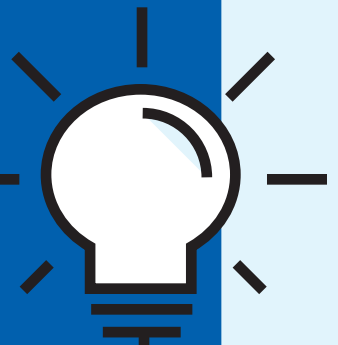


**NEXT IAS**

**FACT SHEET**

**GENERAL STUDIES - I**



**AIM**

**ADVANCED INTEGRATED MENTORSHIP  
PROGRAM FOR CSE 2025**

## 1. SALIENT FEATURES OF INDIAN SOCIETY

**Multi-ethnic** - As per 2011 Census of India-a. Indo-Aryans-70.17% b. Dravidian-25.26% c. Sino-Tibetan-2.99% d. Austroasiatic-0.65% e. Negrito-0.004%.

- **Multilingualism** - As per 2011 Census of India-121 languages are spoken as mother tongues by 10000 people or more & the Constitution of India recognizes 22 of them as “scheduled” languages under Schedule 8
- **Multireligious-** As per 2011 Census of India- a. Hinduism-79.80% b. Muslims-14.23% c. Christians-2.30% d. Sikhs-1.72% e. Buddhists-0.70% f. Jains-0.37%
- **Caste System-** As per 2011 Census of India- a. Scheduled Caste-16.6% b. Scheduled Tribes-8.6%. As per Mandal Commission Report of 1980- OBCs-52%
- **Tribalism-** The Scheduled Tribes are notified in 30 States/UTs is 705. As per 2011 Census of India, the tribal population of the country is 10.43 crore, constituting 8.6% of the total population. 89.97% of them live in rural areas and 10.03% in urban areas. As per Ministry of Tribals Affairs, the number of PVTGs in India is 75. Under Article 244(1) of the constitution of India, 10 states have scheduled areas.
- **Child Marriage-** As per NFHS 5- prevalence of girls getting married before age 18 is 23.3%. A new study published in the Lancet Global Health 2023, In India, child marriage reduced from 47.4% in 2005-06 to 26.8% in 2015-16. West Bengal, Bihar and Tripura top the list with more than 40% of women aged 20-24 years married below 18, according to NFHS data.

**Family-** As per data analysis of 2011 Census of India,

1. The extended and joint family or households is 20% and the nuclear family is 70%.
2. The proportion of nuclear households in **urban areas** has decreased. In 2001, it was 54.3%, but it has now dropped to 52.3%.
3. On the other hand, in **rural areas**, the proportion of nuclear families has increased from 50.7% to 52.1%.
4. **Joint families** have decreased from 19.1% (3.69 crore) to 16.1% (4 crore) all over India. In **rural areas**, the decrease was more significant, dropping from 20.1% to 16.8%. In **urban areas**, the decline was from 16.5% to 14.6%.

## 2. CASTE SYSTEM

**Changes, nature, and factors bringing those changes**

**Changes -**

- As per PRS legislative study, Percentage of MPs in parliament SCs-15.46% and STs-8.6% in 17th Lok Sabha.
- The representation of Scheduled Caste (SC) and Scheduled Tribe (ST) officers at the rank of **joint secretary and secretary in the Government of India** stands at 4% and 4.9% respectively, the department of personnel and training (DoPT) informed the Rajya Sabha in 2022.
- As per Ministry of Law & Justice, 492 of the 650 **High Court judges** appointed between 2018 and 2023 belong to the General Category (75.69%), OBCs- 11.7%, SCs-3.5%, STs-1.5%.

- **Education-** AISHE 2020-21: The report released by the Ministry of Education showed that of the 4.13 crore students enrolled in Higher Education Institutes during 2020-21, 14.2 per cent belonged to SC category, 5.8 per cent ST category and 35.8 percent to OBC category
- As per National Family Health Surveys (NFHS) conducted by Ministry of Health and Family Welfare, in respect of Scheduled Tribes,
- **Infant Mortality Rate** has declined from 62.1 (2005-06) to 41.6 (2019-21); **Under Five Mortality Rate** has declined from 95.7 (2005-06) to 50.3 (2019-21), **Institutional Delivery** has increased from 17.7% (2005-06) to 82.3 % (2019-21) and **immunisation** of children aged 12-23 months has increased from 31.3 % (2005-06) to 76.8 % (2019-21).

**Static nature-**

- **Violence against SCs-** As per NCRB Annual Reports,

YEAR	NO. OF CASES
2022	57582
2021	50900
2020	50291

**Violence against STs - As per NCRB ANNUAL REPORTS,**

YEAR	NO. OF CASES
2022	10064
2021	8802
2020	8272

According to the Ministry of Social Justice and Empowerment , 97% of **manual scavengers** are Dalits - about 42,594 manual scavengers belong to SCs, 421 belong to STs and 431 belong to OBCs.

- **PRISON INMATES-**A detailed break-up of the NCRB figures showed that 1,62,800 prisoners ( 34.01%) belonged to the OBC category, 99,273 (20.74%) to the SC category and 53,336 (11.14%) to the ST category
- **Poverty - As per Global MPI 2021**(Multidimensional Poverty Index) by **UNDP**, Five out of six multidimensionally poor people in India are from lower tribes and castes. STs- 50.4%, SCs-33.3%, OBCs-27.2%.

**3.RELIGION**

**Religion induced Violence:** As per National Crime Records Bureau data, **cases of communal or religious rioting .**

YEAR	CASES
2021	378
2020	857
2019	438
2018	512
2017	723

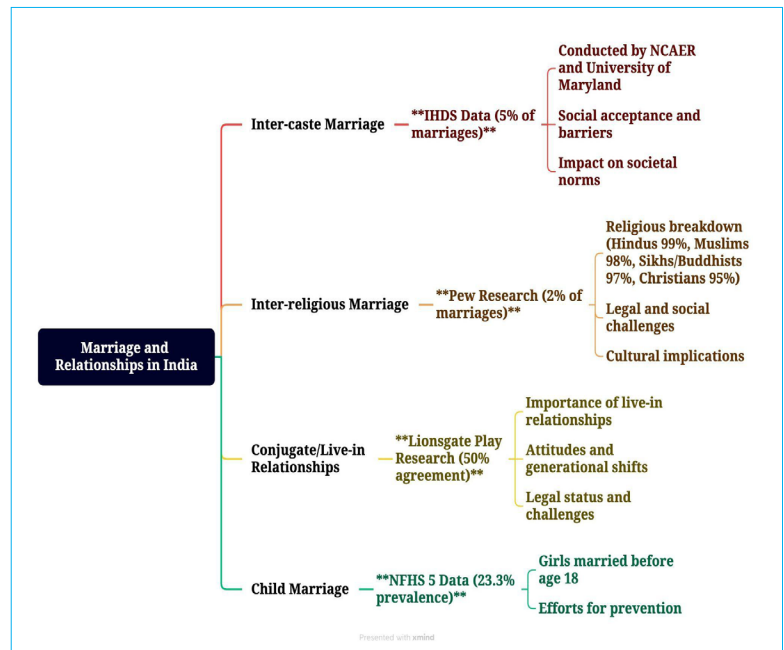
• Religion and fertility rate-

Religion	NFHS 4	NFHS 5
HINDU	2.13	1.94
MUSLIM	2.62	2.36
CHRISTIAN	1.99	1.88
SIKH	1.58	1.61
BUDDHIST	1.74	1.39
JAIN	1.2	1.6

Marriage and Family

5. DIVERSITY AND PLURALISM CHALLENGES-

- **A. Communalism-**As per National Crime Records Bureau data, a total of 378 cases of communal or religious rioting were registered in 2021, 857 in 2020, 438 in 2019, 512 in 2018 and 723 in 2017.
- **B. Dalit violence-** The National Crime Records Bureau’s (NCRB) ‘Crime in India’ report for the year 2022 shows Dalits in India continue to be vulnerable to caste-based atrocities. A total of 57,582 cases were registered for committing crime against Scheduled Castes (SCs), an increase of 13.1% over 2021 (50,900 cases)



6. ROLE OF WOMEN AND WOMEN’S ORGANISATION

**Sex ratio** = 943 Census 2011 (933 in 2001 Census) [Note: Kerala = 1084 & Puducherry = 1037; Only these 2 states/UT have 1000+ sex ratio] Lowest Sex Ratio- Haryana 879

- **Sex Ratio at Birth** (0-1 years) = 899 (Census 2011) , 931 (2018-19) (Health Management Information System (HMIS))
- **Literacy rate-** Census 2011 Male = 80.9%, Female = 64.63%
- **Gross Enrolment Ratio-** As per AISHE 2018-19, females constitute 48.6% of the total enrolment in higher education and the Gross Enrolment Ratio (GER) for females in higher education at 26.4% is higher than the national GER of boys at 26.3%.
- **Life expectancy-**68.3 Census 2011 (M = 66.9; F = 69.9)

As per NFHS 5

Women progress recorded...

Parameters	NFHS 4	NFHS 5
1. Antenatal Service	58%	70%
2. Saving Bank Account	63%	79%
3. Mobile Phone (self)	50%	54%
4. Married before 18 years of age	27%	23.3%
5. Clean fuel for cooking	44%	69%

**Other progress-**

- **PMJDY(JAN DHAN YOJANA)- %OF WOMEN ACCOUNT HOLDERS-55%**
- As per Department of Science and Technology (DST) showed women made up 28% of participants in 2018-19 in extramural **Research and Development (R&D)** projects, up from 13% in 2000-01
- Women **MPs**(Member of Parliament) in 18th Lok Sabha- 74(13.6%)- **PRS legislative Research**
- **As per Ministry of PanchayatiRaj**, India stands at the forefront globally, with 1.4 million women serving as elected members of Panchayati Raj Institutions / Rural Local Bodies, constituting 46% of the total elected representatives of PRIs.

Country	% of women MPs in lower house
1. Rwanda	61.3
2. South Africa	42.7
3. Nepal	32.7
4. Bangladesh	20.7
5. India	13.6

**CHALLENGES TO WOMEN EMPOWERMENT**

**As per NFHS 5...**

- % of women doing time consuming **domestic drudgery- 75%**
- **Spousal violence** faced by women in 18-49 years- 29.3%
- Only 14% of women experienced **domestic violence** have ever sought help.

**As per NCRB Annual Report 2022**, crimes against women in 2022 4,45,256 **cases** translating to 51 FIRs every hour

**Women in Civil Services-** Based on the Indian Administrative Service (IAS) dataset compiled by the Trivedi Centre for Political Data, *IndiaSpend* published a study demonstrating that women officers accounted for only 13% of the total 11, 569 IAS officers recruited between 1951 and 2020.

**Time Use Survey (TUS)2018-19-** Percentage share of total time in different activities in a day per person of age 6 years and above

Description of the activity	Rural		Urban		All INDIA	
	Male %	Female %	Male %	Female %	Male %	Female %
1. Employment and related activities	16.9	4.2	21.3	4.3	18.3	4.2
2. Unpaid domestic services for household members	1.9	17.2	1.5	16.1	1.7	16.9
3. Unpaid caregiving services for household members	0.8	2.6	0.7	2.5	0.8	2.6

Years	LFPR (in %)	WPR (in %)
2017-18	23.3	22.0
2018-19	24.5	23.3
2019-20	30.0	28.7
2020-21	32.5	31.4
2021-22	32.8	31.7
2022-23	37.0	35.9

Source: PLFS, MoSPI

## 7. SOCIAL EMPOWERMENT

### A. DISABLED-

According to the World Bank, 5–8% of India's population have disabilities. The NSSO estimates that 2.2% of the population is disabled. The NFHS-5 survey (2019–21) found that 4.52% of the population has a disability.

As per Census 2011 and Office of the Chief Commissioner for Persons with Disabilities at the all India level

- Disabled persons constitute 2.21% of the total population. 7.62% of the disabled persons belong to the age group 0-6 years.
- Gender Distribution-Male: 14.9 million (55.5%) Female: 11.9 million (44.5%)
- Urban vs. Rural Distribution-Rural: 18.6 million (69%) Urban: 8.1 million (31%)
- Educational Status-About 45% of disabled persons are illiterate, which is higher compared to the overall illiteracy rate in the country.
- Employment Status -Only 36% of the disabled population is employed, indicating a significant employment gap.
- The number of disabled persons is highest in the age group 10-19 years (46.2 lakhs).
- Elderly (60+ years) disabled constituted 21% of the total disabled at all India levels.
- Among all the female disabled children (5-19 years), 60% are attending institutions, while among the male disabled children the 62% are attending educational institutions.
- Of the total disabled population, nearly 55% (1.46 Cr.) are literates.
- The highest number of disabled persons is from the State of Uttar Pradesh. Nearly 50% of the disabled persons belonged to one of the five States namely Uttar Pradesh (15.5%), Maharashtra (11.05%), Bihar (8.69%), Andhra Pradesh (8.45%), and West Bengal (7.52%).

Comparison of Literacy status of disabled persons by Sex and Residence in India – Census, 2011

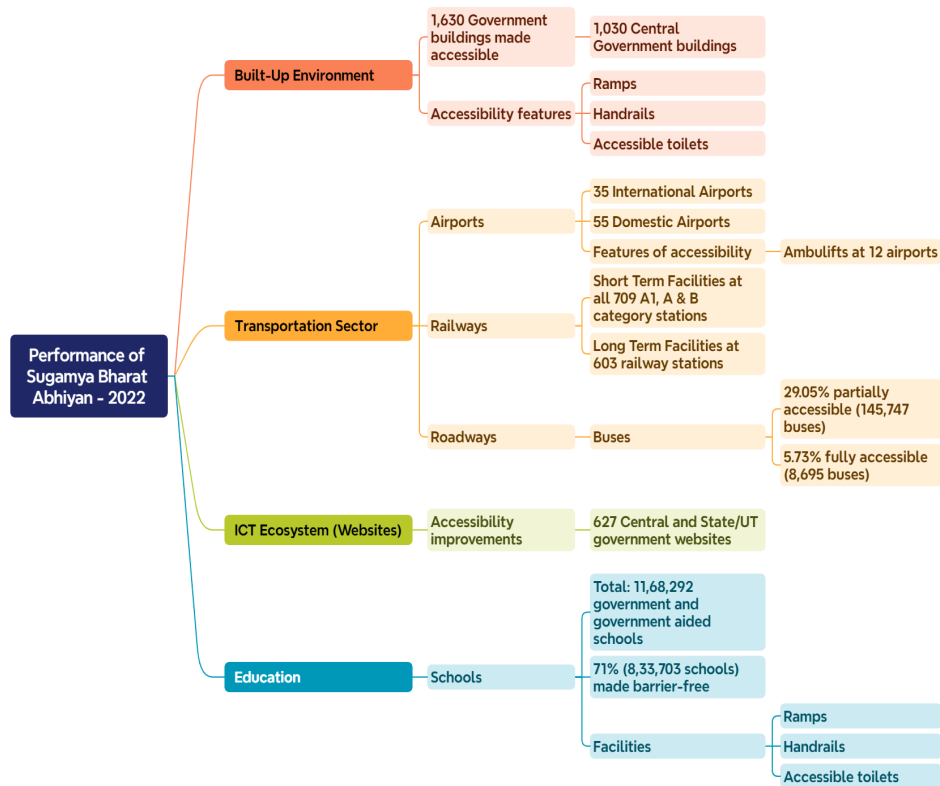
	Literate		Illiterate	
	Rural	Urban	Rural	Urban
Person	49	67	51	33
Male	58	72	42	28
Female	37	61	63	39

Distribution of Disabled Workers in India – Census, 2011

Total	Cultivators (CL)	Agriculture Labourers	In Household Industries (HHI)	Others
97,44,386	22,74,322	29,77,272	4,35,053	40,57,739
%	23	31	4	42

#SDG 5 - Gender Equality





**B. CHILDREN and Issues**

**Child labour-**

- **Status-**The Census of India 2011 reports **10.1 million working children in the age group of 5-14 years**, out of whom 8.1 million are in rural areas mainly engaged as cultivators (26%) and agricultural labourers (32.9%).
- **Positives-**There was a decline in the number of working children to 3.9% in 2011 from 5% in 2001. The number of children working as child labourers came down by 100 million in last two decades (**1991 to 2011**)
- **Negatives-**A report by the **International Labour Organization (ILO) and UNICEF** warns that **9 million additional children are at the risk of being pushed into child labour by the end of 2022 globally**, as a result of the pandemic.

Challenges in Education - Annual Status of Education Report 2023			
Enrollment Rates	Overall Enrollment: 86.8% of 14-18-year-olds		
	Stream Distribution	Arts/Humanities: 55.7% in Class XI or higher	
		Science, Technology, Engineering, and Mathematics (STEM)	Females: 28.1%
			Males: 36.3%
Vocational Training	Overall: 5.6%		
	College-level students: 16.2%		
Basic Abilities	Reading Abilities (10-14 years)	25% cannot read Class II level text fluently	
	Division Problems (3-digit by 1-digit)	43.3% of 14-18-year-olds proficient	
Language and Arithmetic Skills	Reading Regional Language (Standard II level)	Females: 76%	
		Males: 70.9%	
	English Reading and Arithmetic	Proficiency rates	English Sentences: 57.3%
			Comprehension: 74% understand meanings
Digital Awareness and Skills	Smartphone Ownership	Overall: Close to 90% have a smartphone	
		Males: 43.7% own smartphone	
		Females: 19.8% own smartphone	
Foundational Numeracy Skills	Division Problems (14-18 years)	Over 50% face difficulties	



**Children Education**

**Status-As per UDISE+,**

1. Gross Enrollment Ratio (GER) in the primary-enrollment in class I to V as a percentage of the population in age 6 to 10 years – for girls as well as boys have improved in FY 22.
2. In FY22, school enrolment stood at 26.5 crore children with 19.4 lakh additional children enrolled in Primary to Higher Secondary levels
3. School dropout rates at all levels have witnessed a steady decline in recent years.

**CHILD MALNUTRITION**

The 2023 Global Hunger Index gives India a rank of 111 out of 125 countries. This indicates a hunger severity level of ‘serious’ for the country. This also marks a fall from the previous year’s rank of 107 (2022).

Parameters	NFHS-3	NFHS-4	NFHS-5
1. Stunting	48%	38.5%	35.5%
2. Wasted	20%	21%	19.3%
3. Underweight	42.5%	36%	32%
4. Overweight		2.1%	3.4%
5. Anaemia	69%	58%	67%

INDICATOR	SRS 2014	SRS 2019	SRS 2020
Crude Birth Rate (CBR)	21.0	19.7	19.5
Total Fertility Rate	2.3	2.1	2.0
Early Neonatal Mortality Rate (ENMR) – 0- 7 days	20	16	15
Neonatal Mortality Rate (NMR)	26	22	20
Infant Mortality Rate (IMR)	39	30	28
Under 5 Mortality Rate (U5MR)	45	35	32

**Mortality in children**

SDG 2 - Zero hunger

- Global Hunger Index 2023- India at 111/125 nations.
- **NFHS 4:** 35% of all children in India underweight. NFHS 5 says worse now. Covid came after.

Sex Ratio at Birth-

NFHS-4	919
NFHS-5	929

**Highest-** Ladakh-1125, Tripura-1028 (NFHS-5)

**Lowest-** Dadar and Nagar Haveli-817, Goa-838 (NFHS-5)

**Son Meta-Preference** is the phenomenon where parents continue to produce children until the desired number of sons are born. According to Economic Survey-2017-18, there are over 21 million ‘unwanted girls’ in India.

• **Juvenile Delinquency**

As per the National Crime Records Bureau (NCRB) state that across the country, a total of 31,170 cases were registered against juveniles in 2021, showing a 4.7% increase over 2020 when 29,768 were registered.

• **Child trafficking**

As per data from the National Crime Records Bureau (NCRB), eight children were trafficked every day in India in 2021 — for labour, begging and sexual exploitation.

These numbers stood at 2,834 cases in 2018; 2,914 in 2019; 2,222 in 2020.

- **Child Marriage-** As per NFHS 5- prevalence of girls getting married before age 18 is 23.3%. A new study published in the Lancet Global Health 2023, In India, child marriage reduced from

47.4% in 2005-06 to 26.8% in 2015-16. West Bengal, Bihar and Tripura top the list with more than 40% of women aged 20-24 years married below 18, according to NFHS data.

- **Cybercrimes against children**-The NCRB report reveals a total of 1,823 cases of cybercrimes against children in 2022, up from 1,376 the previous year. These crimes include 1,171 cases of cyber pornography or the dissemination of inappropriate content, 158 cases of cyberstalking and bullying, and 416 other cyber-related offences.

### C. ELDERLY

The **India Ageing Report 2023** was released recently by the United Nations Population Fund (UNFPA) and the International Institute for Population Sciences (IIPS) key findings-

- Demographic Trends:
  - India's elderly population is growing rapidly, with a decadal growth rate of 41%.
  - By 2050, over 20% of India's population will be elderly.
  - The elderly population in India will surpass the population of children (0 to 15 years old) by 2046.
  - The population of people aged 80+ years is expected to increase by around 279% between 2022 and 2050.
- Higher Life Expectancy of Women:
  - Women have a higher life expectancy at ages 60 and 80 compared to men, with variations across states and territories.
  - For instance, in Himachal Pradesh and Kerala, women at 60 years have a life expectancy of 23 and 22 years, respectively, which is four years greater than men at 60 years in these States — as compared to the national average differential of only 1.5 years.
- Poverty and Well-being: More than 40% of the elderly in India are in the poorest wealth quintile.
- Regional Variations:
  - There are significant inter-State variations in the elderly population and their growth rates.
  - Most States in the southern region and select northern States such as Himachal Pradesh and Punjab reported a higher share of the elderly population than the national average in 2021, a gap that is expected to widen by 2036.
- Low Awareness of Social Security Schemes:
  - A little more than half of the elderly (55%) are aware of the old-age pension scheme (IGNOAPS); 44% about the widow pension scheme (IGNWPS); and 12% about the Annapurna Scheme.

### D. TRANSGENDERS

- According to **Census 2011**, it was found that the overall population of transgender is 4,87,803 and the with UP having most of the transgender population 1,37,465 and Lakshadweep having only 2 transgender.
- The 2011 census also reported 55,000 children as transgender identified by their parents
- **Work-** A study commissioned by India's **National Human Rights Commission** found that in 2017 just six percent of transgender people were formally employed in either the private or non-governmental organisation (NGO) sector. About 5% engaged in sex work and domestic labour

respectively. According to the study, about 92 percent of transgenders are deprived of the right to participate in any form of economic activity in the country, with even qualified ones refused jobs.

- **Health-** A report Transgender health in India and Pakistan in Lancet 2016 shows, The prevalence of HIV among transgender people in India is estimated to be 14.5%
- **Education-** As per the **2011 census**, the total literacy rate among transgender persons was 56.1% for a total population of around 4.8 lakhs
- **Political-** only 30,000 are registered with the Election Commission

## E. MINORITIES

**E.1. Religious Minorities-** As per the Census 2011, the percentage of minorities in the country is about **3% of the total population of the country**. The population of **Muslims are 14.2%; Christians 2.3%; Sikhs 1.7%, Buddhists 0.7%, Jain 0.4% and Parsis 0.006%**

- **Education-** As per the Census 2011, the literacy rate among Muslims was 68.54%, Christians (84.53%), Sikhs (75.39%), Buddhists (81.29%) and Jains (94.88%) in comparison to the national literacy rate of 72.98% in the Country.
- **Progress in Education-** As per UDISE+, the enrolment of minority students in schools has increased from 411 lakhs in 2015-16 to 455 lakhs in 2020-21. Also, for Higher education, as per AISHE reports, the enrolment of minority students has increased from 22.97 lakh in 2015-16 to 29.88 lakh in 2019-
- **Poverty-** According to UNDP and OPHI global multidimensional poverty index (MPI), 2018, that 50 percent of all tribes in the country are poor as are 33 percent of Dalits and 33 percent of Muslims.

## E.2. Linguistic Minorities-

### Key Highlights of the 2011 Census data on Language and Mother Tongue

- As per the 2011 census, 43.63 percent of Indians speak Hindi as their mother tongue
- Bengali, with 8.03 percent speakers, is second in the list, followed by Marathi at 3rd with 6.86 percent speakers, Telugu at 4th with 6.7 percent speakers and Tamil at 5th with 5.7 percent speakers.
- In all, 13 of the 22 scheduled languages were reported as the mother tongue by at least 1 percent of the population.
- Except for Sanskrit, each of the 21 scheduled languages was reported as the mother tongue by at least 10 lakh people.
- Sanskrit is the only language that is spoken by a set of around 25000 people.
- The growing movement of people from north to south has led to greater presence of Hindi in the five southern states. In Tamil Nadu, the proportion of Hindi speakers nearly doubled from 2001 to 2011.
- As per the language census data 2011, two scheduled languages, Urdu and Konkani, saw fall in absolute numbers. A fall of about 1.5 percent since 2001 for Urdu. The decline in Konkani speakers is 9.5 percent.
- English seems to have registered a 15 percent jump in number of speakers since 2001, making it one of the fastest growing languages in the decade.

**Extinction of languages-** AS PER Central Institute of Indian Languages (CIIL) Director, India has lost 220 languages in 50 year

## 8. TRIBAL PROFILE OF INDIA

- About 12% of the tribal population is found concentrated in the North-Eastern region, 5% in the Southern region and 3% in the Northern region.
- In the rural areas the proportion of ST population is 11.3% and in urban areas it is 2.8%.
- 97% of them live in rural areas, while 10% live in cities.
- According to the 2011 Census, the **Bhil tribe** is India's largest tribal group, accounting for approximately 38% of the total scheduled tribal population.
- According to the 2011 Census, **Madhya Pradesh** has the highest tribal population in India.
- The overall population has a sex ratio of 940 females per 1000 males, while Scheduled Tribes have a sex ratio of **990** females per thousand males.
- Poverty-According to global MPI estimates 2019, ST with more than 50% multidimensionally poor. (highest among all groups).

Indicator	Data
1. Tribal Population	According to the Census 2011, tribal population- 10.4 crores, 8.6% of the country.
2. Sex Ratio	990 females per 1000 males, Higher than National Average Child Sex Ratio- 2001- 972; 2011-957
3. Poverty	As per estimates of the Planning Commission, % of STs below poverty line 2011-12-45.3% from 2004-05-62.3%.
4. Literacy Rate	Census 2010-11, 58.96%
5. Health Indicators	Anaemia among women-65% Institutional Delivery- 70.1%

- **Displacement and Development-** A study conducted by WCD(World Commission on Dams), found Out of 57 million people, 62% of whom belonging to SC & ST have been involuntarily displaced due to large dams, and over 5 million hectares of forest have been submerged by them.
- **Forest Right Act-**As per the information submitted by the State Governments to Ministry of Tribal Affairs, 23,43,009 land titles totaling around 1,80,70,577.43 acres have been distributed (individual and community rights) across States, upto 31.10.2023, under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

### Government Schemes performance-

- Substantial increase of 12.32% in the Budget Outlay of Rs. 8451 Cr for the Ministry of Tribal Affairs for 2022-23.
- Pradhan Mantri Adi Adarsh Gram Yojana (PMAAGY) covers 16554 tribal villages for integrated development.
- Total outlay of Rs. 28,920 Cr for setting up of 452 new Eklavya Model Residential schools, upgradation of existing 211 schools and establishment of 15 Centres of Excellence for Sports for the year 2021-22 to 2025-26.

**TRIBAL WOMEN-** The Tribal health report highlights that 65% of tribal women in the 15-49 years age group suffer from anaemia.

- TFR is 2.5 as per NFHS 5
- The rate of institutional delivery is low about 70% only (National 95.5)

**PVTGs**-Ministry of Tribal Affairs revised the total population tally — pegging it at 44.64 lakh as of January 31, 2024

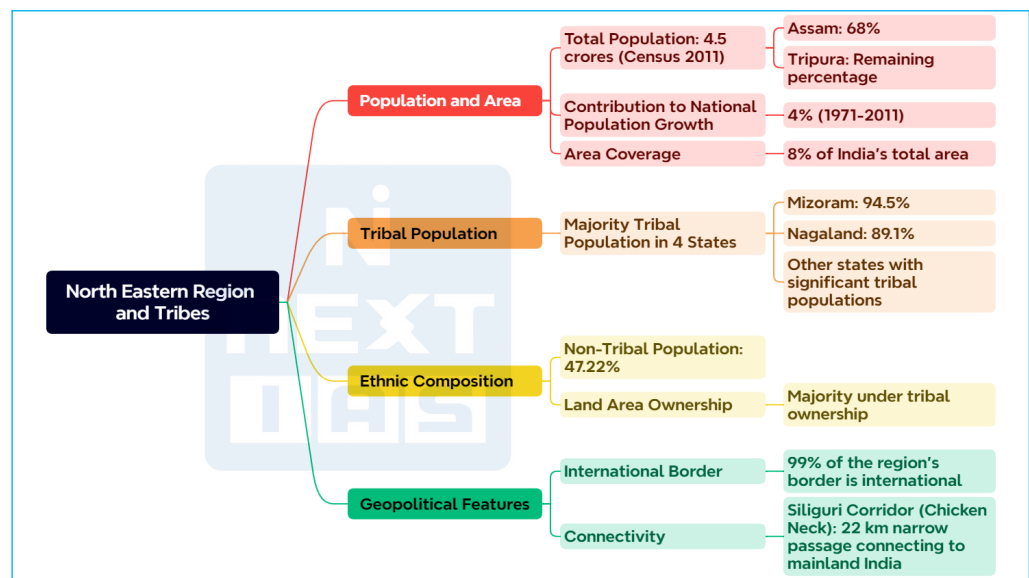
- As per Ministry of Tribals Affairs, number of PVTGs in India 75 out of 705 Scheduled Tribes, spread over 17 states and one Union Territory (UT), in the country (2011 census)
- Among the 75 listed PVTG's the highest number are found in Odisha.

**Poverty**-as per NITI Aayog National MPI

- High poverty ratios are found in Sikkim (20.1%) followed by Assam (19.7%), Nagaland (19.0%), Tripura (18.9%) and Meghalaya (18.5%) within NE states.
- The lowest is in Mizoram (12.6%). It is 17.6% in Arunachal Pradesh and 17.3% in Manipur.

**Education**-Literacy Rate in North-East India

- As per the Census of India 2011, Arunachal Pradesh and Assam states have the lowest literacy rates at 65.38 percent and 72.19 percent, respectively, while Mizoram and Tripura have the highest literacy rates at 91.58 percent and 87.75 percent, respectively.



- As per the Census of India, the literacy rate in Assam was 72.19 percent in 2011, lower than the national average of 74.04 percent. In Nagaland, the literacy rate was only 79.55 percent, while in Arunachal Pradesh, 66.95 percent. The situation is even worse in some of the remote areas, where the literacy rate is as low as 40 percent.

India & bigger States	Maternal Mortality Ratio (MMR)		
	SRS 2014-16	SRS 2015-17	SRS 2016-18
India	130	122	113
Assam	237	229	215
Bihar	165	165	149
Jharkhand		76	71

- **Health**-Maternal mortality ratio in Assam highest in country

IMR IN NORTH EASTERN STATES as per Ministry of Health and Family Welfare

UNIT	IMR- SRS 2015	IMR-SRS 2019
1. All India	37	30
2. Assam	47	40

UNIT	IMR- SRS 2015	IMR-SRS 2019
3. Arunachal Pradesh	30	29
4. Manipur	9	10
5. Meghalaya	42	33
6. Mizoram	32	3
7. Nagaland	12	3

### Insurgency-

As per MINISTRY OF HOME AFFAIRS Annual Report 2022

- Insurgency in the Northeast reduced by 80 per cent, civilian deaths by 99 percent.
- Incidents of insurgency in the northeastern states reduced by 80 per cent in the last eight years while casualties of security forces went down by 75 per cent and civilian deaths by 99 percent.

## 9. GLOBALISATION AND RELATED ISSUES

**Globalisation Report 2020** –Globalisation has been declining slightly since 2007

- Progressive globalisation increases average real GDP per capita like for Germany-In 1990, real GDP per capita in Germany was around 21,940 euros. By 2018 it had risen to 32,160 euros. Without the advancing globalisation , real GDP per capita would only have reached a value of around 30,760 euros in 2018.
- Developed industrial nations profit most from advancing globalization like largest average income gains per year and capita are recorded in Japan
- Globalisation increases dependence on foreign trade

### Suspicion about Globalisation

- Protectionism -The raising of US tariffs to 25 percent on \$200 billion of annual Chinese imports in 2018

### Structural shifts in globalisation- As per World Bank analysis 2018

- Trade intensity has fallen from 28.1% in 2007 to 22.5% in 2017.
- Trade in services grown 60% faster than goods
- Share of trade based on labor-arbitrage cost is decreasing- only 18% of goods trade.
- More regionalised Value chains- local trade increased by 2.7% since 2013.
- Technological development disruption- may reduce goods trade by 10%, but digital technologies could potentially boost overall trade by 6-11% by 2030.

### IMPACTS OF GLOBALISATION

- **Women**- A. Increased participation in Jobs- FLFPR global 49%, B.STEM courses-girls and women constitute 43 per cent of enrollment-one of the highest rates worldwide. C.Female enrollment in higher education has increased by 28 per cent over 10 years. D. Increased political participation- As per IPU, 2021, the global share of women in national parliaments is 25.5 percent

- **Economy-** A.Exports as % World GDP- Pre globalisation-<5%, Globalisation 1.0- 6-14%, Globalisation 3.0-15-20%. B.During the last 25 years Indian exports have increased by 17 times and imports by 19 times. India’s share in global merchandise exports has risen from 0.6 percent in early 1990s to 1.7 percent in 2016, and similarly the share of imports has risen from 0.6 percent to 2.4 percent during the same period.
- **Poverty-**According to the World Bank, India experienced a significant decline in the prevalence of extreme poverty from 22.5% in 2011 to 10.2% in 2019.
- **Agriculture-** As per M

**10. POVERTY AND DEVELOPMENTAL ISSUES**

Measurement and Status-

- The **Household Consumption Expenditure Survey (HCES)** claimed that India’s rural poverty level had declined to 7.2% in 2022-23 from 25.7% in 2011-12, while urban poverty slipped to 4.6% from 13.7% over the same period

- **International Poverty Line:** The **World Bank** defines a person as extremely poor if she is living on **less than \$2.15 per day**, which is adjusted for inflation as well as price differences between countries.

Year	GDP SHARE OF AGRICULTURE & ALLIE SECTORS TO TOTAL ECONOMY – at 2004-05 prices (%)
1960-61	47.6
1970-71	41.7
1980-81	35.7
1990-91	29.5
2000-01	22.3
2010-11	14.4

- **Multidimensional Poverty Index 2023:**

- The MPI 2023 estimates show a near-halving of India’s national MPI value and a decline from 24.85% to 14.96% between 2015-16 and 2019-21.
- This reduction of 9.89 percentage points implies that about 135.5 million people have exited poverty between 2015-16 and 2019-21.
- Besides, the intensity of poverty, which measures the average deprivation among the people living in multidimensional poverty, reduced from 47.14% to 44.39%.

