



SUSTAINABLE DEVELOPMENT GOALS

THE PATHWAY TO THE FUTURE

INTRODUCTION

Recently, **NITI Aayog** presented India's second **voluntary national review (VNR)** report on **Sustainable Development Goals (SDGs)** titled as '**Decade of Action: Taking SDGs from Global to Local**' to the United Nations High-level Political Forum. NITI Aayog, the nodal body mandated to oversee the progress of the 2030 Agenda, has been spearheading the movement for SDG localization in order to fulfil its commitments of '**Sabka Saath, Sabka Vikas with Sabka Vishwas**' (**Collective Effort for Inclusive Growth**).

India, with 17 percent of the world's humanity and 2.4 percent of the land area, is home to numerous arrays of development challenges that cut across sectors of health, nutrition, education, urbanisation and climate action. Additionally, the COVID-19 pandemic has thrown open a sea of challenges that are not bound by either geography or the level of development. In this decade of action, which calls for collective efforts to translate the 2030 Agenda into a global reality, India reiterates its commitment to the principles and targets set forth under the SDG framework.

In this backdrop, it is important to understand what is sustainable development and why is it needed? What are SDGs and how SDGs are different from the Millennium Development Goals (MDGs)? How to measure progress of SDGs and what is India's progress in achieving SDGs? What are the challenges in achieving SDGs? What role can Artificial Intelligence play in attaining SDGs? What is the way ahead to overcome the barriers in achieving these SDGs? In this article, we will attempt to answer these questions.

WHAT IS SUSTAINABLE DEVELOPMENT AND WHY IS IT NEEDED?

Sustainable development is an overarching paradigm of the United Nations. The concept of sustainable development was described by the **1987 Bruntland Commission Report** as **"development that meets the needs of the present without compromising the ability of future generations to meet their own needs."**

○ **Sustainability** is often thought of as a **long-term goal** (i.e., a more sustainable world) in which environmental, societal and economic considerations are balanced in the pursuit of an improved quality of life.

➤ **For example**, a prosperous society relies on a healthy environment to provide food and resources, safe drinking water and clean air for its citizens.

○ There are **3 primary objectives of sustainable development**:

➤ **Economic growth**: Increasing the economic growth that generates wealth for all through meeting basic needs i.e. **raising the standard of living**, and **builds a strong, competitive economy** by ensuring that sufficient resources are available to support growth and innovation.

➤ **Environmental protection**: Contributing to protecting and enhancing our natural and developed environment, while helping to **improve biodiversity, use natural resources wisely, minimizing waste and pollution**, and adapting to and helping to decrease climate change, including a global shift to a low-carbon economy.

➤ **Social inclusion**: **Supporting strong, vibrant and healthy communities** by providing the supply of housing required to meet the needs of present and future generations; and by **creating high-quality development, with accessible local services** that reflect the community's needs and support its health, social and cultural well-being.



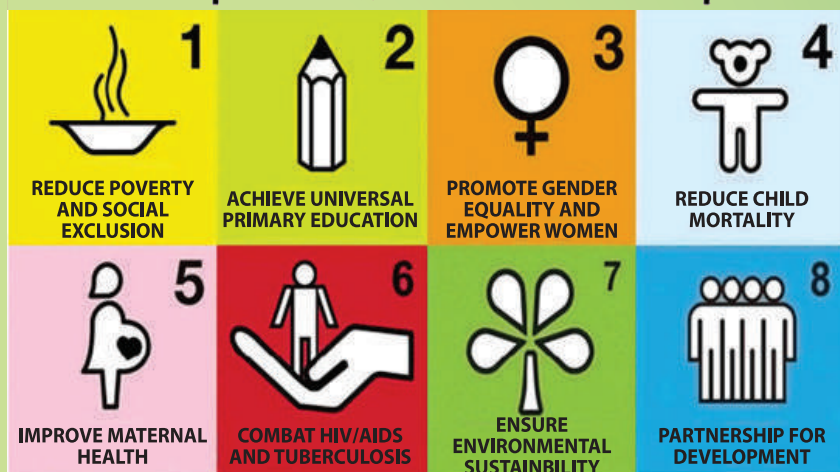
WHAT ARE SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND HOW THEY DIFFER FROM MILLENNIUM DEVELOPMENT GOALS (MDGs)?

Millennium Development Goals (MDGs), which started as a global effort in 2000 to tackle the indignity of poverty (refer infographic) differs from SDGs with respect to following aspects:

- **Zero Goals:** The MDG targets for 2015 were set to get us “half way” to the goal of ending hunger and poverty, with similar proportional goals in other fields. **The SDGs are designed to get us to a statistical “zero”** on hunger, poverty, preventable child deaths and other targets.
- **Universal Goals:** The **MDGs** were in the context of “rich donors aiding poor recipients” and mainly targeted developing/least developed or poor countries. The **SDGs** are universal and were created to “leave no one behind” as the goals apply to all countries whether rich, middle or poor.



