	8.5.6		Labour	Labour
38	8.6.1		Labour	Labour
39		8.6.1.1	Labour	Labour
40	8.6.2		Labour	Labour
41		8.6.2.1	Labour	Labour
42	8.7.1		Labour	Labour

Sl. No.	National Indicator No.	State Indicator No.	Data sources	Nodal Department
43		8.7.1.1	Labour	Labour
44		8.7.1.2	Labour	Labour
45		8.7.1.3	Labour	Labour
46		8.7.1.4	Labour	Labour
47		8.7.1.5	Labour	Labour
48	8.7.2		Labour	Labour
49		8.7.2.1	Labour	Labour
50		8.7.2.2	Labour	Labour
51		8.7.2.3	Labour	Labour
52	8.8.1		Labour	Labour
53	8.8.2		Labour	Labour
54		8.2.2.1	Labour	Labour
55	8.8.3		Labour	Labour
56		8.8.3.1	Labour	Labour
57		8.8.3.2	Labour	Labour
58	8.8.4		RDPR	RDPR
59		8.8.4.1	RDPR	RDPR
60		8.8.4.2	RDPR	RDPR
61	8.9.1		Tourism	Tourism
62	8.9.2		Tourism	Tourism
63	8.10.1		State Level Bankers Committee (SLBC)	SLBC
64	8.10.2		SLBC	SLBC
65		8.10.2.1	SLBC	SLBC
66	8.10.3		SLBC	SLBC
67	8.10.4		SLBC	SLBC
68		8.10.4.1	SLBC	SLBC
69	8.10.5		SLBC	SLBC
70	8.a		SLBC	SLBC
71	8.b.1		RDPR	RDPR
	40	26		



# 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



**“Promote sustainable industry and infrastructure”**



## **GOAL 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE - BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION**

### **9A. Background**

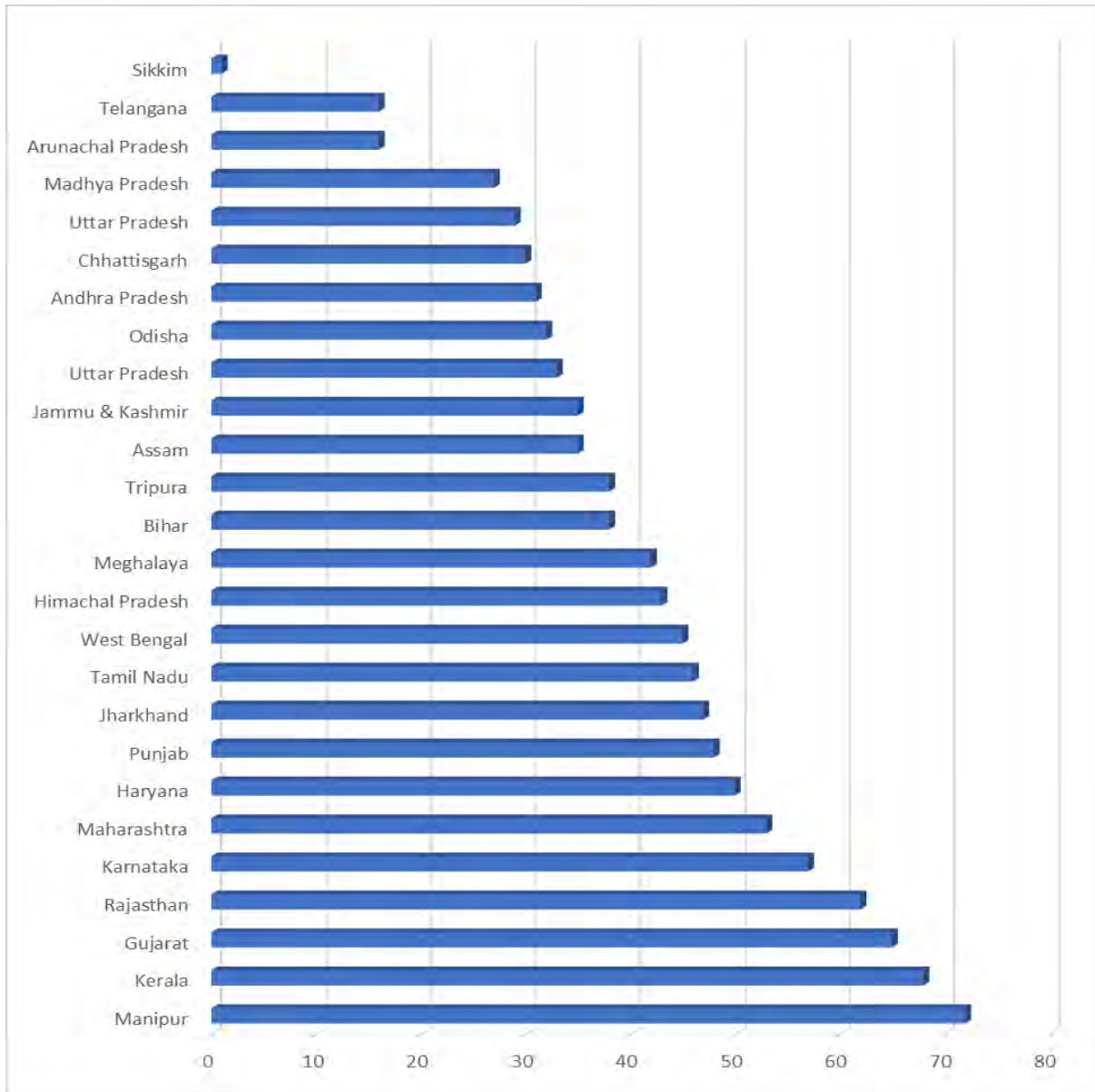
Industrial growth is a global goal that touches upon the economic, social and environmental aspirations. It is intrinsically woven into the architecture of the SDG agenda wherein, the link to innovation and infrastructure further strengthens inclusive and sustainable industrialization. As a dynamic process, it entails entrepreneurship, diversification of industries, industrial upgrading, technological innovations and an effective network for promotion of infrastructural facilities. Alongside industry, the access and provision of effective and sustainable infrastructure is vital in a developing economy.

UN argues that to achieve sustainable development and to empower communities, investment in infrastructure both physical and human is decisive; it enhances productivity, increases income, and improves health and educational outcomes in the country and the creation of these capabilities facilitates long-term growth. Thus, SDG 9 is based on three interconnected pillars: infrastructure, industry and innovation. It focus on the development and promotion of inclusive sustainable infrastructure (including STI & ICT) and industrialization based on five specific targets viz. (1) develop sustainable and inclusive infrastructures, (2) promote inclusive and sustainable industrialization, (3) increase access to financial services and markets, (4) upgrade all industries and infrastructure for sustainability, and (5) enhance research and upgrade industrial technologies.

The basis of this goal comes from the necessity to gradually shift the emphasis of industrial growth towards a more equitable integration of innovations that result in sustainable and improved efficiency in resource extraction and mitigation of negative ecological impacts. Therefore, a diversified, dynamic, inclusive and sustainable industrialization is necessary, without which the SDG paradigm would remain detached from addressing domestic growth, job creation and local self-sufficiency that are interlinked with other goals.

Since economic reforms in early 90s, the economic growth in the country has been mainly driven by knowledge-intensive services sector, and only marginally supported through industrialization. To measure India's performance towards achieving Goal 9, four national level indicators have been identified that capture 2 of 8 SDG targets. The states SDG Index Score for Industry, Innovation and Infrastructure is shown in figure below where the index ranges between 0 and 72 for States and between 0 and 100 for UTs. The NITI Aayog classified the performance of the states into categories as Achievers, Front-Runner, Performer and Aspirant.

### State wise SDG Index Score for goal-9



Source: NITI Aayog, 2018

The two Union Territories (UT) Delhi and Puducherry are at the top with a score of 100 respectively and they are termed as achievers. The top three states, Manipur, Kerala and Gujarat along with Chandigarh (UT) are termed as Front Runners. The four states, Rajasthan, Karnataka, Maharashtra and Haryana are termed as performers and rest of the states and UTs are in the category of Aspirants. In particular, the state of Karnataka in terms of SDGs Index score ranks fifth, and it is significantly above the national average score. Karnataka aspires to have a leadership position in software and information technology-enabled services, biotechnology, nanotechnology, and light engineering industry (particularly precision engineering) by 2025, paving the way for the State to achieve SDG 9 by 2030. The performance of Karnataka in goal 9, inter alia among top performing states and the country is presented below.

### Performance of Karnataka in Goal 9

Indicators/Goal	Manipur	Kerala	Gujarat	Karnataka	India	Target 2030
Percentage of targeted habitations connected by all-weather roads under Pradhan Mantri Gram Sadak Yojana*	69.41%	33.33%	100%	0.00 %	47.38%	100%
Number of mobile connections per 100 persons in rural and urban area (Mobile Tele density)	NULL	110.99	103.84	98.48	82.97	100.00
Number of Internet Subscribers per 100 population	Null	48.04	41.85	44.32	33.47	100.00
Percentage of Gram Panchayats covered under Bharat Net	74.55%	100%	31.45%	100%	42.43%	100%
<b>Scores</b>	<b>72</b>	<b>68</b>	<b>65</b>	<b>57</b>	<b>44</b>	<b>100</b>

Note:\* Proportion of the rural population who live within 2 km of an all-season road is 90% in 2018 and is targeted at 100% by 2030

Some of the initiatives undertaken by GOI are Pradhan Mantri Gram Sadak Yojana, Bharatmala, Sagarmala, Make in India campaign, Digital India (e.g. Aadhaar programme). However, at the national level index score is 47.38, while states such as Gujarat, Rajasthan and Madhya Pradesh are Achievers of this Goal with a score of 100, 81.88 and 55.38 respectively. Although, Karnataka stands at zero in terms of percentage of targeted habitations under PMGSY, it has achieved the target of 100% coverage of Gram Panchayats under Bharat Net and have scored higher than the country average.

*Prime Minister Grameen Sadak Yojana, Solar Irrigation Pump sets Scheme, Industrial Infrastructure for Institutions, Compete with China Programs (Other Expenses), Karnataka German Multi Skill, Development Centre, Science and Technology Mission* are prominent programmes implemented in the State connected to this goal.

### 9B. Targets and Indicators for achieving SDG 9

To achieve the set targets of goal 9 sustainable industrialization, innovation and infrastructure development the state has specified 52 indicators with targets for 2022 and 2030. The data for arriving at the state's baseline value pertains to the year 2017-18. The details of the targets and their indicators are shown below.

**9.1 - Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all**

The state to assess the development of rural infrastructure considers the proportion of rural population who live within 2km of an all-season road. In that context, the state with the baseline year 2018 have 90% indicating 90% of rural population within 2 km radius have access to all seasoned roads. The state government aims to improve the road penetration by 96% and 100% by 2022 and 2030 respectively. The state government has been proactive in improving the rural transport and have implemented several schemes, the major is, road works of economic importance scheme with 50% share from central government, Karnataka State Highways Improvement Project (KSHIP-II) and *Mukhya Mantri Gramina Raste Abhivruddi Yojane*.

Non-transport segment has recorded high growth of 8.4% compared to transport segment of 8.0%. However, in 2017-18, there is marginal decline in the growth rate in non-transport segment compared to 0.5 and 0.4% decline in transport and vehicles per lakh population respectively. The state government envisioned to achieve the reduced target of 5.5 [2.2%, 6.6 [4.1] % and 6.4 [3.0] % in transport, non-transport and vehicles per lakh population for the year 2022 [2030] respectively. The government to achieve the set target by 2022 and 2030 shall bring down the growth rate to 2%, 1.5% and 1.6% and 3.3%, 2.5% and 2.5%, in transport, non-transport and vehicles per lakh population segment respectively. The two other indicators relating to transport are growth rate in per capita consumption of petrol and diesel. In 2016-17, growth rate in per capita consumption for petrol and diesel was 6.06% and 6.45% respectively. The targeted growth rate by 2022-23 is 3.33% in petrol and 2.76% in diesel consumption; however, by 2030 the government has targeted a high cut in growth rate to the tune of 1.97% in per capita petrol consumption and 1.67% in diesel consumption.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
9.1.1		Proportion of the rural population who live within 2 km of an all-season road	2018	90	96	100
9.1.2		Passenger and freight volumes, by mode of transport				
	9.1.2.1	Growth rate in Number of Transport Vehicles per lakh population	2017	7.54	5.47	2.15
	9.1.2.2	Growth rate in Number of Non-Transport Vehicles per lakh population	2017	8.10	6.57	4.11
	9.1.2.3	Growth rate in total number of Vehicles per lakh population	2017	8.04	6.44	3.87
	9.1.2.4	Number of Passengers travelled in Metro (Lakh/day)	2018	4.10	4.18	4.53

	9.1.2.5	Growth rate in per capita consumption of petrol	2017-18	6.05	3.32	1.97
	9.1.2.6	Growth rate in per capita consumption of Diesel	2017-18	6	2.76	1.66
9.1.3		Gross Capital Formation by industry of use				
	9.1.3.1	Capital Expr made under Public Sector as a % GSDP	2017-18	3.47	3.26	3.23
	9.1.3.2	Investment made under Private Sector which are routed through KUM (Crore Rs.)	2017-18	53656	86413	168394

**9.2 - Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
9.2.1		Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)	-	-	-	-
9.2.2		Manufacturing employment as a proportion of total employment	2017-18	12.3	17.94	23.92
	9.2.2.1	Manufacturing value added a proportion of GDP	2016-17	12.76	12.59	11.24

Note: - : Not Available

**9.3 - Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
9.3.1		Share of household sector in industry value added	2016-17	21.88	20.59	19.02
9.3.2		Percentage/ Proportion of credit flow to MSMEs (as a percentage of Total Adjusted Net Bank Credit)	2017	16.52	20.63	29.43
	9.3.2.1	Proportion of women having access to credit	2017	11.52	14.23	17.81
	9.3.2.2	No. of women SHGs accessed Bank Loan during last one year (Lakh)	2017	18.19	25.71	38.67

**9.4 - By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
9.4.1		CO2 equivalent emission per unit of value added (Tons/lakh Rs.)	2017-18	0.43	0.40	0.35
9.4.2		Energy use intensity of manufacturing value added (MU/cr)	2017-18	4242.24	2833.82	1444.96
	9.4.2.1	Electricity consumed per unit of GSDP	2017-18	0.00024	0.0003	0.00035
	9.4.2.2	Electricity Consumed Domestic(000'MUs)	2017-18	11.62	14.63	19.20
	9.4.2.3	Electricity Consumed Commercial(000'MUs)	2017-18	6.59	7.38	8.65
	9.4.2.4	Electricity Consumed Industrial (000'MUs)	2017-18	9.89	11.5	13.83
	9.4.2.5	Electricity Consumed - Others(000'MUs)	2017-18	25.72	30.63	37.61
	9.4.2.6	Total Electricity Consumed(000'MUs)	2017-18	53.82	64.14	79.29
	9.4.2.7	Monthly Kerosene Consumption(000'kiloliters)	2018	9600	-	-
	9.4.2.8	Consumption of LPG (000'MTs)	2017-18	1573	2079	2946
	9.4.2.9	Consumption of coal (Lakh MTs)	2017-18	100.49	223.08	282.65

**9.5 - Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
9.5.1		Percentage share of expenditure in R&D to Total GDP	2017-18	0.006	0.005	0.01
9.5.2		Researchers (in full time equivalent) per million inhabitants				
	9.5.2.1	Number of engineers produced (Lakh)	2017	0.74	0.74	0.74
	9.5.2.2	Number of graduates and above employed per million	2017-18	73	-	-
9.5.3		Total number of Patents issued	2017	174	385	723



National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
	9.5.3.1	Number of Patents issued in Public Sector	2017	13	11	7
	9.5.3.2	Number of Patents issued in Private Sector	2017	43	55	80
	9.5.3.3	Number of Patents issued in Universities (Mandatory)	2017	2	6	15
	9.5.3.4	Number of Patents issued to Scientific institutions	2017	5	10	18
	9.5.3.5	Number of Patents issued to others (mandatory)	2017	111	303	603
	9.5.3.6	Number of patents filed	2017	2089	2152	2396

**9.a - Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
9.a.1		Total official international support (official development assistance plus other official flows) to infrastructure		-	-	-

**9.b - Support domestic technology development, research and innovation in developing countries, including a conducive policy environment for, inter alia, industrial diversification and value addition to commodities**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
9.b.1		Share of Intellectual Property Products in total Gross Fixed Capital Formation		-	-	-
9.b.2		Share of GVA of companies with research & development (incl. information and computer related activities) as main activity in total GVA from Private Corporate Sector		-	-	-
9.b.3		Share of GVA of Information and Computer related activities in total GVA		-	-	-

**9.c - Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
9.c.1		Proportion of population covered by a mobile network, by technology	2018	109.01	132.23	171.42
9.c.2		No. of Broadband Subscribers per 10000 persons	2018-19	922.93	-	-
	9.c.2.1	No. of Broadband Subscribers (In million)	2017	178.51	130.51	53.71
	9.c.2.2	No. of subscribers having Wired Broad band connections per thousand population-Rural	2017	178.51	130.51	53.71
	9.c.2.3	No. of subscribers having wired Broad band connections per thousand population-Urban	2017	73	72	67
	9.c.2.4	No. of subscribers having wired Broad band connections per thousand population-Total	2017	33.53	33.08	32.12
	9.c.2.5	No. of subscribers having Wireless Broad band connections per thousand population-Rural	2017	576	748	993
	9.c.2.6	No. of subscribers having Wireless Broad band connections per thousand population-Urban	2017	1568	1687	1695
	9.c.2.7	No. of subscribers having Wireless Broad band connections per thousand population-Total	2017	1001	1192	1400
	9.c.2.8	No. of subscribers having internet connections per 1000 population-Rural	2017	163	293	480
	9.c.2.9	No. of subscribers having internet connections per 1000 population-Urban	2017	827	1217	1584
	9.c.2.10	Number of Computers/Laptops per lakh students (up to Xth std)- Govt. Schools	2018	1501	3250	7150
	9.c.2.11	Number of Computers/Laptops per lakh students (up to Xth std)- Private Schools	2018	3427	4507	6235

**9c. Way Forward**

- Rural road coverage improves health, education and employment, stimulating rural growth. To achieve the determined target by 2022 and 2030, the main strategy is planning and programming of the schemes and budget requirement, institutional support and sustainability

are crucial in accomplishing the targets.

- Introduction of Rural Road Policy
- Identification of the villages having non-accessibility to motorable roads
- Improving Rural Road standards
- Involvement of local community for development and maintenance of roads.
- Target based improvement/development of roads based on districts/talukas having low standards, high poverty, low human development and low industrial coverage.
- In order to achieve the drastic cut in per capita consumption of fuel the government should encourage and facilitate alternative fuel-efficient hybrid technology [electric] based transport system.
- Provision of high quality and expanded coverage of public transport will put a restriction on private transport.
- Considerable investment, both public and private is required for sustainable transport infrastructure.
- Encouraging non-motorable transport such as metro transport, bicycle, also walking for short distances.
- Adoption of instruments such as tax, subsidy, pricing of automobiles for sustainable transport system.
- Development of integrated public transport system.
- Emphasis on generation of green power: Expansion of the generation of renewable energy and transforming the traditional energy system into cleaner and less dependent on fossil fuels.
- Making energy consumption more efficient
  - Energy efficient public transport: After power generation, road transport is the next biggest emitter of greenhouse gases and the emission is rising rapidly with urbanisation. To contain the CO<sub>2</sub> emissions, the transport system shall adopt more energy efficient technologies.
  - Incentivising investment in energy efficient technologies, industries, infrastructure and approaches.
  - Creating awareness among energy consumers especially display of information relating to fuel consumption, efficiency and CO<sub>2</sub> emissions in all types of vehicles including both private and public.
  - Remodelling and restructuring the urban transport design and infrastructure by prioritizing rapid bus transit or light rail over private vehicles, which in long-term reduce air pollution and also contain CO<sub>2</sub> emissions.
- Provide adequate grants and enhancing fiscal incentives, such as R&D tax incentives, subsidising research, tax credits etc. The facilitation of grants and subsidies particularly for specific [targeted] projects with high social returns should be encouraged.
- In addition to government support for R&D activities to the industry, the industry in turn under its Corporate Social Responsibility (CSR), shall promote social R&D through setting up of local skill development centres to identify and train local talents to industry requirements. Also, encouraging industry/business sector to invest in community R&D infrastructure is necessary.

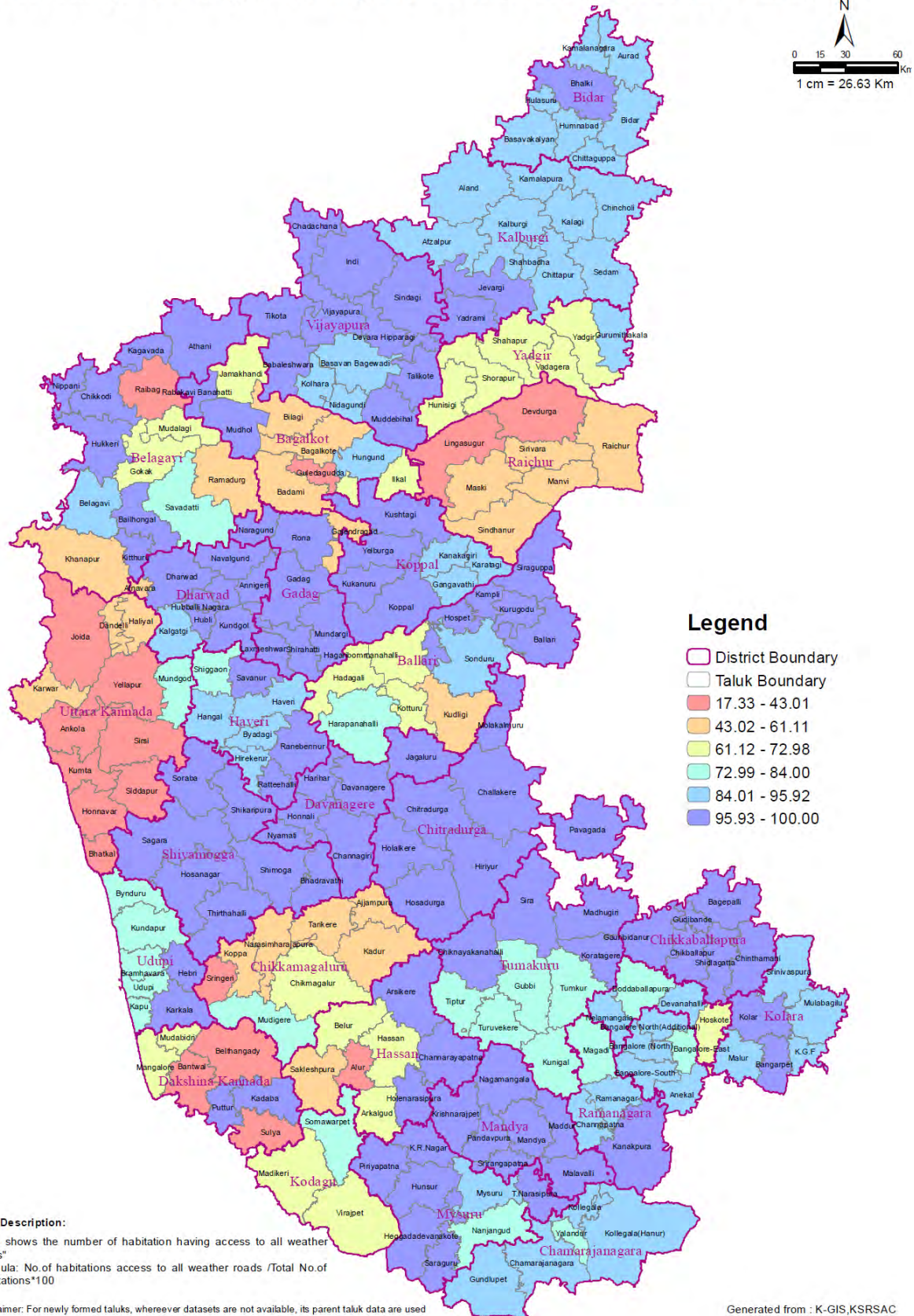
## 9D. Budget Requirements

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below.

**Budget requirement for SDG 9 (In crores)**

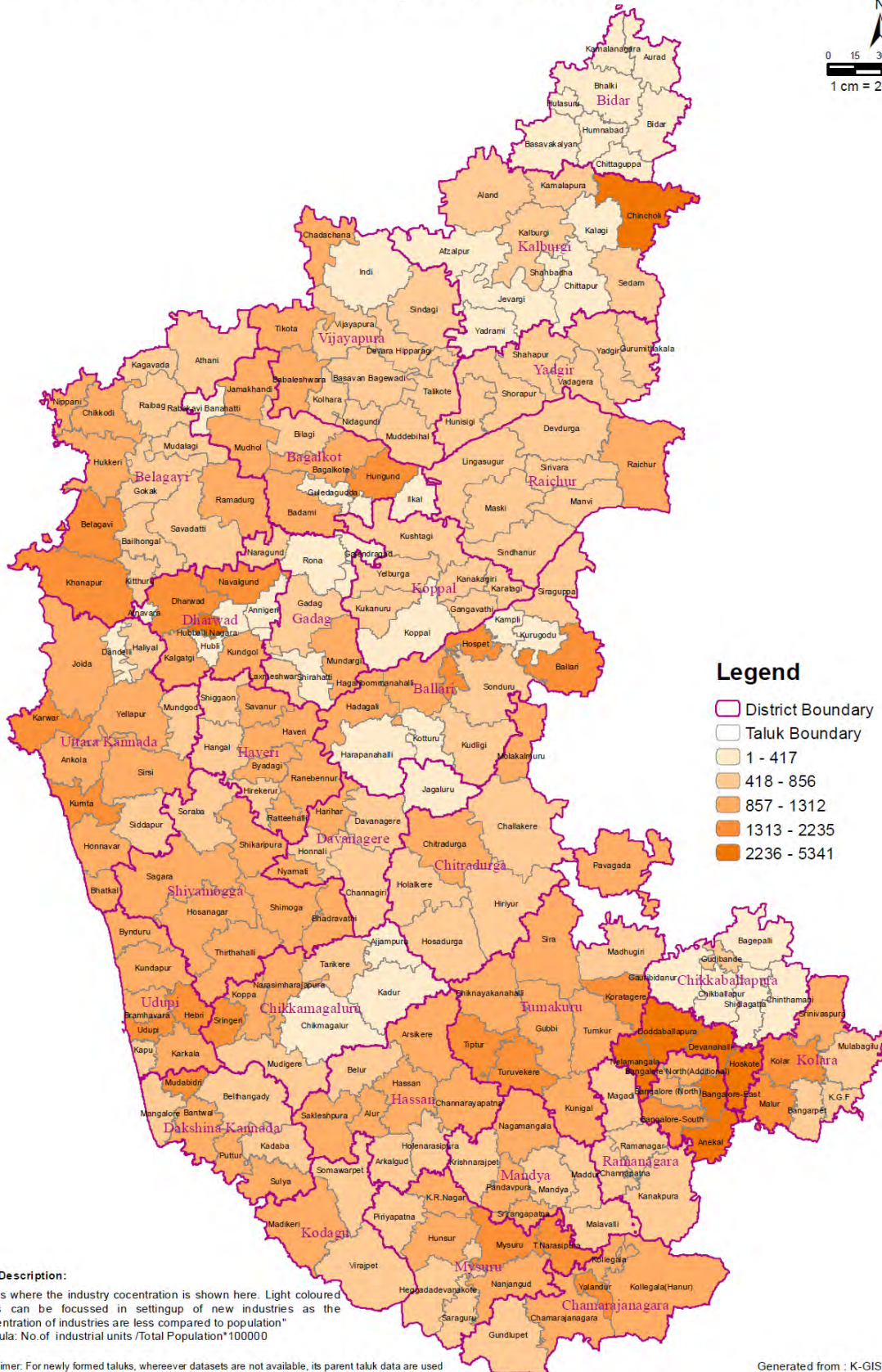
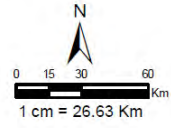
Department	Scheme Name	2020-21			2029-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Appendix table 9.2	Appendix table 9.2	2835.0	2431.1	410.8	47766.7	28505.6	20091.4

# Percentage of Villages having access to all Weather Roads - Talukwise





# Number of Industrial Units per Lakh Population - Talukwise



- Legend**
- District Boundary
  - Taluk Boundary
  - 1 - 417
  - 418 - 856
  - 857 - 1312
  - 1313 - 2235
  - 2236 - 5341

**Map Description:**  
 "Areas where the industry concentration is shown here. Light coloured Areas can be focussed in setting up of new industries as the concentration of industries are less compared to population"  
 Formula: No. of industrial units / Total Population \* 100000

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS, KRSRAC

## 9E. Appendices

### Appendix 9.1: Indicator-wise data source and nodal department

Sl. No.	National Indicator No.	State Indicator No.	Data Sources	State Nodal Department
1	9.1.1		RDPR	RDPR
2	9.1.2		Transport	Transport
3		9.1.2.1	Transport	Transport
4		9.1.2.2	Transport	Transport
5		9.1.2.3	Transport	Transport
6		9.1.2.4	BMRCCL	BMRCCL
7		9.1.2.5	Commercial Tax	Finance
8		9.1.2.6	Commercial Tax	Finance
9	9.1.3		AFS	Finance
10		9.1.3.1	KUM	Finance
11		9.1.3.2	KUM	Finance
12	9.2.1		DES	Commerce & Industry
13	9.2.2		DES	Commerce & Industry
14		9.2.2.1	DES	Commerce & Industry
15	9.3.1		DES	Commerce & Industry
16	9.3.2		-	Commence and Industries
17		9.3.2.1	SLBC	SLBC
18		9.3.2.2	SLBC	SLBC
19	9.4.1		PCB	Forest, Ecology & Environment (FEE)
20	9.4.2		Energy	Energy
21		9.4.2.1	Energy	Energy
22		9.4.2.2	Energy	Energy
23		9.4.2.3	Energy	Energy
24		9.4.2.4	Energy	Energy
25		9.4.2.5	Energy	Energy
26		9.4.2.6	Energy	Energy
27		9.4.2.7	FCS	FCS
28		9.4.2.8	IOC	IOC
29		9.4.2.9	KPCL	Energy
30	9.5.1		Science and Technology	Science and Technology
31	9.5.2		Science and Technology	Science and Technology
32		9.5.2.1	Technical Education Department	Education
33		9.5.2.2	Employment & Training	Labour
34	9.5.3		-	Science and Technology
35		9.5.3.1	-	-
36		9.5.3.2	-	-
37		9.5.3.3	-	-
38		9.5.3.4	-	-
39		9.5.3.5	-	-
40		9.5.3.6	-	-
41	9.a.1		-	-
42	9.b.1		-	-
43	9.b.2		-	-
44	9.b.3		-	-
45	9.c.1		TRAI	TRAI
46	9.c.2		TRAI	TRAI

Sl. No.	National Indicator No.	State Indicator No.	Data Sources	State Nodal Department
47		9.c.2.1	TRAI	TRAI
48		9.c.2.2	TRAI	TRAI
49		9.c.2.3	TRAI	TRAI
50		9.c.2.4	TRAI	TRAI
51		9.c.2.5	TRAI	TRAI
52		9.c.2.6	TRAI	TRAI
53		9.c.2.7	TRAI	TRAI
54		9.c.2.8	TRAI	TRAI
55		9.c.2.9	TRAI	TRAI
56		9.c.2.10	CPI	PSE
57		9.c.2.11	CPI	PSE
	17	25		

Note: -- Not Available; FEE- Forest, Ecology & Environment; TRAI- Telecom Regulatory Authority of India; PCB-Pollution Control Board



**Appendix 9.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Scheme Name	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
PMGSY	166.0	176.1	186.8	198.2	209.1	220.6	232.7	245.5	259.0	273.2	288.3
Mukhyamantri Grameen Raste Abhrivudhi Yojane	275.1	291.9	309.6	328.4	346.5	365.5	385.7	406.9	429.2	452.8	477.8
Road Works in Rural Areas-NABARD	56.8	60.2	63.9	67.8	71.5	75.4	79.6	84.0	88.6	93.5	98.6
Namma Grama Namma Raste	358.6	380.4	403.5	428.0	451.6	476.4	502.6	530.3	559.4	590.2	622.7
Industrial Infrastructure for Institutions	250.0	275.0	302.5	332.8	382.7	440.1	506.1	582.0	669.3	769.7	885.1
Loan against VAT payment to Industrial units	350.0	385.0	423.5	465.9	535.7	616.1	708.5	814.8	937.0	1077.5	1239.2
Refund of Sales Tax to eligible Institutions	200.0	220.0	242.0	266.2	306.1	352.0	404.9	465.6	535.4	615.7	708.1
Compete with China	100.0	110.0	121.0	133.1	153.1	176.0	202.4	232.8	267.7	307.9	354.0
Artisan Training Institute	3.3	3.6	3.9	4.3	5.0	5.7	6.6	7.6	8.7	10.0	11.5
District Industrial Centres	15.2	16.7	18.4	20.2	23.2	26.7	30.7	35.3	40.6	46.7	53.7
Koushalya Abhrivudhi Yojane	1.0	1.1	1.2	1.3	1.5	1.8	2.0	2.3	2.7	3.1	3.5
Special Technical Training Institutions	3.0	3.3	3.6	4.0	4.6	5.3	6.1	7.0	8.0	9.2	10.6
Karnataka German Multiskill Development Centres	7.5	8.3	9.1	10.0	11.5	13.2	15.2	17.5	20.1	23.1	26.6
Pradhanamantri Kowshalya Program	10.0	11.0	12.1	13.3	15.3	17.6	20.2	23.3	26.8	30.8	35.4
Skill Development Mission	108.5	119.4	131.3	144.5	166.1	191.0	219.7	252.6	290.5	334.1	384.2
Specialised skill Development Institutions	145.3	159.8	175.8	193.3	222.3	255.7	294.0	338.1	388.9	447.2	514.3
Rebate and Assistance to Khadi and Small-Scale Industries Products	70.5	77.6	85.4	93.9	108.0	124.2	142.8	164.2	188.8	217.2	249.7
Assistance to Coir Sector-Tengu Bhagya	86.0	94.6	104.1	114.5	131.6	151.4	174.1	200.2	230.2	264.8	304.5
Assistance to Industries and other Expenditure	156.0	171.6	188.8	207.6	238.8	274.6	315.8	363.2	417.6	480.3	552.3
Development of Industrial Infrastructure for MSMEs	170.0	187.0	205.7	226.3	260.2	299.2	344.1	395.7	455.1	523.4	601.9
Promotional Schemes of DICs and Industries	20.6	22.7	24.9	27.4	31.5	36.3	41.7	48.0	55.1	63.4	72.9
Interest Subsidy for Women through KSFC	10.0	11.0	12.1	13.3	15.3	17.6	20.2	23.3	26.8	30.8	35.4
StreeShakti	10.8	11.9	13.1	14.4	16.5	19.0	21.8	25.1	28.9	33.2	38.2
Micro Credit Financing for SHGs	5.0	5.5	6.1	6.7	7.7	8.8	10.1	11.6	13.4	15.4	17.7
Assistance to Scientific Institutions	15.1	16.7	18.3	20.2	22.2	24.4	26.8	29.5	32.5	35.7	39.3
Science & Technology Mission	13.5	14.9	16.3	18.0	19.8	21.7	23.9	26.3	28.9	31.8	35.0
	13878.1	15232.6	16720.5	18355.1	20260.3	22370.8	24709.6	27302.4	30178.0	33368.3	36909.2



# 10 REDUCED INEQUALITIES



**“Everyone gains through co-operation”**



## **GOAL 10. REDUCE INEQUALITIES - REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES**

### **10A. Background**

Resources are unequally distributed, and risks of life are uneven in their incidence. This has led to unjust social, economic, political order across and within nations. Mark of human civilization is to promote equality through sharing of resources and containment of risks. The United Nations and its various wings are in the forefront of humanity's fight against global poverty, deprivations, discrimination, oppression, conflicts, terrorism, violence and inequality. In 2001 AD, 191 nations, under the aegis of the UN, adopted 8 millennium development goals so as to end poverty / hunger, promote Universalisation of Elementary Education (UEE), health, gender equality, environmental sustainability and global partnership for development by the year 2015. A global review of MDG performance in 2012 revealed that the goals fell short on 2 counts: (a) target dates were elusive and (b) environmental / ecological / sustainability concerns had not been adequately and explicitly integrated with the MDG goals and indicators. In July 2014, the UN General Assembly resolved to reset the goals, indicators and targets by expanding their scope and by integrating sustainability concerns. Goal 10 is focused to "Reduce Inequalities within and among Countries". SDG goal 10 is an initiative in this direction.