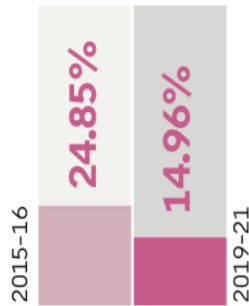
- **‘Multidimensional Poverty in India since 2005-06: A Discussion Paper’: NITI Ayog:**

Year	Rural			Urban		
	MPI	Headcount Ratio (H)	Intensity of Poverty (A)	MPI	Headcount Ratio (H)	Intensity of Poverty (A)
2019-21	0.086	19.28%	44.55%	0.023	5.27%	43.10%
2015-16	0.154	32.59%	47.38%	0.039	8.65%	45.27%

- Multidimensional poverty in India declined from 29.17% in 2013-14 to 11.28% in 2022-23.
- As many as 24.82 crore people moved out of multidimensional poverty in nine years to 2022-23, with Uttar Pradesh, Bihar and Madhya Pradesh registering the largest decline.

## Highlights: MPI Progress Report 2023

Steep decline in **Poverty Headcount Ratio**



**135 million**  
(13.5 crore)

people escaped multidimensional poverty between 2015-16 and 2019-21



India on track to achieve

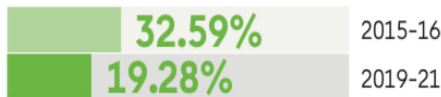
**SDG Target 1.2**

(reducing multi-dimensional poverty by at least half) much ahead of 2030

All **12** indicators have shown improvement

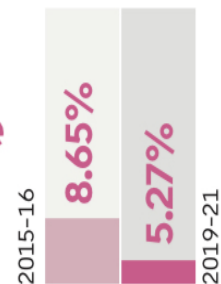
suggesting that impact of Government interventions is increasingly visible on ground

Fastest decline in percentage of multidimensional poor in rural areas from

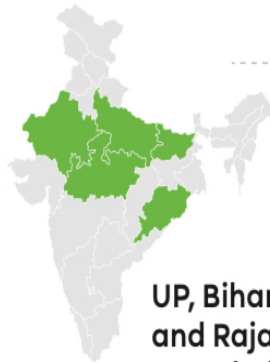
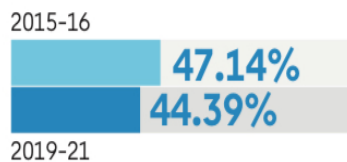


Reduction in the incidence of poverty

in urban areas



The **Intensity of poverty**, which measures the average deprivation among the people living in multidimensional poverty improved from about



UP, Bihar, MP, Odisha and Rajasthan recorded steepest decline in number of

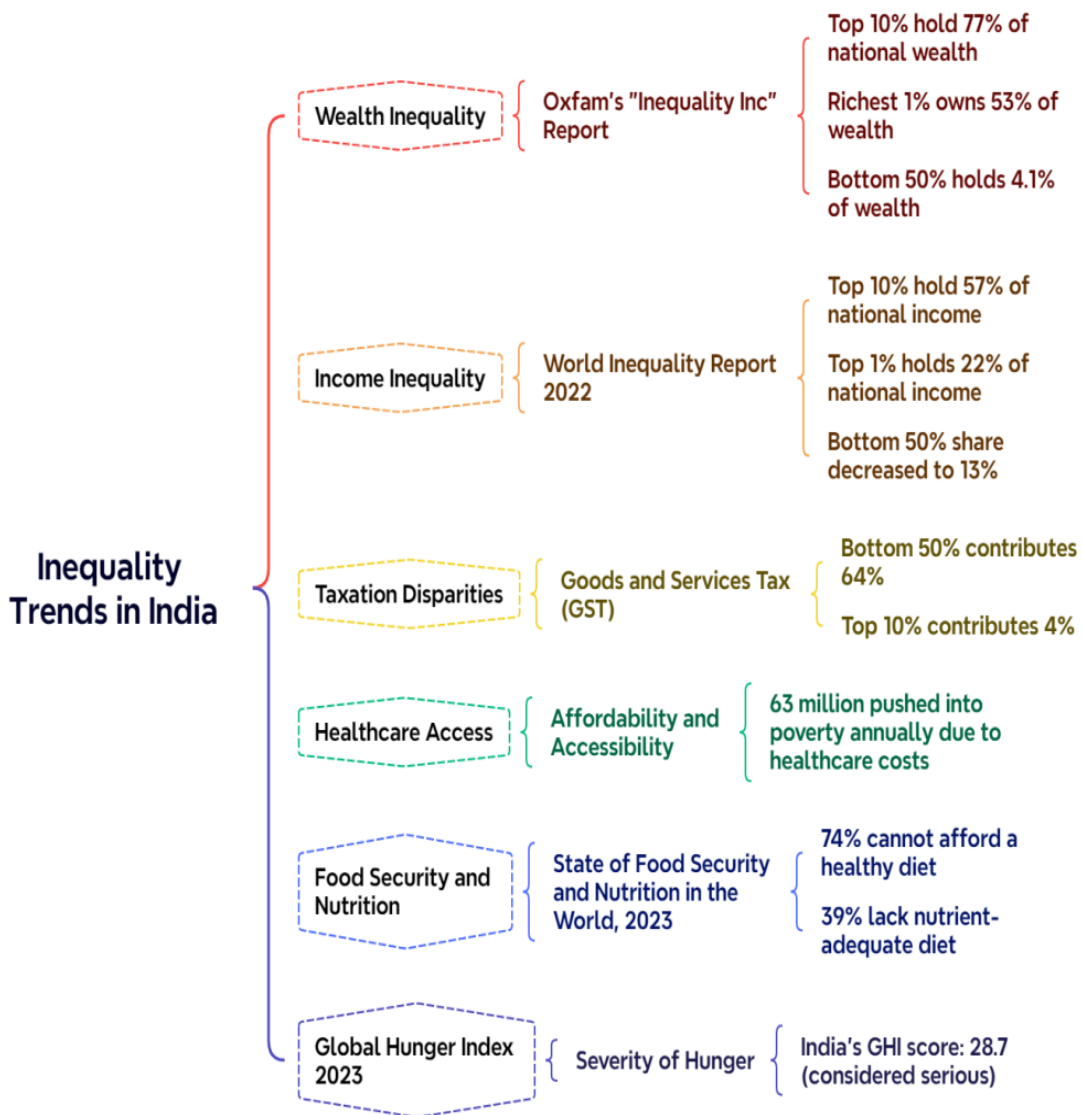
**MPI poor**



Improvement in **nutrition, years of schooling, sanitation, and cooking fuel** played a significant role in reducing the MPI value



Snapshot of Multidimensional Poverty in India			
Year	Headcount Ratio (H)	Intensity of Poverty (A)	MPI (H x A)
2019-21	14.96%	44.39%	0.066
2015-16	24.85%	47.14%	0.117



## 11. POPULATION

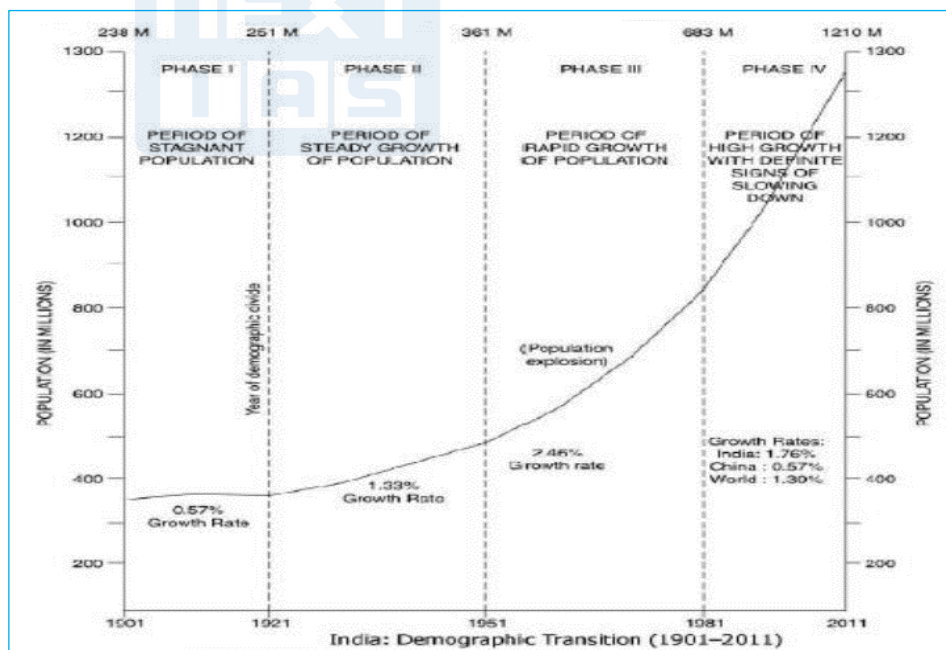
### Population-

- According to The UN's State of World Population Report 2023 India will become the world's most populous country by mid-2023, surpassing China's 1.425 billion people by about 3 million.
- India currently has 17.5% of the world's population. This is four times the population India had at the time of Independence in 1947 (34 crore)

### Trends of Population Growth

- **Period of Slow Growth Rate of Population (1891-1921):** In these 30 years, the population increased by 1.26 crores because in these years, calamities and epidemics, like famines, plague, malaria etc. took a heavy toll on human lives.
- **Period of High Growth of Population (1921-51):** The Census Commissioner has referred to the year 1921 as the Year of Great Divide.
- **Period of Population Explosion (1951-1981):**
- Period of High Growth with definite Signs of slowing down from 1981 onwards: The decadal growth rate during 1981-91 was recorded 23.87 percent as against 24.66 percent during the previous decade (1971-81).
- Recent Population Growth Trends:

- Despite overtaking China, India's population growth is slowing.
- The Total Fertility Rate (TFR) has further declined from 2.2 to 2.0 at the national level between NFHS 4 and NFHS 5
- The UN estimates India's population to reach 1.67 billion in 2050 before settling at 1.53 billion in 2100.



### Causes of the Declining Trend of Population

- **Decline in Population Growth:**
  - Percentage decadal growth rate of population has been declining since 1971-81 at all India level.
- **Decline in India's TFR:**
  - The Total Fertility Rate (TFR) has further declined from 2.2 to 2.0 at the national level between NFHS 4 and NFHS 5. There are only five states in India which are above replacement level of fertility of 2.1. These states are Bihar, Meghalaya, Uttar Pradesh, Jharkhand and Manipur.

• **Improvement in Mortality Indicators:**

- Life expectancy at birth saw a remarkable recovery from 32 years in 1947 to 70 years in 2019.
- According to NFHS 5 Infant Mortality Rate stands at 32 per 1,000 live births which includes an average 36 deaths for rural and 23 for urban areas.

• **Increase in Family Planning:**

- According to NFHS 5, Overall Contraceptive Prevalence Rate (CPR) has increased substantially from 54% to 67% at all-India level and in almost all Phase-II States/UTs with the exception of Punjab.

• **Climate change and migration:**

- Population debates in the past did not account for the climate crisis and the fact that many migrants are becoming permanent immigrants.
- Over 1.6 million Indians have renounced citizenship since 2011, including over 225,000 in 2022.

**Age Structure-** AS per NFHS 5,

- Over half the population (52%) is below 30
- under-15 population has declined by 2 percentage points, from 29% to 27%
- over-60 population has increased by as many points, from 10% to 12%.

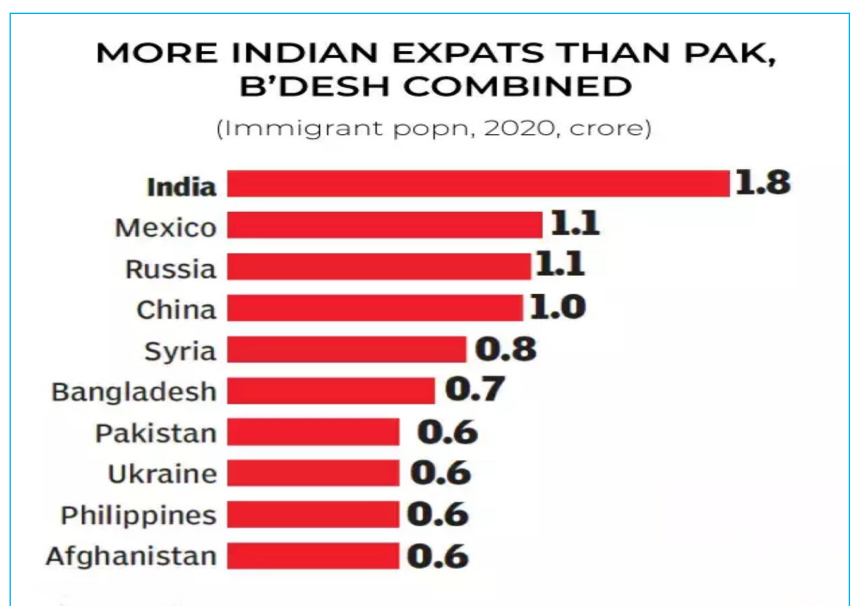
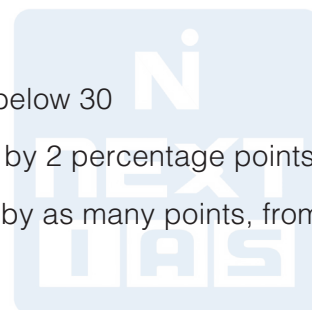
**BIRTH AND DEATH RATE-**

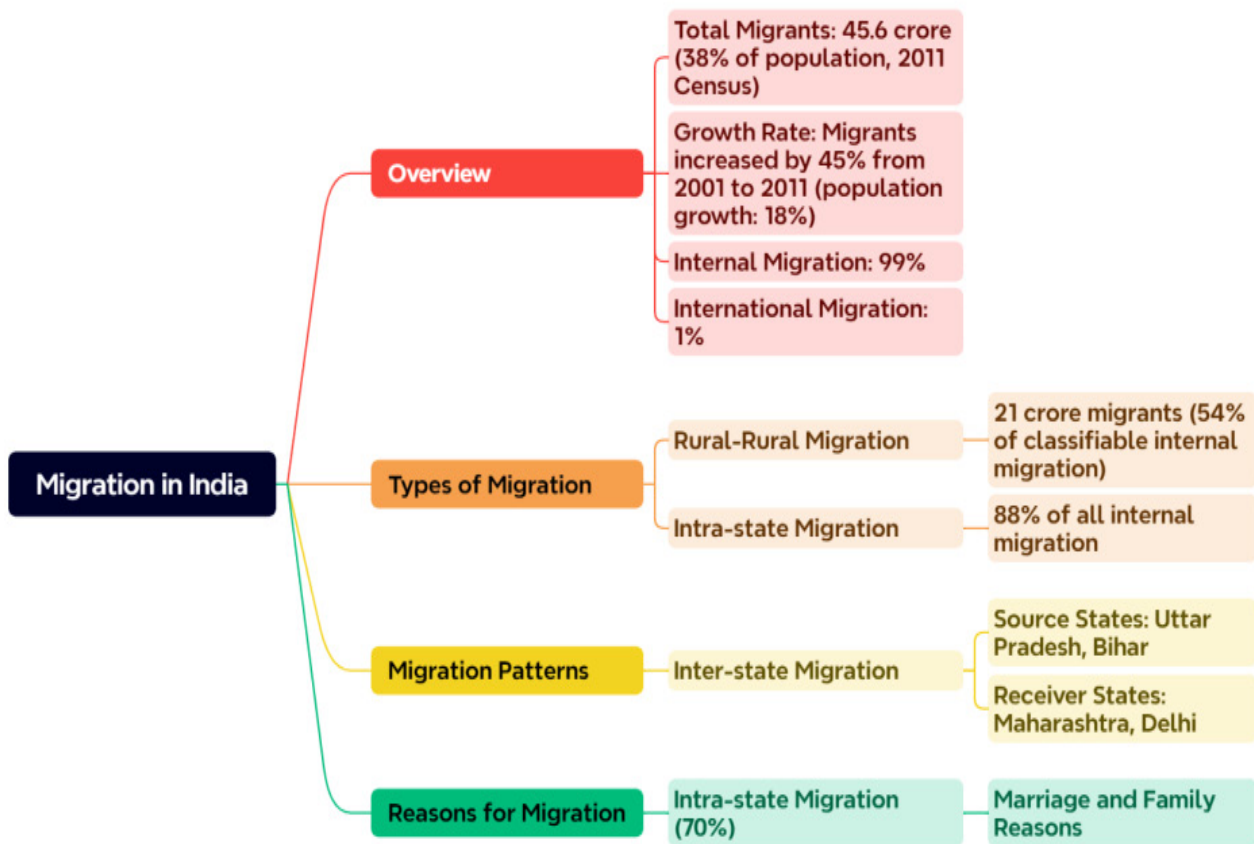
As per UNICEF, in India the births if babies in a day are about 67,000. One sixth of birth rate in the world. Annually the birth rate in India is 25 millions one fifth of world birth rate. The average death rate of babies is 27,685 per day in India as per UNICEF.

**Population Control-** As per NFHS5,

- TFR-2.0 from 3.4(1992)
- Schooling levels reduces number of children- No schooling-2.8, 12 years of schooling-1.8 children
- Overall contraceptive prevalence-67% from 54%(2015)
- Unmet needs of family planning- only 9%
- Institutionalised birth-89%
- Fully immunised children-77% from 62%(2015)
- Birth intervals- Median 33 months

As per World Migration Report





### UNDP REPORT-TURNING THE TIDE ON INTERNAL DISPLACEMENT

- 100 million people forced displaced in 2022
- 48% of internally displaced households surveyed earned less than before displacement.
- \$21.5 billion cost of forced displacement
- Climate Refugee- emerging trend
- By 2050, climate change will cause 216 millions internally displaced.

## 14. URBANIZATION

### Global Urbanisation:

As per World Urbanisation Prospects, 2018-

- The most urbanised regions include Northern America (with 82% of its population living in urban areas (as of 2018)), Latin America and the Caribbean (81%), Europe (74%) and Oceania (68%).
- The level of urbanisation in Asia is now approximately 50%.
- Africa remains mostly rural, with 43% of its population living in urban areas.
- Together, India, China and Nigeria will account for 35% of the projected growth of the world's urban population between 2018 and 2050.
- By 2050, it is projected that India will have added 416 million urban dwellers.

**Urbanisation in India**

- According to the 2011 Census, the urban population in India was about 31.2% of the total population. This is projected to grow around 40% of the total population by 2030.

	Persons in million numbers		Decadal growth in population %	
	2001	2011	1991-2001	2001-2011
Total	1029	1210	21.5	17.6
Rural	743	833	18.1	12.2
Urban	286 27.81%	377 31.16%	31.5	31.8 +0.3%

- As per **MINISTRY OF HOUSING AND URBAN AFFAIRS**

**State-wise Scenario:**

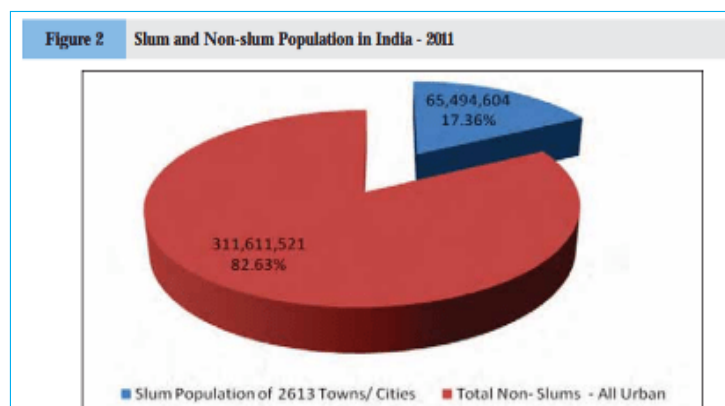
- **Number of Persons Living in Urban Areas:** Over 75% of the urban population of the country is in 10 States: Maharashtra, Uttar Pradesh, Tamil Nadu, West Bengal, Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Rajasthan, and Kerala.
- **High-Scoring States:** Goa is the most urbanised State with 62.2% urban population.
  - Tamil Nadu, Kerala, Maharashtra, and Gujarat have attained over 40% urbanisation.
  - Among the North-Eastern States, Mizoram is the most urbanised with 51.5% urban population.
- Among all the States and Union territories, the National Capital Territory of Delhi and the Union territory of Chandigarh are most urbanised with 97.5 percent and 97.25 percent urban population respectively, followed by Daman and Diu (75.2 percent) and Puducherry (68.3 percent)

**URBAN INFRASTRUCTURE :**

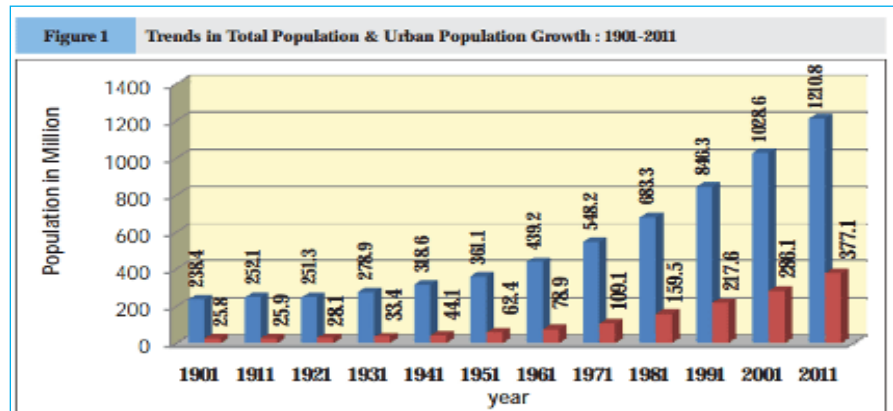
- According to the High Powered Expert Committee (HPEC) appointed by the Ministry of Urban Development, which gave its recommendations to the Government in the year 2011, there is a requirement of investment in urban infrastructure to the tune of ₹ 39 Billion (₹ 39.2 lakh crore at 2009-2010 prices) over the next 20 years.
- As per estimates of the HPEC, as the backlog in urban roads is very large, 44 percent of this investment requires to be for urban roads, while water, sewerage, solid waste management , storm water drains , streetlights would require another 20 percent of investment, while 14 per cent investment would be required for transport and traffic related infrastructure.

**SLUMS IN INDIA-**

- Out of 4,041 Statutory Towns in Census 2011 Slums reported from 2,543 Towns (63%)
- Largest number of slums reported from Maharashtra (21,359)
- People who are living in slums increased from 52 million in 2001 to 65.5 million 2011.



- Factors for slum growth- .A. In the past 15 years, India's urban population density has increased by 45%. It is further estimated that 40% of the population will live in urban areas by 2026. B. In India, 21.9% of the population lives below the national poverty line in 2011.
- Dharavi is Asia's largest slum. It is spread over 2.5 square kilometres and has a population density of 227,136/square kilometre.



## GEOGRAPHY

### OCEANOGRAPHY

#### OCEANS

- About 71 % of the earth's surface is covered by water.
- They account for four-fifth of the Southern Hemisphere and three fifth of the Northern Hemisphere.
- They contain 97.2 percent of the world's total water.

#### Hydrological cycle

Distribution of water on the surface of the earth

- According to studies, over 90% of the moisture in our atmosphere comes from the evaporation of oceans, seas, and other bodies of water (lakes, rivers, and streams), which is the process by which water transforms from a liquid to a gas.
- Plants release the majority of the remaining 10% that is found in the atmosphere through transpiration.

Reservoir	Percentage of the total	Volume in Million Cubic km
Oceans	97.25	1,370
Ice caps and glaciers	2.05	29
Groundwater	0.68	9.5
Lakes	0.01	0.125
Soil moisture	0.005	0.065
Atmosphere	0.001	0.013
Streams and Rivers	0.0001	0.0017
Biosphere	0.00004	0.0006

**OCEAN WATER MOVEMENT**

**Ocean current:**

- The warm Gulf Stream originating in the tropical Caribbean, for instance, carries about 150 times more water than the Amazon River.
- Heating by solar energy causes the water to expand. That is why, near the equator the ocean water is about 8 cm higher in level than in the middle latitudes.
- Surface currents constitute about 10% of all the water in the ocean, these waters are the upper 400 m of the ocean
- Deep water currents makes up the other 90% of the ocean water.

<b>Oceanic Resources</b>		
<b>Livelihood and Food Security</b>	<b>Over 3 billion people depend on maritime and coastal resources for livelihood.</b>	
	<b>Fish provides 4.3 billion people with at least 15% of animal protein intake.</b>	
<b>Global Trade</b>	<b>Seaborne Trade</b>	<b>Accounts for at least 90% of global trade volume.</b>
<b>Tourism</b>	<b>Coastal Tourism</b>	<b>Approximately 50% of international tourists visit coastal areas.</b>
		<b>Small Island Developing States (SIDS) can have tourism contributing over 25% to GDP.</b>
<b>Economic Contribution</b>	<b>Ocean-based Economy</b>	<b>Estimated at USD 3-6 trillion per year.</b>
<b>Environmental Impact and Protection</b>	<b>Carbon Sequestration</b>	<b>Oceans capture and store about 30% of human-produced carbon dioxide.</b>
	<b>Coastal Protection</b>	<b>Mangroves and coral reefs protect over 150,000 km of shoreline in 100+ countries.</b>
<b>Oxygen Production</b>	<b>Marine Phytoplankton</b>	<b>Produces 50% of Earth's oxygen.</b>

**TIDES**

Standing Committee Report  
Tidal Power Development

- The theoretical potential of tidal and wave energy is 12.5 gigawatts and 41.3 gigawatts, respectively.
- The Committee noted that two tidal power plants were shut down in the past because of high cost. These are: (i) 3.75 megawatt (MW) plant in West Bengal (had cost of Rs 63.5 crore per MW), and (ii) 50 MW plant in Gujarat (had cost of Rs 15 crore per MW).
- Tidal energy is not included in the 2022 renewable energy target (175 gigawatts) of India

**OCEAN TEMPERATURE**

- With a clear sky and a high sun, about 85 percent of the radiation comes directly from the sun and about 15 per cent from the sky, but with a low sun the proportion from the sky is greater, reaching about 40 per cent of the total with the sun 10 degrees above the horizon.
- The oceans and seas get heated and cooled slower than the land surfaces. Therefore, even if the solar insolation is maximum at noon, the ocean surface temperature is highest at 2 p.m.
- The average diurnal or daily range of temperature is barely 1 degree in oceans and seas.

- The highest temperature in surface water is attained at 2 p.m. and the lowest, at 5 a.m.
- Besides annual and diurnal ranges of temperature, there are periodic fluctuations of sea temperature also. For example, the 11-year sunspot cycle causes sea temperatures to rise after a 11- year gap.

### Horizontal distribution of temperatures in ocean

- On an average, the temperature of surface water of the oceans is  $26.7^{\circ}\text{C}$  ( $80^{\circ}\text{F}$ ) and the temperature gradually decreases from equator towards the poles.
- The rate of decrease of temperature with increasing latitudes is generally  $0.5^{\circ}\text{F}$  per latitude.
- The average temperatures become  $22^{\circ}\text{C}$  ( $73^{\circ}\text{F}$ ) at  $20^{\circ}$  latitude,  $14^{\circ}\text{C}$  ( $57^{\circ}\text{F}$ ) at  $40^{\circ}$  latitude, and  $0^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ ) near the poles.
- The oceans in the northern hemisphere record relatively higher average temperature than in the southern hemisphere.

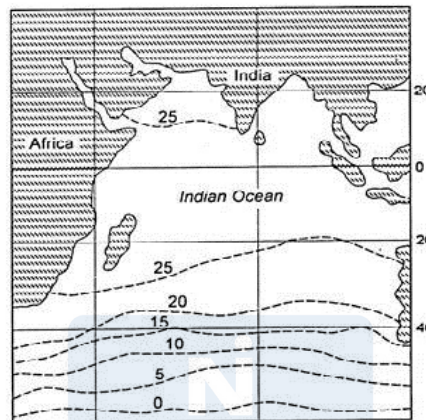


Fig. : Horizontal distribution of temperature in the Indian Ocean (February).

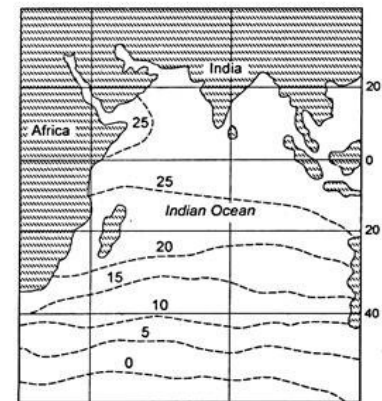


Fig. : Horizontal distribution of temperature in the Indian Ocean (August).

### Vertical distribution of temperature in ocean

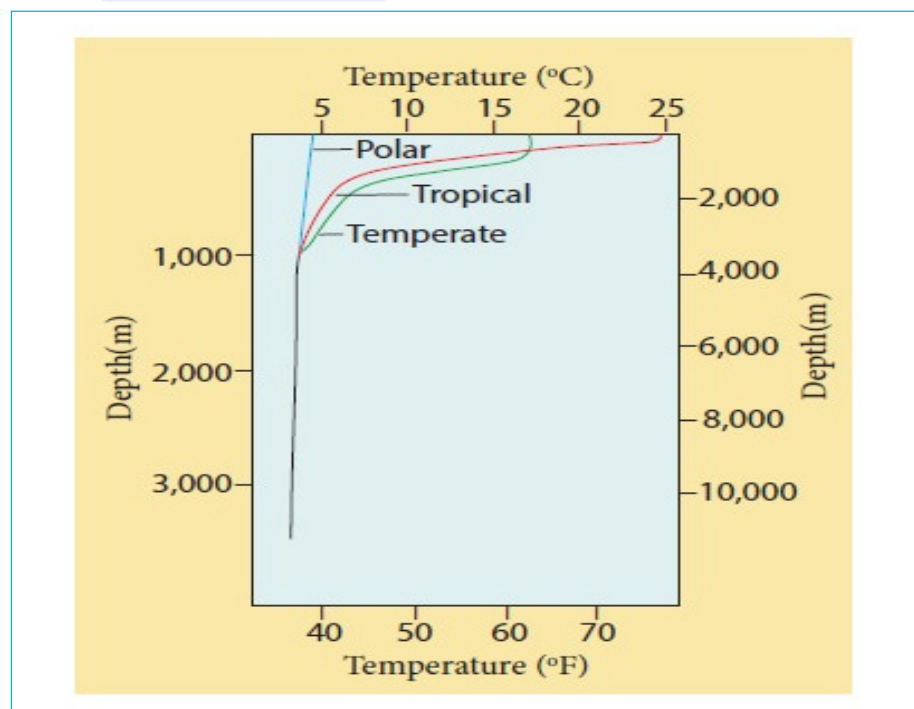
It may be pointed out that the maximum temperature of the oceans is always at their surface because it directly receives the insolation and the heat is transmitted to the lower sections of the oceans through the mechanism of conduction. In fact, the solar rays very effectively penetrate upto 20m depth and they seldom go beyond 200m depth.

### Effect of global warming and ocean acidification

The Intergovernmental Panel on Climate Change (IPCC) 'The Special Report on the Ocean and Cryosphere in a Changing Climate Shows:

#### • Ocean Warming:

- Global ocean has warmed unabated since 1970 and has taken up more than 90% of the excess heat in the climate system.





- Since 1993, the rate of ocean warming and marine heatwaves have very likely doubled in frequency and intensity.
- **Global Mean Sea-Level:**
  - It has increased by 16 cm between 1902 and 2015, and that the rate of increase had doubled of late.
  - Between 2006 and 2015, the global mean sea level recorded an average rise of 3.6 mm per year, which was more than double of 1.4 mm per year recorded in the first 90-year-period of the 20th century.
  - Sea-level rise is not globally uniform and varies regionally. Regional differences, within 30 % of global mean sea-level rise, result from land ice loss and variations in ocean warming and circulation
- **The Melting of Glaciers:**
  - Between 2006 and 2015, the Greenland ice sheet lost ice-mass at an average rate of 278 billion tonnes every year (e.g. Okjokull glacier of Iceland), which was enough to result in a global sea-level rise of 0.8 mm per year. During the same period, the Antarctic ice sheet lost a mass of 155 billion tonnes on an average every year.
  - Snow cover outside these two poles, like the glaciers in the Himalayas, together lost an average of 220 billion tonnes of ice every year.

### **Impact of anthropogenic activities on oceanic biodiversity**

- As per Global Biodiversity Outlook 5 (GBO-5) 2020
  - More than 60 percent of the world's coral reefs biodiversity are under threat
  - 2016 Marine heatwaves across north Australia led to severe bleaching of the Great Barrier Reef, led to mangrove die-offs in the gulf of Carpentaria
  - The proportion of fish stocks fished sustainably is down by 5 percent since 2010
- Impact of marine litter: Ingestion, suffocation and entanglement of hundreds of marine species e.g. seabirds, whales, fishes. It contributes to spread of invasive marine organisms and bacteria which disrupts ecosystems, leading to mass loss of biodiversity.
  - 8 million tons of plastic waste end up in ocean every year which make up for 80% of all marine debris (India dumps 6 lakh tones of plastic waste annually)
- As per Global Assessment Report on Biodiversity and Ecosystem Services 2019
  - Over one-third of marine mammals and nearly one-third of sharks, shark relatives, and reef-forming corals are threatened with extinction
  - One million species are threatened with extinction globally, and extinction rates have accelerated sharply in the past century.
  - Human activities are the primary cause of these huge declines, particularly in the ocean where fishing is driving the greatest biodiversity loss
- Coastal land and sea use change has had the second largest impact on marine biodiversity after overfishing.
  - Development along coastlines as well as offshore aquaculture, bottom trawling, and oil and gas extraction have altered habitats, and toxic pollutants in agricultural and industrial runoff poison coastal fish harvests.

**Marine heatwaves impact on food system:**

- It affects ecosystem structure by supporting certain species and suppressing others e.g. after marine heatwaves in western Australia (2016) fish communities had a much more “tropical” nature: changing the behaviour and habitat range of fish.

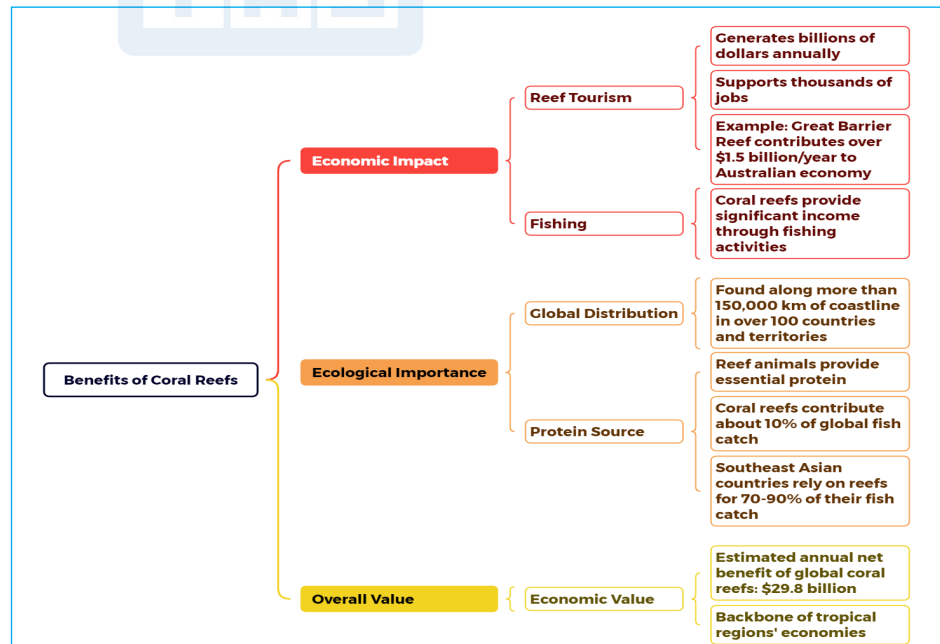
**Impact of oceanic biodiversity changes on humans**

- **Changes to fisheries:** Gross revenues from the world’s marine fisheries were around \$150bn in 2010 USD, providing jobs for around 260 million people. As stocks are depleted and critical species are forced to migrate, millions of livelihoods will be at threat
- **Food Security:** Seafood is an essential for over 4.5bn people as 15% of their protein intake from seafood. Many of the populations are at risk from climate-related marine food insecurity, such as in the Pacific Islands and West Africa, reside in areas where land-based food production is also at risk.