The Principles of Sustainable Development



Millennium Development Goals

- **More Comprehensive Goals:** MDGs comprised of only **8 Goals with 21 targets** and **60 indicators**. Whereas there are **17 SDGs** accompanied by **169 specific targets** and **232 measurable indicators**. These are also referred to as the ‘Global Goals’ or ‘**Agenda 2030**’ that focuses holistically on development where the **17 “Focus Areas”** go beyond the symptoms of poverty, to issues of peace, stability, human rights and good governance.
- **Addressing THP (the Hunger Project) Pillars:** While THP was firmly committed to the **MDGs**, it largely **ignored the three pillars that are crucial for ending hunger sustainably:** Empowering women, mobilizing everyone, and partnering with local government. The **SDGs** address these critical elements (to date) much more effectively, with far stronger gender goals, people’s participation and government “at all levels.”
 - Further, in the **MDGs**, **Hunger and Poverty were combined together in MDG1** while the **SDGs treat the issue of poverty separately** from Food and Nutrition Security perspective.
- **Inclusive Goal Setting:** The **MDGs** were created through a **top-down process** and laid down by a small group of technical experts whereas **SDGs** are being created in one of the most **inclusive participatory processes under the aegis of The United Nations (UN) Conference on Sustainable Development** with face-to-face consultations in more than 100 countries, and millions of citizen’s inputs on websites.
- **Funding:** The **MDGs** were largely envisioned to be funded by aid flows – which did not materialize. The **SDGs** put sustainable, inclusive economic development at the core of the strategy, and address the ability of countries to address social challenges largely through improving their own revenue generating capabilities.
- **Peace Building:** After 2015, experts predict that the majority of those in extreme poverty will live in conflict-affected states. The inclusion of peace-building is thus critical to the success of ending hunger and poverty — **which got overlooked in the MDGs**. Though there has been some controversy with its part in **SDGs** but it has remained there nevertheless.
- **Data Revolution:** The **MDGs** said nothing about monitoring, evaluation and accountability while the **SDGs** target to “increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts.”

- **Quality Education:** The **MDGs focused only on quantity** (e.g., high enrollment rates) while SDGs represent the first attempt by the world community to **focus on the quality of education** – of learning – and the role of education in achieving a more humane world.

MEASURING THE PROGRESS OF SUSTAINABLE DEVELOPMENT GOALS (SDGs)

One way to measure progress is to **focus on the “5 Ps”** that shape the SDGs and highlight how the SDGs are an intertwined framework instead of a group of siloed goals. (Refer infographic for alignment of the SDGs with the 5Ps)



WHAT IS INDIA'S PROGRESS IN ACHIEVING SDGs?

Progress Indicators	SDGs						
Good	Health	Water	Sustainable energy	Reduce inequality	Inclusive cities	Sustainable consumption	Inclusive societies
Moderate	Poverty	Education	Sustainable economy	Sustainable industrialization	Urgent action on climate change	Strengthen global partnerships	
Poor	Hunger	Gender equality					
Stable	Conserve sea and marine resources	Protect the environment					

Refer to the appendix at the end of the document to learn more on India's progress with respect to SDGs and best practices across the country.

WHAT ARE THE CHALLENGES INDIA IS FACING IN ACHIEVING THE SDGs?

Structural Challenges:

➤ **Imbalance in economic development:** The struggle for growth and excellence has created imbalance in the economic development, depleted some of the natural resources and has thus **altered the ecological balance** which threatens sustainable development.

➤ **Rapid Urbanisation:** This has led to increasing demand-supply gaps in housing, infrastructure, employment, and other economic opportunities and services.

■ **For example, regional disparity in literacy and numeracy skills** and level of learning outcomes, **high unemployment rate, and decline in female labour force participation** in India.

➤ **Regional variance:** There is great imbalance in poverty levels between states and between urban and rural areas. For example, Chhattisgarh has 39.9% of people living below poverty while the corresponding figure for Andaman and Nicobar Islands is 1%.

Implementation Challenges:

➤ **Financing SDGs:** Reports suggest that India needs USD 2.64 trillion investment to meet the UN's sustainable development

goals (SDGs). Given the recent cut in social sector schemes and decline in the share of Union budget expenditure out of GDP, there is likely to be a significant funding gap. Further, the development policies and budget heads of Union and State Governments have not been fully integrated with SDGs.

➤ **Systemic Weaknesses:** Delays in fund flow at the local level along with inadequacy of human resources, training and capacity of line departments, Panchayati Raj Institutions and Municipal Corporations entails poor planning and weaken the implementation and monitoring of SDGs.

HOW HAS THE COVID-19 PANDEMIC IMPACTED THE SDGs?

COVID-19 pandemic has disrupted implementation towards many of the SDGs to achieve the 2030 Agenda for Sustainable Development. The pandemic threatens to **reverse years of progress on goals like poverty, hunger, health care, education etc.** While the virus has impacted everyone, it is affecting the world's poorest and most vulnerable people the most.