Major efforts at the national level to address inequality are employment generation, income generation and asset creation. Food security through development of minor irrigation, land promotion, agricultural credit, priority lending – NABARD, waiver of farm loans, Minimum Support Price (MSP), minimum wages Act, MNREGA, Area Development programs; scholarships and hostel facilities, immunization, Swatcha Bharat Abhiyan, SSA / RMSA – now Samagra SA, PR / GP led development, prevention of bonded / child labour, SC/ST Welfare Programmes, ICDS, are illustrative of equity oriented programmes. There has been a reduction of poverty and inequality over the years.

Karnataka State in an independent initiative, had envisioned the growth and development of the State with a target date of 2025 – "Nava Karnataka". Human Capital and infrastructure development have been accorded balanced attention in investments in this vision document. ('Nava Karnataka', GoK, 2018). Three components of this vision are linked to SDG goal 10 – (a) ensuring equitable growth, (b) balanced regional development and (c) social justice and empowerment. Economic growth with equity along with sustainable development are part of the 8 tenets of Karnataka model of development. SDG goal 10 enlivens the vision 2025 of Karnataka 'Nava Karnataka'.

Karnataka is lagging behind many other states of the Union of India in regard to status and performance on SDG goal 10, inequalities. The score of the State is 44 out of 100, lower by 13 units than the all India average score of 57. The rank of the State is 17 among the 29 States of India. However, on several discrete indicators the position of the State is better than the all India averages. There are 6 broad targets under goal 10. A variety of indicators of status and performance are identified within the target areas.

## 10B. Targets and Indicators for achieving SDG 10

### 10.1 - By 2030, progressively achieve and sustain income growth of the bottom 40% of the population at a rate higher than the national average

Monthly Per Capita Consumption Expenditure (MPCE) average expenditure is very much higher in Karnataka than the poverty line income. It is higher by 73% and 178% respectively in rural and urban areas. The state also suffers from rural – urban disparities.

Likewise, median Income among the Households of the State is Rs.39598 in 2011 – 12 (NSSO 68th round). It is lower than the Median income, far below the State average for SC/ST/OBC/Muslims. Among groups, STs have the lowest median income.

Inequality in agriculture sector on all these counts negatively affects productivity and levels of living in agriculture. Fragmentation of land holdings is increasing over a period of time with increases in the population and growth of nuclear families in India / Karnataka State. Landholding among SC/ST farmers with 56% of SC and 47% of ST are marginal farmers with farm yield very low. The gap between SC/ST and non-SC/ST/OBC is perceptible in both rural and urban areas. It is quite high in urban areas.

Composite Index of Inequality: C group districts of the State – Bagalkote, Belagavi, Ballari, Vijayapura, Davanagere, Gadag, Koppal, Raichur, Yadgiri, Kalaburagi (10 districts) are at the bottom of the ladder of inequality. These districts present a state of backwardness, and high Rural / Urban poverty levels. Target dates for progress towards equality in these 10 districts need to be planned keeping their status in the backdrop. However, there is a need for integrated and converging efforts across several departments of Government.

#### Composite Index of Inequality

[A]	[B]	[C]
Bangalore Urban (1)	Bangalore Rural (9)	Bagalkote (23)
Chikkmagalur (5)	Bidar (20),	Belgaum (24)
D. Kannada (2)	Haveri (18), Chitradurga (19)	Ballari (26)
Kodagu (4)	Chamarajanagar (15)	Davanagere (21)
Udupi (3)	Tumakuru (14)	Gadag (27)
Shivamogga (6)	Chikkaballapura (16)	Koppal (29)
U. Kannada (7)	Dharwad (11)	Raichur (30)
Hassan (10)	Kolar (13), Mandya (17)	Yadgiri (28)
Mysore (8)	Ramanagara (12)	Kalaburagi (25)
<b>Total: 9 Districts</b>	<b>Total: 11 Districts</b>	Vijayapura (22)
		<b>Total: 10 Districts</b>

*Note: Summated Index Rank in brackets*

There is a clear and distinct poverty gap between SC and non-SC categories. Over the years, from 2004-05 to 2011-12 (NSSO Rounds), poverty ratio declined across all groups. Still, the gap persisted from 26.4 to 16.0% in Rural and from 24.5 to 13.5% in urban areas. These values are higher still for SC, STs. Targeting of anaemia children for intensive care in ICDS, institutional and trained mid wives home deliveries is very difficult in rural set up and especially to SCs/STs. Problem is more acute in rural areas,

in contrary to urban space for NNMR/IMR/MMR.

Districts with highly depressing poverty ratios are Koppal, Bellary and Chitradurga – 3 districts with more than 40% poverty ratios.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
10.1.1		Growth rates of household expenditure per capita among the bottom 40 % of the population and the total population (Rural; Urban in %)	2011-12	29.18; 6.80	-	-
	10.1.1.1	Growth rates of household expenditure per capita among the bottom 40 % of the population and the total population-Rural , Urban (Rs.)	2011-12	1561, 3026	3000, 4000	5000, 7000
	10.1.1.2	Poverty Line Income (Rural, Urban) (Rs.)	2011-12	816, 1000	1600, 2500	3500, 5000
	10.1.1.3	State Average of SC Income (Rs.)	2011-12	22800	30000	50000
	10.1.1.4	State Average of ST Income (Rs.)	2011-12	20000	28000	48000
	10.1.1.5	State Average of OBC Income (Rs.)	2011-12	26091	36000	52000
	10.1.1.6	State Average of Muslims Income (Rs.)	2011-12	28500	38000	54000
	10.1.1.7	State Average of Other Minorities Income (Rs.)	2011-12	52500	55000	60000
	10.1.1.8	State Average of Others Income (Rs.)	2011-12	48000	50000	55000
10.1.2		Gini Co-efficient of households expenditure (Rural; Urban)	2011-12	0.259; 0.403	0.28, 0.40	0.20, 0.30
	10.1.2.1	Rural and Urban Food Consumption & non-food consumption pattern in the State	2011-12	48.6 & 51.4; 38.5 & 61.5	40 & 60; 30 & 70	35 & 65; 25 & 75
	10.1.2.2	Palma Ratios	2011-12	3.32(R);7.01 (U) 5.50 (T)	3.0 (T)	2.5(T)
	10.1.2.3	Work Force in State (Agriculture) Cultivators -C Agricultural Labourers-L Household Industry-I Others-O Total- T	2015-16	6580649 (23.6%) 7155963 (25.7%) 913227 (3.3%) 13222758	25% 18% 8% 49% 100%	30% 15% 12% 43% 100%

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
				(47.4%) 27872597 (100 %)		
	10.1.2.4	Land use in Karnataka (Total Geographical Area, Forests, Land not available for Cultivation, Area Sown, Fallow Land, Others)	2015-16	191.40 30.72 22.48 122.44 21.03 15.85	191.40 32.00 18.00 130.00 15.00 15.00	191.40 35.00 15.00 140.00 10.00 10.00
	10.1.2.5	Distribution of Cultivable Land in State (Area, No. of Persons in lakhs, Average Holding in Ha)	2015-16	122.50 78.32 1.56	130 70 1.40	135 60 1.35
	10.1.2.6	Inequality in Land holdings in Lakh ha (Total Land holding, SC, ST, Others)	2015-16	122.46 10.74 7.05 104.67	122.46 12 8 108.6	122.46 14 10 110
	10.1.2.7	Sources of Irrigation (Agricultural Land in Lakh ha, Rainfed in %, Irrigation in %)	2015-16	122.46 64 36	130.33 50 50	135.00 45 55
	10.1.2.8	Progress of irrigated area in State in Lakh Ha (NSA, GSA in %)	2015-16	36.59 41.96	39 44	42 48
	10.1.2.9	Investment in Irrigation (Rs. In Crores)	2002-2007	1633.9.77	25000	30000
	10.1.2.10	Inequality in access to irrigation across Districts in the State (No. of districts) [A] 50% > [B] 35 to 50 [C] 20 to 35 [D] < 20	2013-14	6 6 11 7	4 8 12 6	2 8 18 2
	10.1.2.11	Net District Income from Primary Sector in Cr Rs. (Current Prices in 2015-16, Constant Prices in 2011-12)	2017-18	811246, 650526	900000 750000	990000 820000
	10.1.2.12	Fallow Land in State (%)	2015-16	21.08	15	10
	10.1.2.13	Agricultural Labour wages adjusted to cost of living index in Rs. (Per Hr, Per week, per month)	2018	16.25,731,3 169	18, 864, 3600	22, 1056, 4500



National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
	10.1.2.14	Access to Drinking Water Total no. of Habitations in the State < 25 L in % 25 to 50 L in % 50 to 75 L in % 75 to 100 L in % 100 L + in %	2015-16	57380 9.89 31.75 26.67 19.30 12.39	573000 5 35 30 20 10	57200 0 40 35 15 10
	10.1.2.15	Housing for the Poor (Total number of Households, Houseless HHs, Grass / Thatched Roof)	2015-16	13139063, 11104, 352480	1314500 0, 0, 200000	131600 00, 0, 0
	10.1.2.16	Classification of Districts on summated index of Inequality (Number of districts -A, B, C)	2015-16	9 11 10	5 20 5	3 27 0
	10.1.2.17	Proportion of Literacy rates among Social Groups (Total, Female, SC, ST in %)	2011	75.60 66.01 65.32 62.08	85 80 80 77	100 100 100 100
	10.1.2.18	Health Status on Neonatal (NN) among Social Groups				
	10.1.2.19	Neonatal (NN) among STs	2015-16	24.3	15	5
	10.1.2.20	Neonatal (NN) among SCs	2015-16	26.4	15	5
	10.1.2.21	Neonatal (NN) among OBC	2015-16	14.1	12	3
	10.1.2.22	Neonatal (NN) among Minorities	2015-16	26.4	15	5
	10.1.2.23	Neonatal (NN) among Hindus	2015-16	19.1	12	3
	10.1.2.24	Health Status on IMR among Social Groups				
	10.1.2.25	IMR among STs (per thousand)	2015-16	37.70	20	10
	10.1.2.26	IMR among SCs (per thousand)	2015-16	33.00	20	10
	10.1.2.27	IMR among OBC (per thousand)	2015-16	26.40	15	5
	10.1.2.28	IMR among Minorities (per thousand)	2015-16	24.2	15	5
	10.1.2.29	IMR among Hindus (per thousand)	2015-16	28.4	15	5
	10.1.2.30	Health Status on CMR among	2015-			

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
		Social Groups	16			
	10.1.2.31	CMR among STs (per thousand)	-	42.3	15	5
	10.1.2.32	CMR among SCs (per thousand)	2015-16	39.3	15	5
	10.1.2.33	CMR among OBC (per thousand)	2015-16	31.1	12	3
	10.1.2.34	CMR among Minorities (per thousand)	2015-16	28.2	12	3
	10.1.2.35	CMR among Hindus (per thousand)	2015-16	33.1 per thousand	12	3
	10.1.2.36	Health Status on Anaemia 6m to 59m among Social Groups (ST, SC, OBC in %)	2015-16	1,1.5, 0.6	0,0,0	0,0,0
	10.1.2.37	Proportion of SC's availed the benefit under IAY housing scheme	2014-15	42.68	60	100
	10.1.2.38	Per Capita Income among Social Groups				
	10.1.2.39	Per Capita Income among STs (Rural, Urban)	2011-12	1278, 1875	1500, 2200	1500, 2200
	10.1.2.40	Per Capita Income among SCs(Rural, Urban)	2011-12	1396, 2258	1600, 2400	2200, 2600
	10.1.2.41	Per Capita Income among OBC (Rural, Urban)	2011-12	1626, 2598	1700, 2500	2300, 2700
	10.1.2.42	Per Capita Income among Others (Rural, Urban)	2011-12	1632, 4378	1700, 4500	2300, 5000
	10.1.2.43	Poverty ratio among Social Groups				
	10.1.2.44	Poverty ratio among STs	-	-	-	-
	10.1.2.45	Poverty ratio among SCs (Rural, Urban)	2004-05 2011-12	53.5, 40.6	25, 15	0, 0
	10.1.2.46	Poverty ratio among OBC (Rural, Urban)	2004-05 2011-12	39.8, 30.6	20, 12	0, 0
	10.1.2.47	Poverty ratio among Others (Rural, Urban)	2004-05 2011-12	15.5, 8.2	10, 5	0, 0
	10.1.2.48	Poverty Ratios across districts	2011-	-	-	-

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
			12			
	10.1.2.49	Proportion of Pre/Post Matric Scholarships				
	10.1.2.50	Pre-Matric Scholarship among SC's (%)	2017-18	91	100	100
	10.1.2.51	Post-Matric Scholarship among SC's	2017-18	76	100	100
	10.1.2.52	Pre-Matric Scholarship among STs (%)	2017-18	80	100	100
	10.1.2.53	Post-Matric Scholarship among STs (%)	2017-18	85	100	100
	10.1.2.54	Pre-Matric Scholarship among OBC (%)	2017-18	86	100	100
	10.1.2.55	Post-Matric Scholarship among OBC (%)	2017-18	86	100	100
	10.1.2.56	Pre-Matric Scholarship among Minorities (%)	-	-	-	-
	10.1.2.57	Post-Matric Scholarship among Minorities (%)	-	-	-	-

Note: - : Not Available

\*Palma ratio- Measured as the ratio of the monthly consumption expenditure of the top 10% households to the monthly consumption expenditure of the bottom 40% households

## 10.2 - By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

Demand for reservation for women in Parliament / Legislatures up to 33% has been there since 1996, September, where for the first time a bill for such reservation had been introduced, with very little support from political parties. It was reintroduced vociferously in 2014. Transparency International, a global voluntary organization, ranked Karnataka as 4<sup>th</sup> in the ladder of corruption, in the Indian Union. It is advocated that increased women's representation in governance will bring down corruption. Even the Karnataka Vision Document, 2025, strongly champions reservation for women in legislative bodies. At sub-state political bodies, the Zilla/Taluk/Gram Panchayats, women's representation is just over 50%, as per the 73rd / 74th Constitutional Amendments, 1993.

To achieve SDG10, political parties need to undergo a paradigm shift by fielding women candidates in unreserved Constituencies. Reservation for SC / ST categories in all 3 tiers of PRIs elections to be in force in proportion to their population.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
10.2.1		Proportion of people living below 50% of median household	2011-12	0.65; 13.17	-	-

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
		expenditure (Rural; Urban)				
10.2.2		Proportion of seats held by women in national Parliament, State Legislation and Local Self Government				
	10.2.2.1	Proportion of Women seats in State assembly	2018	4.46	15	33
	10.2.2.2	Proportion of Women seats in State legislative council	2018	10.67	15	33
	10.2.2.3	Proportion of women members in Zilla Panchayats/ ULBs	2016	50.56	50	50
	10.2.2.4	Proportion of women members in Taluk Panchayats	2016	50.19	50	50
	10.2.2.5	Proportion of women members in Gram Panchayats	2016	51.14	50	50
	10.2.2.6	Proportion of women members in Urban local bodies, CC, CMC, TMC, TP, NACs	2015-2016	274, 10, 57, 113, 90, 4	50	50
10.2.3		Proportion of persons from vulnerable groups in elected bodies				
	10.2.3.1	Proportion of SC's in elected bodies (Total SC, out of this- CC, CMC, TMC, TP in Urban local bodies)	2015-16	27, 7, 15, 4, 1	15	15
	10.2.3.2	Proportion of ST's in elected bodies (Total ST, out of this- CC, CMC, TMC, TP in Urban local bodies)	2015-2016	13, 4, 5, 2, 2	6	6
	10.2.3.3	Proportion of BCM A in elected bodies (Total BCM A ; of this, CC, CMC, TMC, TP)	2015-2016	56, 17, 30, 6, 3	12	12
	10.2.3.4	Proportion of BCM B in elected bodies (Total BCM B ; of this, CC, CMC, TMC, TP)	2015-2016	13, 4, 8, 1, 0	8	8
	10.2.3.5	Income per capita among bottom 40% of the population	-	-	-	-

**10.3 - Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard**

National indicator not yet evolved

**10.4 - Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality**

NE region districts are the most backward district - Bidar, Kalaburagi, Koppal, Raichur and Yadgiri which deserve positive discrimination in budget allocations. Apart from overall budgetary provisions there is need to allocate budget separately for each district for these NE districts. There is a need to rationalize district sector allocations so as to empower districts to directly address concerns of inequality.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
10.4.1		Proportion of budget allocated to North Eastern States	NR	NR	NR	NR
	10.4.1.1	State Budget allocation (In Crores Rs.)	2018-19	2,18,488	-	-
	10.4.1.2	Percentage of Scheduled caste Sub Plan fund utilized	2019	53	100	100
	10.4.1.3	Percentage of Tribal Sub plan fund utilized	2019	50	100	100

Note: NR – Not Relevant

**10.5 - Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations**

National indicator not yet evolved

**10.6 - Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions**

National indicator not yet evolved

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
	10.6.1.1	Proportion of members and voting rights (number)	2017-18	49682357	100% coverage	100% coverage

**10.7 - Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies**

National indicator not yet evolved

**10. a - Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements**

National indicator not yet evolved

**10.b - Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, Small Island developing States and landlocked developing countries, in accordance with their national plans and programmes**

National indicator not yet evolved

**10.c - By 2030, reduce to less than 3% the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5%.**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
	10.c.1	Remittance costs as a proportion of the amount remitted	-	-	-	-

## 10C. Way Forward

The whole economy, polity and society needs to focus on reduction of inequality in the following ways.

- Special Development Plan (SDP) for backward taluks (High-Power Committee for Redressal of Regional Imbalances) through utilization of Backward Regions Grant Fund (BRGF). Area Development Boards, Legislators – MLA / MP constituency development grants to be converged in a concerted manner.
- Participative micro-level targeting – Panchayati Raj at Gram Panchayat level – development, CEO / ZP of every district should treat poverty alleviation efforts, planning, targeting as the foremost priority.
- Poverty alleviation programmes of the State / Schemes across the various departments should be intensified in districts on the low end of the scale of poverty ratios.
- Rationalize district-sector outlays and increase budget outlays to 5 districts of North Eastern Karnataka region- Bidar, Kalaburagi, Koppal, Raichur and Yadgiri (5 districts) are considered.
- Rationalize budget allocations on the basis of population share, backwardness, risks (drought) and needs and generate funds through empowerment of the Panchayats.
- Promote legal / political / environmental / cultural literacy to all and activate demand for political space to women in elected bodies.
- Social groups – SC / ST / OBC / Minorities – need further focus and intensive attention – under regional planning and development initiatives.
- Realize the vision of *Nava Karnataka 2025 within time-targets of 2022 and 2030*. All the highlights of the vision, referring to GSDP, jobs, roads, housing, digital inclusion address concerns of equality. Sector-wise, vision for health and nutrition, social justice and empowerment and all tenets of development, contribute to SDG 10 (Vision Document, 2025,

GoK)

- Targeted planning, decentralized management, output – outcome linked MIS, eternal vigilance, research / evaluation based concurrent and continuous feedback on all projects / schemes / programmes directed towards equality are adopted.
- Strategy for promoting equality in agriculture / economy through investment in minor irrigation, ground water enrichment, rain-water harvesting, lake / tanks restoration and development, diversion of rivers, and creation of barrages.
- Co-ordinated, integrated, converging strategy across several departments of government.
- Legal / political / cultural literacy of women and men for representation in local bodies.
- ‘Make in India’ initiatives, skill development from KSDC / KSDEL to boost the MSME sector, contribute to GSDP and reduce inequality. Soft credit to MSME with export potential would be of value.
- Developing Public-Private Partnership projects for providing access to houses to the houseless under Atmanirbhar. Local NGOs should be involved for monitoring the progress of such projects.

## 10D. Budget Requirements

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below.

**Budget requirement for SDG 10 (In Crores)**

Department	Scheme Name	2020-21			2020-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
MWD	Table 1.2	1832.75	1554.84	277.91	29209.25	16866.27	12342.98

Indicator-wise data source and nodal department and Annual estimated budget for achieving the targets till 2029-30 is presented in Appendix 10.1 and Appendix 10.2, respectively.

## 10E. Appendices

### Appendix 10.1: Indicator-wise data source and nodal department

Sl. No.	National Indicator No.	State Indicator No.	Data Sources	State Nodal Department
1	10.1.1		NSSO Various Rounds	DES
2		10.1.1.1	NSSO Various Rounds	DES
3		10.1.1.2	NSSO, 68th Round	SWD
4		10.1.1.3	NSSO, 68th Round	SWD
5		10.1.1.4	NSSO, 68th Round	SWD
6		10.1.1.5	NSSO, 68th Round	Minorities
7		10.1.1.6	NSSO, 68th Round	Minorities
8		10.1.1.7	NSSO, 68th Round	BCD
9		10.1.1.8	NSSO, 68th Round	DES
10	10.1.2		NSSO, 68th Round	DES
11		10.1.2.1	NSSO, 68th Round	DES
12		10.1.2.2	NSSO, 68th Round	DES
13		10.1.2.3	DES	Agriculture
14		10.1.2.4	DES	Agriculture
15		10.1.2.5	DES	Agriculture
16		10.1.2.6	DES	Agriculture
17		10.1.2.7	DES	Planning
18		10.1.2.8	DES	Agriculture
19		10.1.2.9	Agriculture	Agriculture
20		10.1.2.10	DHDR	Planning
21		10.1.2.11	DES	Planning
22		10.1.2.12	DES	Agriculture
23		10.1.2.13	Agriculture	Agriculture
24		10.1.2.14	DES	RDPR/UDD
25		10.1.2.15	Housing	Housing
26		10.1.2.16	NSSO	DES
27		10.1.2.17	Census	PSE
28		10.1.2.18	NFHS 4	Health
29		10.1.2.19	NFHS 4	Health
30		10.1.2.20	NFHS 4	Health
31		10.1.2.21		Health
32		10.1.2.22	NFHS 4	Health
33		10.1.2.23	NFHS 4	Health
34		10.1.2.24	NFHS 4	Health
35		10.1.2.25	NFHS 4	Health
36		10.1.2.26	NFHS 4	Health
37		10.1.2.27	NFHS 4	Health
38		10.1.2.28	Health	Health
39		10.1.2.29	NFHS 4	Health
40		10.1.2.30	NFHS 4	Health
41		10.1.2.31	NFHS 4	Health
42		10.1.2.32	NFHS 4	Health
43		10.1.2.33	NFHS 4	Health
44		10.1.2.34	NFHS 4	Health
45		10.1.2.35	NFHS 4	Health
46		10.1.2.36	NFHS 4	Health
47		10.1.2.37	MRD Annual report	Housing/ SWD
48		10.1.2.38	68th Round NSSO	SWD, BCD, Minorities
49		10.1.2.39	68th Round NSSO	SWD, BCD, Minorities
50		10.1.2.40	68th Round NSSO	SWD, BCD, Minorities
51		10.1.2.41	68th Round NSSO	SWD, BCD, Minorities
52		10.1.2.42	68th Round NSSO	SWD, BCD, Minorities



Sl. No.	National Indicator No.	State Indicator No.	Data Sources	State Nodal Department
53		10.1.2.43	68th Round NSSO	SWD, BCD, Minorities
54		10.1.2.44	68th Round NSSO	SWD, BCD, Minorities
55		10.1.2.45	68th Round NSSO	SWD, BCD, Minorities
56		10.1.2.46	68th Round NSSO	SWD, BCD, Minorities
57		10.1.2.47	68th Round NSSO	SWD, BCD, Minorities
58		10.1.2.48	68th Round NSSO	DES
59		10.1.2.49	MSJE, Gol, Handbook of Social Welfare Statistics	PSE, Higher education, SWD, BCD, Minorities
60		10.1.2.50	MSJE, Gol, Handbook of Social Welfare Statistics	PSE, Higher education, SWD, BCD, Minorities
61		10.1.2.51	MSJE, Gol, Handbook of Social Welfare Statistics	PSE, Higher education, SWD, BCD, Minorities
62		10.1.2.52	MSJE, Gol, Handbook of Social Welfare Statistics	PSE, Higher education, SWD, BCD, Minorities
63		10.1.2.53	MSJE, Gol, Handbook of Social Welfare Statistics	PSE, Higher education, SWD, BCD, Minorities
64		10.1.2.54	MSJE, Gol, Handbook of Social Welfare Statistics	PSE, Higher education, SWD, BCD, Minorities
65		10.1.2.55	MSJE, Gol, Handbook of Social Welfare Statistics	PSE, Higher education, SWD, BCD, Minorities
66		10.1.2.56	MSJE, Gol, Handbook of Social Welfare Statistics	PSE, Higher education, SWD, BCD, Minorities
67		10.1.2.57	MSJE, Gol, Handbook of Social Welfare Statistics	PSE, Higher education, SWD, BCD, Minorities
68	10.2.1		DES	DES
69	10.2.2		CEC/DES	DES, RDPR
70		10.2.2.1	CEC/DES	DES, RDPR
71		10.2.2.2	CEC/DES	DES, RDPR
72		10.2.2.3	CEC/DES	DES, RDPR
73		10.2.2.4	CEC/DES	DES, RDPR
74		10.2.2.5	CEC/DES	DES, RDPR
75		10.2.2.6	DES/DMA	UDD
76	10.2.3		DMA	UDD
77		10.2.3.1	DMA	UDD
78		10.2.3.2	DMA	UDD
79		10.2.3.3	DMA	UDD
80		10.2.3.4	DMA	UDD
81		10.2.3.5	RDPR/UDD	RDPR/ UDD
82	10.4.1		Budget	Finance
83		10.4.1.1	Finance Dept.	Finance
84		10.4.1.2	Finance Dept.	Finance
85		10.4.1.3	Finance Dept.	Finance
86		10.6.1.1	CEC	CEC
87	10.c.1		Finance	Finance
	6	37		

**Appendix 10.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Scheme Name	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Direction and Administration Minority Nodal Centre	14.41	15.85	17.44	19.18	21.10	23.21	25.53	28.08	30.89	33.98	37.38
Christian Community Development Programmes	90.00	99.00	108.90	119.79	131.77	144.95	159.44	175.38	192.92	212.22	233.44
Constructions of Shaadi Mahals / Community Halls	20.00	22.00	24.20	26.62	29.28	32.21	35.43	38.97	42.87	47.16	51.87
Skill development Programmes	8.00	8.80	9.68	10.65	11.71	12.88	14.17	15.59	17.15	18.86	20.75
Teaching and Learning aids to Minority Schools	8.00	8.80	9.68	10.65	11.71	12.88	14.17	15.59	17.15	18.86	20.75
Incentive for Minority Students	20.00	22.00	24.20	26.62	29.28	32.21	35.43	38.97	42.87	47.16	51.87
Opening New Hostels for Minorities	103.10	113.41	124.75	137.23	150.95	166.04	182.65	200.91	221.00	243.10	267.41
Minority Residential School	190.98	210.08	231.09	254.19	279.61	307.58	338.33	372.17	409.38	450.32	495.35
Development of Jain Community	55.00	60.50	66.55	73.21	80.53	88.58	97.44	107.18	117.90	129.69	142.66
Training for Competitive Exams-Minorities	7.00	7.70	8.47	9.32	10.25	11.27	12.40	13.64	15.01	16.51	18.16
Bidaai Scheme	60.00	66.00	72.60	79.86	87.85	96.63	106.29	116.92	128.62	141.48	155.62
Vidyasiri Schemes for Minority Students	20.00	22.00	24.20	26.62	29.28	32.21	35.43	38.97	42.87	47.16	51.87
Scholarship and Fee reimbursement Scheme	275.00	302.50	332.75	366.03	402.63	442.89	487.18	535.90	589.49	648.44	713.28
Providing Quality Education in Madrasas (SPOEM)	30.00	33.00	36.30	39.93	43.92	48.32	53.15	58.46	64.31	70.74	77.81
Minority Development Scheme of Chief Minister fund	400.00	440.00	484.00	532.40	585.64	644.20	708.62	779.49	857.44	943.18	1037.50
Construction of Hostel & Residential School Buildings for Minorities	220.00	242.00	266.20	292.82	322.10	354.31	389.74	428.72	471.59	518.75	570.62
Multi Sectoral Development (MSDP)	40.00	44.00	48.40	53.24	58.56	64.42	70.86	77.95	85.74	94.32	103.75
Hostels for Minorities	88.17	96.99	106.69	117.36	129.10	142.01	156.21	171.83	189.01	207.91	228.70
Stipend to Law Graduates of Minorities	1.60	1.76	1.93	2.12	2.34	2.57	2.83	3.11	3.42	3.76	4.14
GIA to Minorities Orphanages	2.50	2.75	3.03	3.33	3.66	4.03	4.43	4.87	5.36	5.89	6.48
Executive Establishment	12.37	13.61	14.97	16.47	18.11	19.93	21.92	24.11	26.52	29.17	32.09
<b>Grand Total</b>	<b>1666.13</b>	<b>1832.75</b>	<b>2016.02</b>	<b>2217.62</b>	<b>2439.38</b>	<b>2683.32</b>	<b>2951.66</b>	<b>3246.82</b>	<b>3571.50</b>	<b>3928.65</b>	<b>4321.52</b>

# 11 SUSTAINABLE CITIES AND COMMUNITIES



**“The future lies in smart cities”**



## **GOAL 11. SUSTAINABLE CITIES AND COMMUNITIES - MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE**

### **11A. Background**

With more than half the world population living in cities, SDGs have come into effect in a world that is increasingly urbanized. This level of urbanization has thrown up many development challenges and has provided tremendous opportunities for advancing sustainable development. SDG 11 recognizes the central role of urbanization in sustainable development. As one of the 17 SDGs this goal will shape public policy priorities and guide development finance flows until 2030 and will provide significant opportunities for cities to build partnerships across the nations and gain additional resources for advancing sustainable urban development.

As the world gradually takes an urban turn, with an increasing number of people moving to the cities, they account for 55% of the population, produce 85% of the global GDP but also 75% of the greenhouse gas emissions (Franco et al, 2020). Given the magnitude, this goal postulates balanced development across human settlements, covering different dimensions of sustainability. It even touches on innovative measures around cultural and natural heritage as well as green and public space. India has experienced rapid urbanisation, with the urban population increasing by 91 million between 2001 and 2011. It is projected that 416 million urban dwellers will be added between 2018 and 2050. To address the challenge of improving urban spaces, the GOI have undertaken initiatives such as the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Jawaharlal Nehru National Urban Renewal Mission, Pradhan Mantri Awas Yojana (PMAY) and Smart Cities Mission.

Karnataka is one of the most urbanized states in India with about 40% of its population living in towns and cities with a decadal population growth rate of about 25%. The cities in the state have played a role as a focal point for working and living, developing the economy and technologies, education, research and culture.

In the last sixty years between 1951 and 2011, Karnataka's urban population has grown by 2.5% per annum with a share of 6.24% in India's urban population (Anon, 2011). Of all the urban areas in Karnataka, the most populated one is Bengaluru, contributes to about 25% of the total urban population, of which about 15% lives in slums (Anon, 2011a). Majority of households reside in semi-pucca structures (about 45%) with 79% of the slums have tap as major source for drinking water, 57% access to latrine facility within own premises and 68% availing drainage facility (Anon, 2019). Only 32% of the urban population uses public transport, while the rest uses personal vehicles. In solid waste management, during 2015-16, 4500 TPD of solid waste was generated by Bengaluru city alone of which only 2100 TPD was treated which means only about 30.8% has been treated. The mean concentration of various cities (as a population-weighted average of PM2.5 and PM10.) shows that Bengaluru has high values of 70.4 and 43.7. Its per capita availability of green spaces is about 27 sq.m while it is 50 for Mysuru (Anon, 2012). Except for Bengaluru, the other cities are yet to prepare integrated urban and regional development plans. Goal 8 performance of Karnataka, top performing states and India is presented in Table 11.1. Among states, Sikkim ranks first with a score of 56 followed by Chhattisgarh (54).

### Performance of Karnataka in SDG11

Indicators/Goal	Sikkim	Chhattisgarh	Karnataka	India	Target 2030
Houses completed under PMAY as a percentage of net demand assessment for houses	0.08%	1.98%	4.63%	3.32%	100.00%
Percentage of urban households living in slums	5.14%	7.43%	5.39%	5.41%	0.00%
Percentage of wards with 100% door-to-door waste collection	100.00%	100.00%	61.29%	73.58%	100.00%
Percentage of waste processed	66.00%	74.00%	22.00%	24.80%	100.00%
<b>Scores</b>	<b>56</b>	<b>54</b>	<b>36</b>	<b>39</b>	<b>100</b>

India's performance towards Goal 11 is measured with four national level indicators that capture 2 of 10 SDG targets for 2030. Comparing most of the indicators between India and Karnataka State, show that they are more or less within the same range of scores. Especially worrisome are the scores for houses completed under PMAY as a percentage of net demand assessment for houses at 3 and 5 for India and Karnataka respectively against the target of 100. Some of the major programmes connected to Goal 11 implemented in the State are Housing for All (Pradhana Manthri Awas Yojana Urban), Ashraya-Basava Vasathi Yojane, Vajpayee Urban Housing Scheme, Special Housing Scheme (D. Devaraj Urs Housing Scheme, Dr. B.R. Ambedkar Nivasa Yojane, House Site Scheme for Rural and Vajpayee House Site Scheme for Urban Rural Landless, Pradhan Mantri Awas Yojane-Gramin (Indira Awaas Yojane) and Karnataka Municipal Reforms Project

## 11B. Targets and Indicators for achieving SDG 11

### 11.1 - By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgradation of slums

Due to rapid urbanization and economic liberalization, the growth of informal settlements or slums outpaces the capacity of urban planning infrastructure development. As a result, there is an unequal access to basic services like housing, safe water and sanitation. An estimated 0.75 million households lived in these slums, about 0.63 million in notified and 0.12 in non-notified ones. Out of an estimated 3.548 million slum population, about 3 million stayed in notified slums and the rest in non-notified. As many as 17.43% of slum population lives in urban Karnataka.

Majority of households in notified and non-notified slums reside in semi-pucca structures (about 45%). But notified slums were better placed than non-notified slums in this respect. About 46% of notified slums had semi-pucca (semi-permanent) structures, while the share is 42.1 in non-notified slums. On the other hand, only 30.1% of notified households reside in pucca structures.

Taps are a source of safe drinking water and a lack of them shows the inferior condition of slums. If drinking water is obtained from local bodies, then water is supplied through pipes and its source is tap.

Seventy-nine per cent of all slums had tap as major source of drinking water, the figure being 80% for notified slums and 75% for non-notified slums. Some households have taps inside the house while others share (which is outside their homes). Sometimes, households share a tap with more than hundred households which is not an ideal condition. Slum dwellers wait for hours to collect water because of population pressure in some areas.

In urban Karnataka, about 10% of all slums had no electricity, with 11% for non-notified slums, and 10% for notified slums. Toilets are the symbol of hygiene and sanitation in human life. Whether they are personal or public can be easily accessed by the number of toilets and type of toilets. Only a few slums are reported to have private toilets and the rest do not have a single private toilet; most of them have community toilets shared by many households. As community toilets are shared by many households, in terms of hygiene, they are not as good as private toilets because of maintenance issues. The proportion of slums where the sanitary conditions are poor: in the sense that most of the households do not possess lavatories. In urban Karnataka 43% of slums had no latrine facility within their premises.