Impact on Oceanic Ecosystems			
Dead Zones	Definition: Areas with insufficient oxygen	Increasing number worldwide	
		Approximately 500 dead zones globally	
Marine Ecosystem Connectivity	Global Impact	Example: Nutrient flow from Amazon River affecting West Africa	Seaweed bloom exceeding 20 million tons over 8,850 kilometers
Impact on Mangrove Ecosystems	Loss in India	40% loss in mangrove areas in the last century	
		Causes: Agriculture, aquaculture, tourism, urban development, overexploitation	
Impact on Coral Reef Ecosystems	Bleaching Events in India	Events: 1998, 2010, 2016 mass bleaching events	
Impact on Polar Ecosystems	Antarctica	Habitat changes due to warming	
		Narrow thermal tolerance of species (4-5 degrees)	
	Arctic	Arctic Amplification: Warming twice as fast as global average	
		Movement of temperate species northward	

**Coral Reefs**

- **Conditions:** Corals rarely develop in water deeper than 165 feet (50 metres). Corals generally live in water temperatures of 68–90° F or 20–32° C. They have tolerance to a very narrow temperature range.
- Worldwide, coral reefs cover an estimated 110,000 square miles (284,300 square kilometres).



Coral bleaching matters because it’s not an isolated phenomenon. According to

the National Oceanic and Atmospheric Association, between 2014 and 2017 around 75% of the world’s tropical coral reefs experienced heat-stress severe enough to trigger bleaching.

**Protection Measures of Coral Reefs:**

- Corals are included in Schedule-I list of the Wild Life Protection Act, 1972: Ministry of Environment and Forest vide its notification dated 11 July 2001 has included all the hard coral in the Schedule List of WLPA of 1972

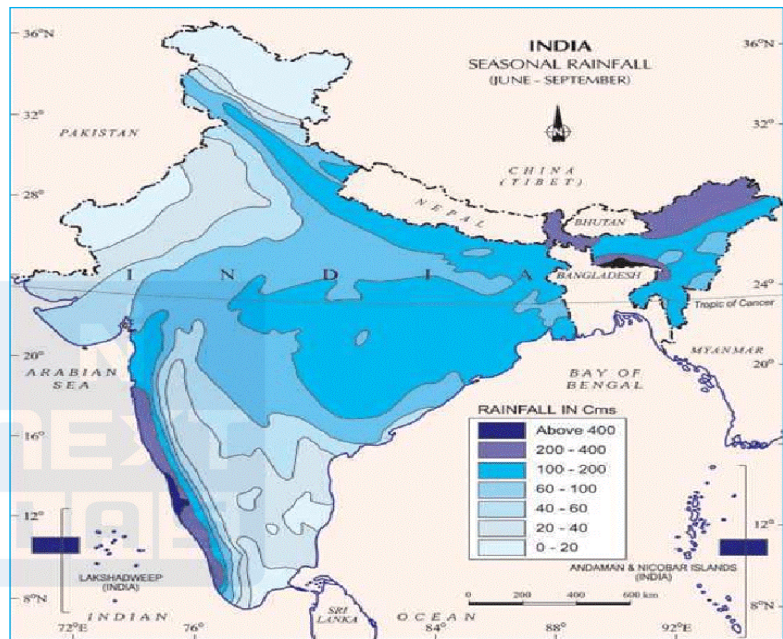
- Environment Protection Act, 1986 (EPA): It confers exclusive jurisdiction to the Central Government to preserve and protect the marine environment and to prevent and control marine pollution.
- Coastal Regulation Zone Notification (CRZ) 1991 under the EPA: It is the only law that explicitly outlaws coral mining in India.

## CLIMATE CHANGE

### RAINFALL

-Rainfall distribution

- Between the latitudes 35° and 40° N and S of the equator, the rain is heavier on the eastern coasts and goes on decreasing towards the west. But, between 45° and 65° N and S of equator, due to the westerlies, the rainfall is first received on the western margins of the continents and it goes on decreasing towards the east.
- Interior continental areas receive moderate rainfall varying from 100 – 200 cm per annum. The coastal areas of the continents receive moderate amounts of rainfall.
- The central parts of the tropical land and the eastern and interior parts of the temperate lands receive rainfall varying between 50 – 100 cm per annum.
- Areas lying in the rain shadow zone of the interior of the continents and high latitudes receive very low rainfall – less than 50 cm per annum.



## GEOPHYSICAL PHENOMENON

### EARTHQUAKE

Distribution of Earthquake across the globe

- About 68% of earthquakes in the world occur in the Circum-Pacific Belt.
- The mid-World Mountain belt extends from the Alps

Impact of Climate Change on Rainfall in India			
<b>District-Level Rainfall Trends (1982-2022)</b>	<b>23% of districts experienced both deficient and excessive rainfall years</b>	<b>Example districts: New Delhi, Bengaluru, Nilgiris, Jaipur, Kachchh, Indore</b>	
<b>Southwest Monsoon Trends (2012-2022)</b>	<b>Overall Trends</b>	<b>55% of tehsils saw an increase in southwest monsoon rainfall</b>	
		<b>11% saw a decrease in southwest monsoon rainfall</b>	
	<b>Geographical Distribution</b>	<b>Increased rainfall observed in traditionally drier regions:</b>	<b>Rajasthan, Gujarat, central Maharashtra, parts of Tamil Nadu</b>
<b>Heavy Rainfall Events</b>	<b>Frequency Increase</b>	<b>68% of tehsils with decreased rainfall from June to September</b>	
		<b>87% showing decline in June and July crucial for kharif crops</b>	
<b>October Rainfall</b>	<b>Increase in Rainfall</b>	<b>64% of tehsils experienced more heavy rainfall days during southwest monsoon</b>	
		<b>Prominent in high GDP states: Maharashtra, Tamil Nadu, Gujarat, Karnataka</b>	
		<b>48% of tehsils saw over 10% increase in October rainfall</b>	
		<b>Likely due to delayed withdrawal of southwest monsoon</b>	

with extension into the Mediterranean, the Caucasus, and the Himalayan region and continues to Indonesia.

- 21% of earthquakes are occurring in this belt.
- The remaining 11% occur in the other parts of the world.

### **Seismic Zones of India :**

- India has been divided into four seismic zones (II, III, IV, and V) based on scientific inputs relating to seismicity, earthquakes occurred in the past and tectonic setup of the region.
- A report released by the National Disaster Management Authority (NDMA) states that about 56 percent of India is prone to moderate to severe earthquakes while cities like Mumbai and Pune, due to their high density of population, are susceptible to “high exposure”.

### **Impact of Earthquake**

- Turkey and Syria Earthquake 2023-The World Bank estimates the direct damage from the earthquakes at \$34.2 billion, with reconstruction costs accounting for emergency response and a surge in the costs of construction amounting to twice as much.. Over 50,000 people have been killed and thousands more remain missing.
- As per National Information Centre of Earthquake Engineering, Over 18,600 persons are reported to be dead and over 167,000 injured; the number of deaths is expected to rise with more information coming in. The estimated economic loss due to this quake is placed at around Rs.22,000 Crores (~US\$5 billions).

### **Mitigation**

- National Earthquake Risk Mitigation (Preparatory phase) has been approved as a Centrally Sponsored Plan Scheme with an outlay of Rs. 24.87 crore, to be implemented within a period of two years (2013-15).
- A new report by the U.S. Geological Survey and FEMA estimates that earthquake damage costs the United States \$14.7 billion annually — a 140 percent increase over the previous estimate of \$6.1 billion per year from 2017.

### **Tsunami**

- On average, every 15 years a tsunami occurs in the Pacific Ocean.
- As per World Bank And USGS estimates 2004 Indian Ocean Tsunami caused 225,000 deaths and economic damages of a little bit less than \$10 billion
- The United Nations Office for Disaster Risk Reduction (UNISDR), reviewing available data from tsunami events puts these losses at 251,770 deaths and US\$280 billion out of recorded economic losses for earthquakes and tsunamis of US\$661.5 billion (1998-2017).

### **VOLCANISM**

There are volcanoes on every continent, even Antarctica. Some 1,500 volcanoes are still considered potentially active around the world today; 161 of those—over 10 percent—sit within the boundaries of the United States.

### **Distribution across World:**

- Some 75 percent of the world’s active volcanoes are positioned around the ring of fire, a 25,000-mile long, horseshoe-shaped zone that stretches from the southern tip of South America across the West Coast of North America, through the Bering Sea to Japan, and on to New Zealand.

- The Ring of Fire isn't quite a circular ring. It is shaped more like a 40,000-kilometer (25,000-mile) horseshoe.
- As per US Geological Survey, There are about 1,350 potentially active volcanoes worldwide, aside from the continuous belts of volcanoes on the ocean floor at spreading centres like the Mid-Atlantic Ridge . About 500 of those 1,350 volcanoes have erupted in historical time. Many of those are located along the Pacific Rim in what is known as the “ Ring of Fire .”

### Hazardous Impact of volcanoes

- As per Institute of physics, In 2015 over 1 billion people (14.3% of the world's population) lived within 100 km of a volcano that has erupted during the Holocene. The 2010 eruption of Iceland's Eyjafjallajökull volcano had a huge impact on air travel, with over 300 airports in approximately 25 countries, and a correspondingly large airspace, closed in Europe during 15-21 April 2010. Over 100,000 flights were cancelled over that week, affecting 7 million passengers, and resulting in \$1.7 billion USD in lost revenue to airlines.
- Volcanic eruptions have the potential to force global climate, provided they are explosive enough to emit at least 1-5 megaton of sulfur gases into the stratosphere.e. The sulfuric acid produced during oxidation of these gases will both absorb and reflect incoming solar radiation, thus warming the stratosphere and cooling the Earth's surface.

## CRITICAL GEOGRAPHICAL FEATURES

**INDIA:** The Indian mainland extends between 8°4' North and 37°6' North latitudes and from 68°7' East and 97°25' East longitudes

**Coastline of India:** Coastal States of India: India has a coastline of 7516.6 km-- 5422.6 km of mainland coastline and 2094 km of island territories. India has nine coastal states.

### STRUCTURE AND PHYSIOGRAPHIC DIVISION OF INDIA

- Distribution of physiographic units, Mountains occupy 10.6 %, Hills occupy 18.5%, plateaus occupy 27.7% and the plains occupy 43.2%.

## INDIAN VEGETATION AND SOIL

### FOREST:

#### Key Findings of the India State of Forest Report (ISFR) 2021

Increase in forest and tree **area**:

- The forest and tree cover in the country continues to increase. An additional cover of 1,540 square kilometers increased over the past two years.
- India's forest cover is now 7,13,789 square kilometers (21.71% of the country's geographical area) which is an increase from 67% in 2019.
- Tree cover is defined as all tree patches of size less than one hectare occurring outside the recorded forest area. This covers trees in all formations including scattered trees. Tree cover has increased by 721 sq km.

#### Increase/Decrease in Forests:

- The states that have shown the highest increase in forest cover are Telangana (3.07%), Andhra Pradesh (2.22%), and Odisha (1.04%).

- Five states in the Northeast have shown a loss in forest cover: Arunachal Pradesh, Manipur, Meghalaya, Mizoram, and Nagaland

#### States with Highest Forest Area/Cover:

- **Area-wise:** Madhya Pradesh has the largest forest cover in the country followed by Arunachal Pradesh, Chhattisgarh, Odisha, and Maharashtra.
- Forest cover as a percentage of total geographical area: Mizoram, Arunachal Pradesh, Meghalaya, Manipur, and Nagaland.

#### Mangroves: India State of Forest Report (ISFR) 2021

- Mangroves have increased by 17 sq km making India's total mangrove cover as 4,992 sq km.
- Top 3 states showing mangrove cover increase: Odisha (8 sq km), Maharashtra (4 sq km), and Karnataka (3 sq km).

#### Forest Prone to Fires:

- 46% of the forest cover is prone to forest fires.
- 81% are extremely prone, 7.85% are very highly prone and 11.51% are highly prone.
- By 2030, 45-64% of forests in India will experience the effects of climate change and rising temperatures.
- Forests in all states (except Assam, Meghalaya, Tripura, and Nagaland) will be highly vulnerable climate hot spots.
- Ladakh (forest cover 0.1-0.2%) is likely to be the most affected.

#### Total Carbon Stock:

- Forest carbon stock is the amount of carbon that has been sequestered from the atmosphere and stored within the forest ecosystem. Such carbon is mainly stored within living biomass and soil and to some extent in deadwood and litter.
- The total carbon stock in the country's forests is estimated at 7,204 million tonnes, showing an increase of 79.4 million tonnes since 2019.

**Bamboo Forests:** Bamboo forests have grown from 13,882 million culms (stems) in 2019 to 53,336 million culms in 2021.

#### TYPES OF FOREST

According to Forest Survey Report 2021, the percentage of different types of forest in India are as follows:

- Tropical forest: 54.54%
- Sub-tropical forest: 14.07%
- Montane forest: 8.86%
- Mangrove forest: 0.14%
- Other forest types: 22.39%

**SOIL OF INDIA**

In India, the Indian Council of Agricultural Research (ICAR) has classified soils into 8 categories.

- 1.Alluvial Soil-43%
- 2.Black Cotton Soil- 15%
- 3.Red & Yellow Soil- 18.4%
- 4.Laterite Soil-3.7%
- 5.Mountainous or Forest Soil-8.7%,
- 6.Arid or Desert Soil-4.42%
- 7.Saline and Alkaline Soil,
- 8.Peaty and Marshy Soil

**SOIL PROBLEMS AND THEIR SOLUTION**

- As per NAAS (2010),the extent of soil Erosion (soil loss more than 10 tonnes/ha/yr) in cultivable land of the country was 92.4 million hectares as assessed by the ICAR using the harmonized database.
- The UNCCD data dashboard released October 25, 2023 also reflected that 251.71 million Indians constituting 18.39 per cent of the country’s population were exposed to land degradation
- A document published by ISRO named Desertification and Land Degradation Atlas shows following-
  - **Land Degradation:** Some 97.85 million hectares (29.7%) of India’s total geographical area (TGA) of 328.72 mha underwent land degradation during 2018-19.In 2003-05, 94.53 mha (28.76% of the TGA) underwent land degradation. The number increased to 96.40 mha (29.32% of the TGA) in 2011-13.
  - **Desertification:** Some 83.69 mha underwent desertification in 2018-19. This was greater than the 81.48 mha in 2003-2005 and 82.64 mha in 2011-13 that underwent desertification. Around 23.79% of the area undergoing desertification / land degradation

**Causes of Land degradation:**

- In 2011-13, water erosion was responsible for 10.98% of desertification in the country.
- Wind erosion found to be responsible for 5.46% of the desertification in India.
- Vegetation Degradation found to be responsible for 9.15% of desertification in the country.
- Loss of Soil Cover responsible for 11.01% of the desertification in the country.

**COST** -The TERI study very conservatively appraises the costs of land degradation at 48.8 billion USD, or 2.5% of India’s GDP in 2014/15, and about 15.9% of the GVA from the agriculture, forestry and fishing sectors.

**MEASURES**-India became a signatory to the UNCCD in 1994 and ratified in 1996. India is working to restore 26 million hectares of degraded land by 2030.

**INDIAN CLIMATE**

**MONSOON**

IMD has classified monsoon into three categories

Normal monsoon	96-104% of LPA*(Long Period Average)
Above Normal monsoon	104-110% of LPA
Below Normal monsoon	90-96% of LPA

(\*LPA is defined as an average annual rainfall received from June to September over a 50 year period between 1951 and 2000.)

## Monsoon and Indian Economy

- It is because about 50 per cent people of India depend directly on agriculture for their livelihood and agriculture itself
- Inflation-Agriculture and allied products account for 50 per cent on the consumer price index- like Due to deficit rainfall, headline inflation stood at 6.8% with food inflation at around 10% in August 2023.
- Around 50% of India's total food output comes in the form of summer crops
- Water Reservoirs and Irrigation:country gets 75 % of its rainfall during this period.
- It is estimated that India's GDP could grow by 3 percent in a good monsoon year due to increased agricultural production

### Impact of Climate Change on Indian Monsoon:

- A recent study published in Earth System Dynamics estimates that "For every degree Celsius of warming, Indian monsoon rainfalls will likely increase by about 5%"
- According to a study, 'Climate change, the monsoon, and rice yield in India', very high temperatures (> 35°C) induce heat stress and affect plant physiological processes, leading to spikelet sterility, non-viable pollen and reduced grain quality.

As per Economic Survey of India 2017-18,

- Growth rates of agriculture and allied sectors have been fluctuating: 1.5% in 2012-13, 5.6% in 2013-14, -0.2% in 2014-15, 0.7% in 2015-16, and 4.9% in 2016-17. The uncertainty in growth in agriculture is because 50% of agriculture is dependent on rainfall. On account of good monsoon rainfall in 2016-17, there was a rise in food grains and other crops production.
- Farmer income losses from climate change could be between 15% and 18% on average, rising to anywhere between 20% and 25% in unirrigated areas, according to the survey.

## RESOURCES AND MINERALS

### Distribution of Key Mineral Resources

Some Facts:

- 100% FDI permitted via automatic route for mining and exploration of metal and non-metal ores. And approval route for mining of titanium bearing minerals and its ores.
- The total value of mineral production (excluding atomic & fuel minerals) during 2017-18 has been estimated at \$16.6 bn, which shows an increase of about 13% over that of the previous year.
- The mining sector's contribution to the GDP is 2.3-2.5 % at present. Mineral production in India grew at a compound annual growth rate (CAGR) of 5.72% between 2013-14 and 2017-18.
- It can cut down the import costs as the country is the 3rd largest steel producer, with a production of 101.4 million tonnes of crude steel in
- India is the largest producer of sheet mica in the world and has the 7th largest bauxite reserves at around 2,908.85 million tonnes in FY17.
- It is a labour-intensive sector and provides employment for both unskilled labour and skilled labour.



## Iron ore

- Around 50 countries mine iron. The majority of the world's total reserves of iron ore of 3,20,000 million tonnes is located in North America, Russia, the United Kingdom, Brazil, South Africa, and India.
- India: Approximately 95% of the iron ore reserves are found in the states of Odisha, Jharkhand, Chhattisgarh, Karnataka, Goa, Tamil Nadu, Andhra Pradesh, and Telangana.

## Coal: As per Energy Statistics India 2024

- About 80 per cent of the coal deposits in India is of bituminous type and is of non-coking grade.
- India has rich deposits of coal in the world. Total estimated reserves of coal as on 01-04-2022 were 361.41 billion tonnes
- The top three states with highest coal reserves in India are Odisha, Jharkhand, Chhattisgarh, which account for approximately 69% of the total coal reserves in the country.

## Copper

- With 27% of the world's copper production, Chile is the leading producer. Escondido and Collahuasi, two of the biggest mines in the world, are also located in the nation.
- Peru, a South American nation that accounts for 10% of global output, is next after Chile.
- India's potential reserve is limited to 2 percent of the world reserve and copper production in India is only about 2% of global copper production as per reports of 2012.
- However, in terms of production, it is still one of the top 20 countries in the world, as well as one of the top importers,

## Bauxite

- India possesses significant reserves of bauxite, with nearly 830 million tonnes of bauxite reserves as of now, ranking 7th globally in terms of reserve base.
- As per the latest survey by the Indian Bureau of Mines, Odisha alone contains nearly 325,269 thousand tonnes of bauxite, which represents a mammoth 39% of India's total reserves, the highest among all states.
- Australia continues to be the world's leading producer of bauxite, accounting for about 30% of total production, followed by China (25%), Brazil (14%), India (8%), and Guinea (1%). (7 percent).

## Limestone:

- 75 percent Limestone is used in the cement industry, 16 per cent in the iron and steel industry [It acts as flux] and 4 per cent in the chemical industries.
- According to 2014-15 data, Rajasthan was the leading producer of limestone, accounting for 21% of total production.
- In terms of annual extraction volume, limestone ranks first among non-fuel solid mineral deposits in India.

## Lithium

- The US Geological Survey has estimated the global resources of lithium at 98 million tonnes (mt) in 2022.
- Argentina, Bolivia, and Chile, collectively referred to as the Lithium Triangle, account for roughly 53.1 % of the global lithium resources.

- The global production of lithium in 2022 was estimated at 130 thousand tonnes with Australia being the largest producer followed by Chile, China and Argentina
- China is sixth-placed on the list, with overall lithium reserves estimated at 4.5 million tonnes. In 2019, the country produced 7,500 tonnes of the metal – the third-highest level worldwide.
- The Geological Survey of India (GSI) has established “inferred” lithium resources of 5.9 million tonnes in the Salal-Haimana area of the Reasi District of Jammu and Kashmir.
- Atomic Minerals Directorate (under India’s Atomic Energy Commission) estimated lithium reserves of 14,100 tonnes in a small patch of land surveyed in Southern Karnataka’s Mandya district.

## INDUSTRIES

Major Industries of India

### Iron and Steel Industry:

- At global level in 2018, the world crude steel production reached 1789 million tonnes (mt) and showed a growth of 4.94% over 2017.
- China remained world’s largest crude steel producer in 2018 (928 mt) followed by India (106 mt), Japan (104 mt) and the USA (87 mt).
- Per capita finished steel consumption in 2017 is placed at 212 kg for world and 523 kg for China and for India it was 69 kg as published by World Steel Association.
- India is the largest producer of sponge iron in the world and the 3rd largest finished steel consumer in the world after China & USA.
- The Government has taken various steps to boost the sector including the introduction of National Steel Policy 2017 and allowing 100 per cent Foreign Direct Investment (FDI) in the steel sector under the automatic route.
- The National Steel Policy aims at achieving the following objectives –Increase per Capita Steel Consumption to 160 Kgs by 2030-31

## INDUSTRIES AND THEIR LOCATION

### Textile Industry

The Observatory of Economic Complexity published the following data on the top textile producers in the world in 2020:

Country	Export value (billions)	Percentage
1. China	\$276	35.6%
2. Vietnam	\$38.9	5.03%
3. Bangladesh	\$37.3	4.82%
4. India	\$29.7	3.84%
5. USA	\$22.1	2.86%

### Significance of the sector:

- **Economical:** In 2019–20, the domestic textile and apparel market was worth \$150.5 billion.
- **Trade:** India registered \$ 41 bn in textile exports in CY 2021, with a CAGR (2.7) marginally higher than the global average.

- **Employment:** The second-largest employer in India, the textile and garment sector employs 100 million people in supporting sectors in addition to 45 million workers directly.

**Challenges:**

- **Exports Stagnant:** For the past six years, the sector’s exports have stayed constant at a level of USD 40 billion.
- **Lack of Scale:** Bangladesh has at least 500 machines per factory on average, whereas the average size of the textile units in India is only 100, which is significantly smaller.

**Sugar Industry**

As per International Sugar Organization

- Currently, about 110 countries produce sugar from either cane or beet, and 8 countries produce sugar from both cane and beet.
- Sugarcane, on average, accounts for nearly 80% of global sugar production.

Textile Industry in India		
Market Size and Growth	Current Market Size	Estimated over \$150 billion
		Export constitutes over \$40 billion
Future Growth		Global Textile and Apparel Trade by 2025-26: \$1,000 billion
		Indian Textile and Apparel Market by 2025-26: \$250 billion
Global Position	Market Share	India's Share in Global Textile and Apparel Market: 4%
		Fifth position in global rankings
Economic Contribution	Contribution to GDP: 3%	
	Contribution to Industrial Output: 7%	
	Export Earnings: 12%	
	Employment: More than 21% of total employment	
Specializations	Silk Production	Second largest producer globally
		95% of world's hand-woven fabric comes from India
	Technical Textiles	Sixth largest producer globally with 6% share
	Cotton and Jute	Cotton: Second largest producer of cotton and cellulosic fibres
Jute: Largest producer and second largest exporter of jute goods		
Fabric-wise Production	Cotton	Second largest producer globally
	Silk	Second largest producer globally, contributes 18% to world raw silk production
	Wool	Third largest sheep population globally
	Man-Made Fibres	Fourth largest in synthetic fibres/yarns globally

- 2023 October/September season the top ten producing countries (Brazil, India, EU-27, China, USA, Thailand, Russian Fed., Mexico, Pakistan, Australia).
- World consumption rose in 2022 to 176.318 mln tonnes, up 7.045 mln tonnes or 4.2% from the previous year.
- The volume of sugar traded internationally also increased to a new record at 69.822 mln tonnes, up 6.023 mln tonnes from 2021

**Suitable Conditions for sugarcane Production:**

- **Temperature:** Between 21-27°C with hot and humid climate.
- **Rainfall:** Around 75-100 cm.

**The Sugar Industry in India:**

- Rural livelihood of about 50 million sugarcane farmers
- 5 lakh workers directly employed in sugar mills.

TOP SUGAR PRODUCING STATES (IN LAKH TONNES)					
YEAR (OCT-SEP)	MAHARASHTRA	UTTAR PRADESH	KARNATAKA	GUJARAT	ALL-INDIA
2013-14	76.85	64.87	41.77	11.77	243.60
2014-15	105.07	71.01	49.35	11.54	283.13
2015-16	84.24	68.55	40.49	11.68	251.25
2016-17	42.38	87.73	21.44	8.85	202.62
2017-18	107.05	120.50	36.58	10.67	323.28
2018-19	107.21	118.22	44.29	11.23	331.62
2019-20	61.70	126.37	35.00	9.30	273.85
2020-21	106.30	110.59	44.65	10.50	311.20
2021-22*	138.00	104.00	60.00	12.00	355.50

\*Projected

- India world's largest producer and consumer of sugar as well as the world's 2nd largest exporter of sugar.

### Fertilizer Industry in India

- The second largest consumer of urea after China.
- Second in the production of Nitrogenous Fertiliser.
- One of eight core industries.
- Fertiliser consumption has increased from less than 1 million tonnes of total nutrients in the mid-1960s to almost 17 million tonnes in recent times.
- Import Dependency for Fertilisers: 25% of our requirement of Urea, 90% in the case of Phosphates and 100% in case of Potash.
- The intensity of Fertiliser consumption varies greatly from region to region.
  - Example: 40.5 kg/ha of total nutrients in Rajasthan to 184 kg/ha in Punjab.
  - Urea accounts for 82 percent of total nitrogen consumption
  - Di-ammonium phosphate for 63 percent of phosphate consumption.

### Food Processing Industry

- The Indian food and grocery market is the world's sixth largest, with retail contributing 70 per cent of the sales.
- The Indian food processing industry accounts for 32% of the country's total food market.
- It contributes around 8.80 and 8.39% of Gross Value Added (GVA) in Manufacturing and Agriculture respectively, 13% of India's exports and 6% of total industrial investment.
- The Indian gourmet food market is currently valued at US\$ 1.3 billion and is growing at a Compound Annual Growth Rate (CAGR) of 20 per cent

### Government Measures

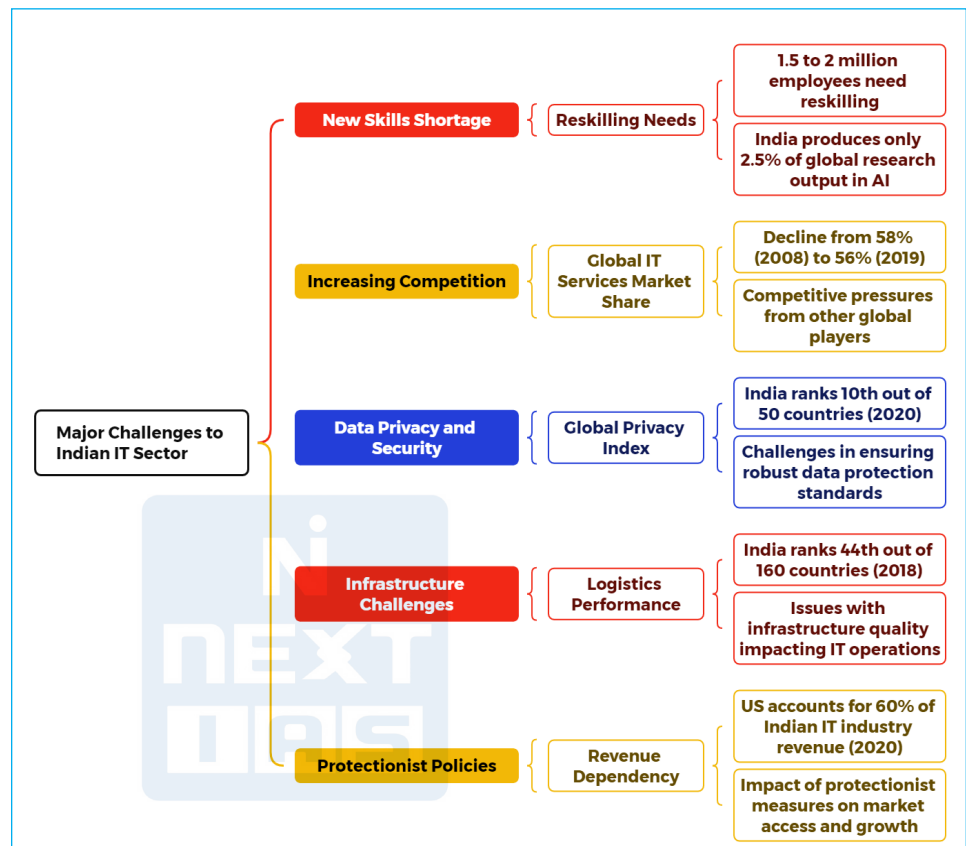
- 100% Foreign direct investment (FDI) in marketing of food products and various incentives at central and state government level along with a strong focus on supply chain infrastructure
- In Union Budget 2017-18, the Government of India has set up a dairy processing infra fund worth Rs 8,000 crore (US\$ 1.2 billion).
- The Food Safety and Standards Authority of India (FSSAI) plans to invest around Rs 482 crore (US\$ 72.3 million) to strengthen the food testing infrastructure in India, by upgrading 59 existing food testing laboratories and setting up 62 new mobile testing labs across the country.
- Under the Mega Food Park Scheme, the Government of India provides financial assistance up to Rs. 50.00 Crore per Mega Food Park project.
- **PM Kisan Sampada Yojana:** The scheme provides a grant in aid of 35% of the eligible project cost in most states and 50% of the project cost in North-east and Himalayan states.
- **PM Formalization of Micro Food processing Enterprises:**, 35% subsidy can be availed by such units on their project cost, up to a maximum of ₹10 lacs
- **Production-linked incentive (PLI) scheme for the food processing sector :** The Government announced this scheme this year with an outlay of 10,900 crore Rupees. This will help create 2.5

lakh jobs by 2026-27, boost exports and facilitate the expansion of food processing capacity to generate processed food output worth Rs 33,494 crore.

**IT Industry**

Facts about IT sector of India

1. IT industry accounted for 7.4% of India’s GDP in FY22, and it is expected to contribute 10% to India’s GDP by 2025.
2. India is viewed by the rest of the world as having one of the largest Internet user bases and the cheapest Internet rates, with 76 crore citizens now having access to the internet.
3. According to National Association of Software and Service Companies (Nasscom), the Indian IT industry’s revenue touched US\$ 227 billion in FY22, a 15.5% YoY growth.



4. According to Gartner estimates, IT spending in India is expected to increase to US\$ 101.8 billion in 2022 from an estimated US\$ 81.89 billion in 2021.
5. Indian software product industry is expected to reach US\$ 100 billion by 2025.
6. **The PLI Scheme** will be implemented within the overall financial limits of ₹ 12,195 Crores only for implementation of the Scheme over a period of 5 years.

**Special Economic Zone-SEZs**

- India’s recognition of the significance of exports led to the establishment of Asia’s first Export Processing Zone (EPZ) in Kandla (Gujarat) in 1965. To further this concept, these zones were converted into Special Economic Zones (SEZs) in 2000.
- The SEZ Act, 2005 involves state governments in export promotion and infrastructure creation.
- Performance and Impact: Exports from SEZs reached Rs 3,34,000 crore by 2019. Employment generation in SEZs was approximately 19.96 lakh persons. Investments of Rs 4,90,000 crore were made in SEZs.
- The National Manufacturing Policy (NMP) of 2011 aimed to increase the share of manufacturing in GDP to 25% and generate 100 million jobs over a decade.

## MISCELLANEOUS

### Impact of Climate Change on Cryosphere:

#### As per Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC)

- The global mean sea level had risen by 16 cm between 1902 and 2015, and that the rate of increase had doubled in the last one decade.
- Between 2006 and 2015, the Greenland ice sheet lost ice-mass at an average rate of 278 billion tonnes every year, while the Antarctic ice sheet lost a mass of 155 billion tonnes on an average every year.
- Snow over areas outside of these two regions, like the glaciers in the Himalayas, together lost an average of 220 billion tonnes of ice every year.

#### -Challenges of Mountain region in In India

- Between April 2021 and April 2022, the Geological Survey of India recorded 38 landslides in Himalayan states.
- Floods are the most common type of disaster in the region, with 132 out of 240 floods in the Himalayas since 1903.
- The National Center for Seismology reported 2,687 earthquakes in Himalayan states between 2009 and 2021.

#### Hindu Kush Himalaya Assessment report

- It reveals that more than 35 % of the glaciers in the region could retreat by 2100, even if the global temperature rise is capped at 1.5° C.
- A global temperature increase of 1.5°C could mean at least a 1.8°C temperature rise in the Hindu Kush Himalayas.
- About 2 billion people may face food, water shortages by 2100.

#### Importance of ARCTIC AND ANTARCTIC regions

- As per NASA science team, these regions are very important in regulating global temperature. Because sea ice has a bright surface, 50-70 percent of incoming energy is reflected back into space. As sea ice melts in the summer, it exposes the dark ocean surface. Instead of reflecting 50-70 percent of the sunlight, it absorbs 90 percent of the sunlight. As the ocean warms, global temperatures rise further.
- Economic significance of Arctic : 30% of the world's undiscovered natural gas. India is the 3rd largest energy-consuming country in the world, the 3rd-largest oil importer.

#### GLOF-Glacial Lake Outburst Floods

- GLOFs now present a threat to infrastructure and communities downstream. In the Indus, Ganga, and Brahmaputra basins, there are, respectively, 352,283 and 1,393 glacial lakes and water bodies, according to a study funded by the Central Water Commission and conducted between 2011 and 2015.