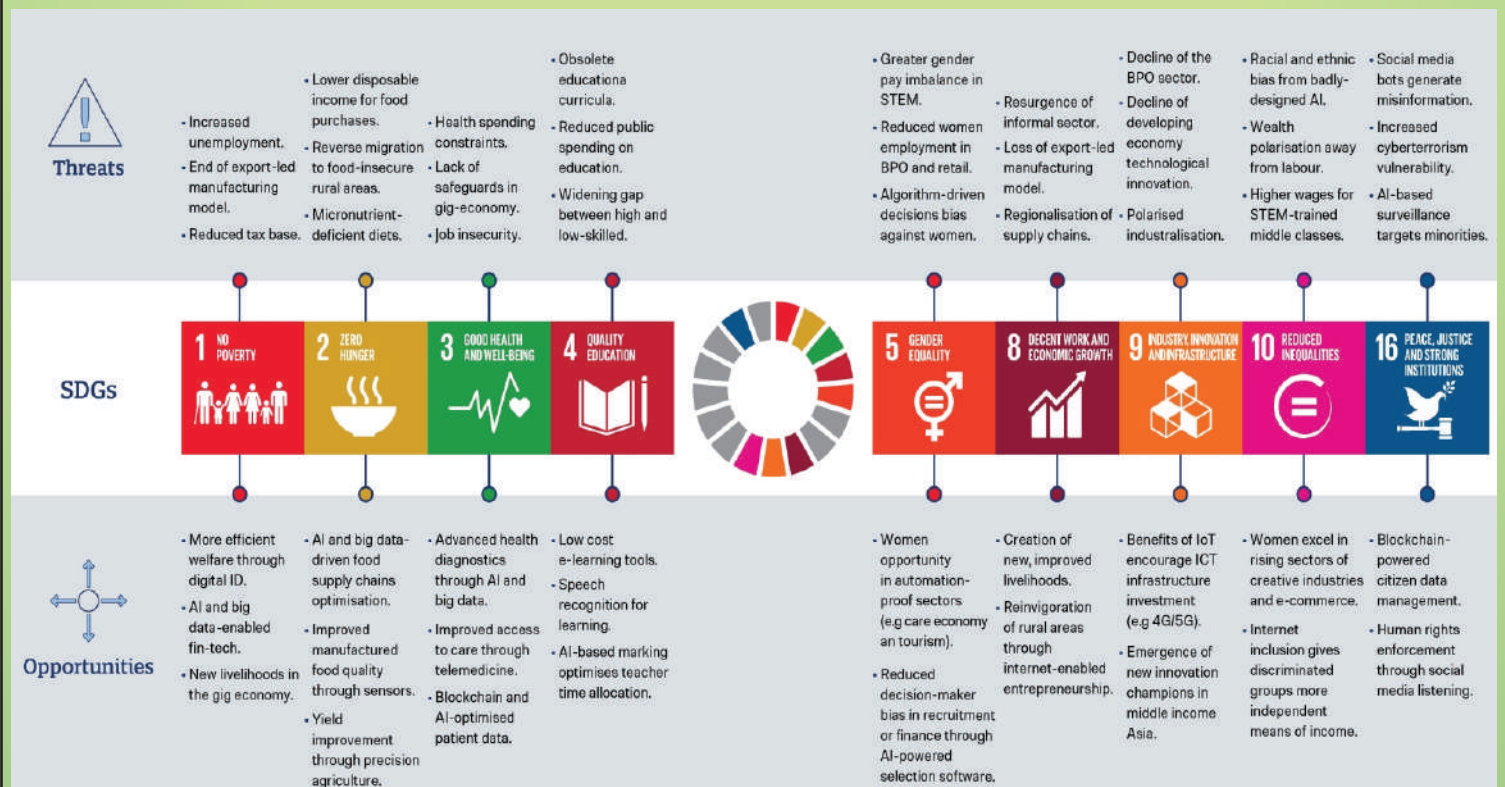
- **Lack of access to resources:** Inequalities continue to exist in women's access to and ownership of land and other assets.
 - ▣ In rural India, while 75 percent of rural women workers are engaged in agriculture, women's operational landholding is only 13.96 percent. The absence of land ownership limits their access to inputs, such as, seeds, fertilizers, credit, as well as agricultural extension services.
- **Lack of awareness and poor participation by marginalized communities** (SCs, STs, OBCs and minorities) in planning and implementation of SDGs at the local level.

Monitoring Challenges:

- **Defining Indicators:** There is a **lack of clear definitions, reliable and standardised data and inconsistent use of terminology** in selecting appropriate indicators. In order to insure effective implementation of the SDGs, the important definition of indicators like **Quality education, safe drinking water, poverty, hunger etc.** needs to be revised.
- **Monitoring outcomes:** Due to lack of preparation of development indicators, irregular data reporting on outcomes and lack of capacity of data preparation at State, district, and block levels.
- **Measuring Progress: Non-availability of data** in respect to sub-national levels, periodicity issues, **lack of innovation-oriented research** and **incomplete coverage of administrative data** have made accurate measuring progress of SDGs difficult.