Some of the slums have both types of sewerage system (covered sewer and open surface drains); some parts of slum area reported open surface drains and some covered sewerage system. It means that the sanitation level of these slums is moderately improved as compared with slums with open surface drains. The share of slums without any drainage system is about 11.9% for non-notified slums and 10.5% for notified slums. About 61% of notified and 80% of non-notified slums have both closed and open drainage. Only about 8% of notified slums have closed drainage, while it is only 1.5% for non-notified (11.10). By 2017-18, about 17.5% of households from slums/Economically Weaker Sections (EWS) benefited from formal/affordable housing schemes.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Baseline Value	Target values	
					2022	2030
11.1.1		Percentage of Slums/ Economically Weaker Section (EWS) households covered through formal/ affordable housing	2017-18	17.43	50	100
11.1.2		Percentage of slum area covered with basic services				
	11.1.2.1	% of target population in slum without access to permanent (pucca) housing	2017-18	25	75	100
	11.1.2.2	HHs with safe drinking water facility (%)	2015	30.1	60.1	100
	11.1.2.3	Households with bath room facility (%)	2017-18	40	50	100
	11.1.2.4	Households with toilet facility (%)	2015	56.1	87.6	100
	11.1.2.5	Households with drainage facility (%)	2015	15	50	100

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Baseline Value	Target values	
					2022	2030
11.1.3		% of urban population living in slums	2015	15	10	0
	11.1.3.1	% of urban population living in slums (Notified)	2017-18	3536038	4000000	4500000
	11.1.3.2	% of urban population living in slums (Non-notified)	2017-18	513962	250000	350000

### 11.2 - By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all

Public transport also reduces CO<sub>2</sub> emissions and thus contributes to climate improvement and lower levels of energy consumption. High-quality public transport service in Karnataka combined with car deterrence policy clearly affects the perception of car superiority for urban mobility among citizens, including the more affluent ones. Conversely, the lack of high-quality service and a supporting policy package explains the continuing struggle of public transport with car being the favoured mode for mobility. However, factors such as geographical coverage and distances as well as spatial planning, affects the development of public transport and citizens' willingness to use personal vehicles.

Buses continue to be the most widely used mode of public transport across Bengaluru with about 4.5 million passengers travelling by them in 2017-18. Their popularity is rooted in their potential to access most places using the extensive road network, as also being the most cost- effective mode of transport historically. However, since 2015, patronage for buses has continued to drop and the 2018 figures reflect it, as the number of local bus passenger journeys decreased by about 10% compared to 2015. Likely reasons for this change are a wider shift towards owning rather than sharing (particularly pronounced among the young), higher disposable incomes, the comparatively lower costs of car purchase. Data shows that public transport (BMTC) statistics from 2001-02 to 2017-2018, passengers travelled increased by almost 80%, from 2.62 million in 2001-02 to 4.44 million in 2017-18 (EMPRI Report).

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Baseline Value	2022	2030
11.2.1		Proportion of cities with efficient public transport				
	11.2.1.1	Cities with public transport (%)	2017-18	63.9	67.2	80.3
	11.2.1.2	% of population with public transport availability	2017-18	86.8	88.6	92.1
	11.2.1:3	% of population using public transport	2017-18	32.3	30	28.2



### 11.3 - By 2030, enhance sustainable and integrated planning and management

To combine shared prosperity of urban dwellers with sustainability effective governance and a strong participation of civil society in cities' affairs are essential. The deployment of appropriate and effective policies, laws and regulations with adequate institutional frameworks are inclusive and sustainable urbanization can be achieved. This indicator has an explicit focus and hence is very important. The process of planning embraces all dimensions of sustainability: economic, social and environmental. It has an important role in providing a roadmap for urban governance and financing. It also provides the linkage between cities and human settlements. In theory, participatory planning and its engagement need to run through all Goal 11 targets, but this may not be pragmatic. Unresolved issues, include a clear definition of participatory planning; key agents and stakeholders in this process across different state and city contracts; the linkage between land use, mixed-use development, transportation and mobility, and jobs and services.

Density is a useful indicator and an important factor in city's efficiency. Increased density, in conjunction with high quality infrastructure, can better manage its resources and gain efficiencies of scale from activities such as public transport.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Baseline Value	2022	2030
11.3.1		Proportion of cities with integrated development plans	2017-18	37	60	100
11.3.2		Share of Mixed Land Use Area in overall city land use	2017-18	40	-	-
	11.3.2.1	Land use pattern (Bengaluru) (%) Residential; Informal; Business/industry; Agriculture; Roads; Green cover: Water bodies/wet lands:	40.2; 2.9; 6.8; 4.5; 20.7; 21.5; 3.4	-	-	-
11.3.3		Net Density				
	11.3.3.1	Number of households in a city/sq.km)	2017-18	1622	-	-

### Not Available 11.4 - Strengthen efforts to protect and safeguard the state's cultural and natural heritage

The protection of natural and cultural heritage sites goes beyond the conservation of individual buildings. The opportunity of livelihood and value addition around the creative economies of cities links economic development, and cultural and natural heritage. They not only improve tourism benefits by preserving cultural resources, but also enhance the appeal and creativity of regions. Hence, it is important to face the challenge of conserving this fragile, non-renewable resource for the benefit of present and future generations.

This indicator is not well conceived for two reasons. Firstly, it has two indicators in one indicator, as urban area and number of sites are in different areas. Hence, this indicator cannot be measured. Secondly, when a site is declared a place of historical or cultural significance, it automatically gets protected. Some

of indicators that could be considered includes total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage sites, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship).

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Baseline Value	2022	2030
11.4.1		Restoration and reuse of Historic Buildings				
	11.4.1.1	Total no. of historic buildings	2017-18	844	100	100
	11.4.1.2	Total no. of buildings restored	2017-18	300	100	100
	11.4.1.3	No. of cultural heritage sites	2017-18	20	100	100
	11.4.1.4	% of heritage buildings restored.	2017-18	35.5	100	100

**11.5 - By 2030, reduce the No. of deaths and the No. of people affected and direct economic losses relative to global GDP caused by disasters**

The high density of people in cities makes them extremely vulnerable to disaster risks. This indicator views disaster risk reduction in economic, social and environmental asset terms that determine the risk, hazard exposure and vulnerability of cities and their population, buildings and infrastructure. Sufficient data is lacking on possible loss and damage. This indicator also has some issues pertaining to what constitutes a natural disaster, the classification of injury and what qualifies as a displacement.

This indicator is not feasible as studies into economic losses are not conducted for every disaster. It lacks detail since it is important to define disasters clearly and identify if they needed to be declared as disasters prior to their impact assessment. The impact on the GDP would also need to be defined, for example, whether to include the indirect impacts of the disaster on the national economy, state economy or on the city.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Baseline Value	2022	2030
11.5.1		No. of deaths and missing and directly affected due to disasters per 100,000 population	2016-17	160	-	-
	11.5.1.1	Economic losses to GDP caused by disasters	-	-	-	-

**11.6 - By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management**

Bad air quality affects human health as well as other environmental resources, such as water, soil, and forests. Larger cities with highly concentrated industry, intensive transport networks and high population density are a major source of air pollution. Worsened are the concerns of municipal solid waste management culminating in a serious environmental pollution problem, threats to human health,

which are impediments to urban sustainable development.

During 2015-16, 6500 TPD of solid waste was generated by Bengaluru city of which 2100 tonnes were collected and treated which means only about 30.8% has been treated. Therefore, the indicator result is 30.8%. Efficient collection of waste is important for local environmental impact and appearance of the city, as well as to improve the standard of living for the residents of the city.

Numerous studies show that PM<sub>10</sub> contributes to respiratory health issues and therefore value lies in measuring PM<sub>10</sub> only as the measurement of PM<sub>2.5</sub> is expensive. The Population-weighted average mean concentration of various cities range between 0 µg/m<sup>3</sup> (Dharwad) to 70.4 µg/m<sup>3</sup> (Bengaluru) with respect to PM<sub>2.5</sub> whereas in the case of PM<sub>10</sub>, it ranges between 0.58 µg/m<sup>3</sup> (Kolar) to 43.67 µg/m<sup>3</sup>.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Baseline Value	2022	2030
11.6.1		Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities				
	11.6.1.1	Door to Door waste collection in wards	2017-18	4837	6507	6507
	11.6.1.2	Source segregation	2017-18	1099	6507	6507
	11.6.1.3	Scientific processing (TPD)	2017-18	2731	12456	16803
	11.6.1.4	Scientific disposal (TPD)	2017-18	1405	3736	5040
	11.6.1.5	% of urban solid waste regularly collected out of total generated	2015	87.30	96	100
	11.6.1.6	Proportion of urban solid waste treated out of total collected	2015	40.5	100	100
11.6.2		Annual mean levels of fine particulate matter (e.g. PM <sub>2.5</sub> and PM <sub>10</sub> ) in cities (population weighted)	2017-18	-	-	-
	11.6.2.1	Annual average values (µg/m <sup>3</sup> ) in Bengaluru (PM 2.5 standard 40; PM <sub>10</sub> Standard 60)	2017-18	43.1; 87.1	40 ; 60	40 ; 60
	11.6.2.2	Concentration of PM <sub>2.5</sub> (µg/m <sup>3</sup> , 24 hours' average) (population weighted)	2015	82.9	-	-
	11.6.2.3	Concentration of PM <sub>10</sub> (µg/m <sup>3</sup> , 24 hours' average) (population weighted)	2015	66.5	-	-
11.6.3		Number of days the levels of fine particulate matter (PM 2.5 and PM 10) above mean level	2017-18	-	-	-

### 11.7 - By 2030, provide universal access to safe, inclusive and accessible, green and public spaces

This is a useful indicator to spatial planners, people involved in economic and social development. This is also important for long-term sustainability of cities because it seeks to protect public space for the future and makes explicit reference to particular vulnerable groups. The target here would be to maintain a minimum proportion of public space for both present and future generations. Green space has significant impact on health, especially in the development of children, enabling physical activity and on the mental health of adults. Hence, securing, maintaining and enhancing green space is an important target. The issue of universal access is an important one, as it relates to vulnerable groups and informal economic and other activities that often use public space. However, measuring this indicator might be difficult since it involves the updating of GIS to include parks and public spaces.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Baseline Value	2022	2030
11.7.1		Per-capita availability of Green Spaces (sq.m.)	2015	19.2	30	30
	11.7.1.1	Proportion of open spaces in cities (%)	2015	21.9	26.6	30

### 11.a - Support positive economic, social and environmental links among urban, per-urban and rural areas by strengthening national and regional development planning

In 2015, the Directorate of Urban Land Transport has prepared a Master Plan to implement the Intelligent Transport System (ITS) in Bengaluru and Mysuru integrating various ITS deployments by various agencies for overall mobility improvement. Success of ensuring change in travel behaviour and shift from cars and two-wheelers to public transport or for adopting cycling for last-mile connectivity rests in the level of integration between modes of transport for end-to-end connectivity. Integration among various modes should be achieved through physical connectivity of stations, and integration of ticketing.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Baseline Value	2022	2030
11. a.1		Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city	2015	100	100	100

**11.b - By 2020, increase the number of cities and human settlements adopting and implementing integrated policies/plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, at all levels**

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Baseline Value	2022	2030
11.b.1		Whether the country has adopted and implemented national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2031	2017-18	100	100	100
11.b.2		Proportion of State and local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	2017-18	100	100	100

**11. c - Support least developed countries, through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials**

National Indicator not yet evolved

### **11C. Way Forward**

- **Innovative housing schemes-** Advance the development of public rental housing; complete the rebuilding of slums and dilapidated houses; Subsidize the maintenance of poor families, Invest in affordable homes for lower middle class families; Develop innovative housing models that unlock the political will, capital investment and end user finance, Create conditions for hard working families to secure their own home; Form housing cooperative societies with slum dwellers as stakeholders
- **Focus on Public Transport:** Implement “public transport first” strategy; Improve the city public transport system, and promote the establishment of sustainable urban transport system; By 2030, complete the metro corridor in Bengaluru and extend it other major cities such as Mysore and Mangalore; Expand the modern urban public transport system to meet the requirement of society; Increase public investment in road infrastructure, in order to reduce transportation costs and increase the speed of access
- **Integrating the SDGs into existing urban plans can contextualize them to each city’s unique circumstances:** Improve city planning, construction and management; By 2030, build urban clusters, small and medium-sized cities, and small townships; Improve the social governance system to achieve good interactions among government administration, social groups/NGOs and residents’ associations.
- **Task force to protect and restore heritage buildings/sites:** Protect cultural and natural heritage; regulate the management of scenic spots, and museums to ensure basic cultural services for the

general public; improve protection of cultural heritage sites and endeavour to organize seminars, workshops, and training courses for government administration.

- **Prevention of natural disasters:** Reduce disaster impact and offer special protection for affected vulnerable groups in accordance with prevailing laws; Prevent forest fires and ensure road traffic safety; Prevent and control floods, and reduce the death tolls and the number of affected and economic losses resulting from floods.
- **Pollution free cities and waste reduction:** Promote green construction in urban areas by continually increasing per capita green park space; Improve household waste treatment; Formulate urban air quality standards to reduce the days of heavy air pollution by 25% in major cities; Create integrated air quality management system to reduce pollutants emissions into the atmosphere by 30%; Create integrated waste management systems for 30% reduction in the amount of land-filled waste and a 20% increase in recycling rate
- **Clean and Green Urban regions:** Control the intensity of urban development and reserve adequate green space; Create green belt and ecological corridors in urban areas while restoring wetlands and preserving scenic spots; By 2030, the ratio of green space in urban built-up areas should reach 30% and a per capita green space of 10 sq. m.
- **Equitable distribution of resources between urban and rural regions:** Promote the coordinated development of new urbanization and equitable distribution of public resources between urban and rural areas; Make overall plan for urban and rural infrastructure networks, extend urban public services to rural areas, and gradually unify institutions and harmonize standards for urban and rural public services; Encourage poor slum dwellers to develop capability for maintaining stable employment and livelihoods to settle in urban areas, enjoying equal rights and obligations as urban residents
- **Forge partnerships with civil society, the private sector and NGOs to implement and monitor progress:** Raise energy-saving standards for buildings and promote low energy consumption buildings; Improve the energy-saving capacity of existing buildings and promote green construction materials and prefabrication; Strengthen natural disaster monitoring and early warning systems, as well as disaster-resistance capability of engineering projects; Improve social mobilization for disaster prevention and build channel for social participation in disaster prevention and reduction; Promote low-carbon zones across cities, industrial clusters and communities; Set up experimental zones for climate change adaption in cities

## 11D. Budget Requirements

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below. Budget requirement for achieving this goal targets for 2020-21 and 2029-30 under Business as Usual and Based on the target scenario is presented in below table and annual budget requirement is presented in the **Appendix 11.2**.

**Budget requirement for SDG 11 (In Crores)**

Department	Scheme Name	2020-21			2029-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Urban Development	Appendix Table 11.2	2119.17	1534.18	584.99	30067.36	13077.22	16990.14

Indicator-wise data source and nodal department and Annual estimated budget for achieving the targets till 2029-30 is presented in Appendix 11.1 and Appendix 11.2, respectively.

## 11E. Appendices

### Appendix 11.1: Indicator-wise data source and nodal department

Sl. No.	National Indicator No.	State Indicator No.	Data sources	State Nodal Department
1	11.1.1		KSDB	UDD/Housing
2	11.1.2		KSDB	UDD/Housing
3		11.1.2.1	KSDB	UDD/Housing
4		11.1.2.2	KSDB	UDD/Housing
5		11.1.2.3	KSDB	UDD/Housing
6		11.1.2.4	KSDB	UDD/Housing
7		11.1.2.5	KSDB	UDD/Housing
8	11.1.3		KSDB	UDD/Housing
9		11.1.3.1	KSDB	UDD/Housing
10		11.1.3.2	KSDB	UDD/Housing
11	11.2.1		KSRTC	Transport
12		11.2.1.1	KSRTC	Transport
13		11.2.1.2	KSRTC	Transport
14		11.2.1.3	KSRTC	Transport
15	11.3.1		UDD	UDD
16	11.3.2		UDD	UDD
17		11.3.2.1	UDD	UDD
18		11.3.2.2	UDD	UDD
19	11.4.1		UDD	UDD
20		11.4.1.1	Archaeology/Museums/Heritage	Archaeology/Museums/Heritage
21		11.4.1.2	Archaeology/Museums/Heritage	Archaeology/Museums/Heritage
22		11.4.1.3	Archaeology/Museums/Heritage	Archaeology/Museums/Heritage
23		11.4.1.4	Archaeology/Museums/Heritage	Archaeology/Museums/Heritage
24	11.5.1		Revenue -Disaster Cell	Revenue
25		11.5.1.1	Revenue -Disaster Cell	Revenue
26	11.6.1		DMA	UDD
27		11.6.1.1	DMA	UDD
28		11.6.1.2	DMA	UDD
29		11.6.1.3	DMA	UDD
30		11.6.1.4	DMA	UDD
31		11.6.1.5	DMA	UDD
32		11.6.1.6	DMA	UDD
33	11.6.2		PCB	UDD
34		11.6.2.1	DMA	UDD
35		11.6.2.2	DMA	UDD
36		11.6.2.3	DMA	UDD
37	11.6.3		PCB	UDD
38	11.7.1		UDD	UDD
39		11.7.1.1	UDD	UDD
40	11. a.1		UDD	UDD
41	11.b.1		Revenue	Revenue
42	11.b.2		Revenue	Revenue
43	11.c		Finance	Finance
	14	6		



**Appendix 11.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Schemes	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
SUTF-Revenue	1.0	1.1	1.2	1.3	1.5	1.6	1.8	2.0	2.1	2.4	2.6
SUTF-Capital	77.4	85.1	93.6	103.0	113.3	124.6	137.1	150.8	165.9	182.5	200.7
KUWSDB Sanitary	180.1	198.1	217.9	239.7	263.6	290.0	319.0	350.9	386.0	424.6	467.0
Smart City Proposal under Smart City Mission	400.0	440.0	484.0	532.4	585.6	644.2	708.6	779.5	857.4	943.2	1037.5
Karnataka Urban Water Supply Modernisation Project	80.0	88.0	96.8	106.5	117.1	128.8	141.7	155.9	171.5	188.6	207.5
Support to BWSSB to provide drinking water to slums	18.4	20.2	22.2	24.5	26.9	29.6	32.5	35.8	39.4	43.3	47.7
Atal Mission for Rejuvenation and Urban Transformation	600.0	660.0	726.0	798.6	878.5	966.3	1062.9	1169.2	1286.2	1414.8	1556.3
AMRUT for NURM Projects	175.0	192.5	211.8	232.9	256.2	281.8	310.0	341.0	375.1	412.6	453.9
Bangalore Metropolitan Task Force	3.8	4.2	4.6	5.0	5.5	6.1	6.7	7.4	8.1	8.9	9.8
Poura Karmika's Housing Scheme	50.0	55.0	60.5	66.6	73.2	80.5	88.6	97.4	107.2	117.9	129.7
Pradhan Mantri Awas Yojana-Urban	250.0	275.0	302.5	332.8	366.0	402.6	442.9	487.2	535.9	589.5	648.4
Improvement of Slums	75.0	100.0	125.0	150.0	175.0	200.0	225.0	250.0	275.0	300.0	325.0
<b>Total</b>	<b>1910.6</b>	<b>2119.2</b>	<b>2346.1</b>	<b>2593.2</b>	<b>2862.5</b>	<b>3156.3</b>	<b>3476.9</b>	<b>3827.1</b>	<b>4209.8</b>	<b>4628.3</b>	<b>5086.1</b>



**12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION**



**“Let’s use natural resources wisely”**



## **GOAL 12. SUSTAINABLE CONSUMPTION AND PRODUCTION – ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS**

### **12A. Background**

It is critical to have a sustainable consumption and production processes not only to meet the needs of the current generation but also to take care of the needs of future generation. The scarcity of natural resources mainly food, water and energy for the growing population necessitate the governments to formulate and implement such policies in which SCP is inherent. For example, in the case of wastage of food, each year, an estimated one-third of all food produced – equivalent to 1.3 billion tons worth around USD 1 trillion – ends up rotting in the bins of consumers and retailers, or spoiling. This is more so visible in developing countries owing to lack of robust policies to contain the food wastage and leakages and ineffective implementation of the existing policies.

The SDG 12 exhibits linkages with other 7 SDG goals. It is interlinked with Goal 2 which emphasizes on food production systems to achieve ‘Zero Hunger’. The Goal 6 focuses on the water resource management-clean water and sanitation. More specifically, efficient usage of ground water resources is crucial not only for the sustainable use of water, but is also important for ensuring accessibility of clean potable drinking water to the people. The accessibility of clean drinking water is vital for the sanitation. The SDG-12 has an inherent relationship with that of Goal 7, i.e., Energy Production-Affordable and Clean Energy, Goals 8 and 9 (Industries and Manufacturing), Goal 11 (solid waste management in urban areas), Goal 13 (Combating Climate Change) and Goal 14 and 15 (Conserving our marine and terrestrial ecosystems). A critical point is that SDG-12 is a multi-sectoral and requires the coordination of various allied sectors in order to fulfil the goals and objectives of the key indicators.

The attainment of targets enumerated in SDG 12 requires a multi-sectoral approach and integrated efforts. Achieving resource efficiency is the heart of sustainable consumption and production. The goal has a total of 17 indicators and data availability is still a concern for the same. The goal consists of indicators majorly classified under tier III<sup>54</sup>, makes the methodology difficult. The methodology for the indicators in SDG 12 is being developed and tested in due course of time and modified in view of the global and national economic system. In the state action plan, the targets for 2022 and 2030 were given on the basis of current population and the projected growth for the same. By and large, a simple linear progression model over time has been used to forecast the targets to be achieved in 2022 and 2030 respectively.

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<sup>54</sup>**Tier 1:** Indicator is conceptually clear, has an internationally established methodology and standards are available, and data are regularly produced by countries.

**Tier 2:** Indicator is conceptually clear, has an internationally established methodology and standards are available, but data are not regularly produced by countries.

**Tier 3:** No internationally established methodology or standards are yet available for the indicator, but methodology/standards are being (or will be) developed or tested.

### India's efforts and initiatives

The Government of India has enacted a number of policies, programmes and schemes which contribute to SCP. There were also missions apart to imply the urgency of achieving a particular goal or target within the stipulated time and the governments have to work on these on a war footing basis. Some of the policies enacted are National Mission on Food processing Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters (SAMPDA), National Policy on Bio Fuels, National Clean India Fund, National Clean Energy Fund, Soil Health Card Scheme, Mega Food Park Scheme and Smart Cities Mission.

### 12B. Targets and Indicators for achieving SDG 12

Accordingly, the Karnataka State in its' vision document of 2020 and 2025 envisioned and recognized 10 non-negotiable priorities derived from its value system that rests on the Karnataka Model of Development for all. To enable and achieve the goals of SDG, the State Government has taken a number of measures in particular to SDG 12.

**Target 12.1: Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action with the developed countries taking the lead, taking into account the development and capabilities of developing countries.**

National Indicator No.	State Indicator No.	National Indicator	Base Line Year	Base Line Value	2022	2030
12.1.1		Formulation of national SCP framework and integration of SCP with national/State planning process		The State will formulate the SCP framework as and when directed by the Central Government because the same needs to be in line with the Central Government.		

**Target 12.2: By 2030 to achieve the sustainable management and efficient use of natural resources**

The national indicator "Percentage variation in per capita use of natural resources" has been divided into following three indicators for effective monitoring and implementation of the target. The resources considered are ground water, surface water and electricity.

The fast depletion of ground water resources is a serious issue with huge implications on the per capita agricultural crop productivity and food security. As per the Karnataka's Groundwater Directorate data, the groundwater levels in the State has depleted in 143 taluks out of 176 Taluks in the last few years. The nodal department for the indicator "Per capita availability of ground water" is the Directorate of Ground Water and the baseline value provided by the department is 665 ltr/per person/day in 2011 and 2012. The Committee suggested that strategies should be adopted to maintain this level of ground water in 2022 and 2030. Budget 2017-18 earmarked Rs.1,962.00 lakh for survey and strengthening of Surface and Ground Water Organization to ensure reduction in the depletion of the ground water by minimizing the utilization of groundwater and undertaking measures to recharge the same through rainwater harvesting.

The nodal department for the indicator “Area irrigated under surface water schemes” is Minor Irrigation Department. The value for the same as in 2017-18 was 8.2 lakh ha and the target set for 2022 and 2030 is 10.10 lakh ha and 12.23 lakh ha, respectively. It was suggested to get the details on the release of water from Cauvery river (to Tamil Nadu), from Krishna river (to Andhra Pradesh) and surface water quantity of all lakes computed through Geographic Information System (GIS) data for future reference. The recently introduced ‘*Jaladhaare*’ scheme has been implemented to ensure the maximum availability of surface water in the State. The department aims at increasing the budget under different schemes and also to improve the irrigation potential of the area covered under surface water schemes.

The nodal department for the indicator “Per capita availability of electricity” is the Energy Department. The value for the year 2017-18 was 1055 kwh and the target set for 2022 and 2030 is 1175 kwh and 1485 kwh, respectively. There is a need to promote the use of renewable energy source to ensure the sustainable availability of electricity.

National Indicator No.	State Indicator No.	National Indicator	Base Line Year	Base Line Value	2022	2030
12.2.1		Percentage variation in per capita use of natural resources				
	12.2.1.1	Per capita availability of ground water (Ltr/ person/ day)	2011-12	6665	6665	6665
	12.2.1.2	Area irrigated under surface water schemes (Lakh hectares)	2017-18	8.2	10.10	12.23
	12.2.1.3	Per capita availability of electricity (kwh)	2017-18	1055	1179	1485

**Target 12.3: By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses**

The national indicator “Increase in per capita of food availability” has been divided into three indicators and further into three sub-indicators. The aim of the target is to minimize the wastage of food and ensure availability of food for all. The indicators are designed to ensure effective monitoring of the same.

The nodal department for the indicator "Per capita availability of fodder crops" is Agriculture Department. The value for the year 2017-18 was 197.57 kgs per annum and the target set for 2022 and 2030 is 352 kgs per annum and 459 kgs per annum, respectively. The department aims to improve the indicator by an effective increase in production of the same

The nodal department for the indicator "Per capita availability of food crops for cereals, pulses and grains" is Agriculture Department. The value for the year 2017-18 was 0.66 kgs per day and the target set for 2022 and 2030 is 0.864 kgs per day and 0.868 kgs per day, respectively. The department aims to improve the indicator by an effective increase in production of the same.

The nodal department for the indicator “Per capita availability of milk” is Animal Husbandry Department. The value for the year 2017-18 was 316 grams per day and the target set for 2022 and

2030 is 352 grams per day and 459 grams per day, respectively. The recommended per capita consumption for milk is 300 grams per day; the State of Karnataka has achieved the same and aims on achieving higher targets in future.

The nodal department for the indicator “Egg per capita availability” is Animal Husbandry Department. The value for the year 2017-18 was 91 per annum and the target set for 2022 and 2030 is 115 per annum and 190 per annum, respectively. The recommended per capita consumption for egg is 180 per annum, Karnataka state aims to achieve the same by an increase in production of eggs in the State.

The nodal department for the indicator “Meat per capita availability” is Animal Husbandry Department. The value for the year 2017-18 was 3.73 kgs per annum and the target set for 2022 and 2030 is 4.9 kgs per annum and 8.31 kgs per annum, respectively. The department aims to undertake advanced programmes to boost up meat production in poultry, piggery, sheep and goat rearing in the State.

The nodal department for the indicator “Infrastructure created to minimize the post-harvest losses of fruits and vegetables” is the Horticulture Department. There are 4,665 post-harvest structure in the State and the department aims to increase the same to 4,900 by 2022 and 5,300 by 2030. The department aims to achieve the target set by creating a post-harvest infrastructure in the State like pack house, ripening chambers and cold storage structures, primary and secondary processing units, plastic crates and Agriculture Produce Market Committees (APMCs) etc. The Department provides 35-90% assistance for the creation of post-harvest structures under different schemes to individuals through Farmer Producer Organisations (FPOs) and Boards.

National Indicator No.	State Indicator No.	National Indicator	Data Source Base Line Year	Base Line Value	2022	2030
12.3.1		Increase in per capita food availability		-	-	-
	12.3.1.1	Per capita availability of fodder crops (kgs/ annum)	2017-18	197.57	352	459
	12.3.1.2	Per capita availability of food crops (kgs/day)	2017-18	0.66	0.864	0.868
	12.3.1.3	Milk per capita availability (in grams/ per annum)	2017-18	316	352	459
	12.3.1.4	Egg per capita availability (in nos./ per annum)	2017-18	91	115	190
	12.3.1.5	Meat per capita availability (in kgs/ per annum)	2017-18	3.73	4.9	8.31
12.3.2		Post-harvest storage and distribution losses of Central/States Pool stocks of wheat and rice	2018-19	0.16; 0.33	0-	0-
	12.3.2.1	Infrastructure created to minimize the post-harvest losses of fruits and vegetables (No.)	2017-18	4665	4900	5300

Note: - : Not Available



**Target 12.4: By 2020 to achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with the agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.**

National Indicator No.	State Indicator No.	National Indicator	Data Source Base Line Year	Base Line Value	2022	2030
12.4.1		Developing national secondary resource policy framework	It was opined that as the management of the waste needs to be in accordance with the international frameworks, hence the scope of this target is beyond the State's overview. The State will be required to follow the rules and regulations of the Central Policy and the same will be done as and when the policy is formulated at the national level.			
12.4.2		Development of national policy for environmentally sound management of hazardous chemical and waste				
12.4.3		Implementation of National Action Plan for fulfilling obligations of various Multilateral Environmental Agreements (MEA) ratified.				

**Target 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.**

The nodal department for the indicator “Number of solid waste re-cycling plants installed” is Urban Development Department. Currently, in 2017-18, there were 125 plants and by 2022, they want to increase the same to 281 plants and maintain the same by 2030. The department plans to prepare a Detailed Project Report(DPR) for integrated solid waste management comprising of segregation of waste at source, door-to-door collection of waste, establishment of dry waste collection centres, secondary collection and transportation of waste and setting up of scientific processing and disposal facility which will provide a guideline for effective implementation of the same.

The nodal department for the indicator “Number of bio-medical liquid waste re-cycling plants installed” is Medical Education Department. Currently, in 2017-18, there were 20 plants and the target for 2022 and 2030 is 24 and 30 plants, respectively. The same shall be reached using the funds from Hyderabad Karnataka Region Development Board (HKRDB) or internal resources of the department.

The nodal department for the indicator “Number of municipal corporations using waste segregation techniques” is Urban Development Department. There were 106 municipal corporations following the waste segregation techniques and it is targeted to cover all the 279 municipal corporations in the State by 2022. The department has prepared a Detailed Project Report (DPR) for integrated solid waste management comprising of segregation of waste at source, partitioned vehicles for segregated waste collection, establishment of the dry waste collection centres which is currently being implemented in the State.

The nodal department for the indicator “Percentage of municipal corporations banning the use of non-degradable plastic” is the Forest, Ecology and Environment Department (Pollution Control Board). The

State has mandatorily banned the use of non-degradable plastic. It aims to maintain the same and include other definitions of plastics as and when required. The Department of Pollution Control Board works like a 'watchdog' for the implementation of the same.

The nodal department for the indicator "State recycling rate of bio-degradable waste" is the Urban Development Department. In 2017-18, the rate was merely 22%, the department aims to improve the situation and has set the target of 60% and 100% by 2022 and 2030, respectively. The department is proposing to prepare a Detailed Project Report (DPR) for integrated solid waste management comprising scientific processing of biodegradable waste through 'Windrow Composting' to analyse the current status of the State and provide strategies for effective implementation of the same.

The nodal department for the indicator "State recycling rate of plastic waste is the Urban Development Department. Currently, in 2017-18, it was merely 10.98%, and the target set is 60% and 100% by 2022 and 2030, respectively. The department has proposed to produce a Detailed Project Report (DPR) for integrated solid waste management comprising of setting up of Dry Waste Collection Centres(DWCCs), where plastic and other dry waste will be collected, segregated, stored and bales of segregated items to provide strategies for achieving the targets set.

The nodal department for the indicator "Capacity of units for re-cycling / dismantling e-waste" is the Forest, Ecology and Environment Department (Pollution Control Board). In 2017-18, the capacity of recycling/ dismantling of e-waste is 38, 596.5 MTPA, which is being proposed to be increased to 50,000 MTPA and 80,000 MTPA by 2022 and 2030, respectively.

The nodal department for the indicator "Capacity of units of refurbishes" is the Forest, Ecology and Environment Department (Pollution Control Board). In 2017-18, the value for the same was 744 MTA and the target set for 2022 and 2030 is 1000 MTA and 1500 MTA, respectively.

National Indicator No.	State Indicator No.	National Indicator	Data Source Base Line Year	Base Line Value	2022	2030
12.5.1		Number of waste recycling plants installed	2017-18	125	281	281
	12.5.1.2	Number of biomedical liquid waste recycling plants installed	2017-18	20	24	30
12.5.2		Number of municipal corporations using waste segregation techniques	2017-18	106	279	279
12.5.3		Number of municipal corporations banning use of plastic (%)	2017-18	100	100	100
	12.5.3.1	State recycling rate of biodegradable waste (%)	2017-18	22	60	100
	12.5.3.2	State recycling rate of plastic waste (%)	2017-18	10.98	60	100
	12.5.3.3	Capacity of units for recycling/ dismantling e-waste (MTPA)	2017-18	38596.5	50000	80000
	12.5.3.4	Capacity of units of refurbishes (MTA)	2017-18	744	1000	1500

**Target 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.**

National Indicator No.	State Indicator No.	National Indicator	Data Source Base Line Year	Base Line Value	2022	2030
12.6.1		Proportion of companies publishing sustainability reports.	It was opined that the State needs to promote sustainable production practices in the State, but it is difficult to monitor the same through any indicator. Notwithstanding, the departments should promote sustainable production practices in their sectors by highlighting them in their websites and also for knowledge sharing of the same.			

**Target 12.7: To promote public procurement practices that are sustainable, in accordance with national policies and priorities.**

National Indicator No.	State Indicator No.	National Indicator	Data Source Base Line Year	Base Line Value	2022	2030
12.7.1		Green public procurement policy developed and adopted by the Central Ministries/States/UTs (Numbers)	It was viewed that as there is no present national policy in this regard, the same cannot be monitored using any indicators. Also, as and when the Public Procurement Policy is developed by the State or the Central Government, and then the same needs to be adopted by the State and implemented by all the concerned departments.			

**Target 12.8: By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with the nature.**

National Indicator No.	State Indicator No.	National Indicator	Data Source Base Line Year	Base Line Value	2022	2030
12.8.1		Develop icon on sustainable development	Under this target there are no indicators which can be formulated to monitor the progress towards achieving the same. The Forest, Ecology and Environment Department is currently celebrating days like Water Day, Environment Day, etc., which are in line with the sensitisation of the public about SDGs. The department will celebrate any other day in this regard as and when notified by the Central or State Government. It is also suggested that all the departments should promote sustainable practices in their respective sectors by putting up in their websites for knowledge sharing and promotion of sustainable practices in the State.			
12.8.2		Government to Celebrate year on Sustainable development				

**Target 12.a: Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production**

It was felt that since this target is more concerned with the developed countries than developing countries like our country or the state, no action was proposed for achieving this target either by 2022 or 2030.

**Target 12.b: To develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and product**

National Indicator No.	State Indicator No.	National Indicator	Data Source Base Line Year	Base Line Value	2022	2030
12.b.1		Number of sustainable tourism strategies or policies and action plans implemented with agreed monitoring and evaluation tools.				
It was suggested that the Tourism department should formulate programs to promote the local culture and products. Currently, there is no policy which can be used for monitoring the attainment of the target, hence there are no indicators and the Tourism department is required to effectively prepare a policy in this regard.						

**Target 12.c - Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities**

The national indicator “Subsidy per unit of fossil fuel consumption” was re-defined as: “Number of kerosene card holders” as the aim of the State is to be a kerosene free State. Hence the indicator would help in monitoring the implementation of the same. Reduction in the number of kerosene card holders for domestic consumption would provide a clear picture of the same.

Food and Civil Supplies department is the nodal department for the indicator: “Number of kerosene card holders”. The reduction in number also depicted the shift to LPG connections by the households. The State provides no subsidy or incentive for kerosene use for domestic purpose, hence the target of reaching a kerosene free state by 2030 is found to be achievable.