A new study published in Nature Communications on GLOF key highlights:

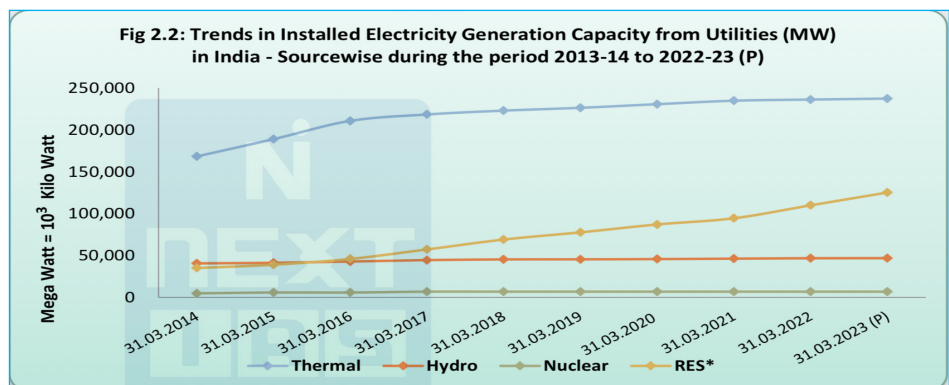
- **Vulnerability:**
  - Up to 15 million people face the risk of catastrophic flooding from glacial lakes which could burst their natural dams at any moment.

- The majority of the globally exposed population - 9.3 million (62%) are located in the region of high mountain Asia (HMA).
- In Asia, around one million people live within just 10 km of a glacial lake.
- **Threat to India:**
  - In the Himalayas, 25 glacial lakes and water bodies have witnessed an increase in water spread area since 2009.
  - There has been a 40% increase in water spread in India, China and Nepal, posing a huge threat to seven Indian states and Union Territories. Of these, six are Himalayan states / UTs: Jammu and Kashmir, Ladakh, Himachal Pradesh, Sikkim, Assam and Arunachal Pradesh.

**ENERGY RESOURCES**

**ENERGY RESOURCES (As per Energy Stastics Of India, 2024)**

- In absolute terms, the installed capacity of electricity generation increased by 3.98% to 4,95,199 MW in 2022-23 over 4,76,229 MW in 2021-22

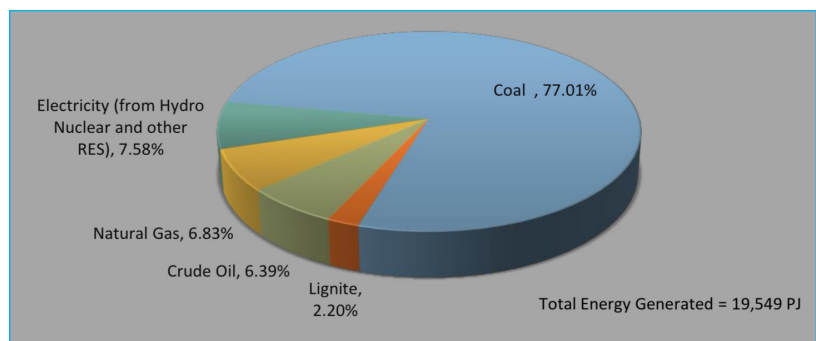


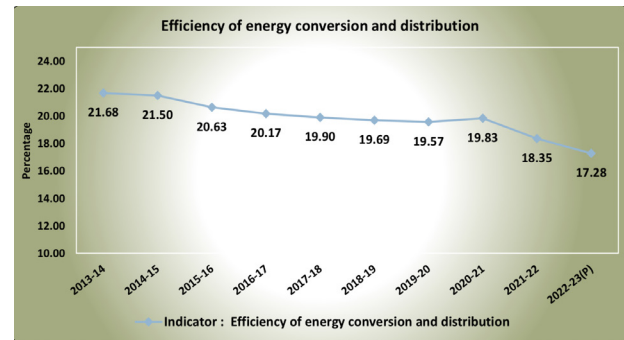
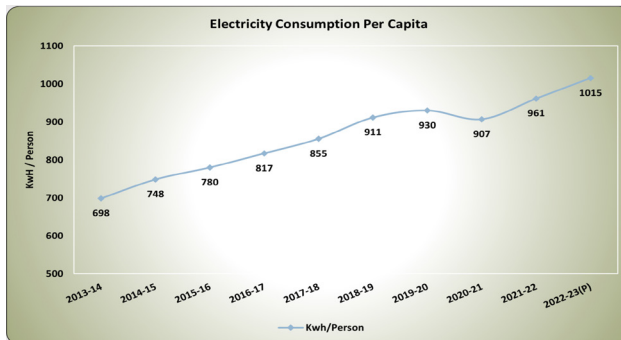
- India's Energy mix has been seeing a shift from more conventional resources of energy to renewable sources. The financial year 2022-23 has witnessed a growth of 12.20% over last year in the installed capacity of RES(Renewable Energy Sources)
- India still depends heavily on Coal as the major source of energy. During the FY:2022- 23(P) energy generated from Coal accounted for about 77.01% of the total generation of energy followed by Electricity (from Hydro, Nuclear and other Renewable energy sources) (7.58%) and Natural Gas (6.83%).
- India's exports of electricity started rising as compared to gross imports since 2016-17. The export of electricity has increased from 1651.00 GWh in 2013-14 to 10252.77 GWh in 2022-23(P) with a CAGR of 22.50%.

• Installed Electricity Generation Capacity (Fuelwise) as of May 2023:

- Total Installed Capacity (Fossil Fuel & Non-Fossil Fuel) is 417 GW.
- The share of various energy sources in the total Electricity Generation are:

- ◆ Fossil fuel (including Coal)- 56.8%
- ◆ Renewable Energy (including Hydropower)- 41.4%
- ◆ Nuclear fuel- 1.60%





## Conventional Source of Energy (As per Energy Statistics Of India, 2024)

### Coal

- Total installed capacity of coal washeries in India is 214.02 Million Tonne per year (MTY) as on 31.03.2022
- Coal production in the country during the year 2022-23(P) was 893.19 million tonnes as compared to 778.21 million tonnes during 2021-22. There is an increase of 14.77%. The overall trend of production in the last ten years i.e. 2013-14 to 2022-23(P) has shown a steady increase, except 2020-21, with a CAGR of 5.20%
- There has been an increasing trend in the net import of coal in the recent years. During FY:2022-23(P), the net-Import of Coal came out to be 236.51 MTs as compared to 207.31 MTs during FY:2021-22.

### Natural Gas

- The estimated reserves of Natural Gas as on 01-04-2022 was at 1149.46 Billion Cubic Metres. The maximum reserves of Natural Gas are in the Western Offshore (29.3%) followed by Eastern offshore (23.4%).
- The import of Natural Gas has experienced a steady increase over time. The CAGR of import of natural gas between 2013-14 and 2022-23(P) is having a positive growth rate of 4.43%.

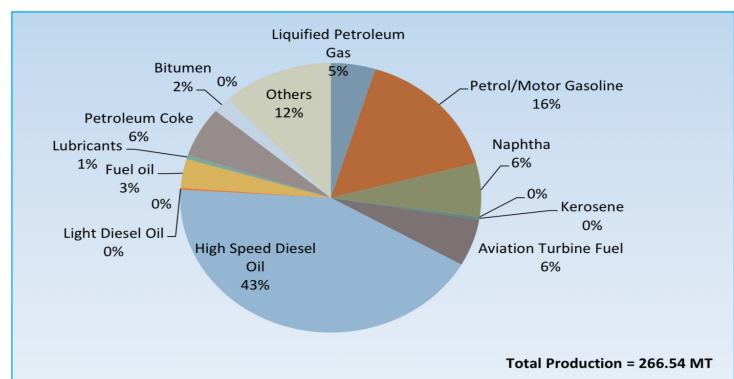
### Coal Bed Methane

With the fifth-largest proven reserves of coal globally, according to the Directorate General of Hydrocarbons, India holds significant prospects for exploration and production of CBM.

- India's CBM resources are estimated at around 92 trillion cubic feet (TCF), or 2,600 billion cubic metres (BCM).
- India's Coal and CBM reserves can be found in 12 states.
- Gondwana sediments of eastern India possess the bulk of Coal and CBM reserves.

### Petroleum

- The estimated reserves of crude oil in India as on 01-04-2022 stood at 653.02 million tonnes
- Geographical distribution of Crude Oil indicates that the maximum reserves are in the Western Offshore (33%) followed by Assam (23%)
- The refining capacity of the country is 2,53,916 TMTPA



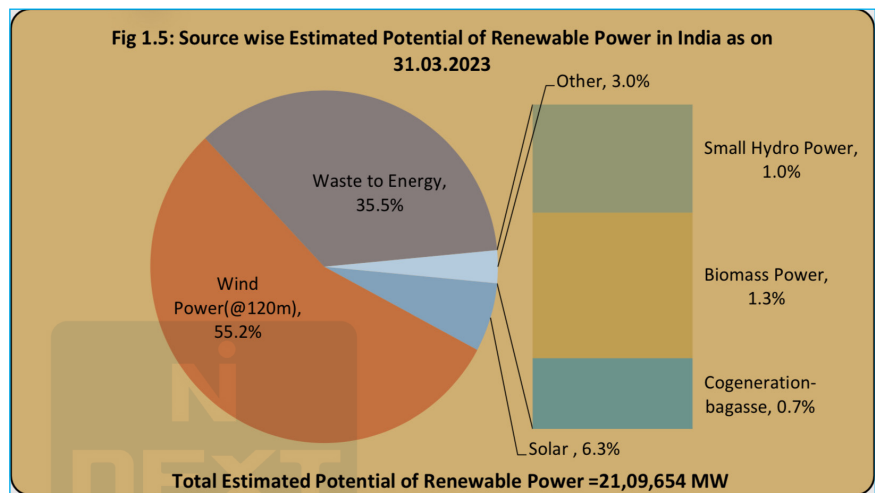


- India is also highly dependent on imports of crude oil to meet domestic consumption. during FY:2022-23(P) the fuel import has again experienced a growth of 2.33% over previous year and reached 232.73 MTs.
- India is an exporter of Petroleum Products. During FY:2022-23(P) the same stood at 61.04 MTs registering a negative growth of close to -2.73%.

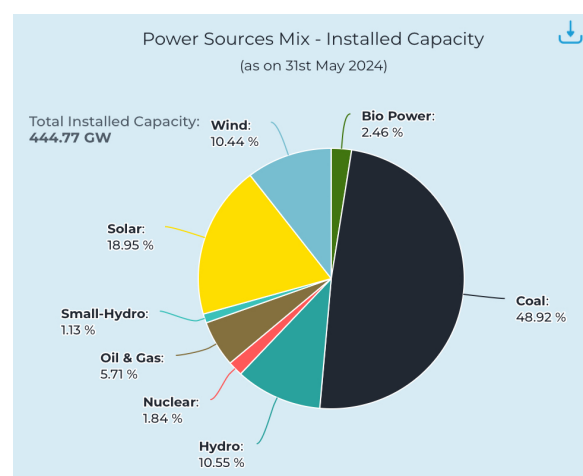
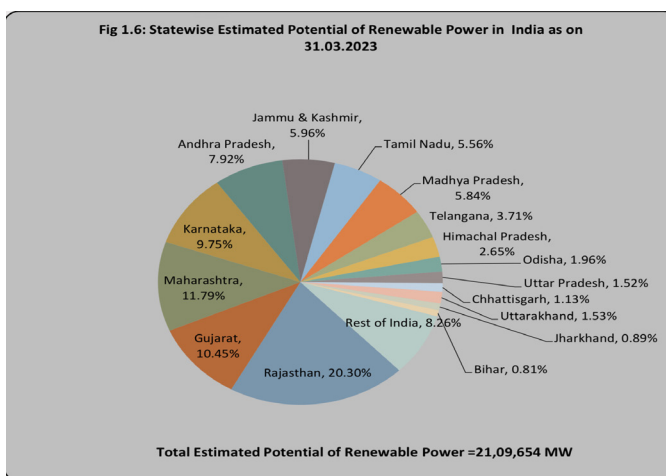
**Sources of Non conventional Energy-As per India Climate and Energy Dashboard**

- The total **potential** for renewable power generation in the country as on 31.03.2023 is estimated at 2,109,654 MW.

- This includes solar power potential of 7,48,990 MW (35.50%), wind power potential of 1,163,856 MW (55.17%) at 150m hub height, large hydro power of 133,410MW (6.32%), SHP (small-hydro power) potential of 21,134 MW (1%), Biomass power of 28,447 MW (1.35%) and 13,818 MW (0.66%) from bagasse-based cogeneration in sugar mills



- The **geographic distribution** of the estimated potential of renewable power as on 31.03.2023 shows that Rajasthan has the highest share of about 20.3% (428322 MW).
- This is followed by Maharashtra with 11.79% (share 248665MW). Gujarat and Karnataka come next with a 10.45% and 9.75% share (220505 MW and 205648 MW respectively).
- These four (4) states are having more than 52% of the total potential of Renewable Power in India.



As per India Climate and Energy Dashboard

- Solar energy- 84.28 GW
- Wind energy- 46.42GW
- Hydrogen power- Large-46.93GW, Small- 5.01GW

- Biomass energy- 10.95 GW
- Nuclear energy- 8.18 GW
- Hydrogen energy- As per Ministry of New and Renewable Energy (MNRE), to achieve its target of 5 MMT of Green Hydrogen production, India will need 125 GW of Renewable Energy, by 2030
- Geothermal energy- The estimated potential for geothermal energy in India is about 10000 MW.

Key Highlights of the Electricity Report 2024 by IEA International Energy Agency

- **Continued Reliance on Coal:** Coal-fired generation is expected to meet 68% of India's electricity demand by 2026, despite a decrease from 74% in 2023.
  - Coal-fired power generation is expected to rise by 2.5% annually (2024-2026).
  - Despite India's net-zero target by 2070, coal is expected to dominate, meeting 68% of demand.
- **Renewable Generation:**
  - Renewable energy (RE) generation remained relatively stable, with a 21% share of electricity generation in 2023.
  - Close to 21 gigawatts (GW) of RE capacity was added during 2023, with RE accounting for nearly 44% of total installed capacity in 2023.
- **Electricity Demand Dynamics:**
  - India's electricity demand rose by 7% in 2023, driven by rapid economic growth and increased space cooling needs.
  - Expected annual average growth of 6.5% between 2024 and 2026.
  - India's electricity demand is projected to outpace China's by 2026, with the world's fastest growth rate.
- **Global Comparison and Emerging Economies:**
  - About 85% of new electricity capacity is expected from emerging economies, particularly in South Asia, with China and India in the lead.
- **Hydropower Challenges and Mandates:** Changing weather patterns led to a 15% fall in hydropower generation in 2023.
- **Diversification Efforts:** Besides adding wind and solar power capacity, large hydro and nuclear power projects are being developed in the country.
- **Nuclear Power Surge:**
  - More than half of the nuclear power plants in the pipeline globally (between 2024-2026) are in China and India.
  - IEA forecasts global nuclear generation will be almost 10% higher in 2026, compared to 2023.
  - India announced plans in 2022 to triple its nuclear capacity by 2032, aiming to add 13 GW, with 6 GW currently under construction.
- **Global Nuclear Landscape:**
  - According to the World Nuclear Association estimates as of November 2023, 68 GW of nuclear capacity is under construction, 9 GW is currently planned and 353 GW is proposed.

- Asia is expected to surpass North America's nuclear power growth by 2026, reaching a 30% share of global nuclear generation.
- Small Modular Reactor (SMR) Technology: The report highlighted that momentum is growing behind SMR technology.

SDG 7 - Affordable and clean energy

## RESOURCES

### 1. WATER RESOURCES

- About 71% of earth's surface is covered by water
- India accounts for about 2.45% of world's surface area and 4% of the world's water resources
- From precipitation alone(including snowfall), India receives 4000 cubic km of water
- The availability from surface water and replenishable groundwater is 1,869 cubic km. Out of this only 60% can be put to beneficial uses; Thus, the total utilisable water resource in the country is only 1,122 cubic km.

Water Demand and Utilisation

- Agriculture accounts for most of the surface and ground water utilisation, it accounts for 89% of the surface water and 92% of the groundwater utilisation
- While the share of industrial sector is limited to 2% of the surface water utilisation and 5% of the ground-water, the share of domestic sector is higher (9%) in surface water utilisation as compared to groundwater
- If the amount of renewable water per person per year in a country is
  - below 1,700 m<sup>3</sup>, water stress.
  - below 1,000 m<sup>3</sup>, water scarcity.
  - below 500 m<sup>3</sup>, absolute water scarcity.

**Composite Water Management Index'** report by NITI Aayog findings-

- By 2030, the country's water demand is projected to be twice the available supply, implying severe water scarcity for hundreds of millions of people and an eventual ~6% loss in the country's GDP.
- 600 million Indians face high to extreme water stress and about two lakh people die every year due to inadequate access to safe water.
- The average annual per capita water availability is expected to reduce to 1,486 cubic meters per person per year by 2021 from 1,545 cubic meters per person per year in 2011.
- 21 major cities are expected to run out of groundwater as soon as 2020, affecting nearly 100 million people.

**Impact of water scarcity:**

- According to a World Bank report, climate change-exacerbated water scarcity could cost certain regions up to 6% of their GDP.

- According to a National Commission for Women report, rural women in Rajasthan travel nearly 2.5 kilometres each day to obtain a source of water.
- According to reports, agriculture uses over 85% fresh water.

### Watershed Management

- Jal Shakti Abhiyaan (JSA): In 256 water-stressed regions, it was launched in 2019 as a campaign for water conservation, recharge, and rainfall gathering. It now encompasses each of the nation's 740 districts.
- Amrit Sarovars: Each district's 75 water bodies are to be developed and revitalized as part of the Mission. By August 2023, the Union Government plans to construct 50,000 Amrit Sarovars throughout India.
- Ganga Rejuvenation: The World Bank has been supporting the Government of India's efforts to rejuvenate the Ganga River since 2011. Two World Bank projects, worth US\$ 1 billion, are helping

### National Waterways in India: Inland Waterways

- India has over 14500 km of waters that can be navigated which accounts only for about 1% of the country's transportation.
- Approximately 180 lakh tons of material is transported through these waterways.
- India's coastline is so vast that it spans almost 7,517km and facilitates the large vessels to transport. There are 12 major and 185 minor ports in the country which gives the necessary infrastructural support to the vessels.
- The Oceanic Routes also support 95% of India's foreign trade by volume and over 70% by value moves from the country to other countries.

SDG 6 - Clean water and sanitation.

### AGRICULTURE

- As per Ministry of Agriculture, The share of agriculture in total Gross Value Added (GVA) of economy has declined from 35% in 1990-91 to 15% in 2022-23.
- In growth terms, agriculture and allied sector has registered an average annual growth of 4 per cent during last five years(2017-22).
- According to the Periodic Labour Force Survey (PLFS) conducted by the National Sample Survey Office (NSSO), about 45.76% of the total workforce is engaged in agriculture and allied sector during 2022-23.
- The Ministry of Agriculture and Farmers Welfare has released Second Advance Estimates of Major Agricultural Crops (Kharif & Rabi Season) for the year 2023-24 shows-

Items	Quantity
1. Kharif	1541.87 LMT
2. Rabi	1551.61 LMT
3. Rice	1238.15 LMT
4. Wheat	1120.19 IMT
5. Oilseed	365.98 LMT
6. Sugarcane	4464.30 LMT
7. Cotton	323.11 lakh bales

As per the estimates of Indian Council for Agricultural Research (ICAR), demand for food grain would increase to 345 million tonnes by 2030.

**10th Agricultural Census 2015-16 key-highlights-**

- showed a 1.53 per cent decline in total operated area at 157.14 million hectare as compared to 2010-11 data,
- The average size of operational holding declined to 1.08 hectares (ha) in 2015-16 compared to 1.15 ha in 2010-11.
- census also found out that the percentage share of female operational holders has increased from 12.79 per cent in 2010-11 to 13.87 per cent in 2015-16

**Animal Husbandry**

- About 20.5 million people depend upon livestock for their livelihood, which provides livelihood to two-third of rural community
- It also provides employment to about 8 % of the population in India
- The sector contributes 11% to GDP and 25.6% of total Agriculture GDP

**Noteworthy statistics of Livestock Resources in India**

- India is
  - World’s highest livestock owner at about 535.78 million
  - First in the total buffalo population in the world – 109.85 million buffaloes
  - Second in the population of goats – 148.88 million goats
  - Second largest poultry market in the world
  - Second largest producer of fish and also second largest aquaculture nation in the world

Dairy, Meat, and Fisheries in India		
Dairy	Livestock Population (FY 2019)	Cattle: 192.5 million
		Goats: 148.9 million
		Buffaloes: 109.9 million
Sheep: 74.3 million		
Pigs: 9.1 million		
Milk Production (FY 2018-19)	Estimated at 187.7 million tons	
Achievements of White Revolution	India becomes world's largest milk producer	
	Increase in per capita availability of milk	
	Incremental income for 9 million small farmers	
Meat	Annual Meat Production	Total: 5.9 million tonnes
		Goats and Sheep: 54%
		Cattle and Buffalo: 26%
		Pigs: 7%
		Poultry Birds: 13%
Largest Meat Producing State	Uttar Pradesh: Over 19% of total meat production	
Fisheries In India	India's Global Position	3rd largest producer of fish
		2nd largest producer of inland fish
	Employment	Provides jobs to over 14 million people
	Production Growth	Average annual growth of 7.53% (2014-15 to 2018-19)
	Contribution to GVA	1.24% to India's Gross Value Added (GVA)
		7.28% to agricultural GVA (2018-19)
	Global Contribution	Shares 7.58% to global fish production
	Export Statistics (2018-19)	Marine products: 13.93 lakh metric tons
Value: Rs 46,589 crores (USD 6.73 billion)		

**HUMAN GEOGRAPHY**

**TRANSPORT & COMMUNICATION**

**Indian Railways**

- At present, India has the second largest railway network in Asia, and the fourth largest in the world; after USA, Russia and China. But, India tops world’s leading countries with regard to passenger/kilometre carried
- Union Budget 2023-24, has also announced an outlay of ₹2.4 lakh crore for the Indian Railways, compared to ₹1.40 lakh crore in the FY22-23 and nine times the amount provided in 2013-2014.

- Items transported in freight: In 2020-21, coal constituted 44% of the total freight movement of 1.2 billion tonnes, followed by iron ore (13%), cement (10%), food grains (5%), fertilisers (4%), iron and steel (4%), etc.
- As per NITI Aayog, It costs around INR 2.5/tonne per km to transport goods by road, compared to INR 1.06/tonne per km by water and INR 1.36/tonne per km by railways.

### Road Transport

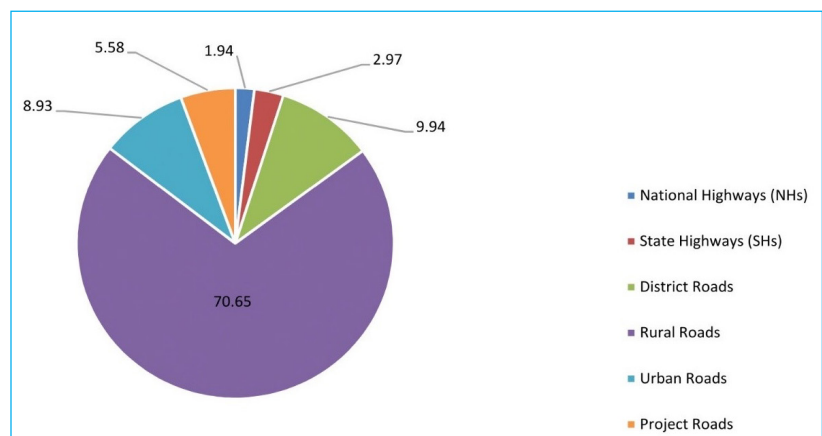
- India has the second-largest road network in the world, Total Road Length – – 6.4 million km (comprises of national & state highways and urban & rural roads).
- According to data from 'Ministry of road transport and Highways, India has 151,019 km (93,839 mi) of National Highways as of March 2021
- State Highways constitute about 3.5% of the total road length in India.
- Bharatmala Project will interconnect 550 District Headquarters (from current 300) through a minimum 4-lane highway by raising the number of corridors to 50 (from current 6) and move 80% freight traffic (40% currently) to National Highways by interconnecting 24 logistics parks, 66 inter-corridors (IC) of total 8,000 km (5,000 mi), 116 feeder routes (FR) of total 7,500 km (4,700 mi) and 7 north east Multi-Modal waterway ports.
- Annual Budgetary Allocation of the Ministry of Road Transport & Highways has increased by more than 940% from about Rs. 25,872 Crore/year during 2009-14 to about Rs. 2,70,435 Crore during 2023-24.
- Expressways are the highest class of roads in India. In July 2023, the total length of expressways in India was 5,930 km (3,680 mi), with 11,127.69 km (6,914.43 mi) under construction.

### Importance –

- Transportation of goods – 64.5% by road.
- Passenger traffic – 90% by road.

### Air Transport

- According to the data released by the Department for Promotion of Industry and Internal Trade (DPIIT), FDI inflow in India's air transport sector (including air freight) reached USD 3.73 billion between April 2000-December 2022.
- The number of PPP airports in India is likely to increase from five in 2014 to 24 in 2024. Airport Authority of India, manages 137 airports.
- National Civil Aviation Policy (CAP) 2016- to create an ecosystem to make flying affordable for the masses and to enable 30 crore domestic ticketing by 2022 and 50 crore by 2027, and international ticketing to increase to 20 crore by 2027.



## DISASTER MANAGEMENT

### DISASTER

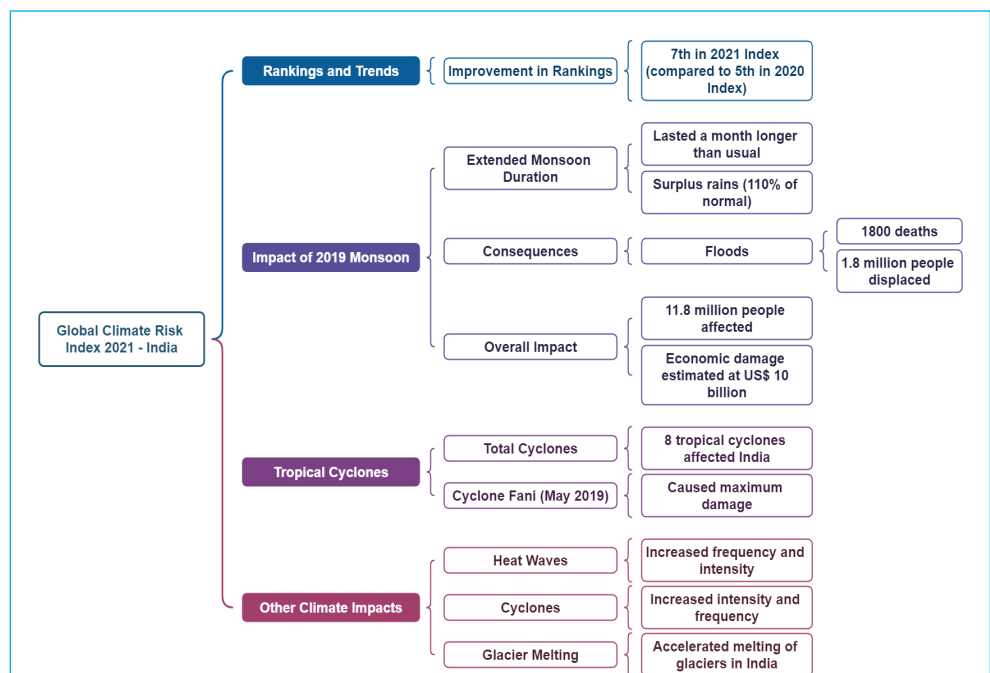
#### Vulnerability Profile of India

- India is vulnerable, in varying degrees, to a large number of disasters. Around 59% of the landmass is prone to earthquakes of moderate to very high intensity.
- About 12% (over 40 million hectares) of its land is prone to floods and river erosion.
- Close to 5,700 kms, out of the 7,516 kms long coastline is prone to cyclones and tsunamis.
- 68% of its cultivable area is vulnerable to droughts; and, the hilly areas are at risk from landslides and avalanche.
- According to the **Global Risks Report 2024 by World Economic Forum**- In India, the top five risks in the short term are 1.misinformation and disinformation, 2.infectious diseases, 3. illicit economic activity, 4. inequality (wealth and income) and 5. labour shortage.
- According to Delhi-based think tank Centre for Science and Environment, India experienced extreme weather events on 235 of the 273 days — a little over 86 per cent of the days — from January 1, 2023 to September 30, 2023.

The report “**The Human Cost of Disasters 2000-2019**” by UNDRR(United Nations Office for Disaster Risk Reduction)-

- In the period 2000 to 2019, there were 7,348 major recorded disaster events claiming 1.23 million lives, affecting 4.2 billion people (many on more than one occasion) resulting in approximately US\$2.97 trillion in global economic losses.
- Between 1980 and 1999, 4,212 disasters were linked to natural hazards worldwide claiming approximately 1.19 million lives and affecting 3.25 billion people resulting in approximately US\$1.63 trillion in economic losses.

- The last twenty years has seen the number of major floods more than double, from 1,389 to 3,254, while the incidence of storms grew from 1,457 to 2,034. Floods and storms were the most prevalent events.



- In terms of affected countries globally, China (577 events) and the USA (467 events) reported the highest number of disaster events, followed by **India (321 events)**, Philippines (304 events), and Indonesia (278 events).

## DISASTER MANAGEMENT

### TYPES OF DISASTER AND THEIR MANAGEMENT

#### Earthquake

- An Earthquake Disaster Risk Index (EDRI), prepared by the National Disaster Management Authority (NDMA) in association with IIIT-Hyderabad here, showed that about 56% area of India is vulnerable to moderate to major earthquakes where about 82% of the population live.
- As per Ministry of Earth sciences, a total of ~59% of the landmass of India (covering all states of India) is prone to earthquakes of different intensities. Approximately, ~ 11% of the country falls in zone V, ~18% in zone IV, ~ 30% in zone III and remaining in zone II.

#### Impact of Earthquake

- Bhuj Earthquake-As per National Information Centre of Earthquake Engineering, Over 18,600 persons are reported to be dead and over 167,000 injured; the number of deaths is expected to rise with more information coming in. The estimated economic loss due to this quake is placed at around Rs.22,000 Crores (~US\$5 billions).

**Mitigation:** National Earthquake Risk Mitigation (Preparatory phase) has been approved as a Centrally Sponsored Plan Scheme with an outlay of Rs. 24.87 crore, to be implemented within a period of two years (2013-15).

#### Flood

- In 1980, Rashtriya Barh Ayog (National Commission on Floods) assessed that the total flood-prone area of India is around 40 million hectares which is equivalent to 12 percent of the total area of India. The Working Group on Flood Control Programme set up by the Planning Commission for the Tenth Five Year Plan put this figure at 45.64 million ha. About 80 percent of this area, i.e. 32 million ha, could be provided with a reasonable degree of protection.
- According to the ministry of home affairs, around 1,153 people were killed due to floods and landslides in 14 Indian states till August 27, 2020. Around 17.3 million people have been adversely affected on account of upheavals that took place after floods.
- As per data given in the Rajya Sabha, in 2018; the economic losses suffered by India due to floods across the country, was at approximately Rs 95,000 crores and unfortunately 1,808 people lost their lives.
- Government data shows that between 1953 and 2011, on an average, floods claimed 1,653 lives every year and caused losses – including the house, public property and crop damage of Rs. 3,612 crores every year.

#### Urban Flooding

- Hyderabad in 2000 and 2020, Ahmedabad in 2001 and 2020, Delhi in 2002, 2003, 2009 and 2010, Chennai in 2004 and 2015, Mumbai in 2005, Surat in 2006, Kolkata in 2007, and Srinagar in 2014 are a few of the most prominent ones.
- According to a recent analysis on urban planning capacity in India by NITI Aayog, just 63% of the 7933 urban settlements have master plans, indicating that urban planning has not received enough attention.



## Drought

According to the data by Drought Early Warning System (DEWS)-

- Around 30 percent land area in India was under different degrees of drought in the first week of September, 2023, worsening crop failure troubles for farmers and increasing food security concerns.
- At least 11.5 per cent area was under 'severe', 'extreme' and 'exceptional' dry conditions, while 18.9 per cent was under 'abnormal' to 'moderate' dry conditions

## Tsunami:

### Cyclone

- The State of Global Climate Report 2020 by UN, Cyclone Amphan of 2020 resulted in \$14 billion economic losses in India.
- Global Climate Risk Index 2021,-8 tropical cyclones hit the country in 2019. The most devastating of these was "Cyclone Fani" which affected a total of 28 million people, killing nearly 90 people in India and Bangladesh and causing economic losses of US\$8.1 billion.
- NDMI (National Disaster Management Institute) study- Cyclones accounted for 48% of India's overall human life loss due to climate-related disasters, followed by heat waves (26 per cent), 18 per cent due to floods and 8 percent due to cold waves.
- Since the middle of the 20th century (1951-2018), the frequency of very severe cyclonic storms during the post-monsoon season has increased significantly. During 2000-2018, the frequency of severe cyclones has been increasing at the rate of 1 event per decade.
- Cyclones affect 11 states. There are 96 districts along the coasts officially declared cyclone-prone. Odisha endured the most cyclones (20) more recently — 2006-2020, when 61 cyclones hit nine states.

## Landslide:

National Remote Sensing Centre (NRSC) under the Indian Space Research Organisation (ISRO) has released the **Landslide Atlas of India**,

- Uttarakhand, Kerala, Jammu and Kashmir, Mizoram, Tripura, Nagaland and Arunachal Pradesh reported the highest number of landslides during 1998 – 2022.
- Mizoram topped the list, recording 12,385 landslide events in the past 25 years, of which 8,926 were recorded in 2017 alone.
- Mizoram is followed by Uttarakhand (11,219) and Kerala.
- India is considered among the top 5 landslide-prone countries globally, where at least one death per 100 sq km is reported in a year due to a landslide event.
- Excluding snow covered areas, approximately 12.6 % of the country's geographical land area is prone to landslides.
- As many as 66.5 % of the landslides are reported from the North-western Himalayas, about 18.8 % from the North-eastern Himalayas, and about 14.7 % from the Western Ghats.

**Forest FIRE**

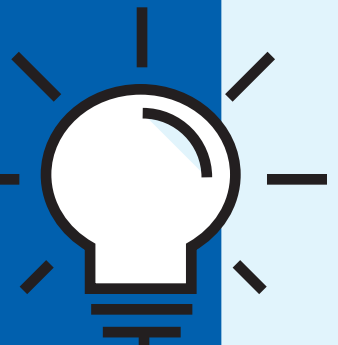
- As per India State of Forest Report (ISFR) 2021 analysis reveals that 22.27% of the forest cover is prone to forest fire.
- Based on the forest inventory records, 54.40% of forests in India are exposed to occasional fires, 7.49% to moderately frequent fires and 2.40% to high incidence levels while 35.71% of India's forests have not yet been exposed to fires of any real significance.