CAN ARTIFICIAL INTELLIGENCE (AI) FOSTER THE ACHIEVEMENT OF SDGs?

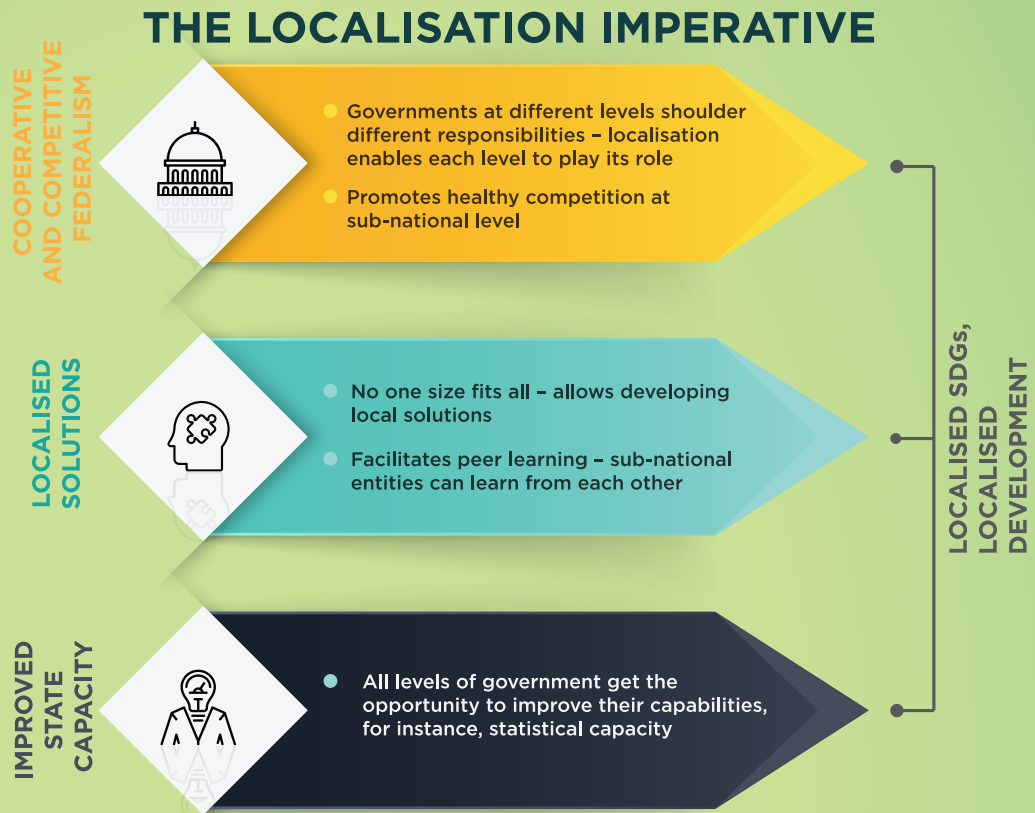
The emergence of AI is shaping an increasing range of sectors. Notably, AI enables new technologies that **improve efficiency and productivity**, but it may also lead to **increased inequalities among and within countries** thus hindering the achievement of the 2030 Agenda, both in the short and long term. AI could have both **positive and negative impacts** on SDGs. (refer infographic for AI's threats and opportunities for some SDGs)



WHAT IS THE WAY AHEAD TO OVERCOME THE BARRIERS IN ACHIEVING SDGs?

Localizing SDGs (refer infographics): It involves the process of understanding, adapting, planning, implementing and monitoring the SDGs from national to local levels by relevant institutions.

Local and regional governments (LRGs) must prepare to implement and monitor the SDGs in their communities by, for instance, **conducting needs assessments to define priorities, engaging in cooperative governance to establish shared priorities**, aligning local and regional plans with the SDGs, mobilizing local resources, building capacities for effective and responsive leadership promote ownership, and participating in development cooperation and peer-to-peer learning.



NITI Aayog should make regular interventions to facilitate entrepreneurship, innovation and new-age leadership on various development fronts to articulate the national development agenda and work as an integrative platform to bring the Central Ministries, States and UTs to achieve the SDGs.

Education, Employment and Human Resource Development: There is a need to refashion education and skill development so that the existing, emerging and future labour force has the capability and requisite opportunities to engage in appropriately gainful employment.

It is necessary to invest in and enhance quality and accessibility of health care, especially for the economically weaker sections and people in vulnerable situations.

Promoting women's entrepreneurship: As the economy gets increasingly digitised, and women's access to technology improves, women increasingly find a level playing field and welcome the ambiance for innovation. This situation calls for gender-responsive and inclusive procurement both in public and private sector.

Initiatives like the **Atal Innovation Mission and Women's Entrepreneurship Platform of NITI Aayog**, aim to create an ecosystem of innovation, research and entrepreneurship across the country to engage young girls and women.