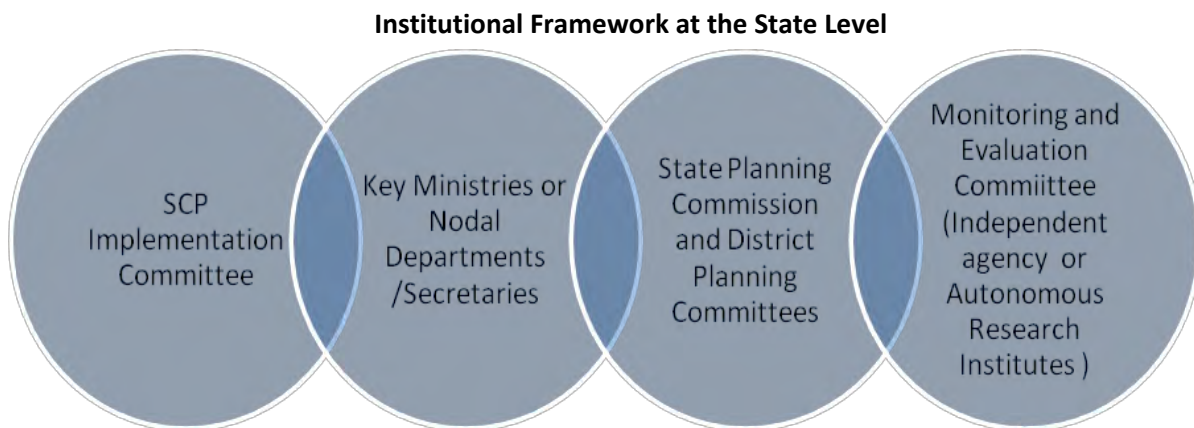
National Indicator No.	State Indicator No.	National Indicator	Data Source Base Line Year	Base Line Value	2022	2030
12.c.1		Subsidy per unit of fossil fuel consumption	-	-	-	-
	12.c.1.1	Number of kerosene card holders	2018	2852711	1426356	0
12.c.2		Tax per unit of fossil fuel consumption	-	-	-	-

## 12C. Way Forward

- The SDG 12 being a multi-sectoral goal, achieving the targets and indicators of the same is a huge task. However, small initiatives can go a long way to bring in changes in the Sustainable Consumption and Production (SCP) patterns.
  - Sustainable procurement policies (SPP) - to reduce the wastage of natural resources (water, food and energy)
  - Awareness building and mobilization campaigns
  - Promoting Eco-friendly buildings and constructions
  - Adopting a nature friendly lifestyle
  - Inducting fewer consumptive processes and practices
- Every Gram Panchayat (GP), along with the Directorate of Ground Water Management and Department of Minor Irrigation along with the Department of Rural Development and Panchayati Raj, to formulate an action plan for conducting “water audit” annually. It must be noted that it is necessary that the departments provide the required technical and managerial support to all 6021 GPs in the State and to include the same in the annual planning activity. This may go a long way in enabling the effective water use at the local levels to facilitate the sustainable water utilization by a way of institutionalizing the same.
  - Efficient water use- both ground and surface
  - Water-3R Principle (Reduce, reuse and recycle)
  - Rain water harvesting
  - Conserving water
- The urban areas must stick to the provisions of Karnataka Municipalities Model Building By-Laws of 2017, to ensure sustainable water use for the construction of houses and buildings.
- All public open spaces above the size of 500 Sq.m. shall have arrangements for complete utilization and the capture of storm water with scientific rainwater harvesting arrangements. In addition, recharging of ground water should be made mandatory not only for residential buildings, but for all types of buildings, including Group Housing Societies having a plot area more than 500 Sq.m. and above. The Ground Water Recharge should also be mandatory for open spaces like parks, parking, plazas and playgrounds. The harvesting and recharge structures could be constructed by the Authority with the involvement of community-based organizations like Resident Welfare Associations. The constitution of Rainwater Harvesting Cell which will be responsible for enforcement and monitoring of the provisions of Rainwater Harvesting is essential
- Modern buildings consume about 25 to 30 % of total energy, and up to 30 % of fresh potable water, and generate approximately 40 % of total waste. Sustainable buildings have demonstrated reduction in energy and water consumption to less than half of the present consumption in conventional buildings, and complete elimination of the construction and operational waste through recycling. Thus, all buildings on various plot sizes above 100Sq.m shall comply with the green norms and conform to the requirements mandatory for sanction.

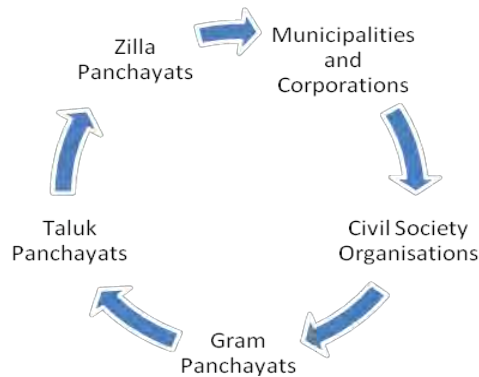
- The key sectoral areas like Agriculture and Groundwater, Energy, Transport, Ecosystem and Sustainability, which are crucial for achieving the targets of SDG 12. Identifying key sectors are crucial for better convergence of the schemes and programmes, effective implementation and facilitating team work between the departments and local governments. The effective implementation of the SDG 12 requires a separate action plan/s to be developed by the respective nodal departments in the above-mentioned areas.

The main agency is the SCP implementation committee. This committee comprises of the State Minister of Environment and Climate Change as Chairperson to oversee the implementation process including the supervision of monitoring and evaluation. It includes some of the key ministries and secretaries pertaining to the goal-12 and related sectors. It is necessary to have an appropriate convergence mechanism to avoid overlapping or replication of the schemes/programmes. The committee must devolve its administrative and financial powers to empower the DPCs (District Planning Committees) through SPC for the implementation of the SCP action plan at the district and below district levels.



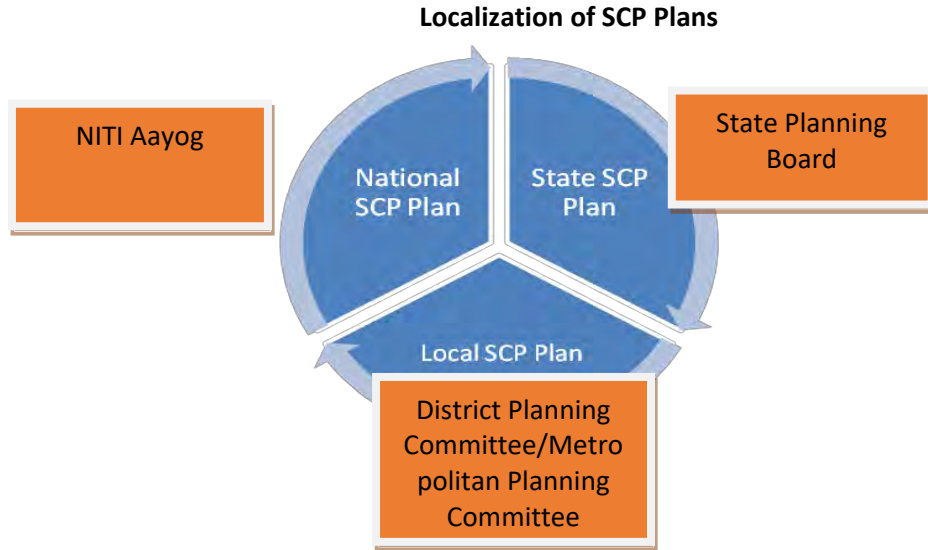
- Karnataka has three tiers of Panchayats for rural area and Municipalities, Corporations for the town and urban areas respectively. An important aspect is most of the subjects of SDGs in general and SCP in particular comes under XI (73<sup>rd</sup> Amendment) and XII (74<sup>th</sup> Amendment) Schedules of the Constitution. The action plan has to take into cognizance of these subjects in order to achieve coherence and consonance in terms of schemes/programmes to enable smooth and efficient implementation of the indicators and targets of the Goal 12.

### Institutional Framework at the Local Level



- Convergence of SDG-12 with that of Eleventh and Twelfth Schedule - The State Action Plan must take the cognizance of Panchayats and Municipalities for the effective implementation of goals and targets of the SDG-12. One of the ways to do this is to converge the targets and indicators of the SDG-12 with that of the functions devolved in the eleventh and twelfth schedule of the Constitution. The Gram Panchayat Development Plan (GPDP) is another means to achieve better convergence between the SDGs and local development needs.
- The State Government should organize the orientation programmes to sensitize elected representatives, officials and other important stakeholders to bring the convergence of SCP within the local government framework. The following steps are necessary,
  - To organize district, taluk and village level sensitization workshops and awareness camps, discussions and deliberations on the SDGs including SCP at ward level committees, ward and gram sabha meetings
  - Resource mapping at the district, taluk and village panchayats to include the same in gram panchayat development plans
  - Civil society organization's intervention in the implementation and monitoring and evaluation of the SCP related programmes and schemes
- The successful implementation of the SCP goals and targets depends upon the extent of convergence between state nodal departments and local government functional domains. Better convergence results in the effective implementation of the SDG 12. In particular the following measures are imperative for the effective implementation of the SCP and SDGs.
  - Enhancing the institutional and human capacities of local governments and other stakeholders to facilitate local strategies and mechanisms for the sustainable natural resource management;
  - Incentivizing the local governments for the best practices in terms of resource management
  - Increasing the fundraising capacity of the local governments by promoting local varieties of food and local level tourism within the vicinity of the LGs

The above-mentioned steps are essential to bring the decentralised governance of the SCP implementation to achieve the targets and indicators in a lesser time i.e., before 2030.



The successful implementation of SDGs and achieving the targets and goals of SCP need to take care of the integration of schemes and targets within the purview of local governments, in order to yield sustainable and feasible outcomes.

## 12D. Budget Requirements

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below. Budget requirement for achieving this goal targets for 2020-21 and 2029-30 under Business as Usual and based on the target scenario is presented below and annual budget requirement is presented in the Appendix 12.2.

### Budget requirements for SDG 12(In Crores)

Department	Scheme Name	2020-21			2029-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Diary	Milk Incentive	1502.00	1604.90		17380.00	25577.97	-
Animal Husbandry	Pashu Bhagya	9.98	7.36	2.62	138.72	34.93	103.79
Animal Husbandry	Unspent SCSP-TSP Amount as per the SCSP-TSP Act 2013	8.50	6.49	2.01	108.71	29.45	79.26
Total AH	-	1520.48	1618.75	4.63	17627.43	25642.35	183.05
UDD	Finance Commission Grants	562.75	562.75	-	3643.75	3643.75	-
UDD	Swachh Bharat Mission(U)	316.40	316.40	-	316.40	316.40	-
Total UDD	-	879.15	879.15	0.00	3960.15	3960.15	0.00
Grand Total		2399.63	2497.90	4.63	21587.58	29602.50	183.05

Indicator-wise data source and nodal department and Annual estimated budget for achieving the targets till 2029-30 is presented in Appendix 12.1 and Appendix 12.2, respectively.



## 12E. Appendices

### Appendix 12.1: Indicator-wise data source and nodal department

Sl. No.	National Indicator No.	State Indicator No.	Data sources	State Nodal Department
1	12.1.1		MOEF&CC	MOEF&CC
2	12.2.1		-	Directorate of Ground Water
3		12.2.1.1.	Population census/ Dynamic Groundwater Resources of Karnataka	Directorate of Ground Water
4		12.2.1.2	Minor Irrigation Dept.	Irrigation
5		12.2.1.3	Energy Dept.	Energy
6	12.3.1		Agriculture	Agriculture
7		12.3.1.1	Agriculture	Agriculture
8		12.3.1.2	Agriculture	Agriculture
9		12.3.1.3	Animal Husbandry	Animal Husbandry
10		12.3.1.4	Animal Husbandry	Animal Husbandry
11		12.3.1.5	Animal Husbandry	Animal Husbandry
12	12.3.2		Horticulture	Horticulture
13		12.3.2.1	Horticulture	Horticulture
14	12.5.1		UDD (BBMP & DMA)	UDD (BBMP & DMA)
15		12.5.1.2	Medical Education	Medical Education
16	12.4.1		MOEF&CC	MOEF&CC
17	12.4.2		MOEF&CC	MOEF&CC
18	12.4.3		MOEF&CC	MOEF&CC
19	12.5.2		UDD ( DMA)	UDD ( DMA)
20	12.5.3		FEE	Forest, Ecology and Environment (FEE)
21		12.5.3.1	UDD ( DMA)	UDD ( DMA)
22		12.5.3.2	KSPCB	UDD ( DMA)
23		12.5.3.3	KSPCB	Forest, Ecology and Environment
24		12.5.3.4	KSPCB	Forest, Ecology and Environment
25	12.6.1		Corporate Affairs	Corporate Affairs
26	12.7.1		Finance	Finance
27	12.8.1		MOEF&CC	MOEF&CC
28	12.8.2		MOEF&CC	MOEF&CC
29	12.a		-	-
30	12.b.1		Tourism	Tourism
31	12.c.1		Food and Civil Supplies	Food and Civil Supply
32		12.c.1.1	Food and Civil Supplies	Food and Civil Supply
33	12.c.2		Finance	Finance
	17	8		

Note: MOEF&CC-Ministry of Environment, Forest and Climate Change

**Appendix 12.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Department	Scheme Name	2019-20 (BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Diary	Milk Incentive	1459.00	1502.00	1563.00	1610.00	1658.00	1708.00	1759.00	1812.00	1866.00	1922.00	1980.00
Animal Husbandry	Pashu Bhagya	9.00	9.98	10.97	11.07	12.17	12.95	13.38	14.77	16.08	17.79	19.56
Animal Husbandry	Unspent SCSP-TSP Amount as per the SCSP-TSP Act 2013	8.07	8.50	8.95	9.43	9.94	10.47	11.03	11.62	12.25	12.91	13.61
Total AH		1476.07	1520.48	1582.92	1630.50	1680.11	1731.42	1783.41	1838.39	1894.33	1952.70	2013.17
UDD	Finance Commission Grants	241.32	562.75	562.75	382.67	382.67	360.16	247.10	258.33	280.80	292.03	314.49
UDD	Swachh Bharat Mission(U)	346.98	316.40	-	-	-	-	-	-	-	-	-
Total UDD		588.30	879.15	562.75	382.67	382.67	360.16	247.10	258.33	280.80	292.03	314.49
Grand Total		2064.37	2399.63	2145.67	2013.17	2062.78	2091.58	2030.51	2096.72	2175.13	2244.73	2327.66

# 13 CLIMATE ACTION



**“In protecting nature, we protect ourselves”**



## **GOAL 13. CLIMATE ACTION - TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS**

### **13A. Background**

Goal 13 focuses on the “urgent action” required to “combat climate change and its impacts”, thus incorporating both climate change mitigation and climate change adaptation. It aims at (a) strengthening resilience and adaptive capacity to climate related hazards and natural disasters in all countries, (b) integrating climate change measures into national policies, strategies, and planning, and (c) improving education, raising awareness and human institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning. Crucially, Goal 13 acknowledges the role being played by the United Nations Framework Convention on Climate Change (UNFCCC), and thereby looks to minimize duplication of efforts, and ensure efficient and effective utilization of limited resources (RIS, 2016).

India is the fourth largest emitter of greenhouse gases and is responsible for 5.3% of global emissions. However, the emissions intensity of India’s GDP reduced by 12% between 2005 and 2010. In October 2015, India made a commitment to reduce emissions intensity of its GDP by 20-25% from its 2005 levels by 2020 and by 33.35% by 2030. Climate change is predicted to impact India's natural resource base, including water resources, forestry and agriculture, through changes in precipitation, temperatures, monsoon timings, and extreme events (The Indian Institute of Tropical Meteorology).

Climate change in India may pose additional stresses on ecological and socio-economic systems that already face tremendous pressures from rapid urbanization, industrialization and economic development. By examining these potential stresses and impacts, climate science seeks to predict future trends to help informed policymaking.

On October 2, 2016 India formally ratified the historic Paris Agreement. India has responded to the challenge of climate change in 2008 by framing and adopting the National Action Plan on Climate Change (NAPCC). It envisaged sustainable development goal coupled with long-term ‘climate change co-benefits’. Further the document laid out roadmap of the goals through eight national missions focusing on major thematic areas such as agriculture, water, forestry, energy and urban planning. The national missions/schemes are complemented by a host of specific programs on solar energy, enhanced energy efficiency, sustainable habitats, water, sustaining the Himalayan ecosystem, and to encourage strategic knowledge for climate change.

In furthering the objectives of the NAPCC, the states were asked to prepare State Action Plans on Climate Change (SAPCC). The State Action Plans were expected to keep the perspective of creating an implementation framework for the NAPCC and its alignment with specific development priorities by considering impacts, vulnerabilities and adaptation needs (EMPRI, State of Environmental Report, 2015). In view of this, Government of Karnataka (GoK) formed a Co-ordination Committee as interdepartmental facilitator. The preparation of the SAPCC for the state of Karnataka was entrusted to the Environmental Management and Policy Research Institute (EMPRI), Bengaluru, an autonomous body of the Department of Forest, Ecology and Environment.

Climate science uses scenario development and forecasting to understand the degree of change in climate that could occur, and the different factors that could affect the degree of climate change. The Indian Institute of Tropical Meteorology (IITM), in collaboration with the Hadley Centre for Climate Prediction and Research, UK carried out an analysis of climate change scenarios for India. IITM used the Hadley Centre Regional Climate Models (RCMs) for the Indian subcontinent to model the potential impacts of climate change.

### **Climate Change Status in Karnataka**

Karnataka state has initiated a number of studies to periodically assess the status of climate change, vulnerability, impacts and mitigation measures. The State of Environment Reports are being brought out covering various sectors to assess their status, trends and likely impacts. Some of the studies are discussed here to present a baseline status of climate change in Karnataka. A report titled 'Transitioning towards climate-resilient development in Karnataka' prepared by 26 experts from institutions based in Karnataka, London, and New Delhi under the leadership of Prof N. H. Ravindranath and Prof G. Bala of IISc, Bangalore, has alerted the state government to act fast to reduce the consequences of climate change. The key points are mentioned as under: The report says that in terms of area prone to drought, Karnataka stands next only to Rajasthan. About 54% of the state's geographical area comprising 88 out of 176 taluks or 18 out of 30 districts is drought prone.

- There is adequate evidence to show that climate change has already affected crop productivity, forest biodiversity, hydrological cycle and human health related issues.
- Most parts of Karnataka could experience 1.5 – 2°C warming relative to the pre-industrial period (1880s) by as early as the 2030s under the likely high-emission scenarios. Water yield in the part of the Cauvery basin in Karnataka is projected to increase by about 35%.
- Dependable water flow in many reservoirs would be 75% to 90% by the middle of the present century. Reduced availability of surface water, higher water stress for crops, floods and droughts make the affected districts particularly vulnerable to climate change, Kalaburagi, Raichur and Yadgir would be the worst hit.
- Assessment of the impact of climate change on five key crops of Karnataka shows that the yield of rice, red gram, maize, and ragi is likely to decline by the 2030s, setting off food crisis.
- Forest and biodiversity types will experience change by the 2030s. The implication is that future climate may not be suitable for the existing forest types and biodiversity and can result in forest dieback.
- The consequences are severe for the flow of ecosystem services and for biodiversity. In the Western Ghats, both evergreen and deciduous forests are likely to be seriously threatened.
- The Bangalore Climate Change Initiatives – Karnataka, in collaboration with the global Green Growth Institute, Seoul, South Korea has now completed phase-1 of the project aimed at promoting climate-resilient development in Karnataka.
- The team has alerted that the state needs to develop and improve coping strategies to deal with the current climate variability and build long-term resilience to long-term climate change.
- **Rainfall:** Karnataka has very wide variation in the rainfall pattern. The coastal districts receive

very high rainfall exceeding 1500-4000 mm per annum with Agumbe receiving highest rainfall of more than 8000 mm per annum. The transitional belt receives moderate rainfall (1000-1500 mm) and the eastern plains have very few rainy days and receive very scanty rainfall of 400-600 mm per annum. Some studies have indicated that the coastal region recorded 24% less rainfall than normal in the last decade. Similarly the Malnad region also has shown significant reduction in rainfall. Karnataka State Action Plan for Climate Change (SAPCC) has projected 5% variation in annual rainfall between 2021-2050.

- **Temperature and solar activity:** Many studies and reports have suggested a significant increase in temperature in the last decade due to various factors including deforestation and plausible climate change impacts. The variation is ranging between 0.5 to 1.5°C.
- **Forests and natural resources:** Ravindranath and Chaturvedi (1994) have assessed the forests vulnerability under different scenarios of climate change and have reported that, there will be likelihood of change in the rainfall pattern in Karnataka in the field of agro-climatic regions. According to the studies, under A2 scenario the rainfall will increase in the Western Ghats region including the coastal districts and likelihood of variation in the rainfall to nearly 25 to 30% of the total annual rainfall. Further it has been stated that the forests and natural resources will be impacted in their structure, composition and ecosystem services. In a similar study of vulnerability index development, it is reported that in the Western Ghat landscape nearly 30, 36, 19 and 15% forest grid points have low, medium, high and very high inherent vulnerability.
- **Biodiversity vulnerability:** Karnataka has very rich biodiversity with more than 8,000 angiosperms, 300 species of mammals, 1,200 species of amphibians, 600 species of birds and a significant number of reptiles and insects. The Western Ghats are regarded as a biodiversity hotspot in the world. The biodiversity of many flora and fauna have very narrow range of adaptation in micro-climatic conditions governed by soil temperature and moisture. Any small variation can affect the chances of survival of these species.
- **Karnataka – Greenhouse Gas Inventory:** More than 73% of Karnataka’s GHG emissions are a result of fossil fuel consumption. The power sector is the single largest contributor with 35.9%. The industry and transport sectors contribute 22.5% and 10.4% respectively. The remaining 27% is contributed by the Agriculture, Residential and Waste. In the Agriculture sector, Methane gas (CH<sub>4</sub>) is the main contributor.

## **13B. Targets and Indicators for achieving SDG 13**

### **13.1 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries**

The Karnataka State Action Plan on Climate Change (KSAPCC) examines climate trends, projected vulnerabilities and adaptation and mitigation priorities. It includes a review of policies and programs for possible mainstreaming of climate change. The Environmental Management and Policy Research Institute (EMPRI), Bengaluru, an autonomous body of the Department of Forest, Ecology and Environment, Government of Karnataka has prepared the State Action Plan on Climate Change (SAPCC) for Karnataka. The Action Plan has been endorsed by the Ministry of Environment, Forests and Climate Change (MoEF&CC), Government of India in 2015. The SPACC has provided Karnataka’s first comprehensive assessment of sectors that could be significantly affected by climate change. The KSAPCC

has outlined various challenges and has also given feasible action points to be implemented by various sectors of administration in the state. The Plan has been formulated after a thorough review of prior studies and extensive consultations with more than 25 government departments. The report covers the key sectors in detail, including agriculture, animal husbandry, water resources, biodiversity, forestry, coastal zone, urbanization and health. The document has outlined various challenges and has also given feasible action points to be implemented by various sectors of administration in the state. Around 200 actions have been defined and 31 of these are tagged as priorities or entry point activities to be taken up as immediate course of action. The action points basically fall into four categories: research and knowledge generation; compilation and presentation of information in a common accessible platform; training and capacity building of the people who are the implementers of the action points; and, dissemination of information to grass root level and creation of awareness in the youth and the public (Source: SoER Karnataka-2015).

As per the Karnataka Climate Change Action Plan, the vagaries of the weather - drought and floods - are going to play havoc on the livelihood of farmers. While the state accounts for 5.83% of the total area of the country, the Green House Gas emissions in Karnataka are around 4% of the national emissions. Most of the areas in the state are projected to experience a warming of 1.8 to 2.2°C by the end of 2030 (BCCI-K, 2011).

KSAPCC has also made projections regarding the frequency of drought incidences in the future (2021-2050), compared to the baseline (1961-1990). In the kharif season, most northern districts like Bijapur are projected to have an increase in drought incidences by 10-80%. Whereas in the rabi season, drought frequency is projected to increase in most of the eastern districts of the state. The western parts of the state are projected to have more rainfall and hence a smaller number of droughts in the rabi season. The assessment of climate change scenario for 2035 indicates that the estimated 2.1°C rise in mean temperature and a 4.5% increase in mean precipitation would reduce net agricultural production by 2.5% for the state as a whole. Climate change impacts all sectors finally leading to devastating impact on the human health.

Development of Action Plan for agro-climatic zones for enhancing adaptive capacity and dealing with climate extreme weather events under which several sub-indicators for the state have been identified. As per SoER 2015 report, the incidences in Vector Borne Diseases (VBDs) were 9.26 lakhs (i.e. 926305).

In the year 2017-18, landslides occurred three times in the state of Karnataka, cyclone (OKHI) occurred once in the state as per Revenue Dept. As per economic survey of Karnataka, consumption of total NPK in Karnataka State in the year 2017-18 was found to be 1034664 tonnes (i.e. Nitrogen (N) - 531655 tonnes, Phosphorus (P) - 320596 tonnes, Potash (K) - 182413 tonnes)

About 2.94 lakh ha was treated with watershed activities in 2017-18 and by the year 2022 & 2030, a target of 25 and 52.31 lakh ha respectively will be treated. Nearly 21,770 WHSs were constructed in 2017-18 and further targeted to complete the construction of 54,120 no. WHSs by the year 2022 and 140713 number by 2030. In 2017-18, about 0.49 lakh ha area is brought under protective irrigation but target to bring 1.31 lakh ha is set for the year 2022& 3.41 lakh ha for 2030.

**Afforestation and dry land horticulture (lakh ha):** An area of 0.26 lakh ha was brought under



afforestation and dry land horticulture with the target of 3.93 lakh ha and 10.23 lakh ha by 2022 and 2030 respectively. Area covered under efficient watershed activities such as Sprinkler, Micro-irrigation and Drip Irrigation.

Due to failure of timely rains and climate change, State Government decided to promote drought resistant millets like Ragi (Finger millet), Bajra (Pearl millet), Navane (Foxtail millet), Saame (Little millet), Haraka (Kodo millet), Oodalu (Barnyard millet) and Korale (Brown Top millet). Varieties released during 2016-17 at UAS, Bengaluru: Maize Hybrid: MAH 14-5, Pigeonpea: BRG-3, Grain Amaranth, Cowpea: AV-6, Sugarcane: VCF 0517, Forage Cowpea: MFC-09-1, Stevia rebudiana: Mixaploid, Jamun: Chinthamani Selection-1. To combat climate change, it is proposed to bring a greater number of drought resistant species in collaboration with the University of Agriculture, Bengaluru.

During the year 2004-05, 2500 hectares was covered under organic farming while up to the end of March 2016, a total of 93,963 hectares was covered under organic farming. It is planned to bring 1.5 lakh hectares under organic farming by 2022 and 2 lakh hectares by 2030.

Number of deaths attributed to flood data was provided by the Disaster Management Cell of the Revenue Department which is 160 for the 2017-18. Number of deaths, and directly affected livestock attributed to climate-related hazards and natural disasters was provided by the Department of Animal Husbandry and Veterinary Services which is 1266 for 2017-18.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
13.1.1		Number of states with strategies for enhancing adaptive capacity and dealing with climate extreme weather events	EMPRI has prepared SAPCC for Karnataka and endorsed by MoEF&CC, Government of India in 2015			
	13.1.1.1	No. of flood events	-	-	-	-
	13.1.1.2	Departure from normal precipitation	2017-18	-8.00	-	-
	13.1.1.3	No. of incidences of vector borne diseases	2015	926305	-	-
	13.1.1.4	No. of landslides occurrences	2017-18	3	-	-
	13.1.1.5	No. of deaths (man+animal) due to landslides	2017-18	0.000	-	-
	13.1.1.6	No. of cyclones incidences (OKHI)	2017-18	1	-	-
	13.1.1.7	No. of deaths (man+animal) due to cyclones	2017-18	0	-	-
	13.1.1.8	Occurrence of heat waves	-	-	-	-
	13.1.1.9	No. of trainings/awareness programs held to all sections on Disaster Management	2017-18	40	-	-
	13.1.1.10	No. of hospitals/PHCs	2019	2359	2830	3302

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
		established				
	13.1.1.11	Annual Fertilizer consumption in Tons (UREA, DAP, MOP, NPKS, OTHERS, TOTAL)	2017-18	1313332, 474939, 250141, 1069423, 119203, 3227038	1352732, 489187, 257645, 1101505, 122779, 3323849	1339598, 484437, 255143, 1090811, 121587, 3291578
	13.1.1.12	Area treated with Watershed Activities (lakh ha)	2017-18	2.94	25	52.31
	13.1.1.13	No of water harvesting structures constructed (No's)	2017-18	21770	54120	140713
	13.1.1.14	Area brought under protective irrigation (lakh ha)	2017-18	0.49	1.31	3.41
	13.1.1.15	Afforestation and dry land horticulture (lakh ha)	2017-18	0.26	3.93	10.23
	13.1.1.16	Area covered under efficient water shed activities in Ha (Sprinkler, Drip Irrigation)	2017-18	125450, 12899	133650, 17850	288850, 38510
	13.1.1.17	Annual increase in the use of resistant varieties for flood/drought	2017-18	Varieties Notified during 2017-18*; Varieties proposed for release during 2018-19**		
	13.1.1.18	Net Area under Organic Farming (Lakh Hectares)	-	1	1.5	2
	13.1.1.19	Number of deaths attributed to flood	2017-18	-	-	-
	13.1.1.20	Number of deaths, and directly affected livestock's attributed to climate-related hazards and natural disasters	2017-18	1266	-	-
	13.1.1.21	Crop affected attributed to climate-related hazards and natural disasters	-	-	-	-
	13.1.1.22	Crop affected attributed to floods	2017-18	-	-	-
	13.1.1.23	Crop affected attributed to droughts	2017-18	-	-	-

Note: - : Not Available

\* Chickpea BGD-111-1, Groundnut Dh-232, Groundnut Dh-245, Cotton BGDS-1063, Rice KKP-5 (IET24250), Rice KHP-13 (IET-21479), Sugarcane VCF-0517, Maize Hybrid MAH-14-5, Pigeon pea BRG-3

\*\* Ragi KMR-630, Rice bean KBR-1, Soybean KBS-23, Sunflower KBSH-78, Sugarcane SNK-09293, Sugarcane SNK-09227, Maize Hybrid GPMH-1101, Maize Hybrid RC RMH-2, Wheat UAS-375, Greengram DGG-7, Soybean DSb-23, Groundnut ICGV-06189, Sorghum GS-23, Foxtail millet HN-46, Groundnut KDG-128, Maize Hybrid MAH-14-5, Rice MO-21

### **13.2 - Integrate climate change measures into national policies, strategies and planning**

India has set out INDC targets to reduce GHG emissions and sequester atmospheric carbon to mitigate climate change in three major areas - (a) Reduction of emission intensity of its GDP by 33-35% by 2030; (b) 40% cumulative electric power installed capacity from non-fossil fuels; and (c) creation of carbon sink by increasing the forest cover 2.5 to 3 billion tons of CO<sub>2</sub> equivalent by 2030. It also provides additional mitigation opportunities by developing clean and energy efficient system, climate resilient urban centres, safe and green transportation network, pollution abatement, and, citizen and private sector contribution to mitigate climate change across the country. It also proposes to adapt to climate change through investment in the vulnerable sectors like agriculture, water resources, Himalayan and coastal regions, health and disaster management. INDC has also outlaid the requirement of technology transfer, need of capacity building and domestic and international funds to implement the targets (SoER Karnataka-2015).

Due to population growth, industrialization, urbanization, etc. demand for energy in various sectors will further grow which will inevitably necessitate burning of more fossil fuels. This will result in further increase in GHG emissions. It is estimated that in a 'business as usual (BAU)' scenario, the rise in overall energy demand coupled with an increasing share of coal in energy supply would result in an increase in GHG emissions to about 309 MtCO<sub>2</sub>e by 2030, nearly a four-fold increase in 20 years from 2010 to 2030. This implies that under such a scenario, the per capita emissions would rise from 1.3 tCO<sub>2</sub>e per person in 2010 to about 5 tCO<sub>2</sub>e per person in 2030 (Transitioning towards a Green Economy in Karnataka, C-STEP, 2014).

While the increasing demand for energy in various sectors has to be met in order to sustain the economic development of the state, it is necessary to find ways and means to generate and utilize energy efficiently besides ensuring that the environmental cost of generation as well as utilization of energy is maintained at the minimum level. This would require adoption of what are termed as Green Growth (GG) strategies/opportunities. Since power, industry and transport sectors contribute substantially to GHG emissions mainly by burning of fossil fuels, thrust of the GG strategies on these sectors is necessary to achieve the targets.

Pre-2020 Achievements of pre-2020 goals as per countries' priorities has been defined as GHG intensity of state GDP (with 2005 as the benchmark and report going all the way to 2030). As per the CSTEP report, GHG intensity of 0.0381 kgCO<sub>2</sub>e/ INR is recorded in the year 2013.

Achievement of Nationally Determined Contribution (NDC) goals in post -2020 periods has been defined under the following sub-headings: A. Reduce emissions; B. Installed capacity of non-fossil fuels; C. Increase forest cover.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
13.2.1		Pre-2020 action Achievements of pre-2020 goals as per countries' priorities				
	13.2.1.1	GHG intensity of state GDP (kgCO <sub>2</sub> e/ INR)	2013	0.0381	-	-
13.2.2		Achievement of Nationally Determined Contribution (NDC) goals in post -2020 period	2018	-	-	-
	13.2.2.1	Share of non-fossil fuel sources in installed electricity capacity in the state (%)	2017	60	-	-

### 13.3 - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

As regards the INDC commitment of raising the share of non-fossil fuel sources to 40% of the cumulative installed electricity in the state, Karnataka's total installed electricity capacity as on 31-07-2018 is 27,176.43 MW out of which non-fossil fuel based installed capacity is 16,304.63 MW which is comprised of 12,516.63 MW installed capacity in the form of big hydro and 3,788 MW in the form of renewable energy. Hence, non-fossil fuel sources contribute to about 60% of the total installed electricity capacity in the state. However, the state cannot be complacent about the apparently high percentage of non-fossil fuel sources in the state's cumulative electric power installed capacity. Although the state has not utilized its hydro potential to the optimum, it may not be desirable to augment it any further in view of high environmental costs associated with hydro projects. Therefore, as the energy demand increases, the state will have to aggressively augment the installed capacity of solar and wind energy, if the present favourable proportion of non-fossil fuel based installed capacity to the cumulative installed capacity is to be sustained. It is planned to achieve 30% of the total final energy mix from renewable energy sources by 2022 and 48% by 2030. As regards the share of the renewable energy in the total installed capacity, it is proposed to maintain at 45% by 2022 and 2030 (Target 7.2.1 - Renewable share in total generating capacity).

- Number of districts that have integrated climate mitigation and adaption in education curricula and outreach programs. All the districts have integrated climate mitigation and adaptation in education curricula.
- Training programs for higher and middle level officials of different department focusses on:

- During the period 2015-17, EMPRI conducted Need Assessment Workshop (1), Training Programs on Impact of Climate Change (14), Training Programs on Climate Change and Bio-medical Waste management (9), and Combating Climate Change Initiatives in various sectors (21).
- During June, 2016, EMPRI organized a two-day workshop on 'Water Resources Management in the context of Climate Change' sponsored by the Ministry of Environment, Forests and Climate Change for Indian Forest Service (IFS) officers in India.
- During October, 2017, EMPRI organized two-day training-cum-workshop on 'Finance opportunities towards establishing Climate Resilient Forests' sponsored by the Ministry of Environment, Forests and Climate Change for Indian Forest Service (IFS) officers in India.
- A National Seminar on Climate Change 'Challenges and Solutions' was organized on 23-01-2017 at EMPRI, Bengaluru with financial support of the Department of Science and Technology (DST).
- Institutes like Mahatma Gandhi Institute of Rural Energy and Development (MGIRED) also conduct training programs on similar themes.
- The indicator 13.3.1B focuses on publications and publicity programs for academicians, public, NGOs, and school children:
- A climate change quiz programme (PARVA) was conducted for selected students (36) from Education Department in collaboration with Doordarshan Chandana which was telecasted in 22 episodes named "Thatt Antha Heli" in September 2016.
- A Kannada Primer on climate change is published by EMPRI for distribution to forestry field staff/public.
- Research papers/Reports from EMPRI, IISc, ISEC, TERI, CSTEP, IWST, NBAIR, FRLHT, Divecha Centre, ATREE and GKVK, Bangalore and Mysore universities are published in journals, annual reports and web sites.

Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies. The indicator 13.3.2 focuses on involvement of the local governments in the adoption and implementation of local disaster risk reduction strategies in line with national disaster risk reduction strategies. It is being adopted and implemented at all levels of the Government in the year 2017-18.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	State Baseline Value	2022	2030
13.3.1		Number of States that have integrated climate mitigation and adaption in education curricula and outreach programs	2017-18	All the districts have integrated climate mitigation and adaptation in education curricula		
	13.3.1.1	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	2017-18	It is being adopted and implemented at all levels of the Government		
	13.3.1.2	Number of local bodies equipped with disaster management tools (%)	2017-18	-	100	100

### **13.4 - Creation of carbon sink by increasing the forest cover from 2.5 to 3 billion tons of CO2 equivalent by 2030**

In Karnataka, the Forest Department has been taking up development of new plantations over about 70,000 hectares of degraded and barren lands annually. In addition, every year more than 20 million seedlings are distributed to the farmers and others for planting in their lands. The department's approach of management of the state's forests (43,356 sq.km or about 22.61% of the state's geographical area) is quite conservative with principal focus on rigid protection ensuring soil and water conservation and prevention of forest fire. As already mentioned, since 2000-01 the Watershed Development Department has initiated large-scale watershed development programs and the same are being continued. The Department of Agriculture also has been carrying out a number of schemes which focus on prevention of land degradation and on assisting land regeneration. Both these departments have also been encouraging tree planting through agro-forestry. The Department of Horticulture has been encouraging dry-land horticulture among the farmers. Cultivation of tree-mulberry is being encouraged by the Department of Sericulture. All these activities aim at increasing the state's forest and tree cover, and at protecting and developing the soil mantle over various landscapes.

**13. a- Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible**

National Indicator not yet evolved

**13.b- Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities**

National Indicator not yet evolved

## **13C. Way Forward**

In the absence of adequate adaptation and mitigation measures, the ecological balance of earth will be adversely affected with catastrophic consequences. It is therefore necessary for every individual to be aware of and concerned about the consequences of climate change and to contribute his or her mite towards the adaptation and mitigation measures. As already mentioned, the state Government has formulated number of policy measures in this direction, and various Departments and Organizations of the Government have taken up programs in pursuance of these policy measures.

With these slew of policy measures and action plans narrated above, the State of Karnataka is poised to achieve its share of intended Nationally Determined Contributions (NDCs) in mitigation and adaptation measures of climate change in the State leading to its sustainable development. Action points for achieving the targets of 2022 and 2030 are as under:

- **Agriculture and allied sectors:** Increase area under watershed treatment; Construction of rain water harvesting (RWH) structures; Increase area under protective irrigation; Integrated farming

systems (IFS) and sustainable agriculture; Dry land farming and micro-irrigation: (A) Sprinkler; (B) Micro-irrigation; Reduce annual consumption of chemical fertilizer; Promotion of organic farming and endemic drought/flood resistant varieties.

- **Agro-forestry:** Tree planting in all vacant private and farm lands that are unfit for productive agriculture; Trees should satisfy various needs of farmers such as fodder, fuel, fruit, timber, medicine and other non-timber forest products; Promote dry land horticulture; Promote tree mulberry; Soil and water conservation; Biodiversity conservation.
- **Health sector:** Increase in health care facilities, including mental health care; Identification of areas vulnerable to climate change effects; Enhance disease monitoring and surveillance in vulnerable areas.
- **Livestock sector:** Greater emphasis on fodder production; conservation and genetic improvement of indigenous cattle and sheep breeds; Selective breeding for increasing productivity; Conservation by rearing elite animals in Government farms; Genetic selection for low methane emission.
- **Forest sector:** Restoration of disturbed forests and plantations; increasing focus on farm forestry and agro forestry in order to reduce pressure on natural forests; Policy changes to encourage people to plant trees in their own lands.
- **Combat Disaster Situations:** Reduce urban flooding (UF) by proper maintenance of drainage system. Proper solid waste management system and proper implementation of the plastic ban; Cleaning storm water drains (SWD) before rains; Improving strategies to rescue people stuck in flood situations by establishing rescue teams, equipping the rescue teams with communication systems, vehicles, training, etc.; Using ICT in developing advance warning systems, dissemination of information through SMS, web portal, radio, wireless communication, etc.; Educating all sections about disaster management; River gauges to be installed across all rivers; Proper maintenance of all the rain gauges in the state.
- **Efficient generation and utilization of energy (green growth strategies) in the Power Sector:** Increasing generation efficiency of new and existing power plants; Leveraging cleaner energy supply resources and installing more efficient pollution control devices in the power plants; Cogeneration or combined heat and power (CHP); Reduction in transmission and distribution (T&D) losses; Increasing the share of solar and wind energy in electricity generation; Agricultural demand-side management (AgDSM) ; Use of energy efficient appliances and energy efficient lighting by end-users; etc.
- **Green Growth:** Industries (General energy efficiency (EE) measures; New industrial processes (NIP); Waste heat recovery (WHR) measures; etc.); Transport Sector (Demand reduction and non-motorized transport; Electric vehicles (EV); Fuel efficiency; Fuel switch to CNG; Intensification of public transport; Further extension of metro network and introduction of other mass transit systems like urban rail, BRTS, monorail, etc.); Waste Management Sector (Advanced waste water treatment (AWWT); Integrated solid waste management (IWSM); etc.)
- **Global Warming;** Energy intensity per increase of GDP to be decreased by 20-25%; Increase the renewable energy (RE) in proportion from 11.5% to 20% of the electricity production; Promote cleaner fuel for vehicles, such as solar powered vehicles; All new buildings constructed should

be green buildings; Promoting solar pumps and micro-irrigation; Enhancing energy efficiency of all machineries; Solarization of all petrol pumps, ultra-mega solar power projects; New missions on wind energy (WE) and waste to energy (WTE)

### 13D. Budget Requirements

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below. Budget requirement for achieving the targets of 2020-21 and 2029-30 is presented below and detailed year-wise budget is presented in the Appendix 13.2.

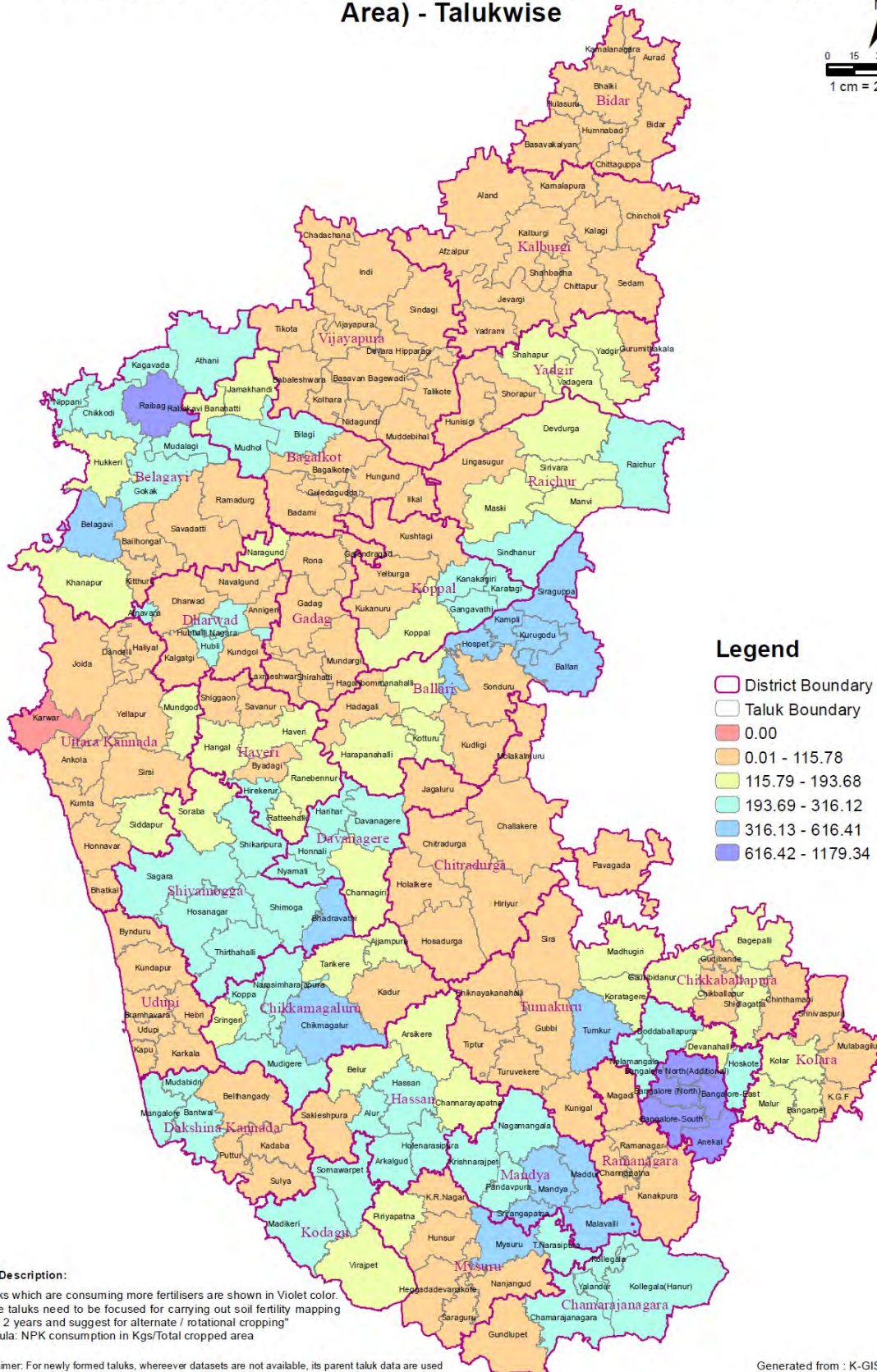
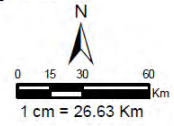
#### Budget requirements for SDG 13(In Crores)

Department	Scheme Name	2020-21			2029-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Agriculture	Organic Farming	111.55	94.09	17.46	2264.88	823.53	1441.35
Agriculture	Micro Irrigation-Agriculture	400.00	401.73	-	4513.30	6269.48	-
Agriculture	Seed Distribution	168.00	160.00	8.00	1481.76	1280.00	201.76

Indicator-wise data source and nodal department and Annual estimated budget for achieving the targets till 2029-30 is presented in Appendix 13.1 and Appendix 13.2, respectively.



# Fertilizer (NPK) consumption in Kgs. per hectare (Total Cropped Area) - Talukwise



**Map Description:**

"Taluks which are consuming more fertilisers are shown in Violet color. These taluks need to be focused for carrying out soil fertility mapping every 2 years and suggest for alternate / rotational cropping"  
 Formula: NPK consumption in Kgs/Total cropped area

Disclaimer: For newly formed taluks, wherever datasets are not available, its parent taluk data are used

Generated from : K-GIS,KRSRAC

## 13E. Appendices

### Appendix 13.1: Indicator-wise data source and nodal department

Sl.No.	National Indicator No.	State Indicator No.	Data Sources	State Nodal Department
1	13.1.1		SAPCC	FEE
2		13.1.1.1	Revenue	Revenue
3		13.1.1.2	Revenue	Revenue
4		13.1.1.3	Revenue	Revenue
5		13.1.1.4	SoER-2015(EMPRI)	FEE
6		13.1.1.5	Revenue	Revenue
7		13.1.1.6	Revenue	Revenue
8		13.1.1.7	Revenue	Revenue
9		13.1.1.8	Revenue	Revenue
10		13.1.1.9	Revenue	Revenue
11		13.1.1.10	Revenue	Revenue
12		13.1.1.11	HFW	HFW
13		13.1.1.12	Agriculture	FEE
14		13.1.1.13	Watershed	Watershed
15		13.1.1.14	Watershed	Watershed
16		13.1.1.15	Watershed	Watershed
17		13.1.1.16	Watershed	Watershed
18		13.1.1.17	Agriculture	Agriculture
19		13.1.1.18	Agriculture	Agriculture
20		13.1.1.19	Revenue	Revenue
21		13.1.1.20	Revenue	Revenue
22		13.1.1.21	AH&VS	AH&VS
23		13.1.1.22	Revenue	Revenue
24		13.1.1.23	Revenue	Revenue
25	13.2.1		FEE	FEE
26		13.2.1.1	C-Step	FEE
27	13.2.2		FEE	FEE
28		13.2.2.1	Energy	FEE
29	13.3.1		Education	Education
30		13.3.1.1	Revenue	Revenue
31		13.3.1.2	Revenue	Revenue
32	13.a		FEE	FEE
33	13.b		FEE	FEE
	4	27		

Note: SAPCC- State Action Plans on Climate Change; FEE-Forest, Ecology and Environment; HFW-Health and Family Welfare

**Appendix 13.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Department	Scheme Name	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Agriculture	Organic Farming	97.00	111.55	128.28	147.52	169.65	195.10	224.37	258.02	296.73	341.23	392.42
Agriculture	Micro Irrigation-Agriculture	366.67	400.00	435.07	450.00	466.67	487.27	50.33	534.00	551.67	563.33	574.97
Agriculture	Seed Distribution	160.00	168.00	176.40	185.22	185.22	185.22	185.22	185.22	185.22	185.22	185.22
	Total	623.67	679.55	739.75	782.74	821.54	867.59	459.92	977.24	1033.61	1089.79	1152.61





**“Preserve creation on land and water to preserve oneself”**



## **GOAL 14. LIFE BELOW WATER - CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT**

### **14A. Background**

Karnataka has a monsoon tropical climate with bulk of rainfall being received during southwest monsoon period. All these natural phenomena create conducive conditions that attract fish and other marine organisms to inshore waters. A shallow continental shelf, wet lands and mangroves provide rich breeding and feeding grounds for fish and other marine species.

The maritime state of Karnataka state consisting of three districts with 300 km coastal length has 35,507 active marine fishers and 11,884 numbers of total fishing crafts (CMFRI, 2016). According to Government of Karnataka (2018) 75% of the total fishers are small-scale fishers contributing to only 15% of the total marine fish production. The inherent rich inland waters and rivers at the foot of the Western Ghats, with shallow continental shelf area contribute to the rich productivity of the marine fisheries.

Karnataka has a share of 87,000 sq. Km out of Indian Exclusive Economic Zone (EEZ) of 2.02 million sq. km. The marine fisheries resource potential of the State is estimated at 4.25 lakh metric tons, of which 2.25 lakh metric tons from inshore areas up to a depth of 70 m and remaining 2.0 lakh metric tons from the off shore/deep sea zone. Karnataka coast has 162 fishing villages constituting 4.60% of the country and one village for every 2.00 km of the coastline. The total landing fluctuates around 5.5-6.0 lakh tons/year with 66% from marine sector 34% from Inland sector. The fish production per fishing unit is around 20 tons/year which is above the national average of around 15 tons (GOI 2016).

Coastal ecosystem of Karnataka is a mosaic of monsoon wetlands, beaches and mountains, some as high as 2000 meters, stretched along its 300 km long shoreline. The coastal eco-region of the state is separated by Western Ghats connected by a number of rivers that form vast estuaries. There is a narrow strip of coastal plains with varying width between the mountain and the Arabian Sea, the average width being about 20 km. The average height of the hinterland is 70 - 75 meters, but in some places, it can be as high as 150 meters. Fourteen rivers originate in the Western Ghats and their tributaries flow through three coastal districts into the Arabian Sea, forming a mosaic of more than 8,000 ha of estuaries along the coast and render the inshore area rich in nutrients (Bhatta, Rao & Nayak 2003). The state has 5.60 lakh ha of inland water resources, consisting of tanks, reservoirs, rivers, canals and fish culture ponds.

From 1980 to 2016 the number of trawlers grew from 1833 to 3071 and motorised boats increased from 974 in 1990 to 11884 in 2016 representing more than 10 times increase. In recent years, the deep-sea fishing is being developed with the help of imported speed engines and has reduced the number of days of fishing trips from 15-20 days to 3-5 days. Rapid growth of population, increase in fishing capacity, international trade in fish products and, increase in per capita income have caused transformation of fisheries during the past two decades. Several factors such as, drive to export shrimp, and state sponsored modernisation programme through co-operatives and banks influenced the growth of marine

fishing in Karnataka since early 1960s.

During the last 15 years the fishing technology has undergone large scale mechanization enabling the fishing fleets to expand their fishing ground into deeper waters with fast imported moving engines with HP ranging from 300-500 capacity. The enactment of Karnataka Marine Fisheries (Regulation) Act 1986 empowered the Fisheries Department to regulate the entry of fishing vessels by licensing a standard policy instrument. However, strict implementation of limited entry regulation with high levels of unemployment, community attachment and restricted geographic mobility of small-scale fishers has prevented the state from implementing the restrictions. The emphasis of the policy was to increase fish production for domestic consumption and export. This was sought through various devices such as motorisation, mechanization, port development and introduction of new technologies and fuel subsidies.

The state Fisheries Department first reported symptoms of over fishing in shrimp and other high value fishes. The modern marine fisheries sector characterized by declining resources due to over exploitation, increasing fishing capacity (powerful engines, vessel size and mechanization of fishing operations) and harvesting costs and declining per capita fishing output. The increasing fish prices, diversified more efficient gears and capital and operational subsidies have made fishing still profitable leading to increasing fishing effort over the years. The Government of India (2011, 2012) has reported that overall, there is excess capacity of 125% and 40328 vessels in absolute number. More than 75% of the commercial fish catch is dependent on estuaries, mangroves and coastal wetlands for part of their life cycle (Bhatta & Bhat 1998). Sand bars have been developed in most of the estuaries. The important indicators of socioeconomic profile of coastal districts are presented below.

Details	State	D.K	Udupi	U.K
Total population (lakhs)	611.31	20.85	11.78	14.40
Decadal population growth rate (%)	15.67	9.80	5.90	9.20
Area (sq. km)	1,91,791	4,866	3,575	10,291
Density of population (persons per sq. km)	319	457	287	240
Literacy level (%)	75.60	88.62	86.29	70
Percentage of workers to total population	44.3	50.0	44.0	40
Net District total income 2007-08 (lakhs) at current price	2,11,66,253	9,69,984	4,73,922	56,0503
Per capita income (Rs.) 2017-2018 (at constant price 1999-2000)	36,945	47,151	39,307	36,243
Rank based on Human Development Index	7	2	3	5
Net district income from fishing 2017-18 (Rs. lakhs) at constant price	79,773	22,534	20,529	19743
Percentage contribution of fishing to total income	0.38	2.32	4.33	4.2

Source: GOK (2018). Karnataka at a Glance. Bangalore: Directorate of Economic and Statistics; GOI (2011). Census of India 2011, Provisional population totals. Bangalore: Directorate of Census Operations.

The Karnataka coast with 300 km of coast boasts of high marine productivity with a fisheries resource potential of 4.25 lakh metric tons, of which 2.25 lakh metric tons from inshore areas up to a depth of 70 m and remaining 2.0 lakh metric tons from the off shore/deep sea zone. During the last 20 years fishing technology has undergone large scale mechanization enabling the fishing fleets to expand their fishing



ground into deeper waters with fast imported moving engines with HP ranging from 300-500 capacity.

Karnataka Coast has also been a hub of anthropogenic activities attracting huge investments in oil & petroleum, shipping, thermal power station, fertilizer cement, caustic soda and ash industry, ship breaking yard, naval ports, jetties and salt producing sectors – all influence the coastal land and marine area overlapping with the limits of 12 nautical miles. In particular, the stretch between Mangalore and Udupi, is an area of intensive maritime activity characterized by single buoy moorings (SBMs), oil handling jetties, thermal power in addition to many source effluent outlets originating from the nearby small-scale industries and urban sewage treatment plants.

The anthropogenic activities put immense pressure on natural ecosystems and the SDG-14 suggests that all development programs should consider the threats to natural capital such as coastal and marine ecosystems in the process of achieving economic development.

## 14B. Targets and Indicators for achieving SDG 14

### 14.1 - By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

- Health index of area of coastal water (%): Declining bivalve production as an indicator of declining water quality. The total bivalve production declined by 71% during the last 15 years
- Out of 27 ULBs in 3 coastal districts of Karnataka (Uttara Kannada, Udupi & Dakshina Kannada) 23 ULBs have certified ODF, other 4 ULBs have self-certified as ODF, 3rd party inspection is under progress.
- Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC) sewerage treatment plant (STP) had been constructed and commissioned in Mangaluru, Udupi, Bhatkal and Karwar under Karnataka Urban Development and Coastal Environment Management Project (KUDCEMP) during 2000 to 2012. Discharge of industrial pollutants in the ocean: No specific data is available

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
14.1.1		Health index of area of coastal water (coastal water quality index)	2015-16	48.000	-	-
14.1.2		Number of Sewage treatment plants installed along the coast and construction of toilets under Swachh Bharat Mission (No.)	2017-18	12798	15175	15175
14.1.3		Percentage change in use of nitrogen fertilizers in the coastal States	2018-19	52.61	-	-
	14.1.3.1	Discharge of industrial pollutants in the ocean	2017-18	4 Industries located	0	0

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
				near Mangalore		
	14.1.3.2	Quantity of sewage discharged in the ocean	2017-18	-	-	-

Note: - : Not Available

**14.2 - By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans**

- The coastal Karnataka has a total of 71 sq. km of mangrove area during 2018. There are no baseline data on area to estimate the percentage. Coastal land use policy as per CRZ 2018 should be revisited to stop conversion of mangroves in privately owned land including less than one hectare.
- CRZ Notification 1991, 2011 and newly notified 2018 is being implemented along with approved CZMP map of 2018. However, 2018 notification is more concerned with development objectives rather than conservation and restoration.
- State coastal/marine area does not have even a single notified marine protected area and hence there is a need to identify and notify such areas which are ecologically important and have threatened. It is suggested that No-Go zones to trawlers and other intensive gears in the fishing grounds which have threatened species.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
14.2.1		Percentage change in area under mangroves (Km)	2017	71.00	78.1	85.2
14.2.2		Implementation of Coastal Zone Regulation Notification of 2011	2018	CRZ Notification 1991/2011/2018 is being implemented along with approved CZMP map of 2018	Minimize violations of CZMP & increase area under CRZ 1	Execute revised CRZ guidelines to achieve 10% targeted marine protected area
14.2.3		Percentage of Change in Marine Protected Areas (MPA)	-	-	-	-
	14.2.3.1	Identify the fish breeding grounds	-	-	-	-

**14.3 - Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels**

Coral health index of Exclusive economic Zone and Coral health area of Marine Protected Areas (this should include 12 sensitive areas in the CRZ are not available.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
14.3.1		Coral health index of Exclusive economic Zone	-	-	-	-
	14.3.1.1	Coral health area of Marine Protected Areas	As on 2018	Area*	NR	NR

Note: \*1. Coral - 0.87 Sq. Km 2. Mangrove - 24.67 Sq. Km 3. Mangrove Buffer - 46.33 Sq. Km 4. Sand dunes - 1.09 Sq. Km 5. Salt Marsh - 3.18 Sq. Km 6. Nesting ground of Birds - 0.04 Sq. Km 7. CVCA 8. Coral and coral associated Biodiversity has been observed at 4 places off coast of Karnataka as below: - 1. St. Mary's island 2. Netrani island 3. Mugali to Apsarakoonda rocky shore. 4. Devgad island Apart from the above details, information received from Geological Survey of India (GSI with regard to Corals details of Karnataka coast also Showed several others locations.

**14.4 - By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics**

- The present catch (2017-18) of 4.14 lakh tons is very close to estimated marine fisheries potential of 4.25 lakh tons and there is no scope for further increase in exploitation rate.
- In addition to mandatory non-fishing days of 61 days during monsoon, fishers are forced to observe increasing number of fishing holidays due to climate factors such as cyclones and other forms of extreme weather conditions.
- Compensation/insurance mechanism should be developed to provide relief for fishers for the loss of income and employment due to frequent climate related factors.
- Measures such as banning of destructive fishing practices (light fishing, bull trawling, deep-sea speed engines beyond 350 HP capacity are prohibited by the Government under KMFR Act.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
14.4.1		Maximum Sustainable Yield (MSY) in fishing	2015-16	604603 lakh tons in the depth of 0-200 meter depth zone	-	-
	14.4.1.1	Annual marine	2017-18	4.14	4.25	4.25

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
		fish catch (lakh MT)				
	14.4.1.2	No of non-fishing days	2017-18	61	61	61
	14.4.1.3	No of mechanised fishing boats	2017-18	72559	70000	70000
	14.4.1.4	Fish stock restoration	2017-18	Identification & promotion of sustainable fishing practices	-	Identification & notification of fish breeding grounds with minimum legal size

**14.5 - By 2020, conserve at least 10% of coastal and marine areas, consistent with national and international law and based on the best available scientific information**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
14.5.1		Coverage of protected areas in relation to marine areas	-	No Marine Protected Area	-	-
14.5.2		Percentage change in area under mangroves	2017	10 Km <sup>2</sup>	11 Km <sup>2</sup>	12 Km <sup>2</sup>
	14.5.2.1	Percentage change in area under 12 Ecologically Sensitive Areas	-	-	-	-

**14.6 - By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation**

- National Indicator Not yet evolved
- In 2018-19, 55% of the total fisheries budget was incurred on fuel subsidy Rs 135.00 crore has been allotted for the scheme "Reimbursement of sales tax on diesel used by fishing boat" out of the total budget of Rs 248.00 crores.
- Action will be taken to reduce subsidy to the boats which are involved in illegal fishing, those boats which do not comply with the Karnataka Marine Fisheries regulation Act

- Satellite mapping and tracking of fish schools to identify the potential fishing zones with appropriate regulations

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
	14.6.1.1	Reduced percentage of overall budget extended as subsidy towards fishing	2017-18	54.43	25	0

**14.7 - By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism**

National Indicator not yet evolved

Around 15% of the fisheries GDP is contributed by small scale fisheries and 45% of employment.

**14. a - Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular Small Island developing States and least developed countries**

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
14.a.1		Allocation of budget resources for research as per the EEZ or coastal line	-	-	-	-

**14.b - Provide access for small-scale artisanal fishers to marine resources and markets**

The zoning of area up to 6 km from the coast from small scale fishers and exemption of small-scale fisheries from mandatory fishing ban are some of the relaxations under the regulations. Further various forms of subsidies are directed towards promoting small scale fishing.

(a) The Department of Animal Husbandry, Dairying and Fisheries (DADF), Ministry of Agriculture and Farmers Welfare is implementing the Central Plan Scheme on Integrated Development and Management of Fisheries' with 'National Scheme of Welfare of Fishermen' as one of the components. The National Scheme of Welfare of Fishermen provides financial assistance to fishers during the lean fishing season/fishing ban period especially for fishermen who do not have their own fishing boats. In addition, financial assistance is also provided for construction of houses for fishers and creation of other basic amenities such as drinking water facility & community halls. Besides, insurance coverage for fishers is also provided under the scheme.

(b)The scheme also aims for an integrated development and management of the fisheries sector covering inland fisheries, aquaculture, marine fisheries, mariculture, cage/pen culture and creation of fisheries infrastructure through central financial assistance towards sustainable livelihood to fishermen. The scheme has various broad components namely, (i) Development of Inland Fisheries and Aquaculture, (ii) Development of Marine Fisheries, Infrastructure and Post-Harvest Operations, (iii) National Fisheries Development Board (NFDB) and its activities (iv) National Scheme of Welfare of Fishermen,, (v) Strengthening of Database and Geographical Information System of the Fisheries Sector and (vi) Monitoring, Control and Surveillance (MCS) and other need based interventions.

(c)The central financial assistance is provided to the State Governments/UTs for onward transfer to the eligible fishermen as per the provisions of the scheme. State-wise details of financial assistance provided by the DADF under the three components of the scheme namely National Scheme of Welfare of Fishermen, Development of Marine Fisheries, Infrastructure and Post-Harvest Operations and National Fisheries Development Board which have direct bearing on livelihood activities of fishermen.

Assistance to the traditional/ artisanal fisheries for procurement of FRP boats and other associated fishing implements: (i). 10% subsidy on introduction of intermediate craft has been discontinued by GOI; (ii) No subsidy on new boats and (iii) No increase in quantity of subsidized diesel used by mechanized boats. Rs.138.48 lakh has been earmarked as subsidy amount for fishing activities in inland and marine areas.

The total number of traditional boats 8512 constituting 50% of the boats contributes only 15% of the catch indicating inequity in sharing the common resources. Nearly 9000 Boats with varying fishing capacity ranging from 105 HP to 350 and above HP. About 65 modern markets were constructed specially for women retailers.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
14.b.1		Assistance to the traditional/ artisanal fisheries for procurement of FRP boats and other associated fishing implements	2017-18	Rs.53.55 lakhs to replace traditional wooden boats to 30 FRP boats Rs 151.2 lakhs to re-install 300 Out board engine	-	-
	14.b.1.1	No of traditional boats	2017-18	8512	5000	3000
	14.b.1.2	No. of motorised boats	2017-18	8999	9062	9762
	14.b.1.3	No. of public fish markets established	2017-18	65	95	150

Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and

sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want

**14.c - Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want**

Responses of state legislations in the use of marine legislation and regulations to provide access for small access fishers. The recent increase in the number of deep sea is a Key Control Indicator as legislative and regulatory tools can improve the effectiveness of the management system.

National Indicator No.	State Indicator No.	Indicator	Base Line Year	State Baseline Value	2022	2030
14.c.1		Percentage compliance of international laws	2017-18	KMFR Act is being enforced	-	-

**14C. Way Forward**

The current conditions of coastal Karnataka and expected climate changes would expose the narrow coastal strip and its inhabitants to vulnerabilities. A large number of these households are small scale fishers who depend upon day-to-day fishing within the territorial waters. Projected sea level rise and erosion on the one hand and stagnating catches due to overharvesting by the deep-sea fishing vessels, industrial and urban pollution, habitat destruction, are some of the serious threats. Moreover, these marginalized communities have limited access to healthcare and public services. Therefore, planning of all the ongoing and new schemes and strategies should pass through the lens of SDG indicators. Following are the proposed activities that can be considered by the Government of Karnataka:

- The customary management systems related to scheduling of fishing activities, sequencing of gear use, sale of fish catch, owner-crew relations, controlling destructive fishing in their area were decided by the community based associations. But today these systems have not been functioning effectively due to increased diversity of the fishing communities and also increased capital intensity in the fishing industry. About the government-implemented management measures, the 61 days fish ban has been in practice and implemented effectively. But about fishing zones, mesh size regulations, destructive fishing, though we have rules, such rules are not implemented and practiced. The creation of more awareness about all such rules and with the co-operation of fishers these could be implemented. The subsidies and other state sponsored welfare schemes could be linked to practice of such regulations. There a need for strengthening all organizations and co-operatives of fishers and all the associations should come together in one platform with proper co-ordination and discuss their problems to compel the government to meet their demands.
- Identification of changes in the pollution sensitive aquatic animals and initiate measures to improve the ambient coastal water quality by the Karnataka State Pollution Control Board and Ecology and Environment, Fisheries.
- Zero discharge of industrial effluents and sewage & Strengthen CRZ and Coast Guard to

monitor pollution levels - The discharge of industrial effluents (UPCL, BASF, MRPL, NMPT, MCF, and other 35 hazardous and red category industries) and urban sewage has led to increased pollution level and also due to the SPM (Single Point Moring of MRPL) and SEABIRD projects the fishing space in the coastal waters has declined, fishing-prohibited area has increased and reduced fertile area for fish breeding and production. The coastal industrial infrastructure development cannot be at the cost of fisheries. Proper monitoring of sea-water quality and level of pollution is required to be done with a representative from civil society group and /or fishermen associations and the reports must be available to all the stakeholders.

- Increase the protected area from 0% to 5% by 2030. No-Go zones to trawlers and other intensive gears in the fishing grounds which have threatened species. Develop the concept of no-Go zone to rejuvenate fish catch areas. Those fishing grounds with ecologically sensitive areas and threatened species should be protected from trawling and other forms of fishing methods. All trawlers and other gears should be fitted with GPS
- Granting fishing licenses to non-fishing families is creating problems of introducing sustainable fishing practices since the non-fishing families are concerned with only short term benefits. Hence, marine fishing licenses should be issued only to only those beneficiaries whose occupation is registered as fishing in their ration card and/or other valid documents. Adequate facilities for drinking water, sanitation and fish marketing should be provided by the government and maintained by the women associations. Exclusive space and infrastructure for fisher women sellers to sell fish should be created.
- The coordination of different related state departments such as disaster management, port, fisheries, ecology and environment minor irrigation, transports etc. is required for better planning and exchange services with minimum disturbance /in convenience to the communities. There are several legislations such as Marine Fisheries Regulation Act, biodiversity Act, Water Act, Wild Life Protection Act, Environment (Protection) Act and CRZ notification which aims to implement sustainable fishing practices but lack of cooperation among different implementing agencies departments frame led to poor implementation and causing distress to fisheries. It is suggested that all relevant departments, organizations, trade associations and civil society groups should join together in framing state fisheries policy and the modal to implement the policy. Social impact analysis of each industry with a focus on its impact on fishers' livelihoods should be carried out before planning/approving any industry in the coast as per the provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
- All the west coast states should have the uniform fishery management rules and regulations such as control on fishing intensity, eligibility for fuel subsidy; sustainable fishing practices, zoning regulations, closed seasons and areas etc. The fuel subsidy may be linked to the adaptation of the existing management regulations as per the Karnataka Marine Fisheries Regulation Act. Thus those fishing boats which adopt the management regulations such as mesh size, zoning of fishing areas, closed seasons (monsoon ban) strict adherence to limits to fishing capacity (HP and size) may be given incentives and subsidies rather than giving subsidy to each and every licensed boats.



- The government in consultations with fisher organizations and experts should identify the sustainable fishing practices and those who adopt such practices may enjoy the progressively higher subsidy. It is suggested that the diesel subsidy may be continued in a modified manner to promote sustainable fishing practices. The government does not discriminate between approved method of fishing and prohibited method of fishing. Highly destructive fishing practices such as bull-trawling, night fishing and other un-sustainable practices should be discouraged by completely withdrawing the subsidy to these fishing units.
- Compensation/insurance mechanism should be developed to provide relief for fishers for the loss and damage of assets and income/employment due to frequent climate related factors.
- Introduce legal provisions in CRZ/Environment Act to increase access to small scale fishers. Supply of potable water, fresh water for hand washing and cleaning of auction halls, ETP and Drainages inside the harbour
- There is no data on coastal water quality indicators and its impact on marine fisheries. In this report declining bivalve catch has been used as an indicator of declining water quality in Uttara Kannada which has less hazardous/polluting industries. The status of waters in Mangalore-Surathkal could be much worse with a large number of red category industries.
- There are no institutional system for regularly sharing of scientific information among five coastal states of the west coast and uniform policy for coastal conservation and sustainable harvesting policies, fuel subsidy etc. It is strongly recommended that at least there should be annual meetings of the five coastal states to assess and regularly monitor the status of fish stocks and regulatory mechanism to manage harvesting system.
- There are no marine protected areas in the entire west coast except in Gujarat and hence, a separate study is required to identify and demarcate the area to be notified as marine protected area under Wild life Protection Act
- There is a need to regulate the expansion of capacity and species utilized by fish-meal plants which is utilizing the by-catch representing a large number of marine biodiversity species. The estimated 35-40 % low value by-catch is procured by fish meal companies at low price which is harvested by trawlers by using subsidized fuel supplied by the state government. Major part of fish meal is used for aqua-feed for producing export-oriented shrimp mostly in Andhra Pradesh. Thus, Karnataka Government is subsidizing harvesting of rich marine biodiversity to export subsidized shrimp to rich consumers of developed countries.
- The Government of India is promoting mariculture on large scale which requires wild caught marine fish as feed. Further, there is a need for spatial planning of such cage culture enterprise to minimize the adverse ecological-social impact of increasing density of mariculture cage farms in estuaries and coastal waters.

#### **14D. Budget Requirements**

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below.

**Budget requirements for SDG 14 (In Crores)**

Department	Scheme Name	2020-21			2029-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Fisheries	Schemes mentioned in Appendix 14.2	7.98	7.10	0.88	100.37	71.00	29.37

Indicator-wise data source and nodal department and Annual estimated budget for achieving the targets till 2029-30 is presented in Appendix 14.1 and Appendix 14.2, respectively.