**NEXT IAS**

**FACT SHEET**

**GENERAL STUDIES - II**



**AIM**

**ADVANCED INTEGRATED MENTORSHIP  
PROGRAM FOR CSE 2025**

## POLITY

## 1. LEGISLATIVE

## General facts about MPs:

18th Lok Sabha (Since 2024), 17th LS (2019-24)

As per PRS Legislative Research data analysis-

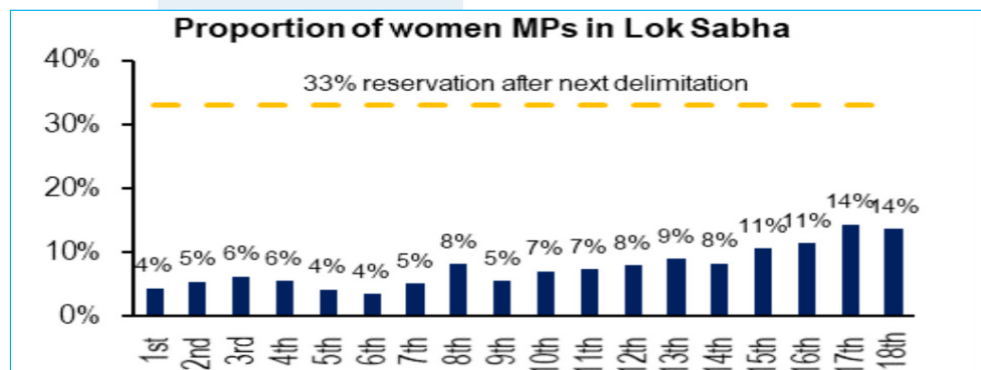
- **Fewer young MPs in Lok Sabha:** The share of MPs in the 25-40 age bracket has gradually declined, from 26% in the first LS to 12% in 17th LS.

## Age Profile of MPs:

- The average age of MPs elected to the 18th Lok Sabha is 56 years; this was 59 years in the 17th Lok Sabha.
- 11% of MPs are 40 years or younger, and 38% are between 41 and 55 years of age. 52% of MPs are older than 55 years. The oldest MP is 82 years old. Three MPs elected to the 18th Lok Sabha are 25 years old.

**Number of women MPs:** As per PRS Legislative Research data analysis-

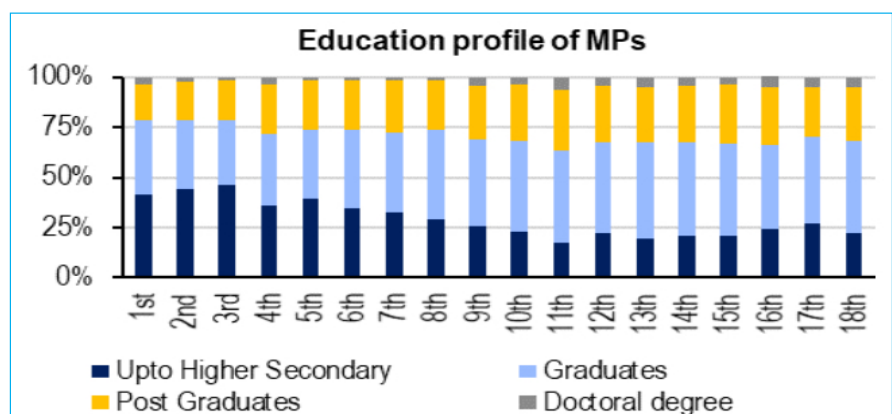
- 74 MPs (14%) elected to the 18th Lok Sabha are women. This is marginally lower than in 2019, when 78 women were elected. 16% of these women MPs are below the age of 40.



- 41% of women MPs (30 MPs) have previously been members of Lok Sabha.
- India still lags behind several countries. For example, 46% of MPs in South Africa, 35% in the UK, and 29% in the USA are women.

**Education profile of MPs-** As per PRS Legislative Research data analysis-

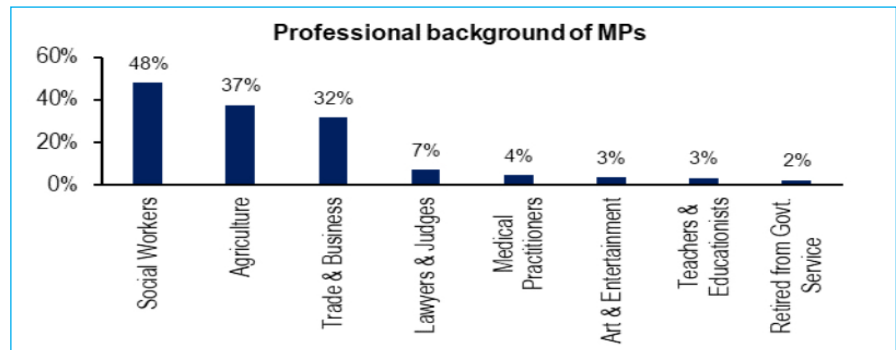
- Undergraduate education- 78% of MPs of the 18th Lok Sabha. This proportion is the same for newly-elected women MPs.
- Proportion of MPs who have not attended college - decreased from 27% in the 17th Lok Sabha to 22% in the 18th Lok Sabha.



- Doctoral degree- 5% of MPs in the 18th Lok Sabha, including three women MPs.

**Work Profile of MPs-**

- Agriculture and social work are the most common professions among MPs elected to the 18th Lok Sabha.
- 7% of MPs elected to the 18th Lok Sabha are lawyers, and 4% are medical practitioners.
- In the first LS, the most common profession of MPs was lawyer (32%).



**PROFILE OF MPs of 18th Lok Sabha-**

As per analysis by poll rights body Association of Democratic Reforms (ADR),

**Wealth-**

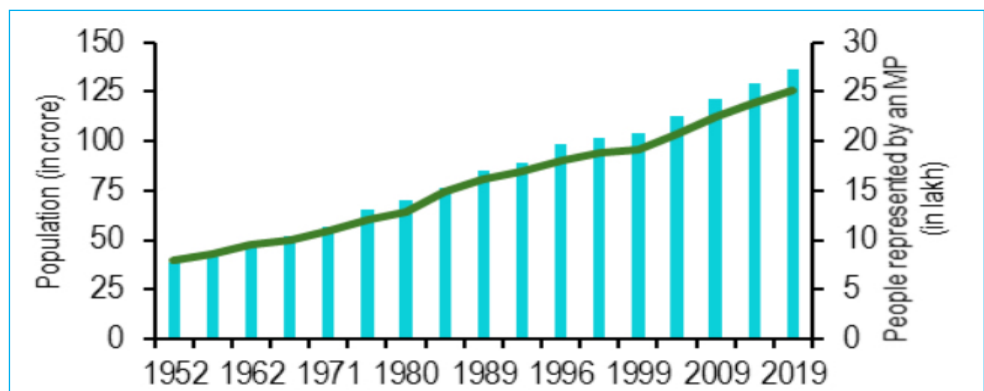
- A staggering 93% of the candidates who won the 2024 Lok Sabha elections are crorepatis, up from 88% in 2019.
- Average increase of 43 per cent over the last five years in the assets of 324 MPs who have entered the poll fray again.

**Criminalisation-**

- As many as 251 (46 per cent) of the 543 newly elected Lok Sabha members have criminal cases registered against them and 27 of them have been convicted.
- A total of 233 MPs (43 per cent) had declared criminal cases against themselves, 185 (34 per cent) in 2014, 162 (30 per cent) in 2009 and 125 (23 per cent) in 2004.
- There has been a 55 per cent increase in the number of MPs with declared criminal cases since 2009.
- Serious criminal cases-There has been a 124 per cent increase in the number of MPs with declared serious criminal cases since 2009.
- The chances of winning for a candidate with declared criminal cases in the 2024 Lok Sabha elections stood at 15.3 per cent, compared to just 4.4 per cent for candidates with a clean background.

**MPs representing number of citizens-**As per PRS Legislative Research data analysis-

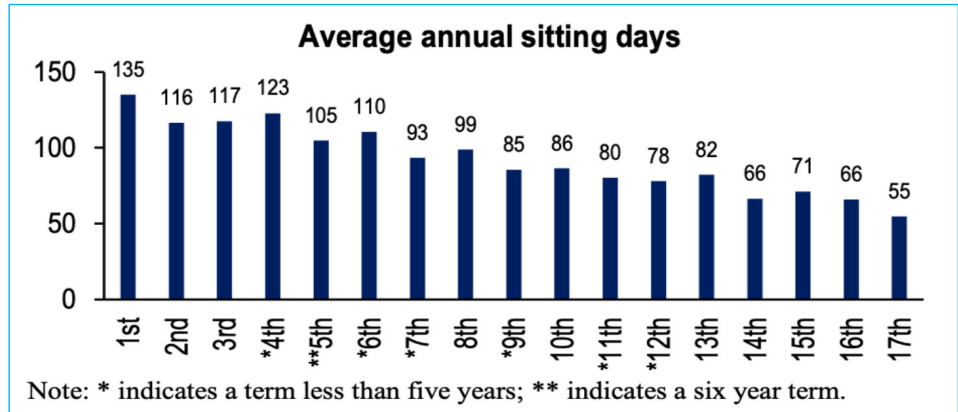
- The number of citizens represented by an MP has substantially increased from about 8 lakh in 1952 to about 25 lakh in 2019.



## Parliament Functioning-

As per PRS Legislative Research data analysis-

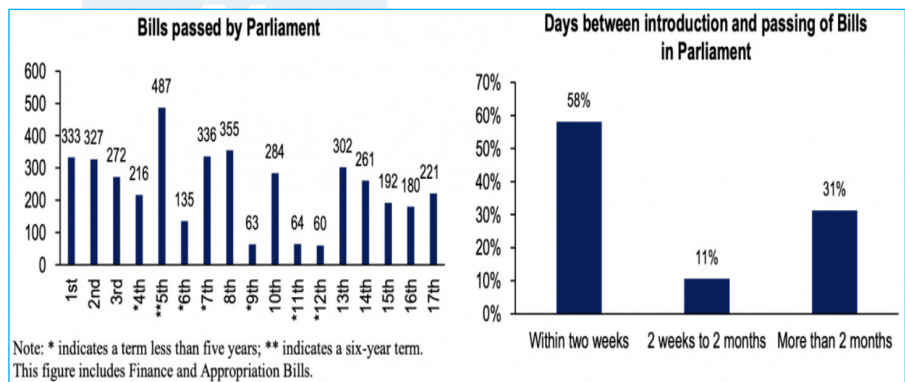
- Sittings of Lok Sabha- The 17th Lok Sabha held 274 sittings. Only four previous Lok Sabhas have had fewer sittings, all of which were dissolved before completing the five-year term. The fewest sittings in this Lok Sabha were held in 2020 (33 days), amidst the COVID-19 pandemic.



- The 17th Lok Sabha held its sessions between June 2019 and February 2024. In these five years, Lok Sabha functioned for 88% of its scheduled time, while Rajya Sabha worked for 73%.

**Bills passage-** As per PRS Legislative Research data analysis-

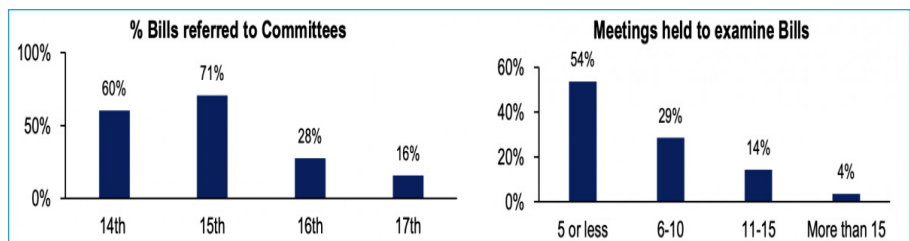
- In the 17th Lok Sabha, 179 Bills (excluding Finance and Appropriation Bills) were passed. The Ministries of Finance and Home Affairs piloted the highest number of Bills (15% each).
- 58% of the Bills were passed within two weeks of their introduction. The J&K Reorganisation Bill, 2019, and the Women's Reservation Bill, 2023 were passed within two days of introduction.



- 35% of Bills were passed with less than an hour of discussion in Lok Sabha. The corresponding figure for Rajya Sabha was 34%.

## Bills referred to Committees-

- In the 17th Lok Sabha, 16% of Bills were referred to Committees for detailed scrutiny. This is lower than corresponding figures for the previous three Lok Sabhas.



- Four Bills were referred to Joint Parliamentary Committees.

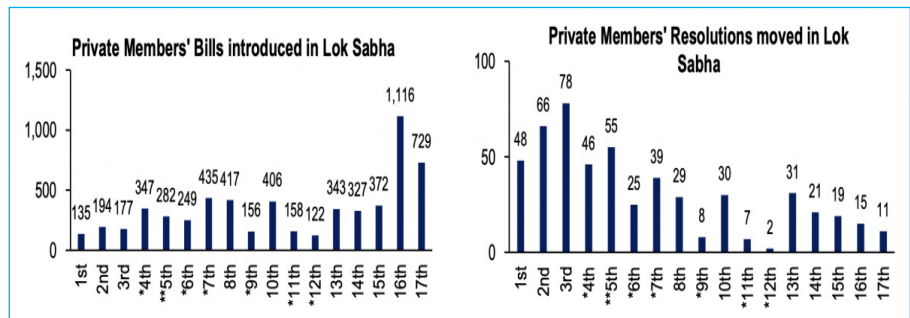
**Private Members' Bills:** As per PRS Legislative Research data analysis-

- 729 Private Members' Bills (PMBs) were introduced in the 17th Lok Sabha, which is higher than all previous Lok Sabhas, except the 16th. However, only two PMBs were discussed.
- During the same period, 705 PMBs were introduced in Rajya Sabha, and 14 were discussed.

- Till date, only 14 PMBs have been passed and received assent.
- None have been passed in both Houses since 1970.

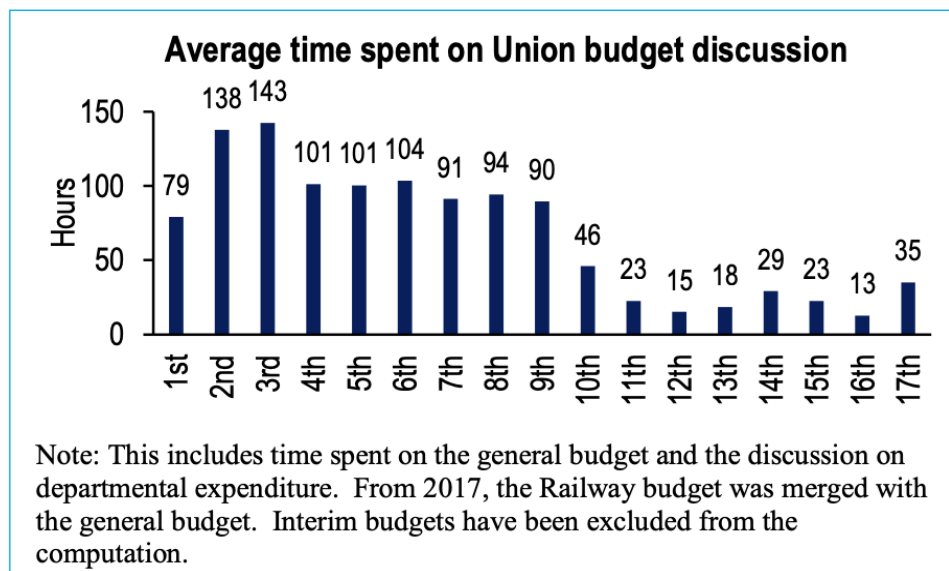
**Discussion in Parliament:** As per PRS Legislative Research data analysis-

- About 31% of the total functioning time in Lok Sabha, and 32% in Rajya Sabha was spent on discussions other than legislation and budgets.
- During the 17th Lok Sabha, Question Hour functioned for 60% of scheduled time in Lok Sabha and 52% in Rajya Sabha.



**Discussion on Budget-**

- The 17th Lok Sabha discussed the annual budget for 35 hours on average (in the Lower House).
- Between 2019 and 2023, on average, about 80% of the budget has been voted on without discussion.
- In 2023, the entire budget was passed without discussion. This has happened twice in the last decade - in 2018 and 2013.



**2. EXECUTIVE**

**Sedition-**

As per NCRB data,

- 76 sedition cases were registered across the country in 2021, a marginal increase from the 73 registered in 2020.
- The number of these cases stood at 93 in 2019, 70 in 2018, 51 in 2017, 35 in 2016, 30 in 2015 and 47 in 2014.
- The conviction rate in cases filed under the sedition law (IPC Section 124A), now the subject of an ongoing case in the Supreme Court, has fluctuated between 3% and 33% over the years, and the pendency of such cases in court reached a high of 95% in 2020.

- Age profile of persons arrested for sedition shows that 290 or 53% of total 548 persons arrested between 2015 and 2020 belonged to the 18-30 years group, while nearly 35% were in the 30-45 years bracket.
- Assam recorded the highest arrests for sedition with 23 each in 2018 and 2019 and 10 in 2020.

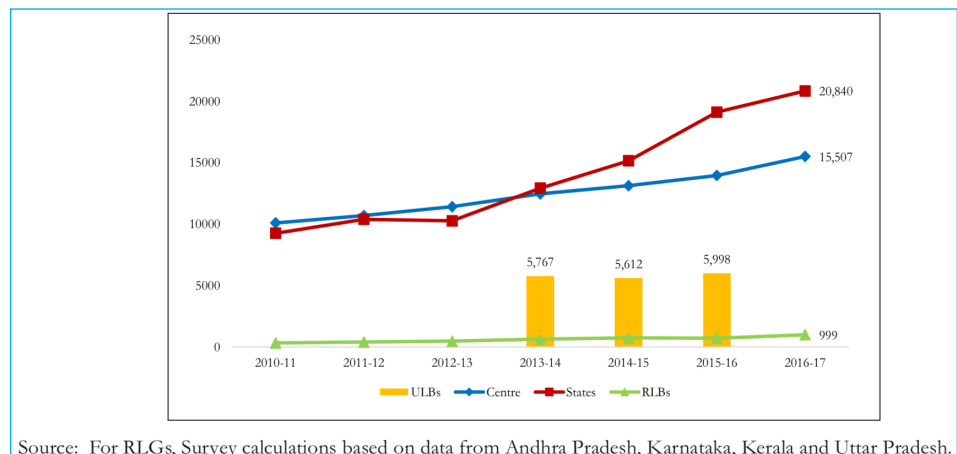
## Federalism

### Fiscal Federalism-

- According to revised estimates of 2017-18, half of the Union expenditure of around Rs 22 trillion has been transferred to states. Of the total resource transfers, 69.4% is by Finance Commission devolution and grants, and the bulk of the rest is under centrally sponsored schemes.
- Article 293 of the Indian Constitution-States can borrow within India upon the security of their Consolidated Fund of State, within limits set by the state legislature.
- Recent RBI data shows a dramatic decrease in the Union's share of state loans, from 57% in 1991 to just 3% by FY 2020.
- The Covid-19 pandemic temporarily reversed the trend of declining state borrowing from the Union, increasing it from 3% in FY 2020 to 8.6% in FY 2024 due to economic pressures and revenue shortfalls.
- 14th Finance Commission submitted its report to President. It recommended a 10% increase in states' share of tax revenue from 32% to 42%.
- The report by Vidhi Centre for Legal Policy, submitted to the 15th finance panel, points out that the share of cesses and surcharges (a 'tax on tax') in gross tax revenue (GTR) increased from 7% and 2%, respectively, in 2012-13 to 11.9% and 6.4%, respectively in 2018-19.

As per India Ratings.

- If the cesses and surcharges were included in the divisible pool of central taxes, the tax devolution to states would have gone up from 35.5 per cent to 40 per cent in FY25.
- The total cesses and surcharges, excluding GST compensation cess, collected by the union government have been budgeted at 10.2 per cent of the gross tax revenue in FY25BE.



Source: For RLGs, Survey calculations based on data from Andhra Pradesh, Karnataka, Kerala and Uttar Pradesh.

- FY25, the **union government has budgeted to share 35.5 per cent of the divisible tax pool with states**, lower than **41 per cent recommended by 15th Finance Commission**.
- The share of states averaged 35.4 per cent of the divisible pool during FY21-FY25BE, down from 39.8 per cent during FY16-FY20.

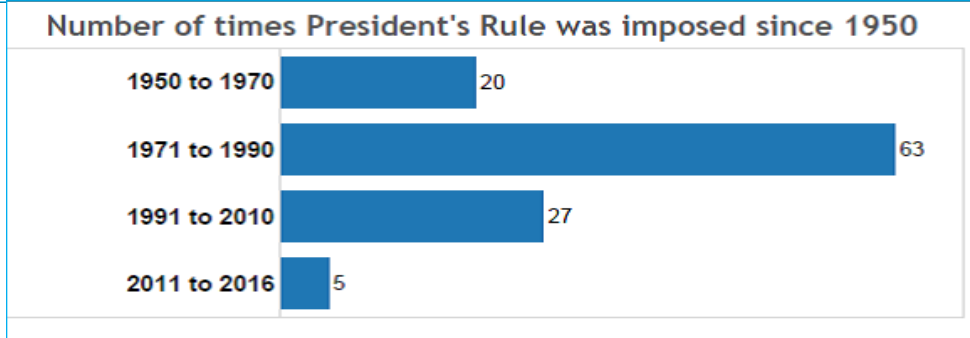
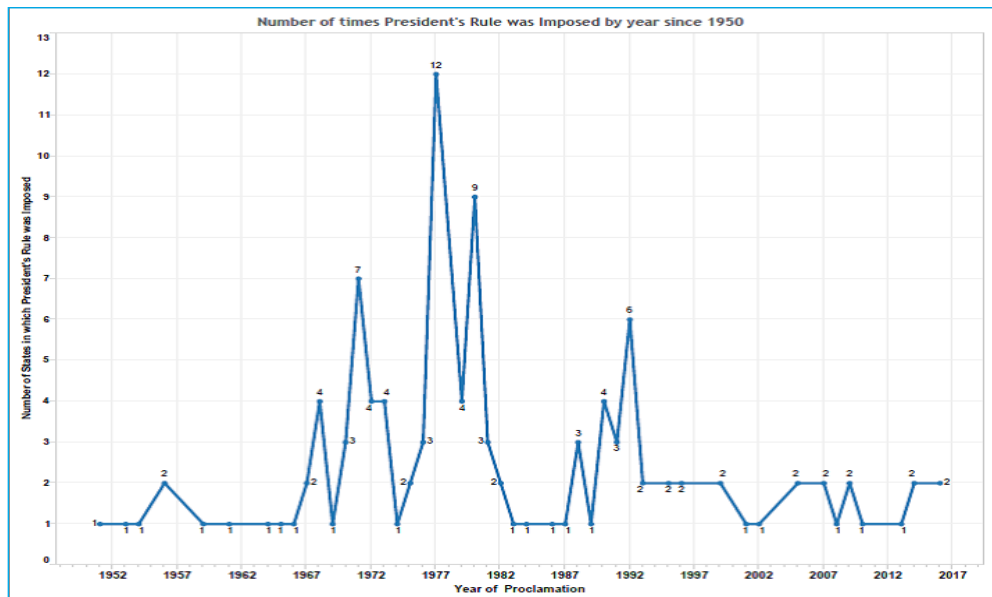


**Article 356-**

Imposition-

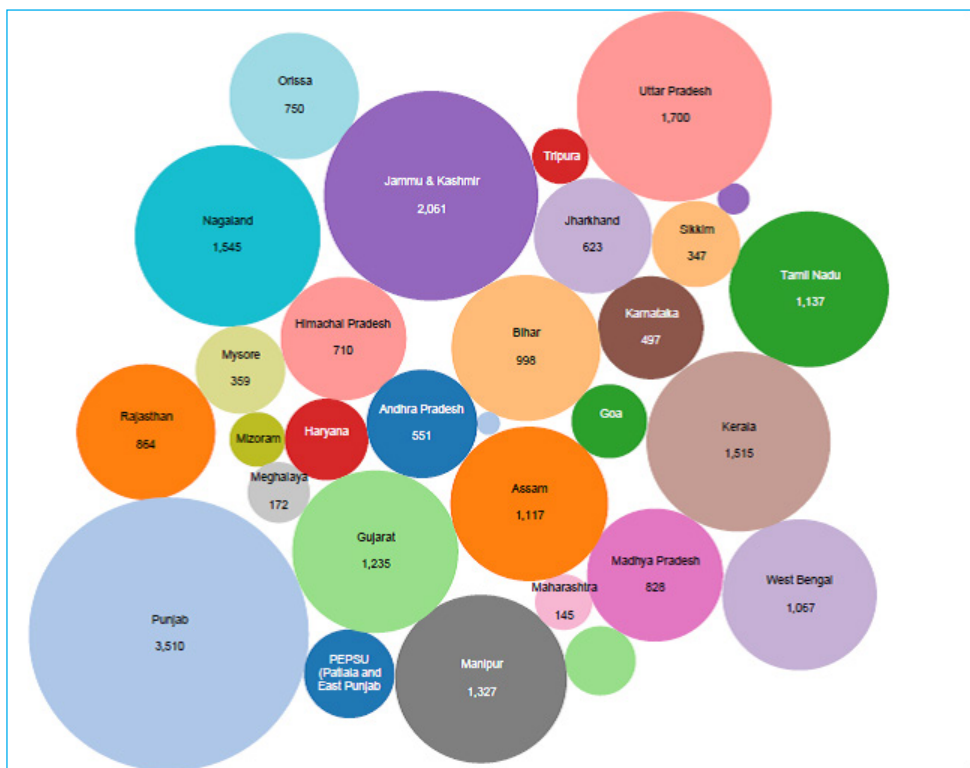
As per the response to a RTI application by Factly,

- Article 356 was first used in June 1951 in Punjab.
- Since then, it has been used 115 times till 2018.
- President's rule was imposed in 12 states in 1977 after the Janata alliance came to power. This remains the record for a single year till date.
- Second in the list is 1980 when the president's rule was imposed in 9 different states after Indira Gandhi came back to power.
- Other notable years include 1992 when it was used in 6 different states and 1971 when it was used in 7 states including thrice in Orissa.



Decade-wise use-

- **The indiscriminate use of Article 356 came down significantly following the Supreme Court's landmark judgment in the S R Bommai case in 1994.**
- Between 2011 and 2016, it has been used 5 times including 3 times after the BJP came to power in 2014.



States under Article 356-

- President's rule was imposed at least once in 27 of the 28 states in the country. Except in Chhattisgarh and Telangana.
- Uttar Pradesh leads the charts where President's rule was imposed 10 times followed by Bihar where it was imposed 9 times.
- In terms of the absolute number of days, Punjab was under President's rule for 3510 days, which is about 10 years.

### Governor-

- As per Tamil Nadu State Legislative Assembly Secretariat, the Governor has been "sitting on 12 bills" some for three years since 2020 and some since 2022.
- Sources from the Chhattisgarh State Legislative Assembly Secretariat stated that a total of 9 bills, passed by the Assembly between 2020-22 are pending with the Governor.
- As per Telangana Government in 2023, Seven of 10 bills have been pending with the governor for more than six months.

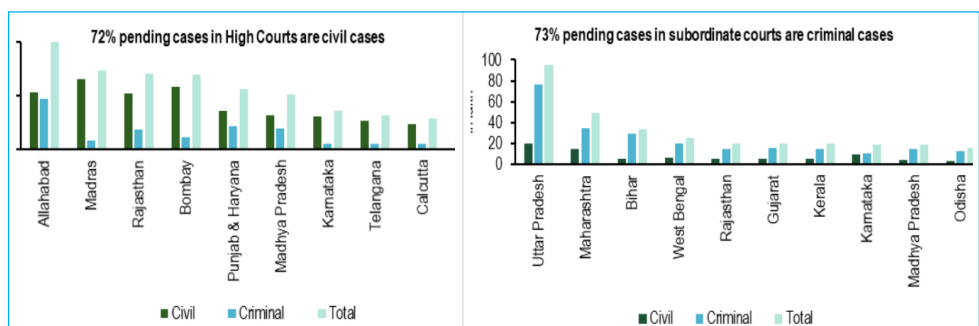
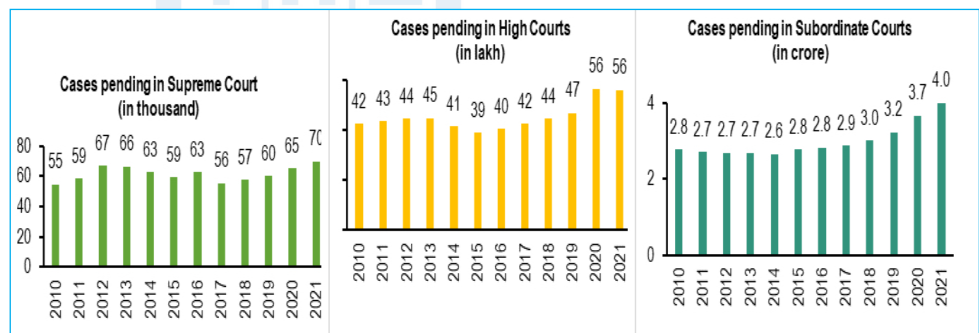
## 3. JUDICIARY

### Pendency-

As per National Judicial Grid Data- at end of June 2024,

Total pending cases-

- Supreme Court- **84,545 (more than 1 year- 63.86%)**
- High Courts- **61,57,708 (more than 1 year-76.95%)**
- District and Taluka level- 4,52,35,649 **(more than 1 year-67.4%)**
- Total in country- about **5.12 crores.**
- In HCs, 21% cases pending for over ten years; in subordinate courts, 23% cases for over five years



**Vacancies in Courts-** as per Ministry of Law and Justice-

- From **01.05.2014** to **07.03.2023**, **54 Judges were appointed to the Supreme Court.**
- 887 new Judges were appointed and 646 Additional Judges were made permanent in the High Courts.

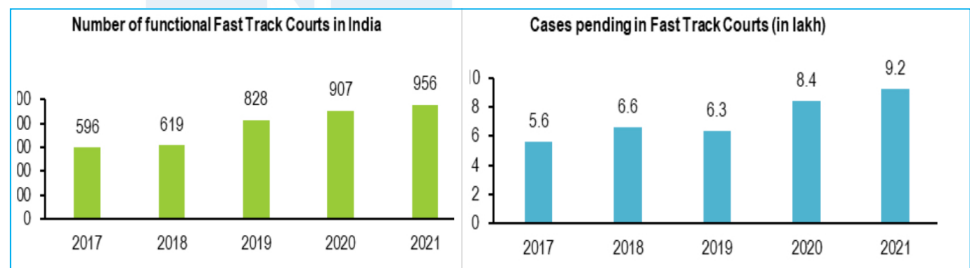
- Sanctioned strength of Judges of High Courts has been increased from 906 in May, 2014 to 1114 currently.
- Sanctioned and working strength of judicial officers in district and subordinate courts has increased as follow:

As on	Sanctioned Strength	Working Strength
31.12.2013	19,518	15,115
07.03.2023	25,188	19,414

- According to the data put out by the Law Ministry in 2017, the judge to population ratio in India stands at **17.86 judges per 10 lakh people**.
- Mizoram has the highest judge to population ratio which stands at 57.74. In Delhi, it stands at 47.33, while in Uttar Pradesh, the most populous state of the country, the ratio is 10.54 judges per 10 lakh people.

**Fast Track Special Courts (FTSC):**

758 FTSCs with 412 exclusive POCSO Courts have been operationalized in 30 States/UTs which have disposed of more than 2,00,000 cases (up to October, 2023).



**Lok Adalat-**

As per Ministry of Law and Justice,

- In 2021, Across the country, a total number of 1,27,87,329 cases were disposed of in four National Lok Adalats, which included a huge number of pending cases i.e., 55,81,117 and a record number of pre-litigation cases i.e., 72,06,212.
- A total number of 17,63,233 such pending cases and 18,67,934 pre-litigation cases were disposed. The second in line were the Revenue cases consisting of 11,59,794 pre-litigation and 14,99,558 pending cases.

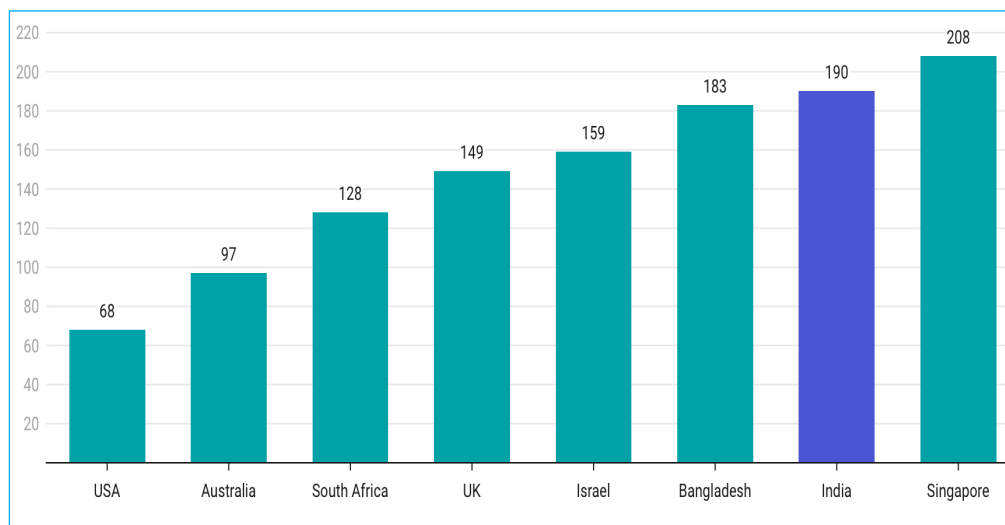
As per the estimates of National Legal Services Authority (NALSA) –

- State Adalats disposed of around 52 lakh cases between 2016-20.
- Similarly, the (National Lok Adalats) NLAs have disposed of a total of 2.93 crore cases in 2016-20.
- The first national e-Lok Adalat disposed of around 10.5 lakh cases.

**Initiatives** as per Ministry of Law and Justice-

- Tele-law:** During the Year 2023-2024 the Tele-Law has been expanded to cover 2.5 lakh Gram Panchayats across 766 districts (including 112 aspirational districts) in 36 states and UTs. About 700 Lawyers engaged to provide pre litigation advice. As on 30th November, 2023, 24 lakh + beneficiaries have been provided with legal advice and consultation.

- **eCourts Mission Mode Project:** Phase II of the project started in 2015 with an outlay of Rs.1,670 crore out of which a sum of Rs.1668.43 crore has been released by the Government. Under Phase II, 18,735 District & Subordinate courts have been computerized so far.
- Since the Covid lockdown period, more than 2.97 Cr. virtual hearings have been held by the Courts across India including Hon'ble Supreme Court of India
- 25 virtual courts in 20 States / UTs have been set up to try traffic offenses. These courts have heard more than **4.11 crore cases** and realized Rs. 478.69 crore in fines. Delhi High Court has started **34 Digital Courts** to hear cheque bounce cases under the Section 138 NI Act.