Infrastructure: There is need to invest in new, resilient infrastructure or retrofit existing infrastructure to make it more sustainable.

By connecting communities to cities, education and employment, infrastructure such as **transportation and telecommunications** underpins national economic goals.

It is vital in **conserving natural resources and reducing the impact of climate change**. For example, clean energy generation plants are critical in reducing dependence on fossil fuels.

Proper infrastructure is needed for equitable access and delivery of services such as power supplies, healthcare services and sewerage networks that are essential for sustainable development.

- **Enhance funding:** Estimating the cost to achieve the SDGs and developing and implementing the tools to attract SDG-related **finance and investments are key requirements for the timely achievement** of the ambitious targets under the SDG framework.
 - **Enhancing the financial resources to have better unit cost of services and adequate payment to staffs and their trainings**, who are engaged with social and economic sectors should be given top priority for better implementation of SDGs.
- **Focus on 3As (Awareness, Action & Accountability):** To improve the accuracy of the indicator measurement and avoid double counting, a single clustered indicator is needed to accelerate the progress towards the SDGs by embracing a “3As” approach-
 - **Raising awareness**-the right tools and information can play a critical role in the implementation and monitoring of the SDGs.
 - **Taking action**- as millions of people are becoming aware of the goals, more and more are taking action across the globe.
 - **Holding decision makers accountable** by collecting, analyzing and sharing data to monitor progress, and by bringing stakeholder’s perspectives on the SDGs to decision makers to promote accountability.

CONCLUSION

The prevalence of challenges like climate change, global hunger, internal and external conflict etc. have showcased the importance of Sustainable Development approach. With the advent of energy efficient technology and recognition of the importance of inclusive development, a harmonious relation between development, social equity and environment is possible. India remains a large piece of this puzzle, that is because, if India succeeds in attaining the SDGs it would mean a larger section of the world has achieved it. Therefore, it is imperative for India to develop effective methods for implementing, monitoring and measuring the progress of SDGs. It is time that each one of us adopts a 'green and broad' mind-set and use the natural resources available equitably, judiciously and sustainably for the future generations. The best way to ensure a sustainable future is to create it.



APPENDIX

Sustainable Development Goals

India's efforts and its progress

Best Practices

SDG 1



NO POVERTY

End poverty in all its forms everywhere

- **Under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) Scheme:**
 - **136 million job cards** have been issued so far which marked **12 percent growth in person days of employment** from 2.36 in 2016-17 to 2.64 billion in 2019-20.
 - **Housing For All:**
 - Houses completed in rural areas in a year **grew four times**, 1.2 million in 2014-15 to 4.7 million houses completed in 2018-19.
 - **Self Help Groups (SHGs) with bank credit linkage increased** to 27 lakh in 2018-19.
 - **Women's participation increased** from 13 percent in 2011-12 to 21% in 2017-18 in regular wage/salaried jobs.
- **KUDUMBASHREE** is the poverty eradication and women empowerment programme implemented by Kerala jointly with the National Bank for Agriculture and Rural Development.
 - The Mission has over the last two decades drastically transformed the lives of women through grassroots level initiatives that have empowered them economically and socially.

SDG 2



ZERO HUNGER

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

- **97.6 percent National Food Security Act (NFSA) beneficiaries** covered in 2018-19 from 95.2 percent in 2015-16.
 - **To improve access to and efficiency of food distribution**, various measures have been put in place:
 - **Digitisation of 234 million ration card** database.
 - **Aadhaar seeding** of ration cards.
 - Automation of **Fair Prices Shops** and installation of electronic-Point of Sales (PoS) machines.
 - Under **National Mission on Sustainable Agriculture (NMSA)**, 224 million soil health cards distributed for enhancing soil fertility.
- **Breast Milk Bank** was established in the Aspirational District of **Ramanathapuram, Tamil Nadu** to provide access to breast milk for low birth weight, pre-term and orphan babies. The initiative helped improve rates of breastfeeding in the district.
 - **Centralised Kitchens for Better Nutrition:** In the Aspirational District of **Nandurbar, Maharashtra**, central kitchen has been set up by the Tribal Development Department of the State Government to provide hot and nutritious meals to children in residential schools, known as Ashram Shalas. This central kitchen caters to 28 ashram schools with a capacity of up to 10,000 students.

SDG 3

**GOOD HEALTH AND WELL-BEING**

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

- **Under Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PMJAY):**
 - 100 million families provided **health insurance of Rs. 5 Lakh per year.**
 - 1,50,000 **health and wellness centres by 2022.**
- **Maternal Mortality Ratio (MMR) reduced by 6.15 percent** - to 122 in 2015-17 from 130 in 2014-16.
- **Infant Mortality Rate (IMR) declined** from 37 to 32 between 2015 and 2018.
- **Under-5 Mortality Rate has declined in recent years**, from 43 in 2015 to 37 in 2017.