## 14E. Appendices

### Appendix 14.1: Indicator-wise data source and nodal department

Sl. No.	National Indicator No.	State Indicator No.	Data Sources	State Nodal Department
1	14.1.1		CMFRI	PCB
2	14.1.2		UDD (DMA)	UDD
3	14.1.3		Agriculture,	Agriculture
4		14.1.3.1	PCB	PCB
5		14.1.3.2	PCB	UDD (DMA)
6	14.2.1		Forest Survey of India	FEE
7	14.2.2		FEE	FEE
8	14.2.3		FEE	FEE
9		14.2.3.1	FEE	FEE
10	14.3.1		Fisheries	FEE
11		14.3.1.1	FEE	FEE
12	14.4.1		Fisheries	Fisheries
13		14.4.1.1	CMFRI	Fisheries
14		14.4.1.2	Fisheries	Fisheries
15		14.4.1.3	Fisheries	Fisheries
16		14.4.1.4	Fisheries	Fisheries
17	14.5.1		FEE	FEE
18	14.5.2		FSI	FEE
19		14.5.2.1	FEE	FEE
20		14.6.1.1	Fisheries	Fisheries
21	14.a.1		Fisheries	Fisheries
22	14.b.1		Fisheries	Fisheries
23		14.b.1.1	Fisheries	Fisheries
24		14.b.1.2	Fisheries	Fisheries
25		14.b.1.3	Fisheries	Fisheries
26	14.c.1		Fisheries	Fisheries
	13	11		

Note: FEE- Forest, Ecology and Environment; PCB- Pollution Control Board; CMFRI- Central Marine Fisheries Research Institute; UDD-Urban Development Department

**Appendix Table 14.2: Annual estimated budget for achieving the targets till 2029-30 – Department of Fisheries, GoK (In Crores)**

Scheme Name	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Subsidies to Phase out of diamond shaped trawl nets and introduction of square mesh size nets	0.25	0.26	0.28	0.29	0.30	0.32	0.34	0.35	0.37	0.39	0.41
Subsidies for Introduction of tuna long lines and hook and line/gill net fishing	1.50	1.58	1.65	1.74	1.82	1.91	2.01	2.11	2.22	2.33	2.44
Demarcation and enforcement of Exclusive fishing area for small scale fishers	0.10	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.15	0.16	0.16
Target 14.3: Minimize and address the impacts of ocean acidification including through enhanced scientific cooperation at all levels											
Scientific investigation and research and extension services for conservation and sustainable development	0.10	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.15	0.16	0.16
Demonstration of benefits from reduced pollution, excess fishing efforts and quality enhancement	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08
Certification small scale fisheries/		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Target 14.4: By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.											
Enforcement of UNCLOS/Marine Fisheries Regulation Act and Biodiversity Act	0.10	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.15	0.16	0.16
Strengthening of coastal protection Force and Coast Guard	-	-	-	-	-	-	-	-	-	-	-
Remote sensing and GIS for collection of data, surveillance and monitoring of implementation of the research schemes	-	-	-	-	-	-	-	-	-	-	-
Target 14.5: By 2020 conserve at least 10% of coastal and marine areas, consistent with national and international law and based on the best available scientific information											
Declaration, demarcation and notification of five marine protected area (Sanctuaries)	-	-	-	-	-	-	-	-	-	-	-

Scheme Name	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Target14.B: Provide access for small scale artisanal fishers to marine resources and markets											
Construction of separate berthing facilities and markets for small scale fishers and women and other social welfare measures	5.00	5.25	5.51	5.79	6.08	6.38	6.70	7.04	7.39	7.76	8.14
Progress in ratifying, accepting and implementing through legal, policy and institutional frameworks as reflected in the United Nation convention on the Law of the Sea, for the conservation and sustainable	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Creation of a separate Legal and Environmental cell within the Department of Fisheries for revision, amendments and enforcement of relevant provisions of the national and international regulations	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Administration, SDG Cell, subsidies towards capital and operational costs of fishing	0.50	0.53	0.55	0.58	0.61	0.64	0.67	0.70	0.74	0.78	0.81
	7.60	7.98	8.38	8.80	9.24	9.70	10.18	10.69	11.23	11.79	12.38





**“Let’s protect, preserve and restore for sustainable management”**





## **GOAL 15. LIFE ON LAND - PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS**

### **15A. Background**

Forest ecosystem and biodiversity conservation including wildlife management has been recognized as a critical component of sustainable development goal by the United Nation to accomplish the SDG goals by the year 2030, by all the countries who are signatories to the UN accord on sustainable development goals. Accordingly, India has agreed to take all appropriate policy and management interventions to achieve the targets of various subcomponents under the goal 15 of the SDG set by the Government of India.

Karnataka government is formulating strategies and state action plan to achieve the goal of Forest and biodiversity conservation including wildlife protection and natural resource conservation under different ecosystem. State is having unique forest types owing to its diverse bio- climatic conditions and its geographical location is home for diverse flora and fauna. The forests with very rare and endemic species composition are playing very critical role in Regulating hydrological, gaseous and ecological cycles at both global and local level that are critical to the ecosystem services.

At present the State is having 20.11% of total geographical area under forest cover with a mean growing stock of 80 cum /ha which is highest in the country. State is ranked third in terms of total growing stock after Arunachal Pradesh and Andhra Pradesh which is very critical for sequestering carbon to combat climate change impacts. It is gratifying to note that the state is home to about 25% of Tiger and elephant population of the country apart from significant presence of many rare mammals' reptiles and birds species due to very conducive habitat.

The State has about 45 percentage of Western Ghat forests distributed which is regarded as biodiversity hotspots in the world and play key role in providing ecosystem services. This state has magnificent forests are source of high value timber like Teak, Rosewood and white cedar besides providing many non-timber products and medicinal plants. The forests support very large number of Tiger population and is ranked as number one state in the country; the forests are rich in flirts tic diversity and accounts for nearly 4500 species of angiosperms; Forest supports 25% of Elephant population. State is home of very valuable species like sandalwood, rosewood and teak; and it has diverse population of mammals, reptiles and birds and butterflies. The forests are estimated to contain 350 million tons of. Carbon Stock; these forests are home for more than 1500 medicinal plants; Supports millions of people, cattle and agriculture system of production.

The state has undertaken number of programs to manage these forests and wildlife with very critical and management interventions and has increased its green cover significantly in the past and is continuing to promote natural regeneration to enrich its forest with native species. Similarly, programs to restore vegetation in the barren lands of forests and non -forest area is also being implemented as a continuing program.

The state is striving hard against various biotic and abiotic stresses to manage the forests sustainably through very scientifically tested management tools and silvicultural principles. The state has launched number of conservation measures to protect the flora and fauna and had declared more than 10% of the TGA as protected area by constituting National parks and sanctuaries. The state had banned green felling for the last 35 years and has restored the growing stock and canopy cover towards achieving the sustainable forest management goals. The state has a policy of involving local community in Joint forest management and has created more than 5000 village forest committees.

Karnataka state has initiated number of policy measures to conserve and manage forests on sustainable basis through working on Biodiversity conservation, Invasive alien species, Forest fire, Forest degradation, Grazing, Forest degradation and Man-Animal conflicts.

## **15B. Targets and Indicators for achieving SDG 15**

By 2030 ensure the conservation restoration and sustainable use of commercial and inland fresh water ecosystem and their services in particular forests Wetlands Mountains and dry lands in line with international agreements. India is signatory to many international agreements that mandates the country to protect and conserve terrestrial and inland fresh water ecosystems and their services in particular forests, wetlands, mountains dry lands ecosystems by adopting the sustainable management practices. The components have been subdivided into components to set targets, discussed below.

### **15.1- By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and dry lands, in line with obligations under international agreements**

The state has 20.11% of land area under the forest cover in 2019 which includes various category of forest cover classified based on canopy density (Dense forest, moderately dense forest and open forest). Though the state has been striving hard to achieve the 33% of TGA, the progress is slow due to land constraints despite the concerted efforts by the state to allocate available waste lands for afforestation purpose. The national forest policy aims to increase the forest area to 33% of total geographical area of the state. The state policy is also in consonance with the National forest policy to increase the forest cover of 33% of the TGA by increasing the green cover on waste lands, institutional lands and agricultural lands through afforestation program. The state is committed to achieve this goal by bringing in additional area under afforestation from different land use categories. The following strategies are envisaged to achieve 33% of forests cover by 2030.

Government of India has been promoting trees outside forest by encouraging and incentivizing farmers to adopt tree cultivation on farm lands and waste lands under green India mission, bamboo mission and agroforestry programs. The state has recorded about 7.5% of TGA due to concerted efforts. To increase the green cover to the national goal of 33% of TGA, the state has initiated many programs to promote farm forestry sector. Farmers are supplied with seedlings of timber and usufructs value and encouraged to take up planting on bunds and uncultivated waste lands with monetary incentives. By 2030 the state aims to double the area under TOF to 15% of TGA with an annual target of about one Lakh ha. The state has very good network of nurseries and infrastructure to undertake mass production of seedlings for the program.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.1.1		Forest area as a proportion of total land area	2019	20.11	22.61	22.61
15.1.2		Percentage of Tree outside forest (TOF) in total forest cover	2017	7.9	10	16.87

**15.2- By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally**

**Sustainable management of all forests:** To achieve the SDG target of Sustainable forest management, the state shall implement the sustainable forest management practices including restoration of species that are facing threats, regeneration of degraded forests by promoting natural regeneration and regulating the off take from forests through management prescriptions and regulations. Recognising the excessive logging impacts, the state has imposed green felling ban in the natural forests and the forests are given rests to recover from heavy logging.

**Reforestation and afforestation:** The state has been planting around 0.55 to 0.8 Lakh ha per annum in both inside and outside of the forests area. However, to achieve the 33% of TGA under forest cover, the state shall afforest annually about one Lakh ha per annum under the plantation category. The plantation will be done by KFD and its commercial branch Karnataka Forest development corporation.

**Trees outside forests;** The tree planting will also be promoted by many programs in the state which includes agro-forestry, Horticulture plantations urban forests and recreation parks, coffee and cashew plantations.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.2.1		Percentage change in forest area coverage	2017-19	2.73	-	-
15.2.2		Total area covered under different afforestation schemes (Ha)	2017-18	62108	600000	2200000
15.2.3		Total tree cover achieved outside forest area (Lakh Ha)	2017	7.9	10	16.87
15.2.4		Number of Nagar vans and School Nurseries created	2017	125	175	225

Note: -: Not Available

**15.3- By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world**

Karnataka has more than 25% of the natural forests as degraded due to poor canopy of less than 10%. Though, majority of the dry deciduous forests are in this category where the canopy density cannot be enhanced beyond 20% due to ecosystem limitations and species distribution. However, nearly 25% of the moist deciduous forests are in the category of the degraded state which can be restored through assisted natural regeneration process. The state has no desert lands as defined by FAO. However, the degraded lands reclamation is being addressed by promoting agro-forestry organic farming and crop rotation practices by the Agriculture department.

The state Forest department has been afforesting the degraded lands covering saline soils, river and canal banks and watershed areas under various scheme. The department shall continue to raise tree plantations on all degraded lands along with state department agencies. Substantial area of nearly, 1.0 m ha is available under this category potential for afforestation, subject to the availability of the land to the KFD.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.3.1		Percentage of restoration of degraded area	2017	0	25	50
15.3.2		Increasing Tree / forest cover in degraded area (Sq.Km)	2017	4484	3400	2000
15.2.3		Percentage increase in net sown area	2017 over 2016	-	-	-

**15.4 - By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development**

Western Ghats are regarded as mountain ecosystems in the state of Karnataka. The National policy on Forest mandates the states to restore 66% of TGA under the forest cover. At present FSI report (2017) has reported that the state has about 48.98% of the mountains are covered with green cover. By 2020, it is planned to reach the target of 55% of green cover and by 2030, it is expected to achieve 2/3 of TGA to have green cover. The programs of afforestation including restoration of degraded forests, agroforestry and trees outside planting programs will be undertaken to achieve the target. Mountain ecosystem play critical role in supporting rich biodiversity of flora and fauna. Their conservation value being very high, the protection and conservation strategy and action plan is essential to achieve sustainable development goal.

The Western Ghats are place of origin for many perennial and seasonal river systems supporting millions of people for thousands of years. There are more than 10 major rivers and around 80 medium to small sized rivers originating from Western Ghats forests ecosystem in the state. However, due to various causes some of these critical water bodies which are source of water to many rivers and for maintenance of the hydrological cycle are subjected some kind of disturbances affecting the

hydrological regime. Recognizing these disturbances, the state forest department is making efforts to restore the forests ecosystem through watershed activities including afforestation works.

The Local wild life species in the state of Karnataka are protected by initiating number of conservation measures as per the Wildlife Act-1972. There are five national parks and 30 wild life sanctuaries to protect the fauna that are distributed in the state in different ecosystems. The state has more than 25% Tiger and Elephant population of the country with many rare and endangered local mammals and bird species facing threats.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.4.1		Increase in forest / vegetative cover in mountain areas (%)	2017	48.98	55	66
15.4.2		Restoration of water bodies / streams in mountain areas	2017-18	-	-	-
15.4.3		Conservation of local wildlife species (% to geographical area)	2017-18	5.33	6	10
15.4.4		Increase in per capita Income of mountain dwellers	2017-18	-	-	-

**15.5 - Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species**

The state has initiated various actions to halt the degradation of bio-resources and to protect the bio-diversity as per the Bio-diversity Act-2002. The Karnataka bio-diversity Board has been entrusted with the responsibility of ensuring protection and conservation.

**Documentation of Biodiversity:** KBB has initiated documentation of bio resources for conservation and management by creating Biodiversity management committees at each Gram Panchayat level.

**Conservation of wildlife species:** The state has roughly about 6% of TGA covered under various categories of protected area. The Tiger reserves and Elephant reserves are declared as protected areas and numbers of conservation works are taken up. Similarly, the state has made efforts to conserve endemic birds like Great Indian bustard, Horn bill, Blue jay, vultures and many such other species.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.5.1		Red List Index				
	15.5.1.1	Plants: Critically Endangered (CR)	2010	16	2	3
	15.5.1.2	Animals: Critically Endangered (CR)	2010	11	2	3
	15.5.1.3	Animals: Endangered (E)	2010	3	1	1
	15.5.1.4	Animals: Vulnerable (V)	2010	2	1	1
	15.5.2.5	Trends in Forest Cover (% of Geographic Area)	2011	18.87	18.87	18.87
	15.5.3.6	Trends in Afforestation (% of Forest Area)	2017-18	1.3	1.5	2
	15.5.4.7	Species restoration (Sq.Km)	2017-18	4285	4500	5000

**15.6 - Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed**

**Increase in per capita income of mountain dwellers:** Various programs like Tribal plan and special component programs, the income generating activities are being undertaken. The LAMP societies and Village forest committees are given the non-timber forest produce rights to collect, process and market to derive economic benefit.

- The State has initiated measures to restore the critically endangered species by taking up both in situ and ex-situ conservation measures. The State Forest Department and the Government have notified the list of Rare, Endangered and Vulnerable species of both plants and animals and have banned their access and extraction. The state has also taken action to recover these critically endangered species through habitat improvement, green felling ban and by banning the rights to access and extraction.
- Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources as internationally agreed.
- Number of Access and benefit sharing (ABS) agreements signed. The Karnataka Bio- diversity Board has signed 13 agreements under ABS scheme and has targeted to cover around 600 entities by 2022. The State Biodiversity Board has committed to cover all genetic resources that are commercially used by commercial entities under Access and Benefit sharing scheme, as per the Biodiversity Act by 2030. The data deficiency on the access to bio resources, the commercial use and the products marketed are lacking. 15.6.2 Number of companies that submitted Form-1 under Access and benefit sharing agreements. KBB has received Form-1 from 181 entities, under the Biological Diversity Act, 2002. It has plans to cover 600 entities using biological resources under this provision by 2022. And it aims to cover all the entities using biological resources by 2030. 16.6.4. ABS shared with community.
- Karnataka Biodiversity Board has initiated action to draw up a policy guideline to share the resources with the local biodiversity committees in proportion to their access and efforts made within their assigned area of bio resources used by the companies. Accordingly, the funds will be distributed by 2022.
- Progress towards national targets established in accordance with AICHI Biodiversity target 2 of strategic plan for Biodiversity 2011-2020. The state government has prepared the NBSAP covering all the bio resources including forests, marine resources, agricultural crops, live stocks and other natural resources with the targets and action plan with measurable indicators. Accordingly, the Board is facilitating the implementation of the targets and monitoring the progress. The capacity building of line departments and corresponding local institutions like, Biodiversity committees, village forest committees and eco -development committees are involved in achieving the targets.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.6.1		Number of Access and benefit Sharing (ABS) agreements signed	2014	13 companies under Biological Diversity Act	100% under Biological Diversity Act	100% under Biological Diversity Act
	15.6.1.1	Number of companies that submitted Form 1 under Access and Benefit Sharing agreements	2014	181 entities submitted Form - 1	640 entities listed will be brought under BD Act, 2002	800 entities will be brought under BD Act, 2002.
	15.6.1.2	ABS funds shared with the community	2017-18	Not shared	4 Taluk BMCs have been identified for disbursement of ABS	ABS funds to all 176 Taluk BMCs

**15.7- Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products**

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.7.1		Percentage reduction in traded wildlife that was poached or illicitly trafficked.		-	-	-

**15.8- By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species**

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.8.1		Percentage change in prevention and control of invasive alien species		-	-	-

**15.9: By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts**

The Board has segregated the 12 NBTs respectively to all the Line Departments based on their services.

Follow-ups have been done with all the departments to comply with the respective NBT and update the action taken in the National Report 6 (NR6) website. The Board has conducted a workshop by involving all the line departments to create enough awareness on the NBTs and contribute towards accomplishment of the NBTs.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.9.1		Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategies Plan for Biodiversity 2011-2020	2014	12 National Biodiversity Targets (NBTs)	-	-

**15. a- Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems**

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.a.1		Official development assistance and public expenditure on conservation and sustainable use of biodiversity and eco system	2017-18	0.14	-	-

**15. b- Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation**

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.b.1		Percentage of fund utilized for environmental conservation.	-	-	-	-

**15. c- Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities**

It is well understood that, Land and Forests are the foundation of sustainable development. Forests cover 30% of Earth's surface and, in addition to providing food security and shelter, are key to combating climate change, protecting biodiversity and are home to indigenous population. Goal 15 has been identified and targeted with appropriate indicators of measurements to halt the degradation of



natural habitats, to end the poaching and trafficking of animals, and to integrate ecosystem and biodiversity values to the local planning and development processes.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
15.c.1		Number of detection and prevention of traded wildlife that was poached or illicitly trafficked	2017-18	5	5	5

## 15C. Way Forward

- **Forest cover** - The state has set a goal of greening the vacant waste lands, institutional waste lands, urban spaces, agricultural waste lands, *soppinna betta* lands, rivet catchment areas, and Assessed waste lands without tree growth and tank foreshore areas with appropriate tree species by involving local bodies and Village forest committees etc. to achieve the target of 33% of green cover by 2030. State has formulated number of afforestation schemes funded by the state government (Krishi Protsaha planting, Trees outside forests, Nagarvanas) in addition to central initiatives (Greening India Mission, Reforestation of degraded areas, Bamboo Mission, Compensatory plantation).
- **Urban planting and Community wood lots** - To achieve the SDG goal of achieving the tree cover outside the Forest area, urban planting on massive scale to be promoted with city municipal bodies and Horticulture department creating forestry in the towns and municipalities by the end of 2030. The state has very good ecosystem and technological knowhow to take up massive agro-forestry program in the state under different agro-climatic conditions. The department has a well-structured social forestry wing to promote the agro-forestry work under various schemes.
- **Restoration of degraded area**- It is estimated that around 25 % of the Forest area is under various stages of degradation due to biotic and anthropogenic pressures (FSI report). Under the SDG goal it is envisaged to undertake regeneration works under different ecosystems to restore the original structure and functions. The past experiences and studies have shown that the natural regeneration of the degraded forests can be achieved through rigid protections from grazing and fire besides taking up assisted natural regeneration. Some of the strategies are:
  - Increase in forest tree cover in degraded area
  - increase in forest/vegetation cover in mountain area
  - Restoration of water bodies
  - Conservation of local wild life species
  - Restoration of red list of wild animals
  - Biodiversity conservation- access to benefit sharing agreements, recovery of RET species
  - Reduction in traded wildlife that was poached or illicitly trafficked – Alien species eradication

## 15D. Budget Requirements

Poor performing indicators and targets to be achieved for 2030 was given emphasis while estimating the budget requirement which is presented below. Scheme-wise budget under BAU and estimated to achieve the targets given below and the detailed year-wise budget is given in Appendix 15.2.

### Budget requirements for SDG 15 (In Crores)

Scheme Name	2020-21			2020-30		
	Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Afforestation on Forest and Non-Forest Areas	180.00	192.94	-	1800.00	3074.97	-
Afforestation in Other Areas	20.00	16.00	4.00	200.00	160.00	40.00
Farm Forestry	151.00	0.00	151.00	1790.00	0.00	1790.00
Tree Park	30.00	30.00	-	100.00	170.00	-
Total	381.00	238.94	155.00	3890.00	3404.97	1830.00

- **To accomplish the target 15.1 for achieving the green cover of 33% of the TGA-** it is envisaged to take up afforestation, reforestation work in the degraded areas, scrub forests, wastelands to an extent of 1 million hectare. The cost of raising plantation is at the current rate of cost is about Rs 1.00 lakh per hectare. (Rs 100/ plant @ 1000 plants/ha).
  - Total outlay for greening 1.0 million hectare is Rs.10, 0000.00 crores.
  - Annually the target is 1.00 lakh hectare. And the outlay is Rs 10000.00 crores.
  - Trees outside forest: The proposed target is 1.0 million ha (one lakh hectare per year).
  - Total out lay is @ Rs 10,000/ ha. Rs 100.00 crores.
- **Greening Urban spaces and Tree parks, one lakh hectare.**
  - The outlay is Rs 1000.00 crores for developing one lakh hectare.
  - 15.4 Wildlife area management.
  - 1.2 million hectare protected areas are to be protects from fire and other threats.
  - Outlay is Rs 10.000 /ha/year. Rs 10000.00 crore.
- **Bio-diversity conservation work** - Annually the Board requires around Rs 20,000000.00 up to 2030 to implement the KBSAP plans.
- **Institutional Development:** The Karnataka forest department needs additional staff to address the additional work load of the SDG activities.
- 

A. Karnataka Forest Department	
Sl. No.	Staff Requirement
1	APCCF-1
2	CCF-3
3	Conservator of Forests – 4
4	DCF- 10
5	RFO- 20
6	DRFO-40
7	Forest Guards- 50

<b>B. Karnataka Biodiversity Board staff requirement</b>	
1	Scientists/Experts- 6- to cover agriculture, horticulture, animal husbandry and fisheries
2	Field Officers-30- post of Biodiversity may be created

Indicator-wise data source and nodal department and Annual estimated budget for achieving the targets till 2029-30 is presented in Appendix 15.1 and Appendix 15.2, respectively.

## 15E. Appendices

### Appendix 15.1: Indicator-wise data source and nodal department

Sl.No.	National Indicator No.	State Indicator No.	Data Source	State Nodal Department
1	15.1.1		KFD	FEE
2	15.1.2		FSI Report	FEE
3	15.2.1		FSI Report	FEE
4	15.2.2		KFD	FEE
5	15.2.3		FSI Report	FEE
6	15.2.4		KFD Report	FEE
7	15.3.1		FSI/KFD Report	FEE
8	15.3.2		KFD	FEE
9	15.2.3		Agriculture	Agriculture
10	15.4.1		FSI	FEE
11	15.4.2		FEE	FEE
12	15.4.3		KFD	FEE
13	15.4.4		SWD	SWD
14	15.5.1		FEE	FEE
15		15.5.1.1	KFD	KFD
16		15.5.1.2	KFD	KFD
17		15.5.1.3	KFD	KFD
18		15.5.1.4	KFD	KFD
19		15.5.2.5	FSI	FEE
20		15.5.3.6	KFD	FEE
21		15.5.4.7	KFD	FEE
22	15.6.1		KSBB	FEE
23		15.6.1.1	KSBB	FEE
24		15.6.1.2	KSBB	FEE
25	15.7.1		KFD	KFD
26	15.8.1		FEE	FEE
27	15.9.1		KSBB	FEE
28	15.a.1		Planning	Planning
29	15.b.1		KFD	FEE
30	15.c.1		KFD	FEE
	21	1		

Note: KFD-Karnataka Forest Department; KSBB-Karnataka State Biodiversity Board; FEE-Forest Ecology and Environment; FSI-Forest Survey of India

### Appendix 15.2: Annual estimated budget for achieving the targets till 2029-30(In Crores)

	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Afforestation on Forest and Non-Forest Areas	175.40	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Afforestation in Other Areas	16.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Farm Forestry		151.00	151.00	186.00	186.00	186.00	186.00	186.00	186.00	186.00	186.00
Tree Park		30.00	40.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Total	191.40	381.00	391.00	402.00	398.00	398.00	398.00	398.00	398.00	398.00	398.00

# 16 PEACE, JUSTICE AND STRONG INSTITUTIONS



***“If you want peace, work for justice”***



## **GOAL 16. PEACE, JUSTICE AND STRONG INSTITUTIONS - PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS**

### **16A. Background**

Goal 16 of the SDGs has three dimensions of peace, justice and strong institutions. Development, democracy and peace are related to one another. It is a challenge to protect and promote democracy where there is violence and crimes. Societies afflicted by violence, crime, abuse, human trafficking, child labour etc. cannot ensure decent development let alone sustainable development.

Goal 16 and its indicators are important in our country/state in the context of the increasing intolerance, violence and social group conflicts. It is also important to remember the fact that the Institute of Economics and Peace had classified the world into 11 global regions based on the level of peace. Of the 11 regions, the two least peaceful regions are South Asia and Middle East and North Africa. India, including Karnataka, is a part of South Asia which is one of the least peaceful regions in the world.

According to Institute for Competitiveness which has formulated Global Progress Index, includes an indicator called Inclusiveness. With the Inclusive Index for Karnataka as 59.1, and the Social Progress Index as 59.72, Karnataka stands as one of the socially progressive states in India. However, India and Karnataka have been striving hard to achieve inclusiveness. The significance of inclusiveness lies in the multicultural and plural nature of the Indian society. Equality is not sufficient for realizing peaceful society. In a plural and multicultural society, equity has a critical role to play in the formulation of development policies and programmes. The basic themes of 11<sup>th</sup> and 12<sup>th</sup> five-year plans were 'Towards faster and more inclusive growth' and 'Faster, sustainable and more inclusive growth' respectively (Source: Planning Commission, 2006 and 2011). However, the concerns in these efforts were basically economic and ecological.

The NITI Aayog has prepared SDG India Index for all the 29 states and 7 Union Territories for 13 SDGs. The details relating to SDG 16 is analysed in this section. The progress SDG 16 is measured by taking 6 indicators for which data were available. Karnataka has attained 12<sup>th</sup> rank among the states and UTs in 2018 in India. It reveals that Karnataka has to go a long way in achieving the targets related to SDG 16.

The SDG 16 Index attained by Karnataka is 74 and it is 74 in respect of all the SDGs (13 goals are taken for the calculation of SDG India Index, leaving 12, 13, 14 and 17 Goals on account of non-availability of comparable data) and its total index value is higher than the all India index value (71). Karnataka has to go long way to achieve the targets relating to SDGs 16. This Index gives an idea about the task lying before the state.

### **16B. Targets and Indicators for achieving SDG 16**

This target is about the reduction in all forms of violence and related deaths all over the world. One of

the prime objectives of SDGs is to reduce violence and crimes. It has four indicators, namely intentional homicides (murders), molestation, acid attack and rapes. The first indicator in 16.1 is gender neutral while the remaining last three are gender-sensitive. These are social evils which needs to be addressed in a broader framework. The police system and judiciary are to be made effective and efficient to reduce murder, molestation, acid attack and rapes. It is not possible to address these issues without strong institutions. It is important to note that only reported cases are taken into account. However, there could be many more unreported/unaccounted cases of murders, sexual abuse etc.

According to United Nations Office of Drugs and Crimes, the number of murders per lakh population in the world in 2012 was 6.2. For India it is 3 in 2016. India and Karnataka are in a better position with reference to this indicator. The number of murders in the state has decreased from 1821 in 2012 to 1393 in 2017 registering 23.5% decline. It is a positive trend. The average number of reported murders for six years is 1595. In 2012, there were 2.93 murders per lakh population and it has declined to 2.07 in 2017. The projected cases of murders are 1612.54 in 2022 and 1615 in 2030. The Home Department of Karnataka has set the target reducing it by 12% in murders in 2022 from the projected rate and a reduction of 35% in 2030. Accordingly, the target (1419.04) to be achieved in 2022 estimated to be 1.93 murders per lakh population and the target (1050) for 2030 computed to be 1.25 murders per lakh population. The gap between the projected number of murders in 2022 and 2030 and the targets set are 0.27 and 0.68 respectively. This means there will be less than one murder per lakh population in two period of time. The issue of intentional homicides are not mere law and order problem. It has social, economic, political and cultural dimensions.

The number of molestations has increased from 3213 in 2012 to 5803 in 2017 and registering an increase of 80.61%. It is alarming and unprecedented. It works out to 5.18 instances of molestation in the previous 12 months per lakh population in 2012 and it has increased to 8.63 per lakh population in 2017. It is not a desirable trend. The average number of molestations between 2012 and 2017 is 4806. The number of molestations per lakh population during the period is 7.44. The projected number in 2022 is 4858.84 and 4867 in 2030 estimated to be 6.64 and 5.81 per lakh population. The target set for 2022 is reduction of the number by 12% and for 2030 the target set reduction of the number by 35%. This workout to 4275.5 and 3163 respectively. The gap between the projected number and the requirement in the target year is a reduction by 583.36 in 2022 and a reduction by 1704 in 2030.

The issue of sexual harassment in workplaces becomes a big menace. It is very difficult for women to come out openly about sexual abuses due to social stigma attached to it. And, they are compelled to hide sexual abuse in workplaces because of the compulsion of earning livelihood. The psychological trauma caused by sexual assault is more harmful than the physical pain. The physical injury can be cured but the psychological trauma will have a long-term impact on the development of women.

It is heartening to note that the instances of acid attack are rare and as shown in table there were no instances of this in 2012, 2013 and 2015. It is necessary to reduce this to nil by 2022 and 2030. However, the Home Department has set the target at 1.33 in 2022 and 1.257 in 2030. The state government has taken various measures such as control over the sale and storing of acid in the state. Despite all this some instances of acid attack have been happening. The number of actual reported rapes has decreased from 709 in 2012 to 646 in 2017 and the number has declined by 8.85% during the given period. The



average number of rapes between 2012 and 2017 are 756.83. However, there is a difference in the number of rapes as reported by NCRB and Government of Karnataka in the year 2016. The projected cases of rapes in 2022 are 765.15 and for 2030, they are 766.59. The target set after reducing the number by 12% for 2022 from the projected are 673.34 and for 2030 after reducing the number by 35% from the projected are 488.29. In 2012, the number of rapes per lakh population was 1.14 and it is to be reduced to 0.92 in 2022 and again to 0.58 in 2030.

Under Group Conflict related deaths per lakh population, there are three state level sub-indicators. They are: number of deaths of victims wherein the accused is charged under the Atrocities act 1989, number of deaths of victims wherein the accused is charged under section 153 A read with section 300 or section 200 or section 302 or section 304 in any permutation and combination of the IPC and lastly number of deaths of victims wherein the accused is charged under section 295, section 295-A, section 296 read with section 300 or section 200 or section 302 or section 304 in any permutation and combination of IPC. The Home Department reported nil victims in respect of all these sub-indicators. There cannot be absent of victims under these acts and sections; however, the same may not be collected currently. The data collection mechanism must be weak and hence needs strengthening of the data collection system

#### 16.1: Significantly reduce all forms of violence and related death rates everywhere

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
16.1.1		Number of victims of intentional homicide per 100,000 population	2018	2.17	-	-
16.1.2		Population subjected to physical, psychological or sexual violence in the previous 12 months per 100,000 population	2018	84.12	-	-
	16.1.2.1	Number of reported cases of molestation in the previous 12 months	2017	5803	4775.8	3163
	16.1.2.2	Number of reported cases of Acid Attack in the previous 12 months	2017	4	1.33	1.257
	16.1.2.3	Number of reported cases of rape in the previous 12 months	2017	646	673.34	488.29
	16.1.3.4	No of Deaths of victims wherein the accused is charged under the Atrocities Act, 1989	2017-18	0	0	0
	16.1.3.5	No of Deaths of victims wherein the accused is charged under section 153 -A read with Section 300 or section 200 or 302 or 304 - in any permutation and combination of the Indian penal code.	2017-18	0	0	0
	16.1.3.6	No of Deaths of victims wherein the accused is charged under section 295, 295-A, 296 read with Section 300 or	2017-18	0	0	0

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
		section 200 or 302 or 304 - in any permutation and combination of the Indian penal code.				

Note: - Not Available

## 16.2- End abuse, exploitation, trafficking and all forms of violence against and torture of children

The number of victims of human trafficking in 2012 was 224 and it has increased to 659 in 2017. The increase during the period estimated to alarming rate of 294.29%. The average between 2012 and 2017 was 630. The projected number of victims of human trafficking for 2022 is 636.93 and for 2030 were 638.12. The target set for 2022 works out to 0.87 per lakh population. To create awareness among people and to draw the attention of governments, the UN has declared in 2013 to observe 30<sup>th</sup> July every year as the 'World Day against trafficking in Persons'. The following table gives the data relating to child and adult victims of kidnapping and abduction in India and Karnataka in 2016.

Girls account for 69.92% and 73.34% respectively of the total victims of kidnapping and abduction in Karnataka and India. Of the total adult victims, women account for 74.02% and 67.48% in India and Karnataka respectively. It has global dimensions. It is money spinning business. A strong and effective legal and institutional mechanism is to be established to control, contain and combat this menace.

The number of crimes under POCSO has increased from 512 in 2013 to 1708 in 2017 registering an increase of 233.59%. The average number of crimes between 2012 and 2017 works out to 1.53 per lakh population. The Home Department has projected that the number would go up to 1004.93 in 2022 and 1006.82 in 2030. However, it has set the target to bring it down by 12% in 2022 to 883.34 and by 35% in 2030 to 654.44.

In Karnataka the government has set up District Child Protection Units in all the districts, 21 Child Welfare Committees, 30 Juvenile Justice Boards, 40 special courts to try crimes against children and 519 Child Care Institutions in the state. Notwithstanding all these measures, the crimes against children, particularly against girl child continued unabated. Besides, there is Karnataka State Commission for Protection of Child Rights. The number of missing teenage girls out weights boys. In 2017, of the total number of missing children 1627, girls account for 73.20%. The increase in number of missing boys between 2012 and 2017 was 146.56% while that of girls was 184.01%. It is disheartening to note that in Karnataka, every day 5 children went missing in 2017.

The number of children experiencing any physical and/or psychological aggression by caregivers has increased from 55 in 2012 to 202 in 2017 registering a growth of 267.27 %. The average during six years works out to 174.66. The projected cases in 2022 are 176.58 and 176.91 in 2030. However, the target has been set for 2022 and 2030 by reducing the cases by 12% and 35% at 155.4 and 119 respectively. The data given by the Home Department about indicator 16.2.4., are highly conservative in nature. The data collection may not be effective. Non-availability of data is one of the biggest problems regarding violence against children by caregivers. For instance, the information about corporal punishment never comes to public domain. Similarly, violent discipline exerted by parents on their children also does not

come to the public notice.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
16.2.1		Number of victims rescued from human trafficking per 100,000 population, by sex, age and form of exploitation	2018	0.31	-	-
16.2.2		Proportion of crime committed against children during the year per lakh children	2018	34.61	884.34	654.44
16.2.3		Number of missing children	2017	1627	2457.30	1818.46
	16.2.3.1	Proportion of Children aged 1-17 years experienced any physical punishment and/or psychological aggression by caregivers in the past month	2017	202	155.40	119.00

### 16.3- Promote the Rule of Law (ROL) at the national and international levels and ensure equal access to justice for all

The judiciary supported by police force is in charge of the administration of ROL. It is reported that in Karnataka there are 1137 courts. It is reported that in this indicator, it is not possible to project and set target for 2022 and 2030. The establishment of courts is based on the pendency of cases and other infrastructural criteria and not on population.

The pending cases criminal, civil and others were 258.48 lakh (Vision 2025: Karnataka- Rule of Law and Justice, prepared by NLSIU, Bengaluru). But there is the problem of shortage of court infrastructure in Karnataka in terms of court rooms and other facilities. The state has 897 district and subordinate courts computerized and 27 family courts.