Working comparison with other Countries- As per Supreme Court Observer data-

The Supreme Court of India handles a significantly higher number of cases including appeals and original cases—with 28,651 cases instituted in 2022. In contrast, the **SCOTUS** deals with a comparatively lower number of cases, ranging from 5,000 to 7,000 cases instituted annually.

### Status of Judicial Infrastructure in India

- An all-India survey 2021 was conducted by the Chief Justice of India's office to know the status of the Judicial Infrastructure in Trial Courts.
- According to the survey, only 27% of courtrooms in the subordinate judiciary have computers on judges' dais while there are still **10% of courts that do not have access to proper internet facilities**.
- 22% of trial court complexes do not have toilet facilities for women, while 16% don't have such a facility for men.
- There are 620 court complexes that still operate from rented premises and only 54% of the total complexes have basic medical facilities.
- There are approximately 24,280 judicial officers in trial courts but only 20,143 court halls.
- About 55 percent of the trial courts surveyed have a separate room for the staff attached to judges while 54 percent are equipped with drinking water facilities.
- Only 55 percent of courts have centralized filing centers and 31 percent have meditation halls.
- Most court complexes also do not have a waiting area for litigants with only 33 percent of buildings with this facility.

## 4. OTHERS

### Election-

#### Expenditure-

According to the Centre for Media Studies,

- The cost of a single vote in India in 2024 has reached an astonishing Rs. 1,400.
- The total estimated expenditure for the 2024 elections is expected to reach a staggering Rs 1.35 lakh crore (\$16.5 billion). This surpasses the spending in the 2020 US elections, which stood at Rs 1.2 lakh crore (\$14.4 billion).

• The expenses involved in conducting a Lok Sabha election have risen steadily over the years. For instance, during India's first election in 1951-52, which spanned 68 phases, the cost was a modest Rs 10.5 crore. Fast forward to 2019, and the cost had skyrocketed to a staggering Rs 50,000 crore (\$7 billion), according to a report by the Centre for Media Studies.

Year	Estimated Expenditure (₹)	ECI Spend (%)
1998	9,000	13
1999	10,000	10
2004	14,000	10
2009	20,000	12
2014	30,000	12
2019*	60,000	15
2024*	1,20,000-135,000	15-18

\*ESTIMATE INCLUDE EXPENDITURE ON ASSEMBLY ELECTIONS IN 4 STATES IN 2019 & 2024  
SOURCE: CMS ANALYSIS & ESTIMATION

- The ECI rules mandate that a candidate can't spend more than ₹95 lakh on a Parliamentary seat and ₹40 lakh on an Assembly seat.
- As per CMS, The actual spending in the 2019 polls, an average of ₹100 crore was spent in each Lok Sabha constituency, which translated into spending of ₹700 per vote. "This time, it'll double to ₹200 crore for each seat and ₹1,400 per vote.

The **EC's budget**, according to government data, has increased from Rs 236.6 crore in 2018-2019 to Rs 340 crore in 2023-2024. This rise corresponds with the increase in EC staff — from 591 personnel in 2022 to 855 in 2024.

### Number of Candidates-

As per Association for Democratic Reforms' (ADR), the first general election featured 1,874 candidates from 53 parties contesting in 401 constituencies (including dual member seats), requiring 196,000 polling booths.

In 2019, these figures surged — with 8,054 candidates from 673 parties contesting in 543 constituencies, necessitating 1.037 million polling booths.

An analysis by ADR on the Lok Sabha Elections 2019 shows the parties spent the highest amount on publicity, 49.94% of the overall

Key Stats	2019 Polls	2024 Polls
Candidates	8,054	5,903 (till phase 4)
Expense	₹60,000 cr	₹1.35 lakh cr
Eligible Voters	89.6 cr	96.88 cr
Parties	673	2,500 (total)
Male Voters	46.5 cr	49.7 cr
Female Voters	43.1 cr	47.1 cr

expenditure. Data released by Google shows a spike in digital ad spending since March 1 this year, with parties infusing ₹52 crore between March 1, 2024, and April 9, 2024. The ad spending in the same period during the 2019 polls was ₹8.8 crore.

### Political funding-

- Political parties received Rs 7,726 crore in non-electoral bond donations between 2013-2023 according to Election Commission of India (ECI) data.
- Electoral bonds were also a major source of funding for parties. Political parties redeemed electoral bonds worth ₹12,769.40 crore in five years from April 1, 2019-February 15, 2024, with the ruling BJP collecting a 48% share. Trinamool Congress and Indian National Congress' collections were distant second and third at 12.6% and 11%, respectively.

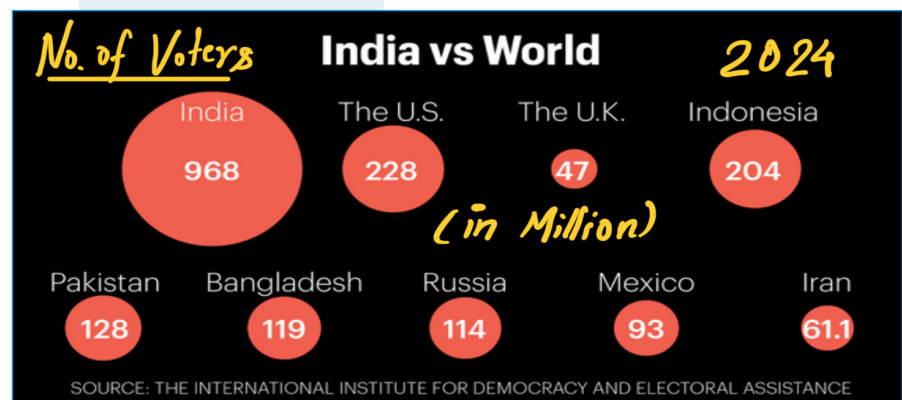
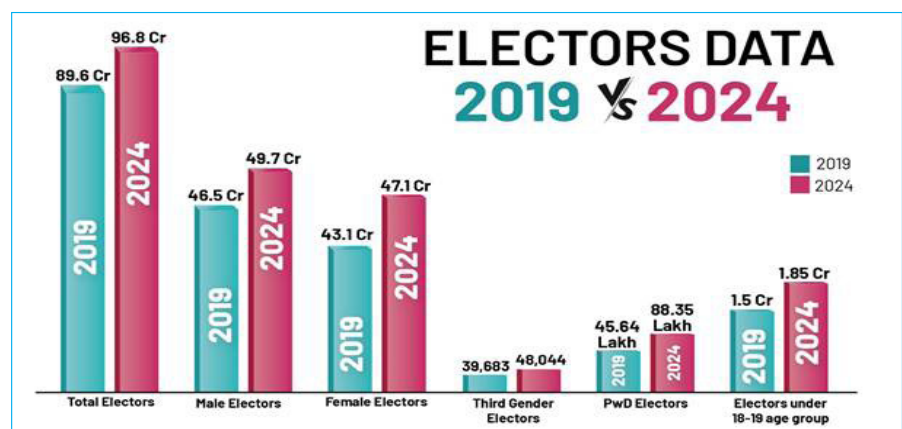
### Voter's statistics-

As per Election Commission of India,

- a total of over 96.88 crore voters are registered across the country in 2024.
- Gender Ratio increases from 940 in 2023 to 948 in 2024.

### Voter Turnout-

- India has made history with a remarkable turnout of 64.2 crore voters (about 66%) in the 2024 Lok Sabha elections.
- The Chief Election Commissioner highlighted that this figure surpasses the combined total voters of the G7 nations by 1.5 times, with an impressive 31.2 crore women participating.



### PESA Act-

- Presently 8 states have notified PESA ACT. However, 10 states have Fifth Schedule Areas in their respective States.
- 40% of the states under its purview have not been able to frame their rules for its implementation even after 25 years of its existence.
- A study conducted by the Indian Institute of Public Administration in six districts of three states – Jharkhand, Chhattisgarh and Odisha, highlights the poor implementation of the Act. In the Khunti district, 65% of people whose land was acquired said they were not even asked about it.

### Local Self Governance

#### Urban Local Bodies (ULBs)

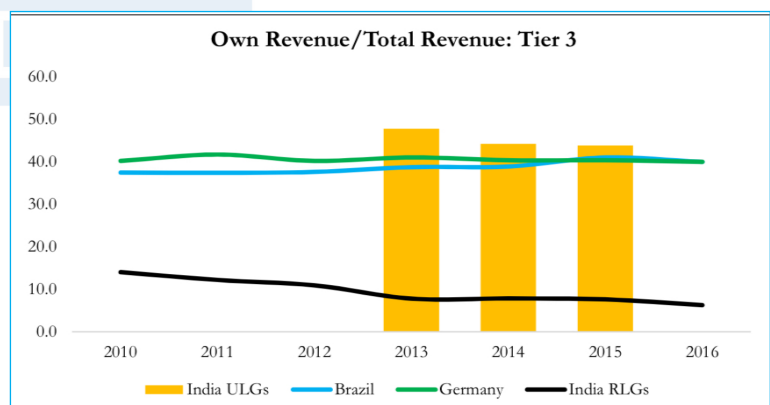
- Swachh Survekshan Awards 2023-According to the data, 4,447 urban local bodies participated in the Swachh Survekshan 2023 and 12 core citizen responses were received.

- In 2014, there was only 15-16% scientific processing of waste, while in 2023 the number is almost 76%, in next 2 to 3 years, 100% will be achieved.
- SCM- As on 27 November 2023, work orders have been issued in 7,959 projects worth around ₹ 1,71,224 crore; of which 6,271 projects worth ₹ 1,16,269 crore have been completed. ₹ 78,749.88 crore has been released; of which ₹ 71,135.70 crore (90%) has been utilized.
- The Ease of Living Index (EoLI) is an assessment tool that evaluates the quality of life and the impact of various initiatives for urban development.
- In Ease of Living Index 2020, Bengaluru emerged as the top performer in the Million+ . In the Less than Million category, Shimla was ranked the highest in ease of living.
- The 'City Finance Rankings 2022' have been launched with the objective of evaluating, recognizing and rewarding municipal bodies.

**Finance-**

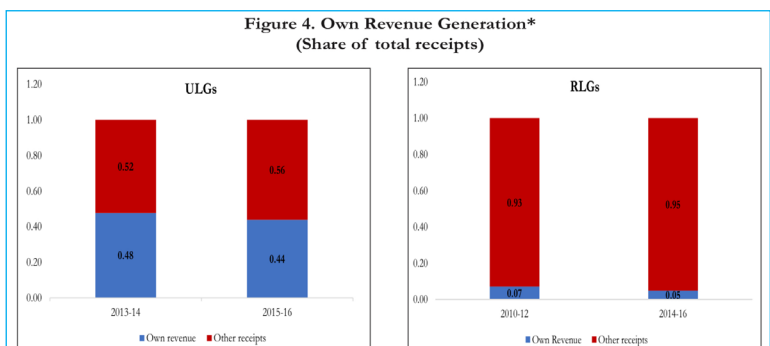
As per Economic Survey 2017-18,

- Rural local governments, in India, raise 6% of their total revenue from direct taxes as compared to 40% in Brazil.
- Urban local governments raise 44% of their revenue from their own sources.
- Several states have not devolved enough taxation powers to local bodies.
- Panchayats received 95 per cent of their revenues from the devolved funds from the Centre/State while generating only 5 per cent from their own resources.



- Eventhoughtherurallocalgovernments have been given powers to tax, land revenue collection remained low between 7 to 19 per cent due to low base values applied to properties and low rates of taxes levied.
- Panchayats received 95 per cent of their revenues from the devolved funds from the Centre/State while generating only 5 per cent from their own resources.

- In the third tier, rural local governments in India generate only 6 percent of revenues from their own resources compared to 40 percent in Brazil and Germany.
- Urban local governments in India are much closer to International norms collecting 18 percent of total revenues from direct taxes compared to 19 per cent in Brazil and 26 per cent in Germany.
- Urban local government spending in India generate 44 per cent of their total revenue from their own sources.



Source: For RLGs, Survey calculations based on data from Andhra Pradesh, Karnataka, Kerala and Uttar Pradesh. ULG information has been sourced from the "Annual Survey of Indian City-Systems, Janaagraha", based on 19 (17 in 2013-14) major cities of India.

By successive Finance Commissions, more funds have been provided to the States for distribution among Panchayati Raj Institutions (PRIs) as under:- As per Ministry of Panchayati Raj,

Commissions	Amount
1.Tenth Finance Commission (1995-2000)	Rs. 4380.93 crores
2.Eleventh Finance Commission(2000-2005)	Rs. 8000.00 crores
3.Twelfth Finance Commission (2005-2010)	Rs. 20,000.00 crores
4.Thirteenth Finance Commission (2010-15)	Rs. 63,050.00 crores
5.Fourteenth Finance Commission(2015-2020)	Rs. 2,00,292.20 crores
6.Fifteenth Finance Commission(2020-2026)	Rs. 2,97,555.00 crores

### Panchayati Raj Institutions-

#### Women-

- In the 32 States and Union Territories (UTs), out of 3,187,320 PRI representatives, 14,53,973 were women, per the Report on Finances of Panchayati Raj Institutions.
- As of September 2021, 22 States and UTs have enacted provisions entailing a 50 per cent reservation for women in their respective State Panchayati Raj Acts.

## GOVERNANCE

### 1. GOVERNMENT POLICIES

#### Centrally Sponsored Schemes (CSS)

- The Department of Expenditure, Ministry of Finance, has in 2018 drawn up a list of 131 CSSs.
- The Union Budget 2020-21 shows that 15 of the 30 umbrella CSS account for about 90% of the total allocation under CSS.
- In 2011, the B.K. Chaturvedi Committee, set up to recommend rationalisation of CSS-s, suggested an annual expenditure threshold of Rs 100 crore. But the Chaturvedi Committee also made references to an earlier Planning Commission Committee, the Arvind Varma Committee. That had recommended an annual threshold of Rs 300 crores. With inflation, that threshold should be higher now, perhaps Rs 500 crore.

### 2. DEVELOPMENT PROCESSES & THE DEVELOPMENT INDUSTRY

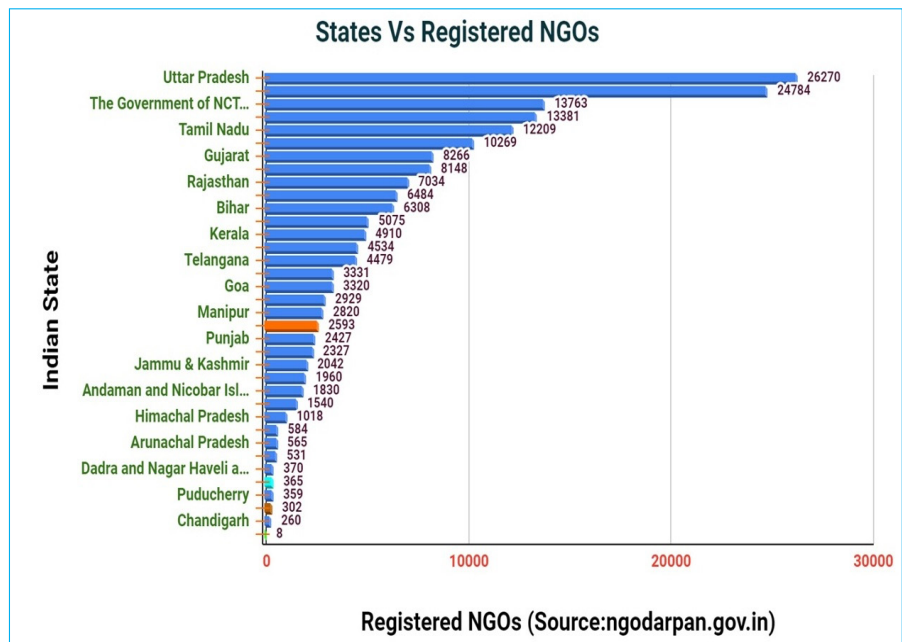
#### Non Governmental Organizations (NGOs)

- The Central Statistical Institute of India announced in 2009 that there were 3.3 million NGOs registered in India, or one NGO for every 400 Indian citizens. In 2020, GuideStar India (GSI) had more than 10,000 verified NGOs and more than 1,600 certified NGOs on its portal.
- As per the NGO DARPAN, an initiative of NITI Aayog, India is home to approximately 1.87 lakh non-governmental organizations (NGOs).
- Uttar Pradesh has the highest number of registered NGOs, totaling 27,270, followed closely by Maharashtra with 24,784 NGOs. Similarly, the Government of NCT of Delhi and West Bengal have 13,763 and 13,381 registered NGOs, respectively. These four states collectively host the highest number of registered NGOs in India, accounting for 43.7% of the total.



As per the International Business Standards Organization, the world has 1 crore NGOs. Thus the 1/7th population of the world is serviced by 1/3rd of the world’s NGOs.

- As per Akshaya Patra Foundation, the involvement of private entities in the implementation of PM POSHAN (Mid-Day Meal Scheme) has resulted in over 118 million (11.8 crore) children are covered under PM POSHAN .
- As per NITI Aayog, Empowered Group 6 during COVID-19 has mobilised over 92,000 NGOs/CSO in identifying hotspots and deputing volunteers; delivering essential services to the vulnerable.



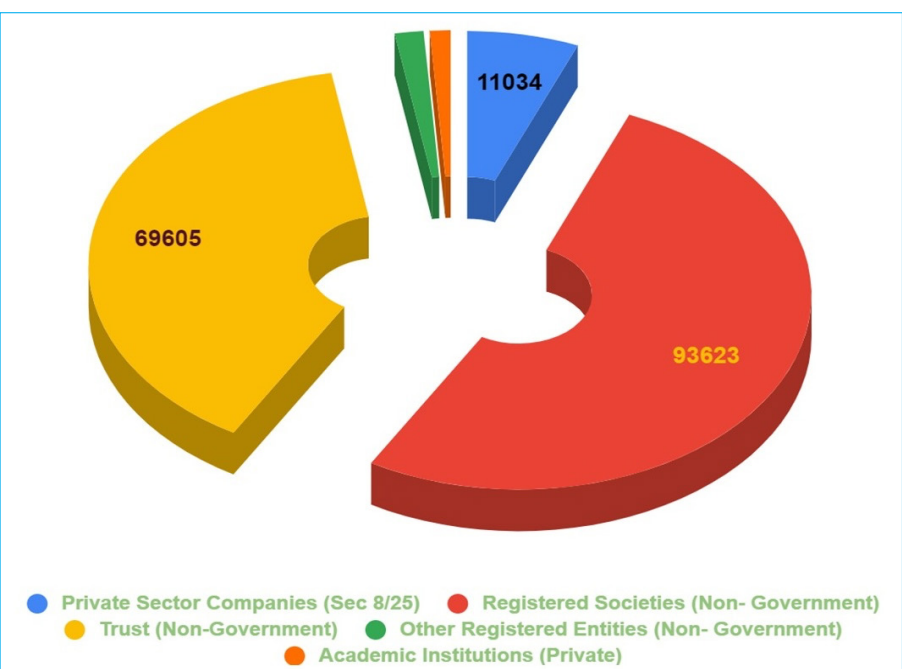
- In 2014, an Intelligence Bureau (IB) report had said that several foreign-funded NGOs are “negatively impacting economic development”. The negative impact on GDP growth was estimated to be around 2-3% annually.
- According to the home ministry’s dashboard, as on July 3, 2023, at least 20,693 NGOs have their licenses canceled, while 16,257 NGOs are active.
- As per Ministry of Home Affairs, Approximately 29700 Non Governmental Organisations (NGOs) are registered under the Foreign Contributions (Regulation) Act, 2010.

**Registration of NGOs**

During COVID-19, as per NITI Aayog- Industry Associations- CII, FICCI, NASSCOM role towards mobilizing relief interventions in coordination with the local administration at the state and local levels.

**1) CII-**

- 50 lakh persons in 28 have been benefited by CII’s response initiatives.
- 47 lakh hygiene materials including 13 lakh masks, 7.5 lakh gloves, 20,880 PPEs and 26.8 lakh



sanitizers/ soaps have been distributed among the vulnerable population, policemen and medical workers.

- 11.75 lakh cooked meals, and 12.5 lakh ration kits and 1,650 MT of food grains have been provided to the needy.

#### II) FICCI:

- Over 3.23 crores cooked meals and 1,50,000 kilos of dry ration have been served.
- INR 3009.56 crores have been spent on COVID 19 related activities such as distribution of masks, cooked meals, dry ration, PPE, sanitisers, medical equipment and supplies, and medical facilities.
- INR 5123.5 crores have been contributed to PM Cares Fund.
- Water ATM facility has been set up for 7 lakh people.

#### III). NASSCOM:

- Cooked meal for 15 lakh people, dry ration and sanitation kits to over 5 lakh families, 2.4 lakh masks and gloves, 3.5 lakh soaps and sanitizers, and 2,50,000 PPE kits have been distributed.
- Online continuous learning facilities have been sponsored for more than 10,000 children.

#### Self Help Groups (SHGs)-

As per Economic Survey 2022-2023,

- India boasts of some 12 million SHGs, of which 88 per cent are all-women-member ones. These groups usually consist of 20-25 members, mostly residents of villages.
- The number of SHGs credit linked has grown at a CAGR of 10.8 percent during the last ten years (FY13 to FY22),
- Credit disbursement per SHG has grown at a CAGR of 5.7 per cent during the same period.
- SHGs' bank repayment is more than 96 per cent, underscoring their credit discipline and reliability,
- The SHG-BLP covers 14.2 crore families through 119 lakh SHGs with savings deposits of Rs. 47,240.5 crore and 67 lakh groups with collateral-free loans outstanding of Rs. 1,51,051.3 crore, as on 31 March 2022.

#### Cooperatives-

As per Ministry of Cooperation

- There are around 8,02,639 Cooperative Societies in 29 different sectors in the Country out of which numbers of cooperative societies in the States of Gujarat, Andhra Pradesh and Jharkhand are 81307, 17659, and 11448, respectively.
- In order to strengthen PACS, project for Computerization of 63,000 functional PACS with a total financial outlay of ₹2,516 Crore has been approved by the Government of India,

The details of incentives provided to states to strengthen Co-operative sector in the States are:

- (i) NCDC has disbursed a loan of Rs. 1,62,868.77 Crores since 2019-20 till 30.11.2023 to the States/ UTs, out of which Rs.41031.4 Crores was disbursed in last Financial Year i.e. 2022-23.

(ii) In order to strengthen PACS, a Centrally Sponsored Scheme for Computerization of 63,000 functional PACS with a total financial outlay of ₹2,516 Crore is under implementation.

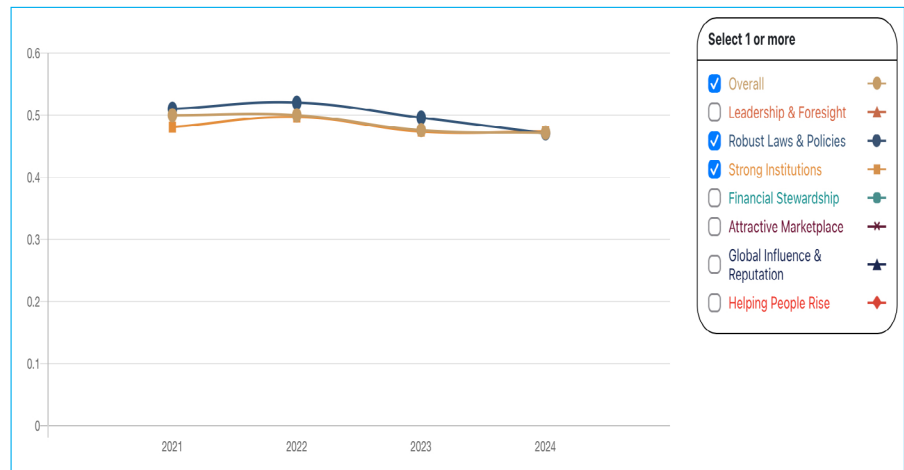
**3. INDEXES**

**THE CHANDLER GOOD GOVERNMENT INDEX-**

- India 69th rank in 2024 out of 113 countries.
- Finland topped the ranking following Switzerland, Singapore, Netherlands, Denmark and Norway.

India's performance on various parameters-

**Good Governance Index (GGI)** by Department of Administration Reforms and Public Grievances (DARPG)



- Gujarat, Maharashtra and Goa top the composite rank score covering 10 sectors. GGI 2021 says that Gujarat registered 12.3 percent increase and Goa registered 24.7 percent increase over GGI 2019 indicators.
- Gujarat has performed strongly in 5 of the 10 sectors including economic governance, human resource development, public infrastructure and utilities, social welfare and development, judiciary and public safety.
- In the North-East and Hill States category, Mizoram and Jammu and Kashmir have registered an overall increase of 10.4% and 3.7% respectively over GGI 2019.
- The GGI 2021 says that 20 States have improved their composite GGI scores over the GGI 2019 index scores.

**Human Development Index (HDI) 2023-24 by UNDP**

- India's ranking
  - India ranked 135 in 2021. It had moved up to **134** in 2022.
- India in the medium human development category
  - Between 1990 and 2022, the country saw its HDI value increase by 48.4 percent, from 0.434 in 1990 to **0.644 in 2022**.
- India's performance on various indicators
  - **India's life expectancy** at birth has slightly **improved from 67.2 years in 2021 to 67.7 years in 2022**.
  - There is an **overall increase (5.88%)** in expected years of schooling (**EYS**) **from 11.9 years to 12.6 years, leading to an improvement of 18 places**.
  - Gross National Income (GNI) per capita also improved from \$6,542 to \$6,951.

- Performance of India's neighbourhood
  - Sri Lanka has been ranked much ahead at 78, while China is ranked 75, both categorised under the High Human Development category.
  - Bhutan stands at 125 and Bangladesh at 129th position.
  - Nepal (146) and Pakistan (164) have been ranked lower than India.

### **Corruption Perception Index 2023 by Transparency International**

- CPI-2023 results show that most countries have made little to no progress in tackling public sector corruption.
- CPI global average score remains unchanged at 43 for the twelfth year in a row.
- Denmark topped the index for the sixth consecutive year.
- Somalia was ranked last, other countries occupying the bottom spots included: Venezuela, Syria, South Sudan and Yemen.
- India has tied with Maldives, Kazakhstan, and Lesotho to rank at 93 out of 180 countries. In 2022, India was ranked at 85.
- Pakistan scored 29 with a rank of 133 and China, scored 42 occupying rank 76

### **World Press Freedom Index by Reporters Without Borders (RSF)**

- It evaluates the environment for journalism in 180 countries and territories and Norway is ranked first for the seventh year running.
- The last three places are occupied by: Vietnam, China, and North Korea (180th).
- This Index spotlights the rapid effects that the digital ecosystem's fake content industry has had on press freedom.
- India slipped 11 places to 161st rank in the World Press Freedom Index 2023.

### **Rule of Law Index 2023 by World Justice Project**

- 2023 edition shows that over 6 billion people now live in countries where the rule of law is declining.
- In 2023, India's ranking in the Rule of Law index stood at 79 out of 140 countries, with a score of 0.49. This was a significant increase in India's ranking since 2015.
- The top-ranked country in the 2023 WJP Rule of Law Index is Denmark, followed by Norway (2), Finland (3), Sweden (4), and Germany (5).
- The bottom ranked countries are Venezuela (142), Cambodia (141), Afghanistan (140), Haiti (139), and the Democratic Republic of the Congo (138).

### **V-Dem Liberal Democracy Index (LDI)-**

- India to be in the bottom 40-50% of the 179 countries reviewed, and now situated between Niger (better) and Ivory Coast (worse)
- India is at rank 104, with a score of 0.28 on this count and this has worsened over last time. Pakistan for context is at 119th rank and a score at 0.21.
- A wave of autocratisation is observable globally. Autocratisation is ongoing in "42 countries, home to 2.8 billion people, or 35% of the world's population.

### Democracy Index by Economist Intelligence Unit's (EIU)

- India's ranking had fallen sharply between 2016 and 2020, though it has improved marginally since then: up to 41 (tied with Poland) in 2023, from 46 in 2022.
- However, it remains classified as a "flawed democracy".
- EIU's index is based on 60 indicators grouped in five different categories measuring pluralism, civil liberties and political culture.

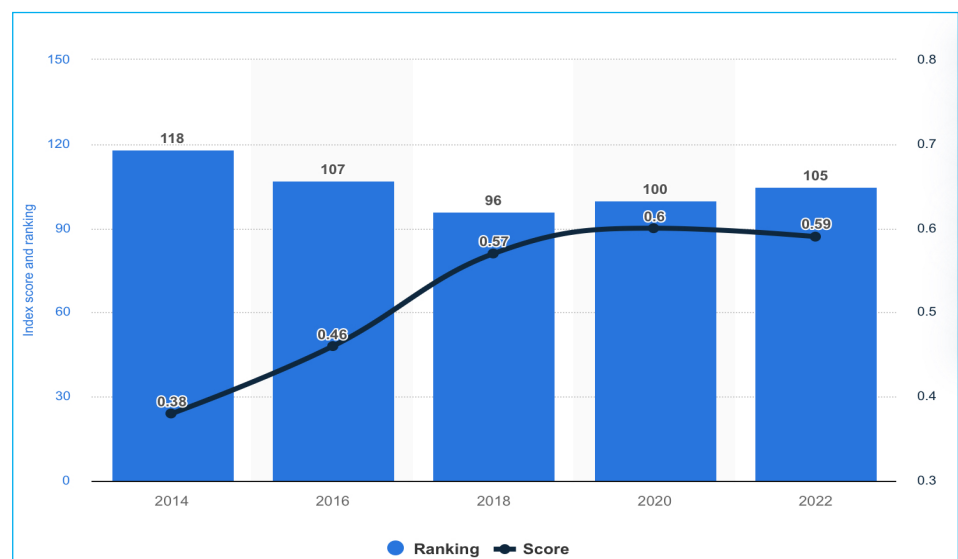
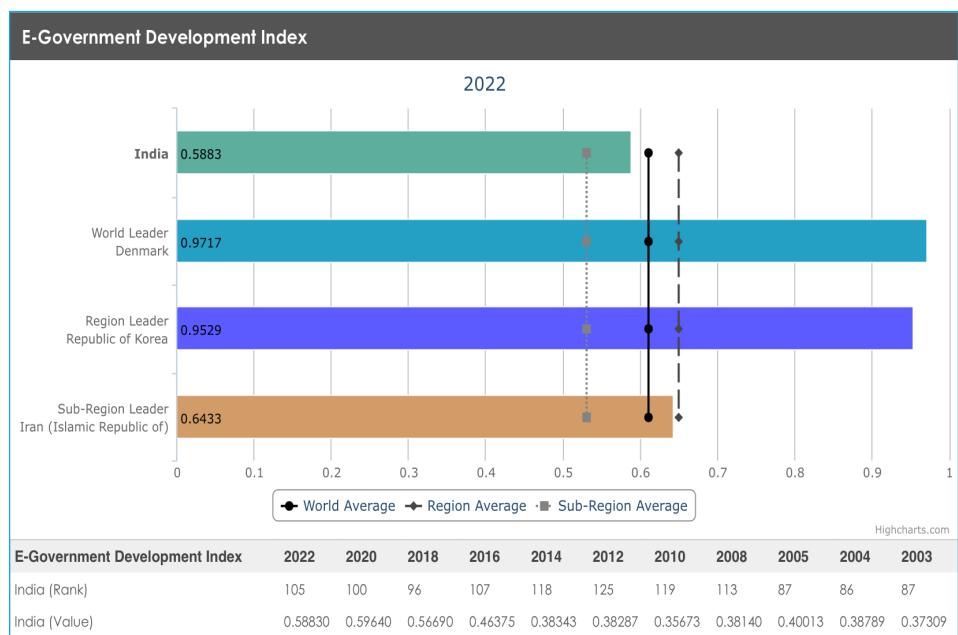
## 4. E-GOVERNANCE

As per, The United Nations Department of Economic and Social Affairs (UNDESA)- In 2022, the **E-Government Development Index (EGDI)** composite score of India was 0.59. In the same year, India ranked **105** out of 193 countries.

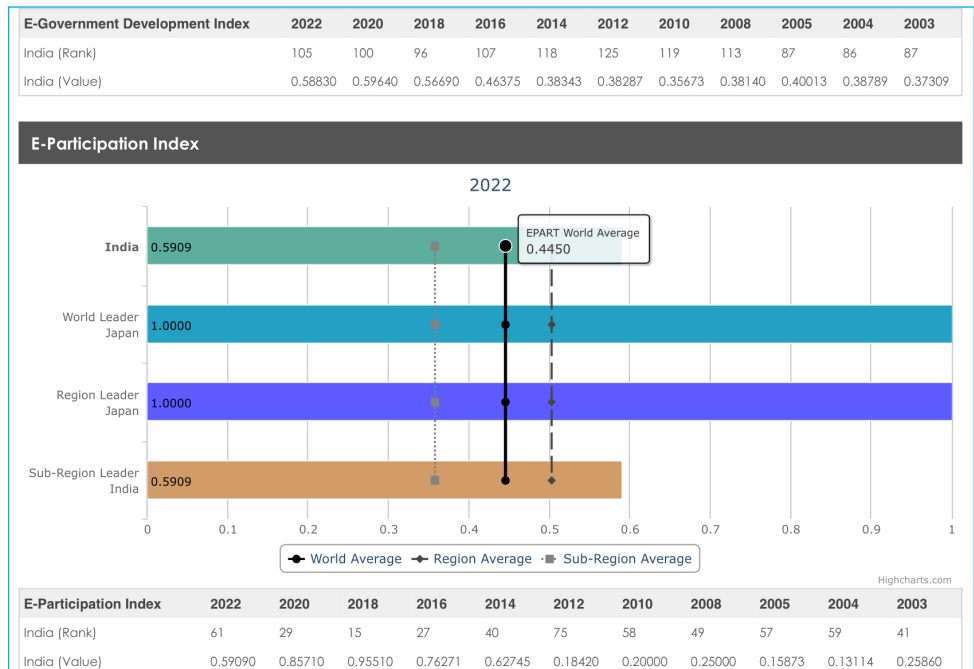
### Major initiatives related to public service delivery

As per Ministry of Electronics & IT,

- Common Services Centres – Over 400 digital services are being offered by these CSCs. Till 2022, 5.31 Lakh CSCs are functional (including urban & rural areas) across the country, out of which, 4.20 Lakh CSCs are functional at Gram Panchayat level.
- Unified Mobile Application for New-age Governance (UMANG) –More than 1,570 government services and over 22,000 bill payment services are made available at UMANG.
- e-District Mission Mode Project (MMP): Till 2022-4,671 e-services have been launched in 709 districts across India.
- DigiLocker: Digital Locker has more than 11.7 crore users and more than 532 crore documents are made available through DigiLocker from 2,167 issuer organisations.



- Unified Payment Interface (UPI) is integrated with 330 banks and facilitated over 586 crore monthly transactions worth over Rs 10 lakh crore has been facilitated for the month of June, 2022.
- CO-WIN. More than 203 crore vaccination doses and 110 crore registrations have been facilitated by co-win.
- Direct Benefit Transfers – 315 Schemes across 53 Ministries are offering Aadhaar enabled direct benefit transfer to citizens. Till December 2022, Rs 24.3 lakh crore has been disbursed through DBT platform.
- Diksha – As on July 2022, 7,633 courses are available and more than 15 crore enrolments have been done.