- **YSR Aarogyasri Scheme:** Towards achievement of universal health coverage for BPL families, the Government of **Andhra Pradesh** is implementing the YSR Aarogyasri Health Insurance Scheme. The scheme has established a demand-side mechanism that mobilises and channels additional public financing to health, introduced an explicit benefits package, pioneered cashless care and fostered public private partnerships.

SDG 4

**QUALITY EDUCATION**

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

- **Dropout rates reduced** to 2.72 percent and 9.74 percent respectively at **elementary and secondary** levels in 2018-19.
 - **Internet access in schools** is expanding. More than 80 percent of teachers have been formally trained.
 - **Gender Parity Index for Higher education increased** from 0.92 in 2014-15 to 1 in 2018-19 reflecting an improvement in women's access to learning opportunities.
 - **Minimum proficiency level is achieved** in language and mathematics.
- **Unnayan Banka Smart Classroom Model:** Unnayan Banka implemented in the Aspirational District of **Banka, Bihar**, is an initiative that envisages 'quality education for all', using latest technologies.
 - In Banka, learning outcomes improved from 17% to 54% with 90% attendance.
 - Following the success of this innovation, the model has now been successfully implemented in all districts of Bihar and other Aspirational Districts such as Godda (Jharkhand), Ramgarh (Jharkhand), Dhubri (Assam), Namsai (Arunachal Pradesh) and Dhenkanal (Odisha).

SDG 5

**GENDER EQUALITY**

Achieve gender equality and empower all women and girls

- **Under Pradhan Mantri Jan-Dhan Yojana (PMJDY):**
 - 381 million bank accounts opened between 2014 and 2020, with **203 million of them (i.e. 54 percent) opened by women.**
 - In 2017, **77% women's access to bank accounts rose** from 43% in 2014.
 - **75% beneficiaries under MUDRA** (Micro Units Development and Refinance Agency) **Yojana (Credit for SMEs- Small, Medium enterprises)** are women.
 - **In 2019, Women's participation in lower house of national parliament rose.**
 - **35 percent of Directors in Startups** are women.
- **Children First:** The Child Protection Unit in the Aspirational District of **Muzzafarpur** performs an integrated role in child rights, health and education. This unit mobilises the community and emphasises the importance of gender equality, reduction of mortality rates and relevant indicators pertaining to children and women. Such activities have been drawing a large number of people, especially girls and women.

SDG 6

**CLEAN WATER AND SANITATION**

Ensure availability and sustainable management of water and sanitation for all

- **96 percent of households** have access to an **improved source of drinking water**.
- **100 percent individual household toilets** in rural households in 2019 from 38.7% in 2014-15.
- 97.4 percent of schools have **separate toilets for girls leading to improved enrolment and retention of girls** in primary education.
- **'TAANKA' Technique for Water Conservation:** The Aspirational District of **Sonbhadra** became the first district in Uttar Pradesh to employ the traditional taanka technique to propel its efforts for rainwater harvesting and water conservation, popular in the water-parched state of Rajasthan.
- **Subsurface Dams:** To address the issue of water shortage, the Aspirational District of **Y.S.R Kadappa, Andhra Pradesh**, has constructed sub surface dams on river Papagni. After the intervention, water percolation of the surface runoff to the sand layers, and in the adjoining alluvium along the river has increased the water table, resulting in increased water availability for sustainable irrigation practices.

SDG 7

**AFFORDABLE AND CLEAN ENERGY**

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

- In 2018-19, **access to clean cooking fuel increased** to 96.2 percent households from 63.1 percent in 2015-16.
- India is **3rd most attractive country for renewable energy** investment.
- India's **renewable energy target is 450 GW by 2030**.
- **75 percent solar power tariff reduced** using plug and play model.
- **Suryashakti Kisan Yojana (SKY):** The Government of **Gujarat** has launched a solar power scheme for farmers - **Suryashakti Kisan Yojana (SKY)** enabling them to generate electricity for their captive consumption and to sell the surplus power to the grid for augmenting income.

SDG 8

**ECONOMIC GROWTH**

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

- Globally, **India has third largest entrepreneurship ecosystem** and highest number of unicorns.
- **80 percent new firms** have been created.
- Number of startups recognized under Startup India has increased which in turn **increase direct and indirect jobs**.
- In 2019, India's position in **Ease of Doing Business Index improved** to 63 from 142 in 2014.
- **Atal Incubation Center (AIC):** an initiative under the Atal Innovation Mission of NITI Aayog, aims to **promote the innovation and entrepreneurship ecosystem** in the country. For instance, the **AIC-NIFT TEA (National Institute of Fashion Technology - Tirupur Exporters Association)** incubation centre for textiles and apparels is sector specific for creating an ecosystem to foster innovation and knowledge-based entrepreneurship. With India becoming the breeding ground of startups, AIC across the country aids **creation of numerous jobs with their scale ups** along with fostering the business and innovation environment.