As per the data given by the 'VISION 2025: Rule of Law and Justice' prepared by the National Law School of India University that the number of sanctioned posts of judges were 1299 while working is only 923. There is vacancy of 209 posts. The Vision 2025 recommends that there is a need of additional posts of judges of 322. In total, Karnataka needs 537 judges. Similarly, as against the sanctioned posts of 411 public prosecutors, there are only 255 working prosecutors. The gap between sanctioned posts and working is 156.

This VISION 2025 document about Rule of Law and Justice has identified keeping SDG 16 in view the following action points.

- The ratio of sanctioned posts of judges to working posts of judges.
- Number of family courts. At present there are 27 family courts. There must be one family court per district.
- It is difficult to believe that the number of pending cases (civil, criminal and others) are 258.48 lakh (Criminal:178 lakh, Civil: 79 lakh and the remaining other). These have to be reduced.

- All the district and subordinate courts are to be computerized.
- The present rate of women police personnel in the police has to be increased from the present 5% to 10% by 2022 and to 20% by 2030.
- The percentage of under has to be reduced trails. At present it is 69.1 %.

The nodal department has not made any projection or set the targets about the number of courts and judges. The establishment of courts are based on the pendency of cases and other infrastructure criteria and not based on population. The un-sentenced or pre-trial refers to persons held in prisons, penal institutions or correctional institutions who are untried, pre-trial or awaiting a first instance decision on their case form a competent authority regarding conviction or acquittal (Amnesty International). In Karnataka as on 2015 there were 9314 under trail detainees in prisons. They account for 69.1% total prisoners in the state in 2015(Prison Statistics in India 2015, NCRB). It has gone up to 73.08% in 2017.

As on 2015, 76 deaths took place in prisons. Of them 11 are unnatural and 65 were natural deaths. It is reported that one of the most neglected aspect in judicial reforms is excessive number of under trails in jails. Of the total under trails 325(3.5%) are women. Of the total, 4686 are in central prisons, 3143 are in district jails and 1250 are in sub jails. There are 235 prisoners in special jails. Detaining persons in jails without trail or delay in filing in framing charges etc. is the violation of Article 21 of our constitution which gives the right to life with dignity.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
16.3.1		Number of courts per Lakh population	2019	0.020	-	-
16.3.2		Number of judges per lakh population	2019	0.017	-	-
16.3.3		Unsentenced detainees as a proportion of overall prison population	2019	72.5	-	-

#### **16.4- By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime**

Number of cases actual reported under arms act has increased from 117 in 2012 to 125 in 2017. The projected position in 2022 after reducing the crimes goal setting by 20% will be 126.37 and after reducing the crimes goal setting by 10% in 2030 will be 126.50. The target set for the number of cases under arms act to be reduced to 111.21 in 2022 and 82.3 in 2030.

The number of actual reported rate of recovery of stolen property has decreased from 51.07% in 2012 to 43.95% in 2017. The projected rate of recovery of stolen property in 2022 will be 53.38% and in 2030 will be 53.48%. The recovery rate as per the state data in 2014 is 51.36% while in NCRB it is shown as 33.05%. Similarly, the recovery rate as given by state in 2016 is 46.33% while in NCRB for the same year is 38.10%. This needs to be verified. The Home Department has projected the rate of recovery would go up to 53.38% in 2022 and to 53.48% in 2030. One of the reasons for the poor recovery rate is the

lower strength of police force and existence of huge vacancy.

The states have limited power over this Illicit Financial Flows. However, it is to be mentioned that the illicit financial flows is posing a big threat to the development of the economy and security of the country. Being a capital-poor country, India has to make concerted efforts to put an end to this menace. It is essentially an all India problem.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
16.4.1		Number of cases under the Arms Act	2018	122	111	82
16.4.2		Value of Property Stolen & Recovered (Cr) and Percentage Recovery	2018	244.8 & 97.3; 39.7%	46.98 %	48.10 %

#### 16.5- Substantially reduce corruption and bribery in all their forms

Bribery and corruption are major obstacle for socio-economic development, distorting national and international economic relations. This problem exists both in government and corporations. It is reported that cases registered under prevention of corruption act and related sections were 410 in 2014 and 209 in 2015. Persons arrested in total cognizable cases under offences under prevention of corruption act and related sections of IPC are 4. It is reported that the total number of government convicted corruption cases per number of government officials is 64 in 2017. There seems to be a problem regarding the data and administration of corruption cases and related issues.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
16.5.1		Persons arrested in Total Cognizable Crime Cases under offences under Prevention of Corruption Act and Related Sections of Indian Penal Code (IPC) per lakh population	2017	0.58	-	-
	16.5.2.1	Number of convicted corruption cases	2017	64	-	-

#### 16.6- Develop effective, accountable and transparent institutions at all levels

Karnataka has done commendable work relating to delivery of services to citizens. There are four indicators covered in this target including number of government services provided online to citizens, percentage of RTI queries responded, number of applications filed with institutions coming under RTI act and number of services provided under SAKALA.

- Approximately 134 citizen services are provided on line in the state.
- Number of RTI queries responded were 23381

- Number of applications filed with institutions coming under Right to Information Act was 14882.
- Number of citizen services provided under SAKALA was 864. The target set for 2030 is 1500.

The services delivery system has to be improved and online service delivery has improved but not in rural and interior areas. The Gram Panchayats in rural areas and Urban Local Bodies in the urban areas should be made the basic grassroots unit for delivery of all services.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
16.6.1		Number of Government services provided online to citizens	2018-19	134	250	-
16.6.2		Percentage of RTI queries responded	2017-18	23381	-	-
16.6.3		Number of applications filed with institutions coming under Right to Information Act	2017-18	14882	-	-
	16.6.3.1	Number of services under SAKALA	2017-18	887	-	-

#### 16.7- Ensure responsive, inclusive, participatory and representative decision-making at all levels

This indicator primarily deals with representation of women and SC and ST in the elected democratic institutions at all levels-national, state and local level. It is concerned with political representation and participation and not with economic participation. It is not surprising that the proportion of women in Panchayat Raj Institutions is more than 50% while the proportion of SC and ST in PRIs is more than their proportion in the population. The representation to women by 50% and to SC and ST equal to their proportion in population is a legislative requirement. Neither has it showed the gender sensitiveness nor inclusion of excluded sections of the society. However, through legislative measures the state has been able to provide the representation of women and SC and ST equal to their share in population. The patriarchal nature of the society continues in legislative assembly and council. The state has to take a decision to give 33% if not 50% representation of women in legislature and parliament.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
16.7.1		Proportion of women in Elected Bodies				
	16.7.1.1	Proportion of Women seats in State assembly	2013	3	-	-
	16.7.1.2	Proportion of Women seats in State legislative council	2013	11	-	-
	16.7.1.3	Proportion of women members in Zilla Panchayats/ ULBs	2016-17	50.60	50	50

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
	16.7.1.4	Proportion of women members in Taluk Panchayats	2016-17	51.19	50	50
	16.7.1.5	Proportion of women members in Gram Panchayats	-	51.14	50	50
16.7.2		Proportion of SC/ ST persons in the elected bodies				
	16.7.2.1	Proportion of SC/ ST persons in the Zilla Panchayat	2016	28.35	-	-
	16.7.2.2	Proportion of SC/ ST persons in the Taluk Panchayat	2016	29.67	-	-
	16.7.2.3	Proportion of SC/ ST persons in the Grama Panchayat	2016	30.97	-	-

#### 16.8- Broadening and strengthening the participation of developing countries in the institution of global governance

This target covers all the developing countries and it refers to global governance. Relating to this target, India has not yet evolved national indicators. Because of these reasons, it is not considered for the preparation of State Action Plan.

#### 16.9- By 2030, provide legal identity for all, including birth registration

Aadhaar is a 12-digit unique identification number issued by the Indian government to every individual resident of India. The proportion of population covered under Aadhaar in 2017 in the state is 96.70%. The data relating to migrant construction workers that have been registered with Building and other construction workers board, Karnataka and provided Identity cards for the same during 2011-12 to 2017-18.

Most of the inter-state migrant workers are found in Bengaluru. The number of inter-state migrant workers was 47284 in 2014-15 and it has increased to 49624 in 2017-18. This number represents only the reported and registered under Migrant Workmen Act 1979. There could be many more inter-state migrant workers in the state.

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
16.9.1		Level of registration of births (%)	2017	100	100	100
16.9.2		Proportion of population covered under Aadhar	2019	94	100	100

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
	16.9.3.1	No. of migrant construction workers that have been registered with Building and other construction workers board Karnataka and provided Id cards for the same	2017-18	7812	-	-
	16.9.3.2	No. of migrants that have been registered under the Inter-state Migrant workmens act, 1979.	2017-18	49624	-	-

**16.10- Ensuring the access to information and protect fundamental freedoms in accordance with national legislation and international agreement.**

National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
16.10.1		Percentage of RTI queries responded	2017	23381	-	-

**16.a - Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime**

Government of Karnataka formed Karnataka State Commission for Women on 26.05.1995 under Karnataka State Women's commission act 1995. Also, Karnataka State Commission for Protection of Child Rights was established on 3<sup>rd</sup> July 2009 under the Commission for the protection of Child Rights Act 2006. The objective of the commission is to protect, promote and defend child rights in the state.

It is important to remember that all these Commissions, are constitutional bodies. There are institutions which have been working for the protection of rights of child, women, SC and ST and minorities in the state. Besides, the state has Karnataka State Human Rights Commission. The nodal agents for these commissions are Women and Child Development Department for the first two commissions, Social Welfare Department for Commission for SC and ST and Minorities Welfare Department for the Minorities Commission. All these commissions work for the protection of human rights of the concerned social groups. Despite these institutions, crimes against women, girls, children, SC and ST and minorities are increasing. These institutions have to work effectively and people in the rural areas, backward regions must be made to experience the presence of activities of these institutions.



National Indicator No.	State Indicator No.	Indicators	Base Line Year	Base Line Value	2022	2030
16.a.1.1		Existence of independent State human rights institutions: Women Commissions	2017-18	Yes	Yes	Yes
	16.a.1.1	Existence of independent State human rights institutions: Children Commissions	2017-18	Yes	Yes	Yes
	16.a.1.2	Existence of independent State human rights institutions	2017-18	Yes	Yes	Yes

\* Establishing Independent authority to act as a check to filtering out unnecessary cases & reducing the burden on police & Courts and to combat Terrorism

### **16.b- Promotion and enforcement of non-discriminatory laws and policies for Sustainable Development**

National indicator not yet evolved

## **16C. Way Forward**

The State Action Plan for the SDG 16 contains many recommendation and suggestions. Some of them are as follows:

- Karnataka is one of the socially progressive states in India. However, there is room for improvement towards international standards
- Police –population ratios, vacant posts to be filled and periodic training/refresher course for police personnel in the Police Department
- Operationalize the UNICEF suggested six general measures to contain and combat all forms of violence against children
- Workshops for school teachers to evolve operational guidelines that would be adopted to form a code which would empower, support women and children across racial and economic strata.
- It is more important to involve the members of PRIs and ULBs in combating sexual abuse, particularly child abuse and domestic violence. Sexual abuse is no longer urban phenomenon.
- The education department has to organise massive sex education in schools and colleges. This will go a long way in creating awareness about dangers of sexual adventure etc.
- Prison reforms to address injustices, especially for under trial persons in prisons
- Increase number of Lokayukthas (ensure mandates are different from Anti-Corruption Bureau), institutions to work autonomously and independently
- PURA (Provision of Urban facilities to Rural Areas) to curtail mass migration

- Delivery of public services in an effective, transparent and accountable manner, such as SAKALA, PDS etc. needs effective supervision and monitoring
- 100% Aadhaar coverage, check on intra-state and inter-state migration of labourers, operationalize register of out migrant labourers in the Gram Panchayat
- Constitutional Rights based institutions/commissions to periodically organize workshops on gender sensitive issues, human rights, safety and security of women and girl child, protection of rights of minorities and also publication of booklets/magazines to educate the concerned population about their rights, the consequences of hate, crimes, intolerance and violence.
- The government has to earmark sufficient annual budgets to Police Department, Judiciary, Labour Department, Women and Child Development Department
- Budget provisions for improving the data collection system regarding crimes for reliable up-to-date data necessary to formulate effective action plans

## 16D. Budget Requirements

**Budget requirements for SDG 16 (In Crores)**

Department	Scheme Name	2020-21			2029-30		
		Based on Targets	Business as Usual	Gap	Based on Targets	Business as Usual	Gap
Appendix 16.2	Appendix 16.2	901.59	488.94	418.65	3854.58	4598.52	1888.85

Indicator-wise data source and nodal department and Annual estimated budget for achieving the targets till 2029-30 is presented in Appendix 16.1 and Appendix 16.2, respectively.

## 16E. Appendices

### Appendix 16.1: Indicator-wise data source and nodal department

Sl. No.	National Indicator No.	State Indicator No.	Data Source	State Nodal Department
1	16.1.1		Police IT	Home
2	16.1.2		Police IT	Home
3		16.1.2.1	Police IT	Home
4		16.1.2.2	Police IT	Home
5		16.1.2.3	Police IT	Home
6		16.1.3.4	Police IT	Home
7		16.1.3.5	Police IT	Home
8		16.1.3.6	Police IT	Home
9	16.2.1		Police IT	Home
10	16.2.2		Police IT	Home
11	16.2.3		Police IT	Home
12		16.2.3.1	Police IT	Home
13	16.3.1		Law Department	Home
14	16.3.2		Law Department	Home
15	16.3.3		Prison Department	Home
16	16.4.1		Police IT	Home
17	16.4.2		Police IT	Home
18	16.5.1		Lokayukta	Lokayukta
19		16.5.2.1	Lokayukta	Lokayukta
20	16.6.1		e-Governance	DPAR-AR
21	16.6.2		RTI	RTI
22	16.6.3		RTI	RTI
23		16.6.3.1	e-Governance	e-Governance
24	16.7.1		DES	DES
25		16.7.1.1	DES	DES
26		16.7.1.2	DES	DES
27		16.7.1.3	DES	DES
28		16.7.1.4	Men & Women Report 2016-18	DES
29		16.7.1.5	Men & Women Report 2016-19	DES
30	16.7.2		Men & Women Report 2016-20	DES
31		16.7.2.1	RDPR	RDPR
32		16.7.2.2	RDPR	RDPR
33		16.7.2.3	RDPR	RDPR
34	16.8.1		e-Governance	e-Governance
35	16.9.1		SRS Report	DES (CNL)
36	16.9.2		e-Governance	e-Governance
37		16.9.3.1	Labour Dept.	Labour Dept.
38		16.9.3.2	Labour Dept.	Labour Dept.
39	16.10.1		Central Information Commission	Central Information Commission
40	16. a.1.		WCD	WCD
41		16.a.1.1	WCD	WCD
42		16.a.1.2	Minorities Welfare Dept.	Minorities Welfare Dept.
43	16.b			
	20	11		

Note: WCD-Women and Child Development; DES-Directorate of Economics and Statistics

**Appendix 16.2: Annual estimated budget for achieving the targets till 2029-30 (In Crores)**

Name of the Scheme	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
B-Trac (Bengaluru City)	0.00	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90
M-Trac-1 (Mysuru City)	0.00	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90
M-Trac-2 (Mangalore City)	0.00	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90
Bel-Trac (Belagavi City)	0.00	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90
H-D Trac (Hubballi Dharwad city)	0.00	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90
T-Trac (Tumakuru)	0.00	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90
K-Trac (Kalaburagi)	0.00	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90
R-Trac (Railway Trac in Bengaluru & Mysuru)	0.00	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90
Modernisation of Police Force	58.92	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90
Modernisation of Forensic Lab	10.00	26.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dial-100 (ERSS)	4.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CCTNS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Construction of Police Public School at Davanagere	3.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Construction of 12th BN KSRP Tumakuru	23.20	12.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Police Command Centre	5.00	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90
Construction of Women Barracks in KSRP	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Construction of Police Stations	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	6.00
Construction of Kalaburagi Commissionerate office	3.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
One-Stop Service Centre in 5 commissionerates	4.38	4.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Separate Toilets for women in Police offices.	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00
Construction of Belagavi Commissionerate office	3.00	10.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Name of the Scheme	2019-20(BE)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Memorial to honour the bravery of the police	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Up-gradation of Police Training Schools	5.00	41.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land Acquisition	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	6.00
Police Gruha-2020	244.57	468.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Traffic improvement in District	2.56	2.66	2.76	2.86	2.96	3.06	3.16	3.26	3.36	3.46	3.56
Purchase of Equipment in Intelligence	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	1.10
Investigation Charges	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	11.00
Infrastructure for KSRP BNs	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
Recruitment for PC to PSI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Equipment purchase for all District	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	4.00
Purchase of Arms & Ammunition and Kit Articles	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	23.00
Arogya Bagya Scheme	53.80	53.90	54.00	54.10	54.20	54.30	54.40	54.50	54.60	54.70	54.80
Computer infrastructure - CCI project	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00
Maintenance of Computer	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	9.00
Infrastructure for FSL	0.95	1.05	1.15	1.25	1.35	1.45	1.55	1.65	1.75	1.85	1.95
Purchase of Equipment for FSL Units	0.50	0.60	0.70	0.80	0.90	1.00	1.10	1.20	1.30	1.40	1.50
Infrastructure for ISD/ CSP, Udupi/ KSISF	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	9.00
Repair to Police Quarters and Office buildings	70.00	70.10	70.20	70.30	70.40	70.50	70.60	70.70	70.80	70.90	71.00
Traffic improvement in Cities	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	11.00
<b>Total</b>	<b>569.27</b>	<b>901.59</b>	<b>317.31</b>	<b>320.01</b>	<b>322.71</b>	<b>325.41</b>	<b>328.11</b>	<b>330.81</b>	<b>333.51</b>	<b>336.21</b>	<b>338.91</b>



**III. CONCLUSION AND WAY FORWARD- SDG VISION 2030**







### III. CONCLUSION AND WAY FORWARD

The vision of Karnataka is to empower all the citizens to realize their full potential by creating an environment that is inclusive, resilient, peaceful and productive. The basic pillars of Karnataka Development model are technology, Equity, Human Development, Governance- People friendly & Citizen centric and Participatory process of Planning & Development. The state is proactive in implementing the policies and programmes that work in the direction of promoting human development and social justice. Now the vision, mission and the policies are being integrated with the attainment of SDG 2030.

The SDG India Index 2019 is now brought out by NITI Aayog which is more broad-based and comprehensive than the SDG India Index 2018. It is estimated based on 100 priority indicators. The relative position of the State and the country is indicated in the table below.

**Karnataka and India SDG Index- 2018 and 2019**

SDG	Karnataka		India	
	2018	2019	2018	2019
SDG 1 No Poverty	52	49 (A)	54	50
SDG 2 Zero Hunger	54	37 (A)	48	35
SDG 3 Good Health & Well-Being	69	72	52	61
SDG 4 Quality Education	76	67	58	58
SDG 5 Gender Equality	43	42 (A)	36	42
SDG 6 Clean Water & Sanitation	62	88	63	88
SDG 7 Affordable & Clean Energy	77	86	51	70
SDG 8 Decent work & economic growth	72	78	65	64
SDG 9 Industry, innovation and infrastructure	57	40 (A)	44	65
SDG 10 Reduced inequalities	68	70	71	64
SDG 11 Sustainable cities & communities	36	48(A)	39	53
SDG 12 Responsible consumption & production	NE	72	NE	55
SDG 13 Climate Action	NE	71	NE	60
SDG 14 Life below water	NE	-	NE	65
SDG 15 Life on land	88	89	90	66
SDG 16 Peace, Justice & strong institutions	74	75	71	72
Composite SDG score	52	66	57	60

Source NITI Aayog, 2018 & 2019; NE- Not estimated; A - Aspirational goals

On goals related to climate Action, life below water, decent work and economic growth, health production and Consumption it is placed at the top. But Karnataka is now in aspirational category in five goals now Goal-1, 2, 5, 9 & 11 as presented in the table below. The Public Affairs Centre has estimated Public Affairs Index for 2019 for all the States in India. The Index is based on 49 indicators covering Equity, Growth and sustainability. Karnataka stands at 4<sup>th</sup> place in overall Index. The ranks in each

category are -Equity Index - 17<sup>th</sup> Rank, Growth Index- 3<sup>rd</sup>. Rank and Sustainability Index- 1<sup>st</sup> rank. Here also it is low in Equity – that includes indicators related to poverty and indebtedness, inequalities, education, Women & Children, Housing, violence against women and pendency of cases.

#### Performance of Karnataka State 2019

Category	SDG Goal	Score	Rank
Front Runner (65-99)	SDG 3: Good Health and Well-being	69	3
	SDG 4: Quality Education	76	6
	SDG 7: Affordable and Clean Energy	77	6
	SDG 8: Decent Work and Economic Growth	72	2
	SDG 10: Reduced Inequalities	68	8
	SDG 15: Life on Land	88	10
	SDG 16: Peace, Justice and Strong Institutions	74	9
	SDG 13: Climate action	71	1
	SDG 12: Responsible consumption and production	72	4
	SDG 6: Clean Water and Sanitation	88	6
Aspirant (0-49)	SDG 14: Life below water	65	1
	SDG 1: No Poverty	49	13
	SDG 2: Zero Hunger	37	15
	SDG 5: Gender Equality	42	7
	SDG 9: Industry, Innovation and Infrastructure	40	19
	SDG 11: Sustainable Cities and Communities	48	12
	All Goals- Karnataka (Except SDG 17)	66	4

Source: NITI, 2019

Many of these indicators cover the SDG goals in which Karnataka is in Aspirant category. Therefore, the road map and action plan have to identify priorities and focus areas for attaining the SDG 2030 targets.

#### Priorities/ Milestones

- **Level I-** Focus on Sustainable Livelihoods and Social Development - Goals in Aspirational Category SDG-1, SDG-2, SDG-5, SDG-9 and SDG-11- (Goal -10 Though in Front runner category we are below National average in 4 out of 9 indicators) Critical targets and critical areas- Aspirational districts.
- **Level II-** Focus on 33 Indicators below National Average across the 16 goals
- **Level I and II** to be taken up simultaneously in the first stage. Because the average performance of the State is being pulled down due to some very low performing areas/ districts in the State in all the indicators.
- **Level III-** Localisation of SDGs & Catching up with Best Performing States.
- **Level IV-** Reach the Achiever level in all SDGs by (Before) 2030

**SDG indicators in which Karnataka is below National Average**

<b>Goal</b>	<b>Indicators</b>
SDG-1 No poverty	Percentage of households with any usual member covered by any health scheme or health insurance Proportion of the population (out of total eligible population) receiving social protection benefits under Maternity Benefit (%)
SDG-2 Zero Hunger	Rice, wheat and coarse cereals produced annually per unit area (Kg/Ha) Gross Value Added in Agriculture per worker
SDG-3	HIV Incidence per 1000 uninfected population
SDG-4	Average annual dropout rate at secondary level Percentage of schools with Pupil Teacher ratio less than/ equal to 30
SDG-5	Female to male ratio of average wage/salary earnings Proportion of sexual crime against girl children to total crime against children during the calendar year Operational landholdings-gender wise (1.20 - N-13.90)
SDG-6	Percentage of households having improved source of drinking water Percentage of urban households with individual household toilets (93-97) Percentage of blocks over-exploited (25.5 & 18)
SDG-7 &8	Nil
SDG-9 Industry, Innovations Employment	Percentage of targeted habitations connected by all-weather roads under Pradhan Mantri Gram Sadak Yojana* Number of Internet subscribers per 100 population*
SDG-10 Reduced Inequalities	Growth rates of household expenditure per capita among the bottom 40 per cent of the population in urban India Gini Coefficient of Household Expenditure in Urban India Proportion of SC/ST persons in state legislative assemblies Ratio of transgender labour force participation rate to male labour force participation rate
SDG-11 Sustainable Cities and Communities	Houses completed under Pradhan Mantri Awas Yojana (PMAY) as % of net demand assessment for houses Percentage of wards with 100% door to door waste collection Percentage of waste processed Installed sewage treatment capacity as a proportion of sewage generated in urban areas
SDG-12 Responsible consumption and production	Percentage ground water withdrawal against availability Percentage use of nitrogen fertilizer out of total N,P,K, (Nitrogen, Phosphorous, Potassium) Percentage of wards with 100% source segregation
SDG-13 Climate action	Nil

Goal	Indicators
Goal-14 Life below water	Coastal Water Quality Index % increase in area under mangroves Average marine representative sampling stations in the shore zone
Goal-15 Life on Land	Tree cover as a proportion of geographical area
Goal -16 Peace, Justice and Strong Institutions	Reported cognizable crimes against children per 1 lakh population Estimated number of courts per 10 Lakh persons Cases Reported under Prevention of Corruption Act & Related Sections of IPC per 100,000 population
Total	33

**Note:** \* Percentage of targeted habitations connected by all-weather roads under *Pradhan Mantri Gram Sadak Yojana* is 100% for Karnataka as per RDPR database and Number of Internet subscribers per 100 population is not tallying with the state estimates

#### Distance from the best performing State

SDG	Karnataka	Best performing state	Gap from best performing State
SDG 1 No Poverty	49	Tamil Nadu (72)	23
SDG 2 Zero Hunger	37	Kerala (74)	37
SDG 3 Good Health & Well-Being	72	Kerala (82)	10
SDG 4 Quality Education	67	Kerala (74)	07
SDG 5 Gender Equality	42	Kerala (51)	09
SDG 6 Clean Water & Sanitation	88	Andhra Pradesh (96)	08
SDG 7 Affordable & Clean Energy	86	Telangana (93)	07
SDG 8 Decent work & economic growth	78	Telangana (82)	04
SDG 9 Industry, innovation and infrastructure	40	Kerala (88)	48
SDG 10 Reduced inequalities	70	Telangana (94)	24
SDG 11 Sustainable cities & communities	48	Gujarat (77)	29
SDG 12 Responsible consumption & production	72	Nagaland (100)	28
SDG 13 Climate Action	71	Karnataka (71)	00
SDG 14 Life below water	-	Karnataka (72)	00
SDG 15 Life on land	89	Kerala (98)	09
SDG 16 Peace, Justice & strong institutions	75	Andhra Pradesh (86)	11
Composite Score	66	Kerala (70)	04

Note: Figures in the parenthesis indicate the index score

## Specific Schemes/ Programmes for SDGs in Aspirational category

### SDG-1

- Annabhagya- A flagship Programme for food security more comprehensive than NFSA. *KSheera Bhagya, Indira Canteens,*
- Expansion of Coverage of Maternity Benefit to women workers in Unorganised sector- Welfare Board Fund & under Maternity Benefit schemes Central/ State of H&FW Dept. *Arogya Bhagya Scheme, JSY, Tai Bhagya, Pradhan Mantri Matru Vandana Yojane)*
- Effective coverage and Implementation of ICDS Programme – First 1000 days. Supplemented by Multi sectoral Nutrition Project to cover all regions with high incidence of Malnutrition.
- Full coverage of BPL holders under health insurance, through the Ayushman Bharat – Arogya Karnataka to cover health expenditure of the poor.
- SHG partnerships for convergence, skilling and marketing initiatives and their empowerment.

### SDG-2

- Schemes- RKVY. *Krishi Bhagya, Runamukta Bhagya*
- Agriculture Department to promote precision farming techniques to improve productivity and foster agro-processing with high nutrition value available locally.
- Develop agro processing clusters, cold storage facilities and e- marketing platforms to reduce waste and provide remunerative prices to the farmers.
- Promotion of sustainable agriculture through integrated farming systems with the inclusion of livestock activities (crop & enterprise diversification), organic farming, climate-resilient crops – ‘farm-preneurs’ through Agricultural Universities.
- Drought proofing – watershed development, water harvesting and efficient resource use (micro-irrigation), promoting climate-resilient crops in partnership with local and other NGOs.
- Formation and strengthening of Farmer collectives and markets for promoting competition– Value chain development.
- More credit facilities and PPP models in farm investment related to farm mechanization and agro-processing

### SDG-5

- Expansion of the coverage of *BetiBachao BetiPadhao and Bhagyalaxmi* schemes, effective implementation and monitoring of PC&PNDT Act, inspections at all scanning centres once in three months by -District Inspection and Monitoring Committee.
- **Increasing Women’s work participation and equal distribution of work in the care economy. Rights to Resources:** strengthen SHGs, cooperatives, promote schemes that encourage

entrepreneurship and provide infrastructure, support facilities (credit, legal) for women, expand coverage of schemes like *Udyogini*

- Support facilities like *ShishuVihars*, crèches, old age care to help women, strengthen *Anganwadi* Centres to take care of children in 0-3 age group, increase number of working women' hostels
- **Education & Skill development:** modules on gender equality in school curriculum, skill development programmes for girls, vocational training, skill up-gradation, capacity building for women in e-commerce, increasing the provision for women from 33 % to 50% under *Chief Minister's Koushalya Karnataka Yojana*, SDEL to identify gender-friendly courses.
- **Health:** "*LaQshya*" aims at improving the intra-partum and post-partum services, 100% tracking of all pregnant women and ensuring high quality in antenatal care is planned with the integration of IT services of WCD and Health department
- Train police officials and provide advocates and strengthen judicial system to improve conviction rate.

## SDG-9

- Establishment of **single window agency** & improving the Ease of Doing Business platform.
- Special focus on **promoting skill development** across sectors in a bigger way through DDUGKY and Chief Minister Koushalya Karnataka Programme and Vocationalisation of Education through vertical and horizontal coordination with departments of education and skill development.
- Higher investments on- **transport connectivity** (viz., air, road, water) and **creation of Special development zones** (viz., science city, innovation city, industrial city, science incubation centres)
- *Policies for industries such as IT, BT, Aerospace, start-ups, FPOs, animations and visual effects, semi-conductors and electric vehicle manufacturing*
- Energy-efficient public transport and incentivizing investment in energy-efficient technologies,
- Enhance fiscal incentives, such as R&D tax incentives, subsidizing research, tax credits etc. to encourage technological and infrastructure innovations and decentralization of industries. Facilitate grants & subsidies specifically for projects with high social returns should be encouraged.
- Industry should promote social & community R&D through setting up of local skill development centres under CSR.

## SDG-11

- **Innovative Housing Schemes:** Advance the development of public rental housing; complete the rebuilding of slums and dilapidated houses; Subsidize the maintenance of poor families, Invest in affordable homes for lower middle-class families; capital investment and end user finance; Form housing cooperative societies with slum dwellers as stakeholders.
- PURA (Provision of Urban facilities to Rural Areas) to curtail mass migration

- Delivery of public services in an effective, transparent and accountable manner.
- **Pollution free cities and waste reduction:** Promote green construction in urban areas by continually increasing per capita green park space; Improve household waste treatment; Create integrated air quality management system to reduce pollutants emissions; Create integrated waste management systems to increase in recycling rate
- **Clean and Green Urban regions:** Control the intensity of urban development and reserve adequate green space; Create green belt and ecological corridors in urban areas while restoring wetlands and preserving scenic spots
- Improve city planning, construction and management; by 2030, build urban clusters, small and medium-sized cities, and small townships; Improve the social governance system to achieve good interactions among government administration; Task force to protect and restore heritage buildings/sites.

## **SDG-2030 attaining Goals and Targets- Strategies proposed**

### **Planning and Data base**

- Effective implementation of Schemes – developing output-outcome framework for close monitoring.
- Creating **awareness (Information, Education and Communication)** about all governmental programs of all departments and distribution of governmental benefits through establishment of **single window agency**
- Higher investments in **transport connectivity** (viz., air, road, water) and **creation of development zones** (viz., science city, innovation city, industrial city)
- Special focus on **promoting skill development** across sectors in a bigger way through vertical and horizontal coordination with respect to departments of education
- Strengthening Data collection and analytical framework- Redesigning of Karnataka at a Glance & District at a Glance and other Statistical documents covering SDG Targets and indicators.
- Higher emphasis on **data collection and analytics** related to SDG indicators -**Targeted approach** for development through evidence-based programmes and policies.
- Karnataka Open Data Initiatives, Knowledge Partnership with IITB & PAC- Centre for Open Data Research for data Analytics.
- Developing effective Planning tools and Techniques - Spatial Planning and mapping (GIS)
- Review of SDG progress in Karnataka Development programme meetings.
- Monitoring and progress review by a State level Committee and evaluation by Karnataka Evaluation Authority.
- Capacity building of Implementing officers- Training programs through ATI Mysore
- Localization of SDGs- developing framework, indicators and monitoring at District/ Taluka level
- Aspirational Districts Development Programme aligned with SDG Goals.

- Global Partnership with UNDP for establishment of SDG Coordination Centre.

#### Good Governance and Resource mobilization

- **The Karnataka Sakala Services Act, 2011** and (Amendment) Act, 2014 (Karnataka State Legislature to provide guarantee of services to citizens in the State of Karnataka within the stipulated time limit.).
- **Citizen Service Centres** (Bangalore One and Karnataka One), Unified Market Platform, Mobile one (multi-mode mobile governance platform),
- **Pratibimba** (track and measure departmental performance on programmes/projects).
- **Integration of all programs and policies** to measurable indicators of sustainable development goals through convergence and modifications
- **Effective implementation strategies** considering the multidimensional nature (Social, Economic and Environment) of SDG goals effective integration and implementation of policies across the sectors.
- **Ensuring adequate investments** across sectors to target achieving SDGs through scheme and budget mapping through reprioritisation of budget resources.
- **Resource use efficiency approach** and governance strategy form the base for development pathway for achieving SDGs

Planning and policy formulation for attaining the SDG agenda 2030 is a dynamic process and in course of time new strategies will be designed and the existing will be modified to suit the requirements to accomplish the Goals and targets.