For Farmers-

- National Agriculture Market (e-NAM): By 2022, than 1.73 crore farmers & 2.26 lakh traders have been registered on e-NAM platform. Also, 1000 mandis of 18 States and 3 UTs have been integrated with e-NAM platform.
- M-KISAN -In mkisan more than 5.13 crore farmers are registered for receiving crop advisories through SMS. More than 2,462 crore mobile based advisories have been sent to farmers to assist them in their farming activities.

### National e-Governance Service Delivery Assessment NeSDA- Way Forward Report 2023

- 16,517 e-services are provided across States/UTs. Tamil Nadu provides maximum e-services (1128)
- Maximum e-services (5,288) lie in the sector – Local Governance & Utility Services
- 1,528 out of 2,016 mandatory e-services (56\*36 States/UTs) are available, making saturation at 76%
- Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu and Uttarakhand have achieved 100% saturation of 56 mandatory e-services
- Tamil Nadu, Jammu and Kashmir, Kerala, Assam and Odisha provide 100% of their services through their identified Single Unified Service Delivery Portal
- Maximum e-services are provided in the sector – Local Governance & Utility Services .

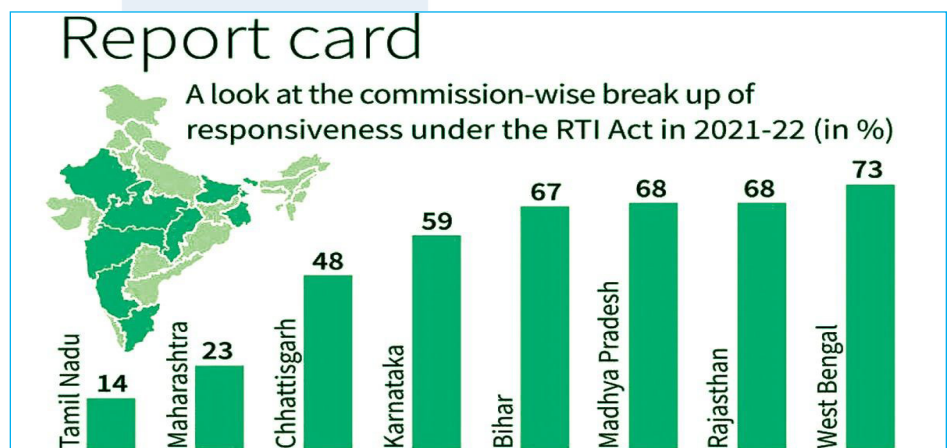
- The tourism sector has achieved the highest saturation for the provision of all mandatory e-services in 23 out of 36 States/UTs. This is followed by the Environment and Labour & Employment sector in 20 out of 36 States/UTs.

**RTI-Right to Information**

As per a report of Satark Nagrik Sangathan (SNS) Responsiveness under RTI (Right to Information) Act 2021-22 shows that-

- Tamil Nadu has been the worst performing RTI responsiveness, furnishing only 14% of the information sought.
- Only 10 ICs provided full information in response to the RTI applications filed as part of this assessment.
- Uttar Pradesh and Andhra Pradesh returned around 40% of the appeals or complaints received by them.
- Of the 18 Information Commissioners the assessment found that 11 had returned appeals or complaints without passing any orders.
- Of all the 29 ICs, only the CIC has adopted a norm regarding the number of appeals or complaints to be disposed of by each commissioner in one year.

• As of June 30, 2023, over 3.2 lakh appeals and complaints were pending in 27 ICs. The analysis also highlights that six commissions, including the Central Information Commission, are without a chief. Additionally, four commissions are defunct due to the absence of new commissioners.



- According to an estimate in 2019, between 40 and 60 lakh RTI applications are filed every year, but less than 3 per cent Indian citizens have ever filed an RTI plea.
- As per a study by the Commonwealth Human Rights Initiative, between 2012-13 and 2018-19, the total number of RTI pleas with various central government offices rose by 83 per cent — from 8.86 lakh to 16.30 lakh. But the number of CPIOs mandated to handle them increased by only about 13 per cent — from 21,204 to 24,048.

**SOCIAL ISSUES**

**1. ISSUES RELATING TO DEVELOPMENT & MANAGEMENT OF SOCIAL SECTOR/ SERVICES**

**Status-**

As per National Health Accounts Estimates for India (2019-20)-

<ul style="list-style-type: none"> <li>Out-of-Pocket Expenditure (OOPE) in Total Health Expenditure declines from 62.6% in 2014-15 to 47.1% in 2019-20</li> </ul>	<table border="1"> <thead> <tr> <th>Year</th> <th>GHE as a % of THE</th> <th>OOPE as a % of THE</th> </tr> </thead> <tbody> <tr> <td>2014-15</td> <td>29.0</td> <td>62.6</td> </tr> <tr> <td>2015-16</td> <td>30.6</td> <td>60.6</td> </tr> <tr> <td>2016-17</td> <td>32.4</td> <td>58.7</td> </tr> <tr> <td>2017-18</td> <td>40.8</td> <td>48.8</td> </tr> <tr> <td>2018-19</td> <td>40.6</td> <td>48.2</td> </tr> <tr> <td>2019-20</td> <td>41.4</td> <td>47.1</td> </tr> </tbody> </table>	Year	GHE as a % of THE	OOPE as a % of THE	2014-15	29.0	62.6	2015-16	30.6	60.6	2016-17	32.4	58.7	2017-18	40.8	48.8	2018-19	40.6	48.2	2019-20	41.4	47.1							
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NITI Aayog's Annual Health Index 2020-21

Overall Performance:

- Larger States: Among the 19 'larger states', Kerala, Tamil Nadu and Telangana have occupied first, second and third place respectively, in terms of overall performance.
- Bihar (19th), Uttar Pradesh (18th) and Madhya Pradesh (17th) are at the bottom of the list.
- Smaller States: Among the eight smaller states, Tripura has recorded the best overall performance, followed by Sikkim and Goa; Arunachal Pradesh (6th), Nagaland (7th) and Manipur (8th) are at the bottom.
- Union Territories(UT): And among the eight UTs, Lakshadweep has been ranked as the top performer in terms of overall performance, while Delhi ranked at the bottom.

**Market Statistics:**

- The Indian healthcare sector is expected to record a three-fold rise, growing at a CAGR (Compound Annual Growth Rate) of 22% between 2016–22 to reach USD **372 billion in 2022** from USD 110 billion in 2016.
- In the Economic Survey of 2022, India's public expenditure on healthcare stood at **2.1%** of GDP in 2021-22 against 1.8% in 2020-21 and 1.3% in 2019-20.
- In FY21, gross direct premium income underwritten by health insurance companies grew 13.3% YoY to Rs. 58,572.46 crore (USD 7.9 billion).
- The **Indian medical tourism market** was valued at USD 2.89 billion in 2020 and is expected to reach USD 13.42 billion by 2026.
- **Telemedicine** is also expected to reach USD 5.5 billion by 2025.
- India's public expenditure on healthcare is only 2.1% of GDP in 2021-22 while Japan, Canada and France spend about 10% of their GDP on public healthcare.
- As of 2021, the Indian healthcare sector is one of India's largest employers as it employs a total of 4.7 million people. The sector has generated 2.7 million additional jobs in India between 2017-22 -- over 500,000 new jobs per year.

Countries	Current Health Expenditure (CHE) as % of Gross Domestic Product (GDP)	Domestic General Government Health Expenditure (GGHE-D) as % of Gross Domestic Product (GDP)
China	5.32	3.00
Bhutan	3.49	2.51
Sri Lanka	2.97	1.59
Nepal	6.15	1.00
<b>India</b>	<b>3.89</b>	<b>1.00</b>
Pakistan	2.69	0.74
Bangladesh	2.64	0.39
Afghanistan	10.30	0.53

Source: Global Health Expenditure Data base (online data), World Health Organization, 2018 (<http://apps.who.int/nha/database>) accessed on 12<sup>th</sup> July, 2018.

**State of Healthcare Sector in India**

- According to the National Health Profile, India has only 0.9 beds per 1000 population and out of which only 30% are in rural areas.
- According to the Indian Journal of Public Health, India needs 20 lakh doctors by 2030. However, currently a doctor in the government hospital attends to ~11000 patients, which is more than the WHO recommendation of 1:1000.

- According to NITI Aayog India has a shortage of 6 lakh doctors, 20 lakh nurses and 2 lakh dental surgeons. Though WHO recommends 1:1000 doctor to patient ratio but in rural India it is 1:11082 and in some states like Bihar It is as low as 1:28391 and UP It is 1:19962 (NHP 2018).
- The NITI Aayog report 2021 titled 'Reimagining Healthcare in India through Blended Finance' highlighted that 50% of India's population has access to 35% of hospital beds.

As per Rural Health Statistics 2020-21,

- Health Centers –
  - As per norms, each sub center (SC) is supposed to cater to a population of 3,000-5,000, each Primary Health Centers (PHC) to a population of 20,000-30,000 and each Community Health Centers (CHC) to a population of 80,000-1,20,000.
  - The RHS estimates as of 31 March, 2022, has revealed that each SC catered to an average of 5691 people, each PHC to 36049 people and each CHC to 164027 people.
- Urban Health Statistics –
  - There is a vacancy of 18.8% of doctors, 16.8% of pharmacists, 16.8% of lab technicians and 19.1% of staff nurses at the U-PHCs.
  - The population covered by a U-PHC may vary from 50,000 to 75,000.
  - Urban Community Health Centre U-CHCs is set up as a referral facility for every 4-5 U-PHCs. The U-CHC caters to a population of 2,50,000 to 5 lakhs.
- Rise in Number of Allopathy Doctors –
  - There has been an over 50% rise in the number of allopathy doctors in primary health centers since the launch of the National Rural Health Mission in 2005.
  - The allopathic doctors at PHCs have increased from 20,308 in 2005 to 30,640 in 2022.
- Shortage of Specialist Doctors –The report points out that there is a shortfall of specialist doctors, including surgeons (83.2%), obstetricians and gynecologists (74.2%), physicians (79.1%) and pediatricians (81.6%).
- Apart from specialist doctors, there is also a shortage of female health workers and auxiliary nursing midwives, with up to 14.4% of these posts lying vacant in PHCs and SCs.

### Disease Burden in India-

According to the study report "India: Health of the Nation's States"- The India State-Level Disease Burden Initiative in 2017 by Indian Council of Medical Research (ICMR), it is estimated that the proportion of deaths due

to Non-Communicable Diseases (**NCDs**) in India have increased from 37.9% in 1990 to 61.8% in 2016.

Name of NCD	Proportion of changes in DALYs number	
	1990	2016
Cardiovascular diseases(IHD)	2.9%	6.6%
Chronic respiratory diseases (CRDs)	2.7%	4.4%
Diabetes	0.7%	2.2%
Cancer (Breast)	0.7%	0.9%

### Ayushman Bharat PM-JAY:

- By December 2023, 55 Crore individuals corresponding to 12 Crore families are covered under the scheme. Many States/UTs implementing AB PM-JAY have further expanded the beneficiary base, at their own cost.

- As of 20th December 2023, approximately 28.45 Crore Ayushman Cards have been created since the inception of the scheme, out of which, approximately 9.38 crore Ayushman Cards have been created during the current year 2023 (Jan -Dec 2023).
- A total of 6.11 crore hospital admissions amounting to Rs. 78,188 crores have been authorized under the scheme, of which 1.7 crore hospitals admissions worth over Rs. 25,000 crores have been authorized during the year 2023 (Jan-Dec 2023).
- A total of 26,901 hospitals including 11,813 private hospitals have been empanelled under AB PM-JAY to provide healthcare services to scheme beneficiaries.
- Women account for approximately 49% of the total Ayushman cards created and approximately 48% of total authorized hospital admissions.

Maternal and Child Health

### **Education-**

As per Ministry of Education data,

- In FY22, school enrolment stood at 26.5 crore children with 19.4 lakh additional children enrolled in Primary to Higher Secondary levels.
- During 2022, 6.7 crore in Upper Primary, 3.9 crore in Secondary and 2.9 crore in Higher Secondary were enrolled.
- Pupil-teacher ratio-23.0 to 19.6 at Upper Primary, 30.0 to 17.6 at Secondary, and 39.0 to 27.1 at the Higher Secondary level.
- As of 2021-22, the GER for secondary education in India is 57.6%.
- Gender Disparities: In 2018 over 20% of girls (15-16 age group) were not in school nationally, decreasing to 13.5% in 2018.
- GER in higher secondary has made significant improvement from 53.8% in 2021-21 to 57.6% in 2021-22.

### **School Infrastructure: Impact of Samagra Shiksha scheme:**

As per UDISE+

The availability of basic infrastructure facilities in schools as on 2021-22 are as follows:

- Electricity connection: 89.3%
- Drinking water: 98.2%
- Girls toilet: 97.5%
- CWSN toilet: 27%
- Hand Wash facility: 93.6%
- Playground: 77%
- Ramp with Handrail for CWSN: 49.7%
- Library/ Reading room/ Reading corner: 87.3%

## Higher Education-

As per All India Survey on Higher Education (AISHE) 2020-2021,

Student Enrollment

- The total enrollment in higher education has increased to nearly 4.14 crore in 2020-21 from 3.85 crore in 2019-20. Since 2014-15, there has been an increase of around 72 Lakh in the enrolment (21%).
- The Female enrolment has increased to 2.01 crore from 1.88 crore in 2019-20. There has been an increase of around 44 Lakh (28%) since 2014-15.
- The percentage of female enrolment to total enrolment has increased from 45% in 2014-15 to around 49% in 2020-21.
- As per 2011 population projections for 18-23 years age group, GER has increased to 27.3 from 25.6 in 2019-20.
- Female GER has overtaken Male GER since 2017-18.
- Gender Parity Index (GPI), the ratio of female GER to male GER, has increased from 1 in 2017-18 to 1.05 in 2020-21.
- The enrolment of SC students is 58.95 Lakh as compared to 56.57 Lakh in 2019-20 and 46.06 Lakh in 2014-15.
- The enrolment of ST students has increased to 24.1 Lakh in 2020-21 from 21.6 Lakh in 2019-20 and 16.41 Lakh in 2014-15.
- As per response in AISHE 2020-21, about 79.06% of the total students are enrolled in undergraduate level courses and 11.5% are enrolled in postgraduate level courses.
- Among Disciplines at undergraduate level, enrollment is highest in Arts (33.5%), followed by Science (15.5%), Commerce (13.9%) and Engineering & Technology (11.9%).
- Among streams at postgraduate level, maximum students are enrolled in Social Science (20.56%) followed by science (14.83%).
- Of the total enrolment, 55.5 Lakh students are enrolled in Science Stream, with female students (29.5 Lakh) out numbering male students (26 Lakh).

Availability of different **infrastructural facilities in HEIs** in 2020-21:

- Libraries (97%)
- Laboratories (88)
- Computer centres (91%, 86% in 2019-20)
- Skill Development Centre (61%, 58% in 2019-20)
- Connectivity to National Knowledge Network (56%, from 34% in 2019-20)

## Number of Institutions

- The total number of Universities / University like institutions registered is 1,113, Colleges 43,796 and Standalone Institutions 11,296.
- During 2020-21, the number of Universities has increased by 70, and the number of Colleges has increased by 1,453.

- Since 2014-15, there has been an increase of 353 Universities (46.4%).
- The Institutes of National Importance (INIs) have almost doubled from 75 in 2014-15 to 149 in 2020-21.

Faculty

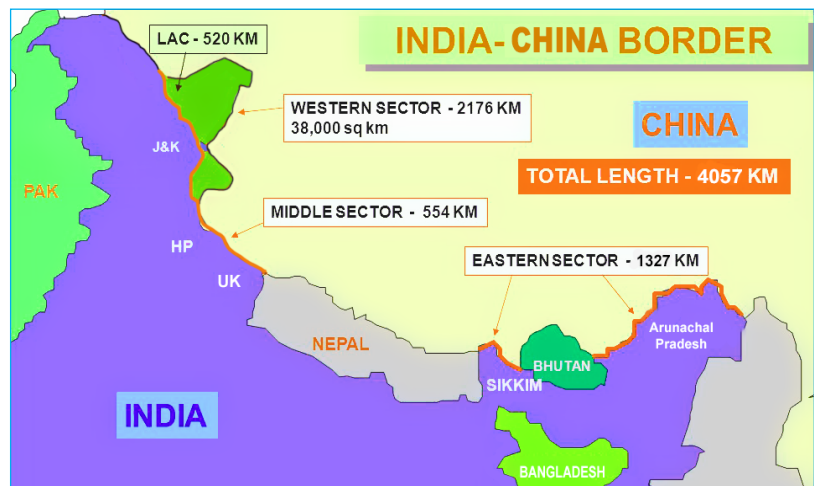
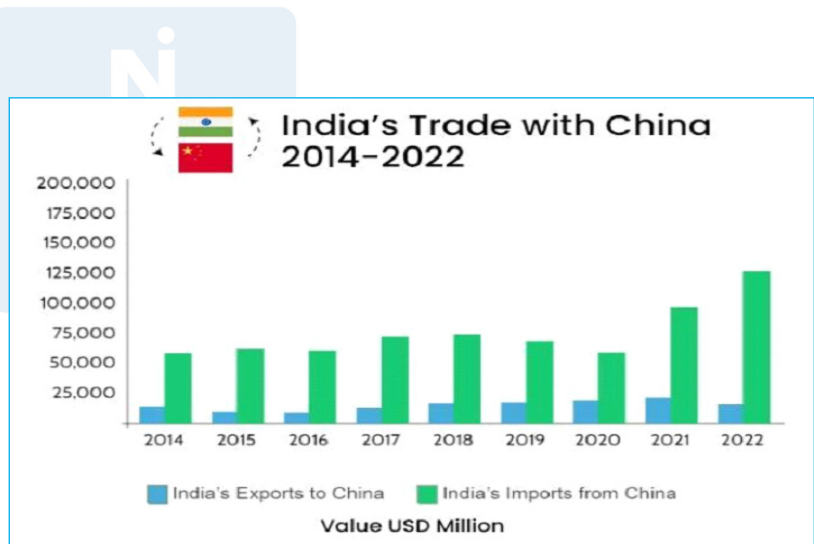
- The total number of faculty/teachers are 15,51,070 of which about 57.1% are male and 42.9% are female.
- The female per 100 male faculty has improved to 75 in 2020-21 from 74 in 2019-20 and 63 in 2014-15.

**INTERNATIONAL RELATIONS**

**INDIA AND ITS NEIGHBORHOOD**

**India- China**

- India's Import Dependency:
  - India has a **trade deficit** of USD 83.2 billion with China in 2022-23. ( Ministry of Commerce and Industry).
  - Further, India's dependency on Key Starting Materials (KSM) from China exceeds 50% for its Pharmaceutical industry.
  - From 2015 to 2022, India-China **bilateral trade** expanded by 90.14%, reflecting an average yearly growth of 12.87%.
  - Record High in 2022: In 2022, the overall trade between the two countries reached a remarkable USD **136.26** billion, surpassing the USD 100 billion mark for the second consecutive year.
- Both countries share around 3,488 km-long Line of Actual Control (LAC) that runs along the Himalayan region, much of it poorly demarcated.



### Indians in China:

- The Indian community in China is growing, estimated to be around 35,500.
- A significant portion consists of students(over 18,000) pursuing courses in Chinese universities.

Indicator	India	China
Population(2023)	1,428,627,663(142.86 Crores)	1,425,671,352(142.56 Crores)
Area(sq km)	Approximately 3.29 million sq km	Approximately 9.6 million sq km
GDP(nominal) -IMF	\$3.94 trillion (April 2024)	\$18.53 trillion (April 2024)
GDP per Capita (US\$, WB data, 2022)	2388.6	12,720.2
Urban population as % of total population (World Bank data,2022)	36%	64%

- As per some estimates, Laos owes 49 per cent to China alone.
- As per Center of Political and Foreign Affairs, Total debt to China stands at \$8 billion, one-sixth of Sri Lanka's external debt. As for Pakistan, the China Pakistan Economic Corridor played a significant role. Its BRI aid also stands at \$27.3 billion.

### India- Pakistan

**Trade-** As per Ministry of Commerce and Industry,

India's exports to Pakistan

- In 2021, India exported goods worth \$535 million to Pakistan.
- Major exports included vaccines, blood, raw sugar, and nitrogen heterocyclic compounds.
- Over the last 26 years, India's exports to Pakistan grew at an annualized rate of 7.76%.
- Exports increased from \$76.5 million in 1995 to \$535 million in 2021.

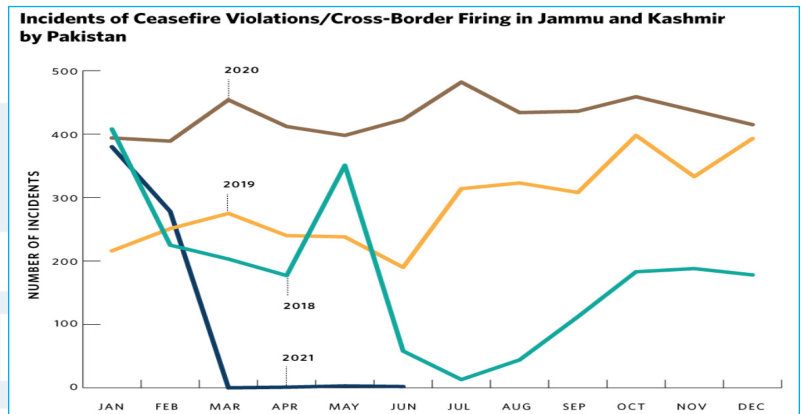
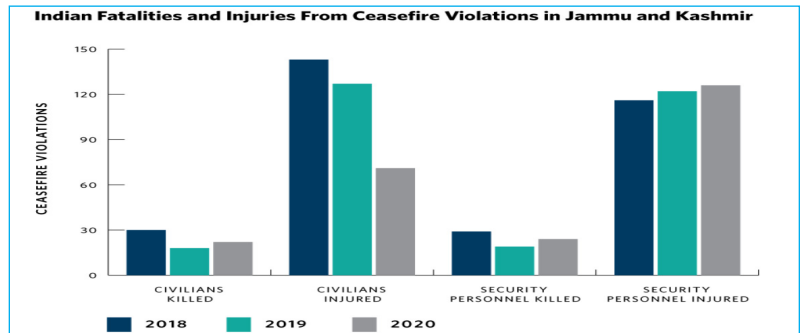


Pakistan's exports to India

- In 2021, Pakistan exported goods worth \$2.08 million to India.
- Major exports included tropical fruits, perfume plants, and scrap aluminum.
- Over the last 26 years, Pakistan's exports to India declined at an annualized rate of 10.9%.
- Exports decreased from \$42.5 million in 1995 to \$2.08 million in 2021.
- Stalled regional integration: Intra-regional trade- accounts for a little more than 5 percent of South Asia's total trade while it accounts for 50 percent of total trade in East Asia and the Pacific and 22 percent in Sub-Saharan Africa.
- SAARC and SAFTA are also ineffective due to the conflictual relations between two.

**India-Pakistan Security Concerns-**

- India and Pakistan share a 3,323 km border running through four Indian states and three Pakistani provinces.
- Costly arms race: In 2018, India allocated \$57.9 billion, or 2.1 percent of its gross domestic product (GDP), to support its troops, according to reports from the Stockholm International Peace Research Institute (SIPRI). Pakistan spent \$11.2 billion, about 3.6 percent of its GDP, on its 653,800 troops.
- According to reports, India’s Border Security Force (BSF) seized or shot down 119 drones in 2023 along the western sectors, with another 400-500 sightings reported.
- There were close to 5,133 incidents of Ceasefire Violations (CFVs) in 2020, the highest since 2003. However, the numbers declined to roughly 670 in 2021.



**Economic Crisis in Pakistan-**

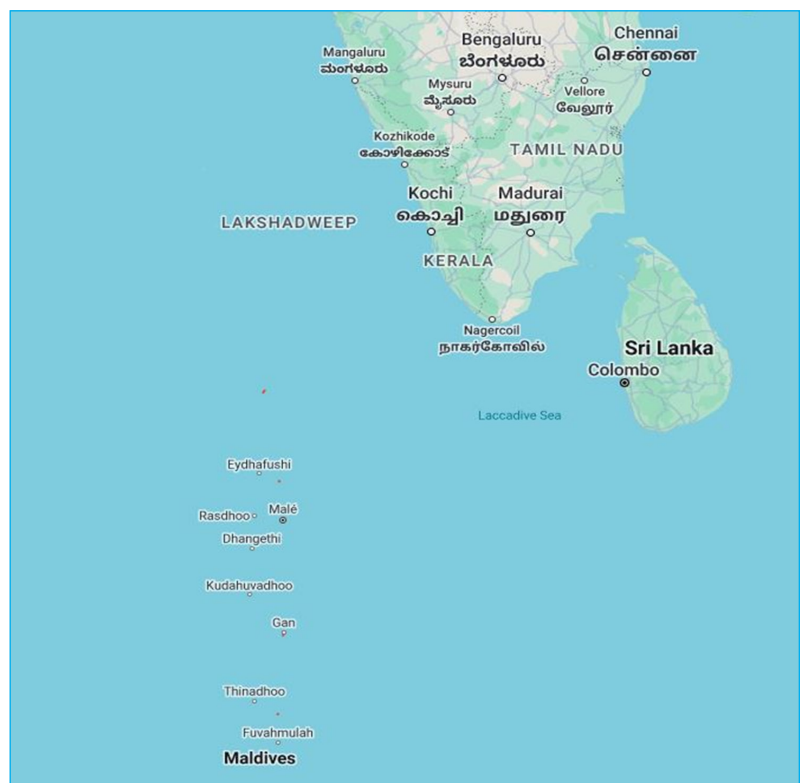
- According to the World Bank, Pakistan’s total external debt stocks increased to \$130.433 billion by end-2021 from \$115.695 by end-2020.
- Out of Pakistan’s \$27 billion in bilateral debt, around \$23 billion is made up of Chinese loans.

**India- Maldives**

- Location: Maldives’ proximity to the west coast of India (barely 70 nautical miles from Minicoy and 300 nautical miles from India’s West coast).

**Tourism Sector-**

India’s Dominance in Maldives Tourism: In 2023, they accounted for a significant 11.2% of total tourist arrivals, amounting to 18.42 lakh visitors.



### Economic Relations -

- China-Maldives trade, with bilateral trade in 2022 totaling USD 451.29 million.
- India emerged as Maldives' 2nd largest trade partner in 2022. The bilateral trade had crossed the USD 300 million mark for the first time in 2021.
- In the healthcare sector, India has provided Rs 52 crore for the development of Indira Gandhi Memorial Hospital besides helping set up a state-of-art cancer facility that will connect over 150 health centres on various islands.
- Educational Programmes:
  - In education, India helped set up an institute of technical education in 1996. India has also started a programme to provide training to Maldivian teachers and youth and for vocational training in a USD 5.3 million project.

#### INDIANS TRAVELLING TO THE MALDIVES

	Tourist	Share*
2023	2,06,026	11.18%
2022	2,41,382	14.41%
2021	2,91,787	22.07%
2020	62,960	11.33%
2019	1,66,030	9.75%
2018	90,474	6.10%

### Line of Credit-

- An extension of the US\$ 800-million credit line offered in 2019.
- In 2022, \$100 million was extended as LoC.
- India budgeted an allocation of ₹400 crore of grants to the island nation in the ongoing fiscal year. This is around 1.5 percent of Maldives' budget for FY24.

### Diaspora-

- The Indian expatriate community in the Maldives has an approximate strength of 27,000. The majority of the expatriate teachers in Maldives are Indian nationals.

### Defense-

- India provides the largest number of training opportunities for the Maldivian National Defence Force (MNDF), meeting around 70% of their defense training requirements.
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### India- Bangladesh

India and Bangladesh share 4096.7 km of border; the longest land boundary that India shares with any of its neighbors.

### Economic Cooperation:

- Bangladesh has emerged as India's largest trade partner in South Asia, with bilateral trade reaching USD 18 billion in 2021-2022 from USD 10.8 billion in 2020-21, though there was a dip in 2022-23 due to the Covid-19 pandemic and the Russia-Ukraine War.
- India is Bangladesh's largest export destination in Asia, with approx USD 2 billion of Bangladeshi exports to India in FY 2022-23.
- Since 2010, India has extended Lines of Credit to Bangladesh worth over USD 7 billion.

### Energy:

- In the energy sector, Bangladesh imports nearly 2,000 megawatts (MW) of electricity from India.



India has been training 1800 Bangladesh Civil Service officials since 2019 at National Centre for Good Governance (NCGG), Mussoorie.

### India- Nepal

- Nepal shares a border of over 1850 km with five Indian states –Sikkim, West Bengal, Bihar, Uttar Pradesh and Uttarakhand.
- The India-Nepal Treaty of Peace and Friendship of 1950 forms the bedrock of the special relations that exist between India and Nepal.

Bilateral Trade- \$ 11 billion( 2023)

- India largest trade partner and source of FDI.
- India's Export to Nepal- grown over 8 times between 2010-20.
- India accounts for about two-third of Nepal's merchandise trade and about one-third of trade in services.
- Nepal-China trade in the first half of this Fiscal Year 2023-24, Nepal has imported goods worth Rs 147.39 billion, whereas exports to China stand at a dismal Rs 1.60 billion; a huge imbalance. Nepal's export to China is only 1.08% of its imports from China.

### Power Export Agreement:

- India and Nepal signed a bilateral agreement for the export of 10,000 MW of power in the next 10 years.
- India exported about 2200 MUs of electricity to Nepal in 2021.
- Cross-Border Transmission Lines Inauguration: 3 cross-border transmission lines were jointly inaugurated including the 132 kV Raxaul-Parwanipur, 132 kV Kushaha-Kataiya, and New Nautanwa-Mainahiya lines.
- Arun-3 Hydro Electric Project: In 2019, the cabinet also approved ₹1236 crore investments for Arun-3 hydro project.
- Pancheshwar Multipurpose Project, an important arm of the Mahakali Treaty Signed between Nepal and India in 1996, and the West Seti Hydropower Project, a reservoir-type project with a projected capacity of 1,200 megawatts.
- Double Circuit Transmission Line: Another project includes a 90 km long 132 kV double circuit transmission line connecting Tila (Solukhumbu) to Mirchaiya (Siraha) close to the Indian border.

### Cross-border Rail Link:

- The operationalisation of the 35 kilometer cross-border rail link from Jayanagar (Bihar) to Kurtha (Nepal) will be further extended to Bijalpura and Bardibas.
- About 32,000 Gorkha soldiers from Nepal are serving in the Indian Army.

### Disaster Management

- When a devastating earthquake struck Nepal in 2015, India provided swift assistance by sending rescue teams, relief materials and medical support.
- The total relief assistance from India exceeded \$67 million.
- India also announced a post-earthquake reconstruction package of \$1 billion.

## India- Sri Lanka

- In 2020, India was Sri Lanka's 2nd largest trading partner, with the bilateral merchandise trade amounting to about USD \$ 3.6 billion.
- During SriLankan economic crises, India provided Sri Lanka with economic and humanitarian assistance of over US\$4.5 billion (S\$6 billion) and supported Sri Lanka's debt restructuring efforts.

## Development cooperation

- Sri Lanka is a major recipient of development assistance from the Government of India. India's overall commitment stands close to US\$ **3 billion**, out of which around US\$ 560 million are purely in grants.
- **Indian Housing Project**, commitment to build 50,000 houses for the war affected as well as the estate workers in the plantation areas. In 2017, India signed an agreement to commence construction of 10,000 additional houses.

## Capacity:

- India and Sri Lanka signed an agreement for the development of a **hybrid renewable energy** system at three islands of the northern Jaffna peninsula.
- The project aims to address the energy needs of the inhabitants of the three islands. It includes 530 kW of wind power, 1,700 kW of solar power, and 2,400 kWh of battery power and 2,500 kW of stand by diesel power system
- Economic Ties:
- India is Sri Lanka's **third largest export destination**, after the US and UK. More than 60% of Sri Lanka's exports enjoy the benefits of the India-Sri Lanka Free Trade Agreement. India is also a major investor in Sri Lanka.
- Foreign Direct Investment (**FDI**) from India amounted to around USD 1.7 billion over the years from 2005 to 2019.
- Tourism:
- In 2022, India was the largest source of tourists for Sri Lanka with over **100,000** tourists.
- **China-SriLanka:** China is the biggest bilateral creditor to Sri Lanka – having lent about **\$7 billion** of the country's total foreign debt of \$42 billion (as of 2022- World Bank)

## India- Bhutan:

- India and Bhutan share a 699 km long border, which has been largely peaceful.
- About 50,000 Indian citizens are working in Bhutan, mainly in the construction sector, education and technical consultants involved in infrastructure projects.

## Economic:

- India is Bhutan's largest trading partner, accounting for over 80% of Bhutan's total imports and exports.
- Since 2014, India's merchandise trade with Bhutan has almost tripled from USD 484 million in 2014-15 to USD 1422 million in 2021-22.
- In the Interim Budget 2024-25, the largest share of aid portfolio granted to Bhutan with an allocation of Rs 2,068 crore against Rs 2,400 crore in 2023-24.

**Line of Credit-**

- For Bhutan's 12th Five-Year Plan, India's contribution of Rs 4,500 crore constituted 73% of Bhutan's total external grant component

**Energy Cooperation-**

- 4 hydro-electric projects (HEPs) totalling 2136 MW are already operational in Bhutan and are supplying electricity to India.
- The 720 MW Mangdechhu was commissioned in August 2019 and handed over to Bhutan in December 2022.
- Construction of the 1020 MW Punatsangchhu-II hydropower project is ongoing.

**Regional Connectivity:**

- Cross -border rail link between Gelephu in Bhutan and Kokrajhar in Assam, spanning 58 km.
- Additionally, there is a plan to explore a second rail link of approximately 18 km between Samtse in Bhutan and Banarhat in the tea gardens area of West Bengal.

**India- Myanmar**

- India shares a long land border of over 1600 Km with Myanmar as well as a maritime boundary in the Bay of Bengal.
- Bilateral Trade: India ranks as Myanmar's fifth-largest trading partner, registering bilateral trade at USD 1.03 billion in 2021-22.
- Developmental assistance: India has extended USD 2 billion in soft loans. |
- Indian Diaspora: People of Indian Origin in Myanmar constitute about 4 % of the total population of the country.

**India- Afghanistan**

- Humanitarian Assistance:
  - India has been providing humanitarian aid to Afghanistan, including 40,000 metric tonnes of wheat, 60 tonnes of medicines, 5,00,000 Covid vaccines, winter clothing, and 28 tonnes of disaster relief.
  - India has also granted **scholarships** to 2,260 Afghan students, including 300 girls, over the past two years.
- Economic Relations:
  - India has undertaken more than 400 key **infrastructure projects** in all 34 Afghan provinces and has signed strategic agreements to enhance trade and bilateral relations.
  - From 2002 to 2021, India spent USD 4 billion in **development assistance** in Afghanistan, building high-visibility projects such as highways, hospitals, the parliament building, rural schools, and electricity transmission lines.
  - India has committed over 3 billion US\$ for development efforts in Afghanistan since 2000.
  - **Development aid:** The Centre in its budget for 2023-24, has set aside Rs 200 crore as assistance.