SDG 9

**INDUSTRY,
INNOVATION AND
INFRASTRUCTURE**

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

- In Bharat mala programme (for road infrastructure), **investment is increased more than three times** between 2014-15 and 2018-19.
- Under Sagarmala project, **Cargo handling capacity of major ports is increased** in 2019.
- India is the **third largest domestic market for civil aviation** in the world.
- India's industrial corridor is one of the world's largest infrastructure projects.
- In 2019, **Internet user base and telephone connection** have been **increased**.
- **Ease of Doing Business in Mumbai and Delhi- Construction permits** Municipal Corporation of Delhi and Greater Mumbai have introduced fast track approval systems for issuing building permits with features such as Common Application Form (CAF), provision of using digital signature and online scrutiny of building plans. Doing Business 2018 and 2019 reports, showed that the time for construction permits reduced from 128.5 to 99 days in Mumbai, and from 157.5 to 91 days in Delhi, between the years.

SDG 10

**REDUCED
INEQUALITIES**

Reduce inequality within and among countries

- **2.96 percent of union budget allocated for SC and ST welfare schemes** in 2017-18 from 2.47% in 2015-16.
- Under MUDRA scheme, **48 percent of loan accounts belonged to SC, ST and OBC entrepreneurs**, and 62 percent belonged to women.
- **44.4 percent seats in panchayati raj institutions** held by women and **28.3 percent in State legislative assemblies** occupied by persons belonging to **SC/ ST communities**.
- **Sweekruti Scheme:** The scheme was formulated by the Government of **Odisha** to provide equal opportunities and protect the rights of the transgender community through scholarships, skill upgradation and entrepreneurship development, training, support for critical health care and group insurance support, legal aid, counselling and guidance services for the community.

SDG 11

**SUSTAINABLE
CITIES AND
COMMUNITIES**

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

- **Number of houses completed in urban areas increased** to 3.2 million in 2019-20.
- **Smart Cities Mission** projects worth Rs. 2 trillion **identified 100 cities across the country** for focused development.
- Energy Conservation Building Code (ECBC) is estimated to **achieve 50 percent reduction in energy use by 2030**.
- Under **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)**, in 500 cities, basic civic amenities like water supply, sewerage and urban transport are provided to all.
- **Bhubaneswar One, Odisha** Implemented by Bhubaneswar Smart City Limited (BSCL), Bhubaneswar One, is an e-portal that integrates geo-spatial data from all the Government and private organisations for providing easy and hassle-free information to residents and tourists.
- **Mangrove Boardwalk Panaji, Goa** Panaji Smart City Development Limited, the Smart City SPV of the Government of Goa has developed a 'Boardwalk' in the midst of mangroves in Panaji creating ecologically sustainable green spaces.

SDG 12

**RESPONSIBLE CONSUMPTION AND PRODUCTION**

Ensure sustainable consumption and production patterns

- India ranks **9th in world in land under organic agriculture.**
- India is globally 6th in terms of organic wild collection area.
- **100 percent source segregation of waste** in 75 percent of municipal wards.
- 224 million soil health cards have been distributed to **promote organic manures.**
- **Decentralised Solid Waste Management Alappuzha, Kerala:** The urban local body in coordination with district Suchitwa Mission (Cleanliness Mission), implements a project called '**Nirmala Bhavanam Nirmala Nagaram**' (Clean Homes, Clean City).
 - The project focuses on decentralised solid waste management through segregation and treatment of wet waste at the source. The project has received global recognition from the UNEP and the city has been recognised as one of the five top model cities in the world for sustainable management of solid waste.

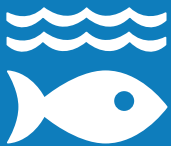
SDG 13

**CLIMATE ACTION**

Take urgent action to combat climate change and its impacts

- Globally, India stands 3rd in renewable power generation, 4th in wind power, and 5th in solar power.
- Solar installed capacity has **increased by about 13 times** to 34.62 GW.
- **Reduction in emission intensity of GDP by 21 percent.**
- In 2020, **36 percent of total electricity generation is from renewable sources.**
- 11 million smart LED street lights installed.
- **India Cooling Action Plan (ICAP):** Launched in March 2021, India is one of the first countries in the world to develop a comprehensive Cooling Action Plan to address requirements across sectors and lists out actions to **reduce the cooling demand.** The overarching goal is to provide sustainable cooling and thermal comfort for all while securing environmental and socio-economic benefits for the society.

SDG 14

**LIFE BELOW WATER**

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

- India is 16th largest maritime country and 2nd largest producer of fish in the world.
- In 2019, area under **mangroves has increased.**
- **Maximum sustainable yield in fishing increased** by 43 percent from 3.7 million tonnes per year in 2015-17 to 5.3 million tonnes per year in 2017-18.
- **The Sindhudurg Mainstreaming Project in Maharashtra** has invested heavily in a multi-pronged approach to improve the sustainability of fisheries, protect the rights of access of artisanal fishers, act against illegal fishing activities, and build sectoral partnerships to diversify and improve the livelihoods of coastal communities.
- **Eco-Labeling initiatives** are being promoted for sustainably managing marine fisheries. An eco-labelling intervention in Kerala seeks to harness consumer power to bring about positive change in the fisheries sector.