In order to achieve the SDG targets, set 2030, department-wise and goal-wise estimated budget for achieving the SDG target 2030 is presented below:

#### Department-wise estimated budget for achieving the SDG target 2030 (In Crores)

Description / Department	2020-21		2020-30	
	Proposed by Depts.	Gap from Regular Budget	Proposed by Depts.	Gap from Regular Budget
Goal 2:End hunger, achieve food security and improved nutrition and promote sustainable agriculture				
Agriculture	1514.53	460.27	19899.44	9036.14
Food & Civil Supplies	4147.00	60.36	66092.50	1197.32
Women& Child Dev.	1638.45	470.22	24937.88	9081.07
Primary & Secondary Education	2356.00	385.45	37549.52	17304.45
Horticulture	675.50	18.31	8492.40	610.96
Sericulture	400.00	0.00	4513.30	0.00
Watershed Development	190.90	106.76	3875.98	3705.55
Animal Husbandry	21.42	0.83	233.74	0.00
Total Goal 2	10943.80	1502.20	165594.76	40935.50



Description / Department	2020-21		2020-30	
	Proposed by Depts.	Gap from Regular Budget	Proposed by Depts.	Gap from Regular Budget
Goal 3: Ensure healthy lives and promote wellbeing for all at all ages				
Health & Family Welfare	975.08	114.07	15484.14	4841.30
AYUSH	295.15	153.05	6237.13	3866.62
Total Goal 3	1270.23	267.12	21721.27	8707.92
Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all				
Primary & Secondary Education	2818.56	141.65	44929.52	14527.91
Higher Education	589.83	219.19	7016.39	2908.79
Women& Child Dev.	1547.45		16715.42	
Skill Development Department	817.00	817.00	11342.92	11342.92
Total Goal 4	5772.84	1177.84	80004.25	28779.62
Goal 5: Achieve gender equality and empower all women and girls				
Women& Child Dev.	56.10	11.50	429.30	219.86
Goal7: Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for All				
Energy	11770.00	20.00	135200.00	
Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation				
RDPR	908.57	205.77	11811.78	6571.56
Commerce & Industries	1568.14	180.64	29339.00	11787.74
Skill Development Department	298.41	8.86	5583.05	1103.67
Science & Technology	31.50	3.15	502.09	180.41
Women& Child Dev.	28.37	12.41	530.77	447.99
Total Goal 9	2834.99	410.83	47766.69	20091.37
Goal 10:Reduce inequality within and among countries				
Welfare of SCs	5083.54	734.66	96702.47	49510.68
Welfare of STs	814.58	186.53	10245.69	4915.45
Welfare of OBCs	1069.70	242.39	17048.18	7586.08
Welfare of Minorities	1832.75	277.91	29209.25	12342.98
Total Goal 10	8800.56	1441.49	153205.60	74355.19
Goal 11:Make Cities and Human Settlements Inclusive, Safe, Resilient and Sustainable				
Urban Dev	1744.17	429.77	24137.05	13488.74
Housing (Excl.Slum Dev)	275.00	107.16	3805.31	2126.40
Slum Dev	100.00	48.06	2125.00	1375.00
Total Goal 11	2119.17	584.99	30067.36	16990.14
Goal 12: Ensure sustainable consumption and production pattern				
Animal Husbandry	1520.48	4.63	17627.43	183.05
Urban Dev	879.15		3960.15	
Total Goal 12	2399.63	4.63	21587.58	183.05

Description / Department	2020-21		2020-30	
	Proposed by Depts.	Gap from Regular Budget	Proposed by Depts.	Gap from Regular Budget
Goal 13: Take Urgent Action to Combat Climate Change and its Impacts				
Agriculture	168.00	8.00	1481.76	201.76
Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development				
Fisheries	7.98	0.88	100.37	29.37
Goal 15: Protect, restore and promote sustainable use of territorial eco-system, sustainably manage forest, combat desertification and halt and reverse land degradation and halt biodiversity loss				
Forestry & Wildlife	381.00	155.00	3890.00	1830.00
Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build accountable and inclusive institutions at all levels				
Home	901.59	418.65	3854.58	1888.85
Agriculture	1615.59	-	16155.90	-
Animal Husbandry	224.20	-	2627.34	-
Commerce & Industries	370.20	-	4890.67	-
Co-operation	1584.61	-	23405.79	-
Health & family welfare	1340.98	-	14874.70	-
Higher Education	82.06	-	820.60	-
Home	12.52	-	190.51	-
Housing(Excl. Slum Dev)	1852.95	-	18529.50	-
Kannada & Culture	24.68	-	246.80	-
Labour	7.33	-	73.30	-
Law	3.00	-	30.00	-
Welfare of Minorities	227.40	-	2274.00	-
Primary & Secondary Education	579.42	-	9231.25	-
RDPR	1902.04	-	23214.55	-
Revenue	7678.66	-	112946.53	-
S&Y Empt	10.10	-	152.11	-
Sericulture	134.04	-	1426.58	-
Skill Development Department	165.00	-	2629.68	-
Transport	507.91	-	5267.57	-
Urban Dev	14.00	-	140.00	-
Women& Child Dev.	515.69	-	6301.52	-
Welfare of OBCs	376.30	-	4174.44	-
Welfare of STs	160.35	-	2169.68	-
Welfare of SCs	115.86	-	1445.19	-
Total Goal 1	19504.91	-	253218.21	-
RDPR	3112.99	-	44269.37	2911.81
Urban Dev	1725.89	-	24925.02	1708.51
Total Goal 6	4838.88	-	69194.39	4620.32
Grand Total	71769.68	6003.13	987316.12	198832.96

**Department-wise estimated budget for achieving the SDG target 2030 (In Crores)**

Department	2020-21		2020-30	
	Proposed by Depts.	Gap from BAU	Proposed by Depts.	Gap from BAU
Agriculture	3298.12	468.27	37537.10	9237.90
Animal Husbandry	1766.10	5.46	20488.51	183.05
Women & Child Development	3786.06	494.13	48914.89	9748.92
AYUSH	295.15	153.05	6237.13	3866.62
Commerce & Industries	1938.34	180.64	34229.67	11787.74
Co-operation	1584.61	0.00	23405.79	0.00
Energy	11770.00	20.00	135200.00	0.00
Food & Civil Supplies	4147.00	60.36	66092.50	1197.32
Health & Family Welfare	2316.06	114.07	30358.85	4841.30
Higher Education	671.89	219.19	7836.99	2908.79
Horticulture	675.50	18.31	8492.40	610.96
Housing (Excluding Slum Development)	2127.95	107.16	22334.81	2126.40
Kannada & Culture	24.68	0.00	246.80	0.00
Labour	7.33	0.00	73.30	0.00
Law	3.00	0.00	30.00	0.00
Primary & Secondary Education	5753.98	527.10	91710.29	31832.36
RDPR	5923.60	205.77	79295.70	9483.37
Revenue	7678.66	0.00	112946.53	0.00
S&Y Empt	10.10	0.00	152.11	0.00
Science & Technology	31.50	3.15	502.09	180.41
Sericulture	534.04	0.00	5939.88	0.00
Skill Development Department	1280.41	825.86	19555.64	12446.59
Slum Dev	100.00	48.06	2125.00	1375.00
Transport	507.91	0.00	5267.57	0.00
Urban Dev	4363.21	429.77	53162.22	15197.25
Watershed Development	190.90	106.76	3875.98	3705.55
Welfare of Minorities	2060.15	277.91	31483.25	12342.98
Welfare of OBCs	1446.00	242.39	21222.62	7586.08
Welfare of SCs	5199.40	734.66	98147.66	49510.68
Welfare of STs	974.93	186.53	12415.38	4915.45
Home	914.11	418.65	4045.09	1888.85
Fisheries	7.98	0.88	100.37	29.37
Forestry & Wildlife	381.00	155.00	3890.00	1830.00
Grand Total	71769.68	6003.13	987316.12	198832.96



## **IV. REFERENCES**





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## V. ANNEXURES



**Review Meeting on Implementation of SDG 2030 Chaired by Chief Secretary, Government of Karnataka**



## V. ANNEXURES

### Annexure-1: Committee for Each Goal

#### Committee on Goal 1: End Poverty in all its forms everywhere

Sl. No	Designation of the Officer	Status in the Committee
1	Sri. Chiranjiv Singh, IAS (Retd)	Chairperson
2	Prof. B. Sudhakara Reddy, IGIDR(Academician/Expert)	Member
3	Prof. Charan Singh, Indian Institute of Science (Academician/Expert)	Member
4	Ms. Uttara Narayan WRI, India (Academician/ Expert)	Member
5	Dr. L. H. Manjunath, SKDRDP, Dharmastala (NGO/ Civil Society)	Member
6	Dr. Vani B.P. Asst. Professor, CESP, ISEC (Professional Writer)	Member
7	<p><b><u>Department Representative:</u></b></p> <ul style="list-style-type: none"> <li>i. Additional Chief Secretary to Government, Home Department</li> <li>ii. Additional Chief Secretary to Government, Finance Department</li> <li>iii. Additional Chief Secretary to Government, Health and Family Welfare Department</li> <li>iv. Additional Chief Secretary to Government, Urban Development Department</li> <li>v. Principal Secretary to Government, Rural Development Panchayat Raj Department</li> <li>vi. Principal Secretary to Government, Women and Child Development Department</li> <li>vii. Principal Secretary to Government, IT &amp; BT and Science &amp; Technology Department</li> <li>viii. Principal Secretary to Government, Animal Husbandry and Fisheries Department</li> <li>ix. Secretary to Government, Agriculture Department</li> <li>x. Secretary to Government, Horticulture Department</li> <li>xi. Secretary to Government, Food and Civil Supplies Department</li> <li>xii. Director, Directorate of Economics &amp; Statistics</li> </ul>	Members
8	Director, District Planning Division (DPD), Planning Department	Member Secretary

**Committee on Goal 2: End Hunger, Achieve Food Security and Improved Nutrition and Promote Sustainable Agriculture**

<b>Sl. No</b>	<b>Designation of the Officer</b>	<b>Status in the Committee</b>
1	Sri. Subir Hari Singh, IAS (Retd.)	Chairperson
2	Dr. Bejoy Thomas, ATREE (Academician/Expert)	Member
3	Ms. Katyayini Chamraj CIVIC, Bangalore (NGO/ Civil Society)	Member
4	Dr. M. S. Tara, Professor (Rtd), NIPCCD, Bengaluru (Professional Writer)	Member
5	Sri.T.K.Prabhakar Shetti, Director(Rtd), Agri University, Bangalore (Professional Writer)	Member
6	<b>Department Representative:</b> i. Additional Chief Secretary to Government of Karnataka, Health & Family Welfare Department ii. Principal Secretary to Government, Animal Husbandry and Fisheries Department iii. Principal Secretary to Government, Women & Child Development Department iv. Secretary to Government, Agriculture Department v. Secretary to Government of Karnataka, Co-operation Department vi. Secretary to Government of Karnataka, Food & Civil Supplies Department vii. Secretary to Government of Karnataka, Horticulture and Sericulture Department xiii. Director, Directorate of Economics & Statistics	Members
7	Joint Director, Agriculture Statistics (AGS Division), DES	Member Secretary

**Committee on Goal 3:** Ensure healthy lives and promote wellbeing for all at all ages

Sl. No	Designation of the Officer	Status in the Committee
1	Dr. Alexandar Thomas	Chair person
2	Dr. Lalitha Hande, Consultant at NICEF and KSAPS, Bengaluru, (Academician/Expert)	Member
3	Dr. Sanjay Pai, Columbia Hospital (Academician/Expert)	Member
4	Dr. Darshan Shankar (Academician/Expert)	Member
5	Dr. Shanmuganandan, (Academician/Expert)	Member
6	Sri. Vinod Joseph Abraham (MBBS, MD, MPH), Professor, Department of Community Health, Christian Medical College	Member
7	Dr. Jyotsna Jha, Director, Centre for Budget & Policy Studies	Member
8	Sri. Bhargav Krishna Research Fellow & Executive Aide to the President, Public Health Foundation of India	Member
9	Ms. Divya Alexander Executive Assistant to the President, AHPI	Member
10	Dr. Manu Raj Mathur MPH PhD, Senior Research Scientist & Associate Professor, Public Health Foundation of India (Professional Writer)	Member
11	Dr. Daniel Swasthi Health Resource Centre, Bengaluru (Professional Writer)	Member
12	Dr. Lavanya Garady, Consultant, NIMHANS, Bengaluru (Professional Writer)	Member
13	<b>Department Representative:</b> i. Additional Chief Secretary to Government, Health & Family Welfare Depart. ii. Additional Chief Secretary to Government, Home Depart. iii. Additional Chief Secretary to Government, Finance Depart. iv. Additional Chief Secretary to Government, Social Welfare Depart.	Members
14	Project Director, KSSDA, DES	Member Secretary

**Committee on Goal 4:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Sl. No	Designation of the Officer	Status in the Committee
1	Sri.Sudhakar Rao, IAS (Retd.)	Chair person
2	Dr. Hippu Salke Kristle Nathan, NIAS(Academician/Expert)	Member
3	Dr. Anurag Bihar Azim Premji University (Academician/Expert)	Member
4	Sri. Bhasker Sharma (Academician/Expert)	Member
5	Ms Vaijayathi Akshara Foundation (NGO/ Civil Society)	Member
6	Prof. B. K. Anita Kurup NIAS, Bengaluru (Professional Writer)	Member
7	Prof.A.S. Seetharamu (Retd.) Consultant, SSA, Bengaluru (Professional Writer)	Member
8	<b>Department Representative:</b> i. Principal Secretary to Government, Primary Education Department ii. Secretary to Government, Skill Development Department iii. Principal Secretary to Government, Higher Education Department iv. Principal Secretary to Government, Women & Child Development Department	Members
9	Director, Manpower and Employment Division, (M & E), Planning Department	Member Secretary



**Committee on Goal 5: Achieve gender equality and empower all women and girls**

Sl. No	Designation of the Officer	Status in the Committee
1	Ms. Neela Gangadharan, IAS (Retd)	Chair person
2	Ms. Anitha Gurumurthy Executive Director, IT for Change, Bengaluru	Member
3	Dr. Jyotsna Jha, Director, Centre for Budget & Policy Studies	Member
4	Prof. Smita Srinivas ICRIER, Bengaluru	Member
5	Dr. Gauri (Academician/Expert)	Member
6	Ms. Uttara Narayan WRI, India	Member
7	Dr. Rita Noronha CDSE, Mangaluru	Member
8	Dr.Chaya.Degaonkar, Senior consultant, KEA, Bengaluru (Professional Writer)	Member
9	<p><b>Department Representative:</b></p> <ul style="list-style-type: none"> <li>i. Additional Chief Secretary to Government, Industry &amp; Commerce Department</li> <li>ii. Additional Chief Secretary to Government, Home Department</li> <li>iii. Additional Chief Secretary to Government, Health &amp; Family Welfare Department</li> <li>iv. Principal Secretary to Government, Rural Development Panchayat Raj Department</li> <li>v. Principal Secretary to Government, Women &amp; Child Development Department</li> <li>vi. Principal Secretary to Government, IT &amp; BT and Science &amp; Technology Department</li> <li>vii. Secretary to Government, Agriculture Department</li> <li>viii. Secretary to Government, Labour Department</li> <li>ix. Secretary to Government, Co-operation Department</li> <li>x. Principal Secretary to Government, Higher Education Department</li> <li>xi. Secretary to Government, Skill Development Department</li> <li>xii. Principal secretary to Government, Planning, programme monitoring and Statistics Department</li> <li>xiii. Director, Directorate of Economics &amp; Statistics</li> </ul>	Members
10	Senior Director, HDD, Planning Department	Member Secretary

**Committee on Goal 6:** Ensure Availability and Sustainable Management of Water and Sanitation for All

Sl. No	Designation of the Officer	Status in the Committee
1	Sri. M. R. Sreenivasa Murthy, IAS (Retd)	Chair person
2	Prof. H.N. Chanakya, Indian Institute of Science, Bengaluru	Member
3	Prof. M. S. Mohan Kumar, Indian Institute of Science, Bengaluru	Member
4	Mr. Samrat Basak WRI, India (Academician/ Expert)	Member
5	Myrada, Bangalore (NGO/Civil Society)	Member
6	Dr. Ashwin Kumar IIPM, Bengaluru (Professional Writer)	Member
7	<b>Authorized Representative of:</b> <ul style="list-style-type: none"> <li>i. Principal Secretary to Government, Water Resources Department</li> <li>ii. Additional Chief Secretary to Government, Urban Development Department</li> <li>iii. Additional Chief Secretary to Government, Industry &amp; Commerce Department</li> <li>iv. Additional Chief Secretary to Government, Forest, Ecology &amp; Environment Department</li> <li>v. Principal Secretary to Government, Rural Development Panchayat Raj Department</li> <li>vi. Director, Directorate of Economics &amp; Statistics</li> </ul>	Members
8	Joint Director, CIS, DES	Member Secretary

**Committee on Goal 7: Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for All**

Sl. No	Designation of the Officer	Status in the Committee
1	Sri. K. Jairaj, IAS (Retd)	Chair person
2	Sri Thayyil Sethu Madhavan, IA&AS (Retd.)	Member
3	Dr. S. Dasappa, Indian Institute of Science, Bangalore	Member
4	Dr. P. Balachandra, Indian Institute of Science (Academician/Expert)	Member
5	Sri. Deepak Sriram Krishnan Manager, <u>EnergyWorld Resources Institute</u>	Member
6	Prof. S.L Rao (Academician/ Expert)	Member
7	Dr. A.V Manjunatha Institute for Social and Economic Change, Bengaluru (Professional Writer)	Member
8	<b>Department Representative :</b> i. Additional Chief Secretary to Government, Energy Department ii. Additional Chief Secretary to Government, Finance Department iii. Managing Director, Karnataka Renewable Energy Development Ltd. iv. Managing Director, Bangalore Electricity Supply Company Ltd. (BESCOM) v. Technical Director, Karnataka Power Transmission Corporation Ltd. vi. Managing Director, Karnataka Power Transmission Corporation Ltd.	Members
9	Director, PPD, Planning Department	Member Secretary

**Committee on Goal 8:** Promote Sustained, Inclusive and Sustainable Economic Growth, Full and Productive Employment and Decent Work for All

Sl. No	Designation of the Officer	Status in the Committee
1	Sri. Gurucharan G, IAS (Retd)	Chair person
2	Dr. Narender Pani, NIAS (Academician/Expert)	Member
3	Dr. Lalith Achyut (Retd) Agriculture University (Academician/Expert)	Member
4	Ms. Sheila Devaraj, Director and Sri. Lakshapathi, APSA, Bengaluru (NGO/Civil Society)	Member
5	Ms. Lekha Adavi, Alternative Lawyer's Forum, Bengaluru	Member
6	Ms. Priyanka Agarwal, PAC, Anekal (Professional Writer)	Member
7	<p><b>Department Representative:</b></p> <ul style="list-style-type: none"> <li>i. Additional Chief Secretary to Government, Industries and Commerce Department</li> <li>ii. Additional Chief Secretary to Government, Home Department</li> <li>iii. Additional Chief Secretary to Government, Energy Department</li> <li>iv. Additional Chief Secretary to Government, Finance Department</li> <li>v. Additional Chief Secretary to Government, Forest, Ecology and Environment Department</li> <li>vi. Additional Chief Secretary to Government, Urban Development Department</li> <li>vii. Additional Chief Secretary to Government, Health &amp; Family Welfare Department</li> <li>viii. Principal Secretary to Government, Rural Development Panchayat Raj Department</li> <li>ix. Principal Secretary to Government, Women &amp; Child Development Department</li> <li>x. Secretary to Government, Labour Department</li> <li>xi. Secretary to Government, Co-operation Department</li> <li>xii. Secretary to Government, Tourism Department</li> <li>xiii. Director, Directorate of Economics &amp; Statistics</li> </ul>	Members
8	Joint Director, SIP, DES	Member Secretary

**Committee on Goal 9:** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Sl. No	Designation of the Officer	Status in the Committee
1	Sri. M.N. Vidya Shankar, IAS (Retd)	Chair person
2	Dr. P.Balachandra, Indian Institute of Science, Bengaluru (Academician/Expert)	Member
3	Prof. H.N. Chanakya, Chief Research Scientist, IISc, Bengaluru (Academician/Expert)	Member
4	Ms. Nandini C Deputy Director, IT for Change, Bengaluru (NGO/Civil Society)	Member
5	Dr. B.K. Tulsimala Professor and Chairperson, Dos in Economics and Cooperation, Manasagangothri, Mysuru (Professional Writer)	Member
6	<b>Department Representative:</b> i. Additional Chief Secretary to Government, Industries and Commerce Department ii. Additional Chief Secretary to Government, Finance Department iii. Additional Chief Secretary to Government, Forest, Ecology & Environment Department iv. Principal Secretary to Government, Rural Development Panchayat Raj Department v. Principal Secretary to Government, IT & BT and Science & Technology Department vi. Principal Secretary to Government, Transport Department vii. Secretary to Government, Labour Department viii. Secretary to Government, Co-operation Department ix. Director, Directorate of Economics & Statistics. x. Commissioner, Department of Information and Public Relations	Members
7	Joint Director, PFR Division, Planning Department	Member Secretary

**Committee on Goal 10: Reduce inequalities within and amongst countries**

<b>Sl. No</b>	<b>Designation of the Officer</b>	<b>Status in the Committee</b>
1	Sri.N.C.Muniyappa, IAS (Rtd)	Chair person
2	Dr. Narender Pani NIAS Bangalore(Academician/Expert)	Member
3	Dr. Kshitija, NIAS (Academician/Expert)	Member
4	Sri. Vasudeva Sharma Executive Director, CRT, Bengaluru (NGO/Civil Society)	Member
5	Sri. Puneeth American India Foundation, Bengaluru (NGO/Civil Society)	Member
6	Prof. A. S. Seetharamu (Retd.) Formerly Consultant, SSA, Bengaluru (Professional Writer)	Member
7	<b>Department Representative:</b> i. Additional Chief Secretary to Government, Social Welfare Department ii. Additional Chief Secretary to Government, Finance Department iii. Principal Secretary to Government, iv. Rural Development Panchayat Raj Department v. Secretary to Government, Minorities Department vi. Secretary to Government, Backward Classes Department vii. State Election Commissioner, Election commission viii. Director, Directorate of Economics & Statistics	Members
8	Director, ADB, Planning Department	Member Secretary

**Committee on Goal 11: Make Cities and Human Settlements Inclusive, Safe, Resilient and Sustainable**

Sl. No	Designation of the Officer	Status in the Committee
1	Sri. T. Thimme Gowda, IAS (R )	Chair person
2	Dr. T.G. Sitaram, Indian Institute of Science (Civil Engineer)	Member
3	Prof. B. Sudhakara Reddy, IGIDR, (Academician/Expert) (Professional Writer)	Member
4	Ms. Jaya Dhindaw Director, Urban Development, WRI India	Member
5	Sri. Isaac Arul Selva Slum Jagattu, CBO (NGO/Civil Society)	Member
6	Ms. Radha Chinchani Manager, Sustainable cities and transport, WRI India	Member
7	<p><b>Department Representative:</b></p> <ul style="list-style-type: none"> <li>i. Additional Chief Secretary to Government, Urban Development Department</li> <li>ii. Additional Chief Secretary to Government, Home Department</li> <li>iii. Additional Chief Secretary to Government, Industry &amp; Commerce Department</li> <li>iv. Additional Chief Secretary to Government, Forest, Ecology and Environment Department</li> <li>v. Additional Chief Secretary to Government, Public Work Department</li> <li>vi. Additional Chief Secretary to Government, Finance Department</li> <li>vii. Principal Secretary to Government, Revenue Department</li> <li>viii. Principal Secretary to Government, Rural Development Panchayat Raj Department</li> <li>ix. Secretary to Government, Kannada &amp; Culture Department</li> <li>x. Secretary to Government, Housing Department</li> <li>xi. Secretary to Government, Tourism Department</li> <li>xii. Principal Secretary to Government, Transport Department</li> <li>xiii. Commissioner, Karnataka Slum Development Board</li> <li>xiv. Director, Directorate, Municipal Administration</li> </ul>	Members
8	Director, PF Division, Planning Department	Member Secretary

**Committee on Goal 12: Ensure Sustainable Consumption and Production Patterns**

Sl. No	Designation of the Officer	Status in the Committee
1	Sri. Mohamed Sanaulla, IAS (Retd)	Chair person
2	Dr. P. Bala Chandra Indian Institute of Science, Bengaluru	Member
3	Dr. Shivanna Retired Professor, ISEC (Professional Writer)	Member
4	<p><b>Department Representative:</b></p> <ul style="list-style-type: none"> <li>i. Additional Chief Secretary to Government, Forest, Ecology and Environment Department</li> <li>ii. Additional Chief Secretary to Government, Industries and Commerce Department</li> <li>iii. Additional Chief Secretary to Government, Finance Department</li> <li>iv. Additional Chief Secretary to Government, E- Governance Department</li> <li>v. Additional Chief Secretary to Government, Energy Department</li> <li>vi. Additional Chief Secretary to Government, Health and Family Welfare Department</li> <li>vii. Additional Chief Secretary to Government of Karnataka, Medical Education</li> <li>viii. Principal Secretary to Government, IT &amp; BT and Science &amp; Technology Department</li> <li>ix. Principal Secretary to Government, Rural Development Panchayat Raj Department</li> <li>x. Principal Secretary to Government, Transport Department</li> <li>xi. Principal Secretary to Government, Women and Child Development Depart.</li> <li>xii. Principal Secretary to Government, Primary Education Department</li> <li>xiii. Principal Secretary to Government, Higher Education Department</li> <li>xiv. Secretary to Government, Agriculture Department</li> <li>xv. Secretary to Government, Co-operation Department</li> <li>xvi. Secretary to Government, Tourism Department</li> <li>xvii. Secretary to Government, Food &amp; Civil Supplies Department</li> <li>xviii. Principal Secretary to Government, Animal Husbandry and Fisheries Department</li> <li>xix. Secretary to Government of Karnataka, Horticulture and Sericulture Department</li> <li>xx. Secretary to Government, Housing Department</li> <li>xxi. Member Secretary, Karnataka Pollution Control Board</li> <li>xxii. Commissioner, Department of Information and Public Relations</li> </ul>	Members
5	Joint Director, CNL, DES	Member Secretary



**Committee on Goal 13: Take Urgent Action to Combat Climate Change and its Impacts**

Sl. No	Designation of the Officer	Status in the Committee
1	Sri. Kanwar Pal, IFS (Retd)	Chair person
2	Sri. M. H Swaminath, IFS (R)	Member
3	Prof. J Srinivasan DIVECHA Centre for Climate Change, Indian Institute of Science, Bengaluru	Member
4	Sri. N.H Ravindranath (Academician/Expert)	Member
5	Ms Namrata Ginoya Senior Research Associate, Climate Resilience Practice, WRI India	Member
6	Deepak Samrah Water Research institute (WRI) Bengaluru (Professional writer)	Member
7	<p><b>Department Representative:</b></p> <ul style="list-style-type: none"> <li>i. Additional Chief Secretary to Government, Forest, Ecology and Environment Department</li> <li>ii. Additional Chief Secretary to Government, Commerce and Industries (Mining) Department</li> <li>iii. Additional Chief Secretary to Government, Urban Development Department</li> <li>iv. Principal Secretary to Government, Revenue Department</li> <li>v. Principal Secretary to Government, Animal Husbandry and Fisheries Department</li> <li>vi. Secretary to Government, Agriculture Department</li> <li>vii. Secretary to Government, Horticulture Department</li> <li>viii. Additional Principal Chief Conservator of Forests</li> </ul>	Members
8	Director, PMI, Planning Department	Member Secretary

**Committee on Goal 14:** Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Sl. No	Designation of the Officer	Status in the Committee
1	Sri. Rudhra Gangadharan, IAS (Retd)	Chair person
2	Prof. D. Sengupta, Centre for Atmospheric and Oceanic Sciences Indian Institute of Science, Bengaluru(Academician/Expert)	Member
3	Prof. Sriniketan, NITK, Surathkal, (Academician/Expert)	Member
4	Dr Ayyappan Vice Chancellor of Agriculture, (Academician/ Expert)	Member
5	Dr Surya Narayan Rao (Academician/ Expert)	Member
6	Sri. Kshitij Urs Campaign Against Water Privatization, Bengaluru	Member
7	Dr. Rama Chandra Bhatt Retired Prof, Natural Resource Economics Manual Fisheries College, (Professional Writer)	Member
8	<b>Authorized Representative of:</b> <ul style="list-style-type: none"> <li>i. Additional Chief Secretary to Government, Forest, Ecology and Environment Department</li> <li>ii. Additional Chief Secretary to Government, Urban Development Department</li> <li>iii. Additional Chief Secretary, Karnataka Public Works, Port &amp; Inland Water Transport Dept.</li> <li>iv. Principal Secretary to Government, Rural Development Panchayat Raj Department</li> <li>v. Principal Secretary to Government,</li> <li>vi. Water Resources Department</li> <li>vii. Principal Secretary to Government, Animal Husbandry and Fisheries Department</li> <li>viii. Secretary to Government, Agriculture Dept.</li> <li>ix. Secretary to Government, Co-operation Dept.</li> <li>x. Secretary to Government, Horticulture Dept.</li> <li>xi. Secretary to Government, Housing Department</li> </ul>	Members
9	Joint Director, SDP, Planning Department	Member Secretary

**Committee on Goal 15:** Protect, restore and promote sustainable use of territorial eco-system, sustainably manage forest, combat desertification and halt and reverse land degradation and halt biodiversity loss

Sl. No	Designation of the Officer	Status in the Committee
1	Ms. Meera C. Saksena, IAS (Rtd)	Chair person
2	Sri. M. H Swaminath, IFS (Rtd) (Professional Writer)	Member
3	Prof. Nuthan, Former Pro-VC GKVK	Member
4	Ms. Rohini Chaturvedi, Director- Forest and Landscape Restoration, WRI India	Member
5	Sri. Leo Saldanha, Environment Support Group, Bengaluru	Member
6	Ms. Bhargavi S. Rao, Expert Consultant to Environmental & Biodiversity, Ajim Premji Foundation	Member
7	<p><b>Department Representative:</b></p> <ul style="list-style-type: none"> <li>i. Additional Chief Secretary to Government, Forest, Ecology and Environment Department</li> <li>ii. Additional Chief Secretary to Government, Finance Department</li> <li>iii. Additional Chief Secretary to Government, Urban Development Department</li> <li>iv. Additional Chief Secretary to Government, Commerce and Industries Department</li> <li>v. Principal Secretary to Government, Rural Development Panchayat Raj Department</li> <li>vi. Principal Secretary to Government, Animal Husbandry and Fisheries Department</li> <li>vii. Principal Secretary to Government, Revenue Dept.</li> <li>viii. Principal Secretary to Government, Primary Education Department</li> <li>ix. Principal Secretary to Government, Higher Education Department</li> <li>x. Principal Secretary to Government, Water Resources Department</li> <li>xi. Secretary to Government, Agriculture Dept.</li> <li>xii. Secretary to Government, Co-operation Dept.</li> <li>xiii. Secretary to Government, Horticulture and Sericulture Department</li> </ul>	Members
8	Joint Director, Admin, DES	Member Secretary

**Committee on Goal 16:** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build accountable and inclusive institutions at all level and Poverty in all its forms everywhere

Sl. No	Designation of the Officer	Status in the Committee
1	Sri. D. Thangaraj, IAS (Retd)	Chair person
2	Dr. Vinod Vyasalu Institute of Social and Economic Change, Bengaluru (Academician/Expert)	Member
3	Sri. Narender Pani, NIAS (Academician/Expert)	Member
4	Sri. Vinay Sreenivasa Alternative Law Forum, Bengaluru (NGO/Civil Society)	Member
5	Dr. T. R. Chandrashekhara Professor (Retd), Hospete (Professional Writer)	Member
6	<b>Authorised Representative of:</b> <ul style="list-style-type: none"> <li>i. Additional Chief Secretary to Government, Home Department</li> <li>ii. Additional Chief Secretary to Government, E-Governance Department</li> <li>iii. Additional Chief Secretary, Department of Personnel and Administrative Reforms</li> <li>iv. Principal Secretary to Government, Rural Development Panchayat Raj Department</li> <li>v. Secretary to Government, Labour Department</li> <li>vi. State Election Commissioner, Election Commission</li> <li>vii. Director, Directorate of Economics &amp; Statistics</li> </ul>	Members
7	Joint Director, DPD, Planning Department	Member Secretary

**Committee on Goal 17: Strengthen the Means of Implementation and Revitalize the Global Partnership for Sustainable Development**

<b>Sl. No</b>	<b>Designation of the Officer</b>	<b>Status in the Committee</b>
1	Sri. S.V. Ranganath, IAS (Retd)	Chair person
2	Sri. V.V. Kulkarni, IAS (Retd)	Member
3	Sri. Vinay Sreenivasa Alternative Law Forum, Bengaluru (NGO/Civil Society)	Member
4	Dr. K. Gayathri Institute for Social and Economic Change, Bengaluru (Professional Writer)	Member
5	Authorised Representative of: i. Additional Chief Secretary to Government, Finance Department ii. Additional Chief Secretary to Government, Industry & Commerce Department iii. Principal Secretary to Government, Planning Department iv. Principal Secretary to Government, IT & BT and Science & Technology Department	Members
6	Additional Director, DES	Member Secretary

## Annexure-2: State level Supervision and Coordination committee

Sl. No	Designation of the Officer	Status in the Committee
1	Additional Chief Secretary to Government	Chairman
2	Additional Chief Secretary to Government and Development Commissioner	Members
3	Additional Chief Secretary to Government, Industry & Commerce Dept.	Members
4	Additional Chief Secretary to Government, Energy Dept.	Members
5	Additional Chief Secretary to Government, Urban Development Dept.	Members
6	Additional Chief Secretary to Government, Forest, Ecology and Environment Dept.	Members
7	Additional Chief Secretary to Government, Home Department	Members
8	Additional Chief Secretary to Government, Finance Department	Members
9	Additional Chief Secretary to Government, Health & Family Welfare Dept.	Members
10	Additional Chief Secretary to Government, Social Welfare Department	Members
11	Additional Chief Secretary to Government RDPR Department	Members
12	Additional Chief Secretary to Government, E- Governance Department	Members
13	Additional Chief Secretary to Government, Medical Education Dept.	Members
14	Additional Chief Secretary, Karnataka Public Works, Port & Inland Water Transport Dept.	Members
15	Principal Secretary to Government, DPAR Department	Members
16	Principal Secretary to Government, Planning Department	Members
17	Principal Secretary to Government, Primary & Secondary Education Dept.	Members
18	Principal Secretary to Government, Water Resources Department	Members
19	Principal Secretary to Government, Higher Education Department	Members
20	Principal Secretary to Government, Animal Husbandry and Fisheries Dept.	Members
21	Principal Secretary to Government, IT & BT and Science & Technology Dept.	Members
22	Principal Secretary to Government, Revenue Department	Members
23	Principal Secretary to Government, Transport Department	Members
24	Principal Secretary to Government, Women and Child Development Dept.	Members
25	Principal Secretary to Government, Housing Department	Members
26	Secretary to Government, Agriculture Department	Members
27	Secretary to Government, Labour Department	Members
28	Secretary to Government, Backward class Welfare Department	Members
29	Secretary to Government, Co operation Department	Members
30	Secretary to Government of Karnataka, Food & Civil Supplies Department	Members
31	Secretary to Government of Karnataka, Horticulture Department	Members

<b>Sl. No</b>	<b>Designation of the Officer</b>	<b>Status in the Committee</b>
32	Secretary to Government of Karnataka, Food & Civil Supplies Department	Members
33	Secretary to Government, Kannada & Culture Department	Members
34	Secretary to Government, Skill Development Department	Members
35	Secretary to Government, Tourism Department	Members
36	All Goal committees Chairman	Members
37	Secretary to Government, Planning Department	Members Secretary

### Annexure-3: State level Steering Coordination committee

Sl. No	Designation of the Officer	Status in the Committee
1	Chief Secretary to Government of Karnataka	Chairman
2	Additional Chief Secretary to Government	Members
3	Additional Chief Secretary to Government and Development Commissioner	Members
4	Additional Chief Secretary to Government, Industry & Commerce Dept.	Members
5	Additional Chief Secretary to Government, Energy Dept.	Members
6	Additional Chief Secretary to Government, Urban Development Dept.	Members
7	Additional Chief Secretary to Government, Forest, Ecology and Environment Dept.	Members
8	Additional Chief Secretary to Government, Home Department	Members
9	Additional Chief Secretary to Government, Finance Department	Members
10	Additional Chief Secretary to Government, Health & Family Welfare Dept.	Members
11	Additional Chief Secretary to Government, Social Welfare Department	Members
12	Additional Chief Secretary to Government RDPR Department	Members
13	Additional Chief Secretary to Government, E- Governance Department	Members
14	Additional Chief Secretary to Government, Medical Education Dept.	Members
15	Additional Chief Secretary, Karnataka Public Works, Port & Inland Water Transport Dept.	Members
16	Principal Secretary to Government, DPAR Department	Members
17	Principal Secretary to Government, Planning Department	Members
18	Principal Secretary to Government, Primary & Secondary Education Dept.	Members
19	Principal Secretary to Government, Water Resources Department	Members
20	Principal Secretary to Government, Higher Education Department	Members
21	Principal Secretary to Government, Animal Husbandry and Fisheries Dept.	Members
22	Principal Secretary to Government, IT & BT and Science & Technology Dept.	Members
23	Principal Secretary to Government, Revenue Department	Members
24	Principal Secretary to Government, Transport Department	Members
25	Principal Secretary to Government, Women and Child Development Dept.	Members
26	Principal Secretary to Government, Housing Department	Members
27	Secretary to Government, Agriculture Department	Members
28	Secretary to Government, Labour Department	Members
29	Secretary to Government, Backward class welfare Department	Members
30	Secretary to Government, Co-operation Department	Members
31	Secretary to Government of Karnataka, Food & Civil Supplies Department	Members



<b>Sl. No</b>	<b>Designation of the Officer</b>	<b>Status in the Committee</b>
32	Secretary to Government of Karnataka, Horticulture Department	Members
33	Secretary to Government of Karnataka, Food & Civil Supplies Department	Members
34	Secretary to Government, Kannada & Culture Department	Members
35	Secretary to Government, Skill Development Department	Members
36	Secretary to Government, Tourism Department	Members
37	Secretary to Government, Planning Department	Members Secretary



**Peoples participation in SDGs**



# SDG COORDINATION CENTRE

## VISION

WORK WITH GOVERNMENT OF KARNATAKA TO FORMULATE AND SUPPORT INTEGRATED POLICIES ALONG WITH STRENGTHENING OF INSTITUTIONAL AND PROGRAMME RESPONSIVENESS TOWARDS ACHIEVING SDGs BY ENHANCING SYNERGIES, EFFECTIVENESS, TARGETING, ACCOUNTABILITY AND REPORTING ACROSS ALL GOVERNANCE LEVELS



## SDGCC OFFICE ADDRESS

PLANNING, PROGRAMME MONITORING & STATISTICS DEPARTMENT,  
7TH FLOOR, GATE NO. 3, M.S. BUILDING,  
DR. B R AMBEDKAR VEEDHI, BENGALURU-560 001

# KARNATAKA SUSTAINABLE DEVELOPMENT GOALS