SDG 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

- 1.69 million hectare (Mha) **area covered under different afforestation schemes increased** from 1.38 Mha in 2015-16.
- Number of **Protected Areas has increased** to 903 between 2015 and 2020.
- **26 million ha of degraded and deforested land to be restored by 2030**, and achieve land-degradation neutrality.
- **3 Mha of forest and tree cover has been added**, which has enhanced combined forest and tree cover to 24.56 percent.
- **Sustainable Highways:** With the aim of striking a balance between highway development and environmental conservation, the Green Highways Policy was initiated in 2015. The initiative involves all stakeholders, including local communities and civil society in **planting of trees and shrubs along India's rapidly expanding highway network**. The objective is to transform the National Highways into a natural sink for air pollutants and arrest soil erosion at the embankment slopes.

SDG 16



PEACE, JUSTICE AND STRONG INSTITUTIONS

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

- Over **90 percent population covered under Aadhaar** unique identity system.
- Overall **crime rate per lakh population has reduced and registration of cases has increased** by 1.3 percent.
- Online services provided by government have increased.
- **Digital payment transactions have increased** to 38 billion in 2019-20.
- **Police Uncle Tutorial:** Launched in 2019, Police Uncle Tutorial is a one of a kind initiative by the Police Department in the Aspirational District of **Simdega in Jharkhand**. This unique concept targets dropouts and academically weak students of Grade X, in the left-wing extremism affected areas of the district, where children are more susceptible to crime.

SDG 17



PARTNERSHIPS FOR THE GOALS

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

- India has **improved its tax-to-GDP ratio** in last six years to **augment domestic resource mobilisation**.
- Public expenditure efficiency has improved.
- India is the **third largest startup hub** in the world.
- India has extended more than 300 Lines of Credit (LoC) to 64 countries so far.

TOPIC AT GLANCE

SUSTAINABLE DEVELOPMENT & ITS NEED

Concept was described by the 1987 Bruntland Commission Report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

- 3 Objectives- Economic growth, Environmental protection, and Social inclusion.
- Ensures good governance & transparency, fight against climate change & protect biodiversity, contributes to the well-being of communities etc.

SDGs

- **Universal** and were created to “**leave no one behind**”.
- **17 SDGs** accompanied by 169 specific targets and 232 measurable indicators.
- **Bottom-up approach.**
- **Include peace-building** to the success of ending poverty and hunger.
- Get to a **statistical “zero”** on hunger, poverty, preventable child deaths and other targets.
- Focus on the **quality of education.**
- Target to increase significantly the **availability of high-quality, timely and reliable data.**
- **Separately treat the issue of poverty** from Food and Nutrition Security perspective.



MDGs

- In the context of “**rich donors aiding poor recipients**”.
- **8 Goals** with 21 targets and 60 indicators.
- **Top-down process.**
- **Overlooked peace-building** in their core agenda and goals.
- Reach “**halfway**” to the goal of ending hunger and poverty.
- **Focused only on quantity.**
- **Didn’t prioritize monitoring, evaluation and accountability of data.**
- **Hunger and Poverty were combined together.**

India’s SDGs progress

- **Good** → SDGs 3 (Health), 6 (Water), 7 (Sustainable Energy), 10 (Reduce Inequality), 11 (Inclusive cities), 12 (Sustainable consumptions), 16 (Inclusive societies)
- **Moderate** → SDGs 1 (Poverty), 4 (Education), 8 (Sustainable economy), 9 (Sustainable industrialization), 13 (Climate Change), 17 (Strengthen global partnerships)
- **Poor** → SDGs 2 (Hunger), 5 (Gender equality)
- **Stable** → SDGs 14 (Conserving sea & marine resources), 15 (Life on Land)

India’s Challenges in achieving SDGs

- **Structural Challenges:** Imbalance in economic development; Rapid Urbanisation; Regional variance.
- **Implementation Challenges:** Financing SDGs; Systemic Weaknesses; Lack of access to resources; Lack of awareness and poor participation by marginalized communities.
- **Monitoring Challenges:** Defining Indicators; Monitoring outcomes; Measuring Progress.

Way ahead to overcome the barriers in achieving SDGs

- **Localizing SDGs:** NITI Aayog should make regular interventions to facilitate entrepreneurship, innovation and new-age leadership on various development fronts.
- **Need to refashion Education, Employment and Human Resource Development:** Invest in and enhance quality and accessibility of health care, especially for the economically weaker sections and people in vulnerable situations.
- **Promoting women’s entrepreneurship:** For inclusive procurement both in public and private sector.
- **Invest in new and resilient infrastructure.**
- **Enhance funding** for timely achievement of SDGs targets.
- **Focus on 3As (Awareness, Action & Accountability)** to improve the accuracy of the indicator measurement and avoid double counting.