- Defence cooperation: India delivered three Russia-made Mi-25 attack helicopters to Afghanistan in 2015 and 2016.
- People to People ties: As of 2023, there were around 14,000 Afghan students studying in India with scholarship support from different institutions like the Indian Council for Cultural Relations (ICCR).
- Military training: Since 2011, around 700 Afghans train in India every year in institutions such as the National Defence Academy, Indian Military Academy.
- Disaster assistance and emergency relief: In 2022, India has sent 27 tonnes of emergency relief assistance for the people of Afghanistan in the aftermath of the 5.9-magnitude earthquake that killed more than 1,000 people.

#### Line of credit:

- India's pledged assistance to Afghanistan stands at 1.2 billion US dollars since 2000.
- India has offered Afghanistan a 50 million US dollars line of credit facility in 2022.

## BILATERAL, REGIONAL & GLOBAL GROUPINGS & AGREEMENTS

### Look East to Act East

- India and the ASEAN have signed 2 trade agreements in goods and services, creating one of the biggest trade areas with a market of 1.8 billion people. India-ASEAN annual trade today accounts for over \$131 billion in 2022-23.
- The Indo-Korea bilateral trade reached a record \$27.8 billion in 2022.
- South Korean FDI to India has also steadily increased in recent years, reaching US\$ 7.27 billion by the end of 2021.

### Japan-

- Japan's bilateral trade with India totalled US\$ 21.96 billion during FY23.
- Exports from Japan to India during FY23 were US\$ 16.49 billion and imports were US\$ 5.46 billion.
- Japan's exports to India were 2.65% of India's total imports and India's exports to Japan were 1.19% of India's total exports during April-November 2023.
- Japan's bilateral trade with India from April-November 2023 totalled US\$ 15.17 billion.

### India-USA

- Economic Relations:
  - The U.S. has emerged as India's biggest trading partner in 2022-23 on account of increasing economic ties between the two countries.
  - The **bilateral trade** between India and the U.S. has increased by 7.65% to USD 128.55 in 2022-23 as against USD 119.5 billion in 2021-22.
  - **Exports** to the U.S. rose by 2.81% to USD 78.31 billion in 2022-23 as against USD 76.18 billion in 2021-22, while imports grew by about 16% to USD 50.24 billion.

### Indian Diaspora & Cultural Cooperation

- The number of Indians and Indian Americans in the U.S. is estimated at around 4 million, which accounts for almost **1%** of the total U.S. population.

- U.S. universities which enroll nearly **269,000 students** from India. And that number is increasing. There was a 35 percent increase in the 2022-2023 school year. India is getting closer to replacing China as the largest international student body in U.S. universities.
- According to University Living’s Indian Student Mobility Report 2023-24, an anticipated 300,000 Indian students will embark on this journey by 2025, investing a projected USD 17.4 billion.

A report by Boston Consulting Group,

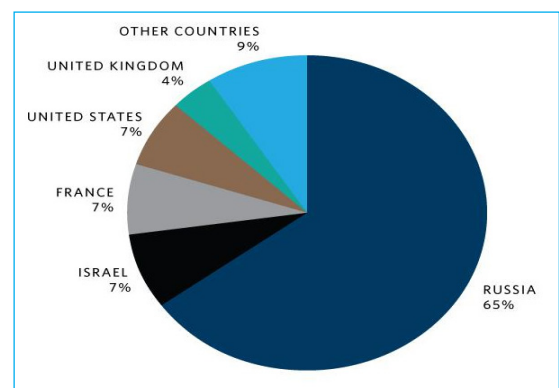
- **Indian-origin CEOs** lead 16 Fortune 500 companies, including Sundar Pichai of Google and Reshma Kewalramani of Vertex Pharmaceuticals, collectively employing 2.7 million Americans and generating nearly one trillion dollars in revenue.
- Indian-Americans account for only **1.5%** of the US population.
- Beyond big corporations, Indian-Americans also have a strong presence in the **startup ecosystem**, co-founding 72 out of 648 US unicorns, such as Cambridge Mobile Telematics and Solugen, which employ over 55,000 people and are valued at \$195 billion.
- Indian-Americans own about **60%** of all hotels in the United States, added the report.
- The financial contributions of Indian Americans are noteworthy, as the community is estimated to pay about 5-6% of all income taxes, amounting to \$250 billion to \$300 billion.
- Between 1975 and 2019, the share of patents in the US held by Indian-origin innovators increased from 2% to 10%.
- In 2023, Indian-origin **scientists** received about 11% of all National Institutes of Health grants and contributed to 13% of scientific publications.
- Indian-Americans also make up about 2.6% of all **full-time faculty** in US colleges and universities,
- Yoga, around 10% of Americans practicing it by 2023.
- In politics, Indian-Americans are increasingly visible, holding over 150 important positions in the federal administration by 2023, up from 60 in 2013.

Defence-

- In 2023, more than \$3 billion deal for India to buy 31 armed drones made by General Atomics is also being processed
- India has contracted for nearly \$20 billion worth of U.S.- origin defense articles since 2008, according to the US Defense Department.

Some important deals-

- Boeing Company’s P8I Anti-Submarine Warfare (ASW) aircraft worth US\$ 3 billion for the Indian Navy.
- In a deal worth US\$ 200 million for 22 Anti-ship Harpoon missiles from Boeing.
- For the Indian Air Force (IAF) AH-64E Apache Guardian Attack Helicopters and CH-47F (I) Chinook helicopters in a deal for US\$ 5 billion.
- 10 C-17 Globe master III heavy-lift transport aircraft for US\$ 4 billion.



### Energy-

- The U.S. International Development Finance Corporation (DFC) and the Government of India joined forces to invest up to \$1 billion in the India Green Transition Fund.

### Science and Technology-

- Semiconductor -Micron Technology, Inc., to invest up to \$825 million to build a new semiconductor assembly and test facility in India with support from the Indian government. The combined investment valued at \$2.75 billion would create up to 5,000 new direct and 15,000 community jobs opportunities in the next five years.
- Launch of a \$2million grant program under the U.S.-India Science and Technology Endowment fund for the joint development and commercialization of Artificial Intelligence (AI) and quantum technologies.

### India-Russia-

- Trade and Economic relations: In April-December 2022, the bilateral trade reached an all-time high of \$45 billion with a trade deficit of \$35bn in Russia's favour.
- Education: As per 2021 data, there are around 25,000 Indian nationals of which a majority are Indian students studying medicine.
- Agreement on Nuclear Power Plants: India is already operating 2 Russian-built nuclear plants while another 4 are under construction in Kudankulam, Tamil Nadu.

### India- Europe

- Trade:
  - The EU is India's 2nd-largest trading partner (after the US) and India's 2nd-largest export market. India is the EU's 10th largest trading partner, accounting for 2% of EU total trade in goods.
  - **Trade in services** between the EU and India reached 40 billion Euro in 2021.
- Exports:
  - India's **merchandise exports** to EU member countries stood at about USD 65 billion in 2021-22, while imports aggregated at USD 51.4 billion.
  - In 2022-23, the exports aggregated at USD 67 billion, while imports stood at USD 54.4 billion in 2021-22.
- Over 6,000 European Union companies are said to operate in India, providing direct and indirect employment to over six million people.
- Indian companies invested over 50 billion in Europe since the year 2000.

### Development Partnership

- India-EU development cooperation spans several decades and encompasses issues like health, education, poverty reduction, water and sanitation
- The 2005 JAP highlighted that since 1976, the European Commission has committed 2 billion euro (US\$ 2.4 billion) in development cooperation to India

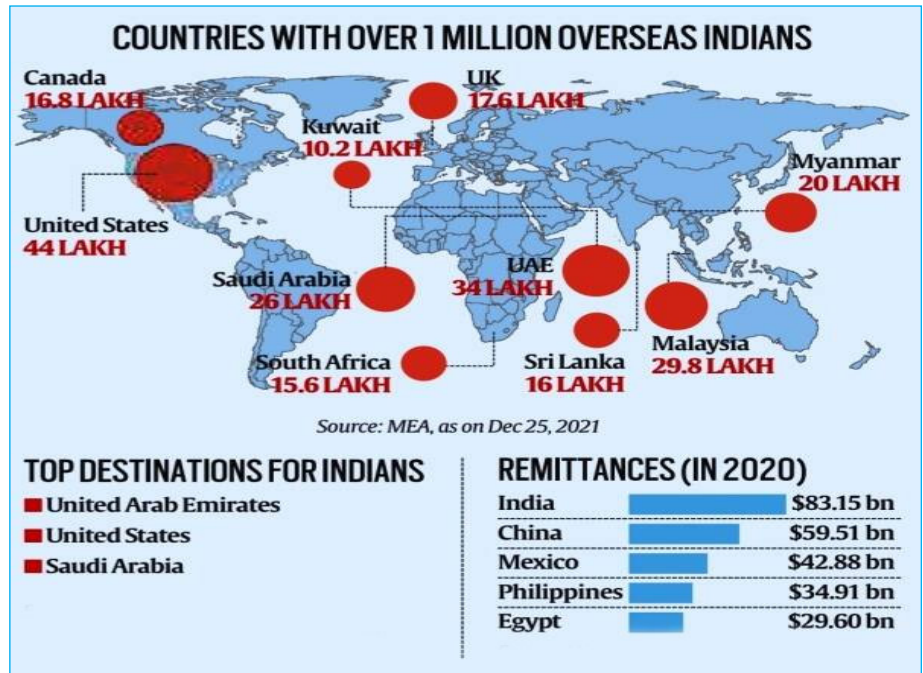
**INDIAN DIASPORA**

**According to the World Migration Report, 2022,**

- India has the largest emigrant population in the world in 2020, making it the top origin country globally, followed by Mexico, Russian and China.
- In 2022, the Indian diaspora is around 31.3 million composed of People of Indian Origin or Overseas Citizen of India (PIOs/OCIs) and expatriate Indians (NRIs) living outside India (MEA estimates)
- The data shared by the government in Parliament in 2022 showed that the geographical spread of the Indian diaspora is vast. The countries with over 10 lakh overseas Indians include:
  - United States of America, the United Kingdom, United Arab Emirates, Sri Lanka, South Africa, Saudi Arabia, Myanmar, Malaysia, Kuwait and Canada.

Remittances:

- According to the World Bank Migration and Development Brief, released in 2022, for the first time a single country, India, is on track to receive more than USD 100 billion in yearly remittances.
- The World Migration Report notes that India, China, Mexico, the Philippines and Egypt are (in descending order) among the **top five** remittance recipient countries.
- Remittances contribute almost 3% of India’s GDP. As per the World Bank, the total inward remittance of India stood at \$68.9 billion in 2015. By 2020, the number increased to \$83.2 billion. In 2023, India stood at the top in the remittance inflows at \$125 billion.



A UN Report – ‘International Migration 2020 Highlights’ by UNDESA (UN Department of Economic and Social Affairs) shows-

Countries with Largest Diaspora – 2020

- India – 18 million
- Mexico – 11 million
- Russia – 11 million
- China – 10 million
- Syria – 8 million

Countries Hosting Indian Diaspora -2020

- United Arab Emirates (UAE) – 3.5 million

- United States of America (USA) – 2.7 million
- Saudi Arabia – 2.5 million

Diaspora increased most in 2000-2020 period from the following countries:

- India (almost 10 million increase in the number of people living outside)
- Syria
- Venezuela
- China
- Philippines

Destination of International Migrants – 2020:

- USA – 51 million (approx 18 percent of the world's total migrants choose to reside in the United States)
- Germany – 16 million
- Saudi Arabia – 13 million
- Russia – 12 million
- UK – 9 million

**Students-** As of 2024, the Ministry of External Affairs statistics indicate that over 1.5 million Indian students are studying internationally. This number represents a growth of approximately 20% from the 2023.

## IMPORTANT INTERNATIONAL INSTITUTIONS

### G-7

- The G7 group controls 60% of global net wealth and drives 46% of global GDP. It also represents 10% of the world's population.
- G7 is not representative in current times- In the initial years, it accounted for 2/3rd of global GDP. However, the G-7 group now accounts only for 1/3rd on PPP basis and less than 50% on nominal basis (market prices).
- The emerging 7 (E7) economies of India, China, Indonesia, Brazil, Mexico, Russia, Turkey are not part of it.
- Historical Polluters- G-7 accounts for 59% of historical CO2 emissions

Some Key Outcomes of G-7 Group Summit- 2024

- Promotion of G7 PGII (Partnership for Global Infrastructure and Investment)-Under this PGII, G7 will mobilise USD 600 billion by 2027 to deliver infrastructure projects to developing and middle-income countries.
- Extraordinary Revenue Acceleration (ERA) Loans for Ukraine- The G7 countries agreed to provide financing of approximately USD 50 billion in additional funding to Ukraine by the end of 2024.

### G20

As per Ministry of External Affairs,

The G20 members represent around **85%** of the global GDP, over **75%** of the global trade, and about two-thirds of the world population.



**Major Outcomes of G20 Summit 2023**

- With over 200 meetings in 60 Indian cities in all our 28 States and 8 UTs, across 40 different mechanisms including Sherpa And Finance Track Working Groups, as well as Engagement Groups,
- Global Biofuels Alliance (GBA): GBA Members constitute major producers and consumers of biofuels. USA (52%), Brazil (30%) and India (3%), contribute about 85% share in production and about 81% in consumption of ethanol.
- Over 100,000 participants, from 135 nationalities, attended our G20, Engagement Group and related meetings during India’s Presidency. This includes participation from G20 Members, 9 invitee countries and 14 international organizations.
- The G20 Leaders’ Summit was attended by 27 leaders at HOS/G-level, 4 representatives at Ministerial-level and 11 Heads of International Organizations.



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**LAST DATE TO APPLY : 20<sup>th</sup> JULY, 2024**

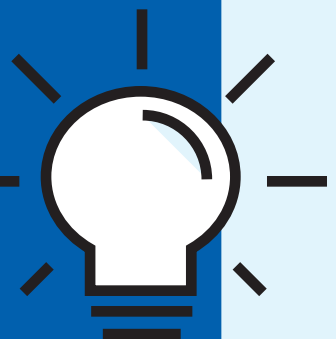
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**FACT SHEET**

**GENERAL STUDIES - III**



# AIM

**ADVANCED INTEGRATED MENTORSHIP  
PROGRAM FOR CSE 2025**

## ECONOMY AND AGRICULTURE

### 1. EMPLOYMENT, SOCIAL SECURITY AND SKILL DEVELOPMENT

#### EMPLOYMENT status:

As per Periodic Labour Force Survey (PLFS) Annual Report 2022-2023

**Labour Force Participation Rate (LFPR):** 57.9%(2022-23)

- In rural areas, LFPR increased from 50.7% in 2017-18 to 60.8% in 2022-23
- In urban areas it increased from 47.6% to 50.4%.
- LFPR for male in India increased from **75.8% in 2017-18 to 78.5% in 2022-23** and **corresponding increase in LFPR for female was from 23.3% to 37.0%.**

**Worker Population Ratio (WPR):** 56.0% (2022-23)

- In rural areas, WPR increased from 48.1% in 2017-18 to 59.4% in 2022-23
- In urban areas it increased from 43.9% to 47.7%.
- WPR for male in India increased from 71.2% in 2017-18 to 76.0% in 2022-23 and **corresponding increase in WPR for female was from 22.0% to 35.9%.**

**Unemployment Rate (UR) for persons of age 15 years and above:** 3.2% (2022-23)

- In rural areas, UR decreased from 5.3% in 2017-18 to 2.4% in 2022-23
- In urban areas it decreased from 7.7% to 5.4%.
- UR for male in India decreased from 6.1% in 2017-18 to 3.3% in 2022-23 and **corresponding decrease in UR for female was from 5.6% to 2.9%.**

#### Distribution of workers

- Self employment-increasing from 52 per cent in 2018-2019 to 57 per cent in 2022-2023. Within total self-employed persons in the country, the share of women has gone unusually up: From 53 per cent in 2018-2019 to 65 per cent in 2022-2023.
- Agriculture-Employment in agriculture has increased: From 41 per cent in 2018-19 to 43 per cent in 2022-23.

### EMPLOYMENT

Category	2018-19	2019-20	2020-21
*Self-employed	52.1	53.5	55.6
Regular wage/salary	23.8	22.9	21.1
Casual labour	24.1	23.6	23.3

\*Vegetable sellers to craftspeople and businesspersons

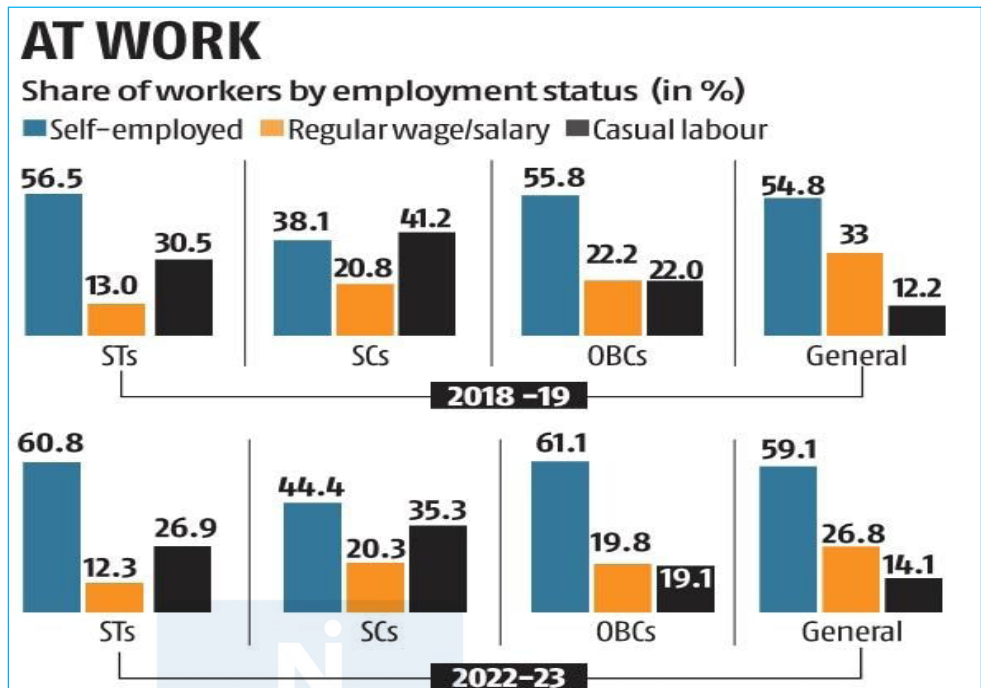
### RISE IN UNPAID WORK

Breakup of self-employed	2018-19	2019-20	2020-21
Employers, own account workers (street vendors to businesspersons)	38.8	37.6	38.2
Helpers in household enterprise (unpaid women in the family, relatives)	13.3	15.9	17.3

**GIG ECONOMY-**

A NITI Aayog study on “India’s Booming Gig and Platform Economy” has estimated that

- By 2022, about 47% of the gig work is in **medium-skilled** jobs, about 22 per cent in **high skilled**, and about 31 per cent in low-skilled jobs.
- The report estimates that in 2020–21, 77 lakh (7.7 million) workers were engaged in the gig economy. They constituted 2.6% of the non-agricultural workforce or 1.5% of the total workforce in India.



- The gig workforce is expected to expand to 2.35 crore (23.5 million) workers by 2029–30.
- Gig workers are expected to form 6.7% of the non-agricultural workforce or 4.1% of the total livelihood in India by 2029–30.
- India’s Gig Economy is anticipated to grow at a **Compound Annual Growth Rate (CAGR) of 17%**, reaching \$455 billion by 2023 (ASSOCHAM).
- As per the Economic Survey, 2021-22, total number of people working in the **unorganised sector** is around 43.99 crores during 2019-20.
- As per the latest available Annual PLFS Reports 2022-23, In the **manufacturing sector**, the percentage of workers has increased to 11.4% in 2022-23 as compared to 10.9% in 2020-21.
- In the **construction sector**, the percentage of workers has increased to 13.0% in 2022-23 as compared to 12.1% in 2020-21.

**SOCIAL SECURITY-**

- Around 53% of all of the salaried workforce does not have any social security benefits in India, according to the Periodic Labour Force Survey Annual Report 2021-22.
- **2022 Global Pension Index** -India dropped from the 41st position out of 44 countries to the 45th spot out of 47 countries in 2023.
- Around 91% of India’s workforce works in the informal sector.
- India’s social security system rank in Mercer CFS is 40 out of 43 countries in 2021.

**Insurance Sector-**

- India is the ninth-largest life insurance market globally with the Insurance market expected to reach US\$ 200 billion by 2027, growing at a rate of 32-34% each year.

- India has **57 insurance companies (24 are in the life insurance business** (LIC being the only public sector company) **while 34 are non-life insurers)**
- As per IRDAI, **Penetration:** It increased from **2.71 per cent in 2001-02 to 4.2 per cent in 2021-22.** **Density:** It increased from US \$ 11.5 in 2001-02 to \$ 91 in the year 2021-22.
- **Insurance business:** India ranked **10th in the global insurance business** with a market share of 1.85% in 2021.

## SKILL DEVELOPMENT-

### Importance of Skill Development for India:

- India is one of the youngest nations in the world, with more than **62% of its population in the working age group (15-59 years)** and more than **54% of its total population below 25 years of age.**
- According to a 2019 study by the National Skills Development Corporation (NSDC), 7 crore additional people in the working age of 15-59 years are expected to enter the labor force by 2023.
- As per the Centre for Monitoring Indian Economy (CMIE), the unemployment rate in India has been around 7% or 8% in 2022, up from about 5% five years ago.
- The **Confederation of Indian Industry (CII)** had projected Incremental Human Resource Requirements till 2022 at 201 million, making the total requirement of the skilled workforce by 2023 at 300 million.

## STATUS

- **As per the India Skills report 2015, only 37.22% of surveyed people were found employable** - 34.26% among males and 37.88% among females.
- The 2015 Report on National Policy on Skill Development and Entrepreneurship estimated that only 4.7% of the total workforce in India had undergone formal skill training compared with 52% in **the US, 80% in Japan, and 96% in South Korea.**
- A **skill gap** study conducted by the National Skill Development Corporation (NSDC) over 2010-2014 indicated an additional net incremental requirement of 10.97 crores of skilled manpower in 24 key sectors by 2022.

In addition, the 29.82 crore farm and nonfarm sector workforce needed to be skilled, reskilled, and upskilled.

- According to **Periodic Labour Force Survey (PLFS)** data 2019-20, **86.1% of those between 15 and 59 years had not received any vocational training. The remaining 13.9% had received training** through diverse formal and informal channels.
- According to the National Sample Survey Office (NSSO), only 5% of the enterprises in India have participated in Skill Development programs.

## Efforts-

Industrial Training Institutes (ITIs):

- In 2014, 10119 institutes were established and since then 4621 have been added, taking the total number to 14953 in 2022. This is an increment of 47.77% .
- Over 25 lakh seats for sessions 2021-2023 have been made available. Over 5 lakh seats added since 2014. Total seating capacity went up by 25%.

- 17175 seating capacity of **trainers** created till date. 5710 seats added since 2014. Total capacity went up by 49.8%.
- To increase **women's participation** in vocational skilling, fee relaxation for tuition and exams for women candidates under CITS/ CTS has been approved for session 2023-24 onwards.

PMKauahal Vikas Yojana-Since 2015, close to 1.40 crore candidates have been trained/oriented under **PMKVY as per Skill India Digital till 13th December 2023.**

- Under Short-term Training, where placement was incentivised, 42% of the candidates were placed in various sectors across the country. (i.e., 24.39 lakh candidates were placed out of 57.42 lakh candidates certified in STT).

### ENTREPRENEURSHIP AND STARTUP-

As per Department for Promotion of Industry and Internal Trade (DPIIT),

- **recognised startups** are 1,17,254 as on 31st December 2023.
- These recognised startups are reported to have created over 12.42 lakh direct jobs creating significant economic impact.
- There is at least one recognised startup in every State and Union Territory (UT) spread across over 80% of the districts across the nation.
- The pace of growth in the startup ecosystem has increased to 15% year-on-year in 2018, while the growth of the number of incubators and accelerators has grown to 11%
- Significantly, the number of **women entrepreneurs** stood at 14% in 2020, up from 10% and 11% in 2018 & 2019.
- Startups in the country have been able to create an estimated 40,000 new jobs over the year, taking the total jobs in the start-up ecosystem to 1.6-1.7 lakh
- Bangalore has been listed **within the world's 20 leading startup cities in the 2019 Startup Genome Project ranking.**

According to the GEM India Report (FY 21–22), India's entrepreneurial activity increased in 2021, with the country's total entrepreneurial activity rate (the percentage of adults (aged 18–64) who are starting or running a new business) rising to 14.4% in 2021, up from 5.3% in 2020.

- India retained the **"40th position in Global Innovation Index"** among the top innovative economies globally as per Global Innovation Index (GII) 2023.
- As per WIPO Report 2022, India is ranked at 7th position in terms of Resident Patent Filing activity in the world.
- India improves its ranking to **60th position (2023) from 79th position (2019)** as per Network Readiness Index (NRI) 2023 report.
- As per the Startup Ecosystem Report 2023, In 2021, India minted a record 36 unicorns while raising a total of \$72 billion in exits.
- In 2022, the number of unicorns was down 33 per cent to 24, and exits declined to \$5.5 billion.
- The Indian startup ecosystem is ranked 20th in the world according to the **Global Startup Ecosystem Index** ranking (Startup Genome, 2021)
- Three Indian cities feature in the top 20 city ecosystems of the world— Bengaluru (10th), New Delhi (14th), and Mumbai (16th).

- In terms of the number of unicorns (startups with a valuation of \$1 billion or more) produced, India is the **third-largest startup ecosystem** in the world behind **China and the United States (US)**
- India has the **3rd largest startup ecosystem** in the world; expected to witness YoY growth of a consistent annual growth of 12-15%.
- India has about 50,000 startups in India in 2018; around 8,900 – 9,300 of these are technology led startups 1300 new tech startups were born in 2019 alone implying there are 2-3 tech startups born every day.

The Tracxn report stated that

- DeepTech (R&D oriented) sector has seen a rise in funding, reaching \$2.1 billion in 2022, while the EV industry has seen \$4.8 billion in funding in the past ten years.
- India ranks seventh in terms of funding within the International SpaceTech landscape to date. The funding reached \$114.9 million in 2022 and \$122.2 million in 2023 and will continue to grow.
- As per the Tracxn report, India has 111 unicorns as of now, with 355 promising ones poised to join the ranks soon.
- **Women-led startups** have also seen growth in the past ten years with total funding for these companies reaching \$1.1 billion in 2023 from \$0.456 billion in 2014, Tracxn reported.

#### Problems-

- As per a recent report by InnoVen Capital, less than 50% of the surveyed startups had more than 10% women in **leadership** positions (InnoVen Capital India, 2020).
- As of **13 September 2021, India had 75 unicorns, 83% of which (62) were from 3 clusters- Bengaluru, Delhi National Capital Region (NCR), and Mumbai.**
- The three clusters **Bengaluru, Delhi NCR, and Mumbai** accounted for 92% of all the funds raised between **2018 and 2020**

## 2. GROWTH & DEVELOPMENT

### POVERTY ALLEVIATION

- **International Poverty Line: The World Bank defines a person as extremely poor if she is living on less than \$2.15 per day, which is adjusted for inflation as well as price differences between countries.**
- **‘Multidimensional Poverty in India since 2005-06: A Discussion Paper’:** NITI Ayog:
  - Multidimensional poverty in India declined from **29.17% in 2013-14 to 11.28% in 2022-23.**
  - As many as **24.82 crore people moved out of multidimensional poverty in nine years to 2022-23, with Uttar Pradesh, Bihar and Madhya Pradesh registering the largest decline.**
- The **Household Consumption Expenditure Survey (HCES)** claimed that India’s rural poverty level had declined to **7.2% in 2022-23 from 25.7% in 2011-12**, while **urban poverty slipped to 4.6% from 13.7%** over the same period.

### FINANCIAL INCLUSION

#### Status-

- According to the World Bank’s Global Financial Inclusion Database or Global Findex report (2017), 80% Indian adults have a **bank account** against the 53% estimated in 2014.

- The Findex 2017 report also estimates that 77% Indian women have bank accounts, against 43% in 2014.
- According to the **2017 Global Findex database**, 83% of **males** above 15 years of age in India held accounts at a **financial institution in 2017 compared to 77% females**.
- As per RBI, India’s Financial Inclusion Index has improved to 56.4 from 53.9 in the previous year 2021.

**Schemes-**

1. The Pradhan Mantri Jan Dhan Yojana (PMJDY) – the National Mission for Financial Inclusion- As per Ministry of Finance
  - As on August 2023 number of total PMJDY Accounts: 50.09 crore; **55.6% (27.82 crore) Jan-Dhan account holders are women** and **66.7% (33.45 crore)** Jan Dhan accounts are in **rural** and semi-urban areas
  - Total deposit balances under PMJDY Accounts stand at **Rs. 2,03,505 crore**
  - **Avg. Deposit per account** has increased over **3.8 times** over August 2015
  - Total **RuPay cards** issued to PMJDY account holders: **33.98 crore**
  - Till August 2023, about 6.26 crore PMJDY account holders received direct benefit transfer (DBT) from the Government under various schemes.
2. Achievements of **Pradhan Mantri MUDRA Yojana (PMMY)** Scheme (As on 25.03.2022)- As per Ministry of Finance
  - **More than 34.42 crore loans for an amount of Rs 18.60 lakh crore have been sanctioned since launch of the scheme (as on 25.03.2022).**
  - Approximately **22% of the total loans have been sanctioned to New Entrepreneurs.**
  - Approximate 68% loans of the total number of loans have been sanctioned to **Women Entrepreneurs**
  - The average ticket size of the loans is about Rs 54,000/-
  - 86% of the loans are of ‘SHISHU’ category
  - About **23% of the loans have been given to SCs and STs borrowers; About 28% of the loans have been given to OBCs borrowers (Total 51% loans have been sanctioned to SC/ST/OBC categories of borrowers)**
  - About 11% of the loans have been given to **Minority** community borrowers
3. Stand-UP India scheme- As per Ministry of Finance,
  - Under **Stand-up India (SUPI)**, as on November 2023, **out of 2.09 lakh loans sanctioned, 1.77 lakh (84%) have been sanctioned to women entrepreneurs.**

Group	% amount sanctioned
1. SC	13.81
2.ST	4.7
3.WOMEN	81.43



### Digitalisation-

- The number of Internet subscribers reached 936.16 million at the end of December 2023 – up from 918.19 million at the end of September, a report by the Telecom Regulatory Authority of India (TRAI)

As per Economic Survey 2022-23, Digital Empowerment

- Total telephone subscriber base in India stands at 117.8 crore (as of Sept,22), with 44.3 percent of subscribers in rural India.
- More than 98 per cent of the total telephone subscribers are connected wirelessly.
- The overall **tele-density** in India stood at **84.8 percent on March 22**.
- 200 per cent increase in rural internet subscriptions between 2015 and 2021.
- Prasar Bharati (India's autonomous public service broadcaster) - broadcasts in 23 languages, 179 dialects from 479 stations. Reaches 92 per cent of the area and 99.1 percent of the total population.

### Digital divide-

- As per the report by NSO, most of the internet-enabled homes are located in cities, where 42% have internet access. In rural India, however, only 15% are connected to the internet.
- According to GSMA's 2020 mobile gender gap report, only 21% of women in India in comparison to 42% of men are mobile internet users. The report says, while 79% of men own a mobile phone in India where the number for women is 63%.

### HOUSING-

- According to a Government of India report in 2012, an estimated 18.78 million more houses were required to cater to the housing demand in the country.
- Post this, a study by the Indian Council for Research on International Economic Relations (ICRIER) in 2020 found that India's **urban housing shortage** rose by 54% from 2012 to become 29 million in 2018.
- However, an analysis by the Centre for Social and Economic Progress of the 2011 Census data noted that coexisting with an urban housing shortage of 19 million units were 11 million vacant units.
- The 2011 census found that over 65 million people, about 5% of India's total population, lived in slums.
- **The Pradhan Mantri Awas Yojana- PMAY-U** promised houses for 1.18 crore families by December 2024. As of March 2024, it has only achieved around 67% of its target, that is, around 80 lakh.
- The PMAY-G was launched by the Modi government in 2016 with the aim of constructing 2.95 crore houses.
- The scheme offers ₹1.3 lakh for each unit constructed under the scheme, with a 60:40 funding split between the Centre and State.
- According to the PMAY-G dashboard, as of April 30, 2024, a total of 2.6 crore houses have been completed.

### 3. MOBILISATION OF RESOURCES

#### BANKING AND PAYMENT SECTOR-

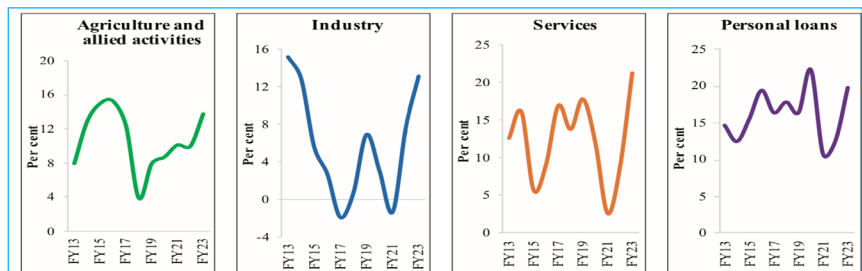
- The Indian banking system consists of 12 public sector banks, 21 private sector banks, 44 foreign banks, 12 Small finance banks.
- As per Economic Survey 2019-20, India’s banking sector is **disproportionately under-developed** given the size of its economy. India has only one bank in the global top 100. Public sector banks (PSBs) account for 70% of the market share in Indian banking.
- The Survey expresses that if Indian banks were proportionately large in relation to the size of the Indian economy, India should have **at least 6 banks** in the global top 100.
- As per Survey, every rupee in PSBs fetches a market value of 71 paise whereas, every rupee invested in NPBs fetches a market value of 3.70 i.e., more than five times as much value as that of a rupee invested in PSBs.

According to RBI’s Scheduled Banks’ Statement 2023-

- In 2023, total assets in the public and private banking sectors were US\$ 1686.70 billion and US\$ 1016.39 billion, respectively. In 2023, assets of public sector banks accounted for 58.31% of the total banking assets.
- The interest income of public banks reached US\$ 102.4 billion in 2023. In 2023, interest income in the private banking sector reached US\$ 70 billion.
- India’s digital lending market witnessed a growth of CAGR 39.5% over a span of 10 years. The Indian digital consumer lending market is projected to surpass US\$ 720 billion by 2030
- Deposits of all scheduled banks collectively surged by a whopping Rs. 200.6 lakh crore (US\$ 2,414.15 billion) as of January 26th, 2024.

As per Economic Survey 2022-23

- The **asset quality of SCBs** has been improving steadily over the years across all major sectors.
- The **GNPA ratio** has decreased from 8.2 per cent in March 2020 to a seven- year low of 5.0 per cent in September 2022



- **Net Non-Performing Assets (NNPA)** have dropped to a ten-year low of 1.3 per cent of total assets.

#### Non-Banking Financial Companies (NBFCs)-

As per RBI

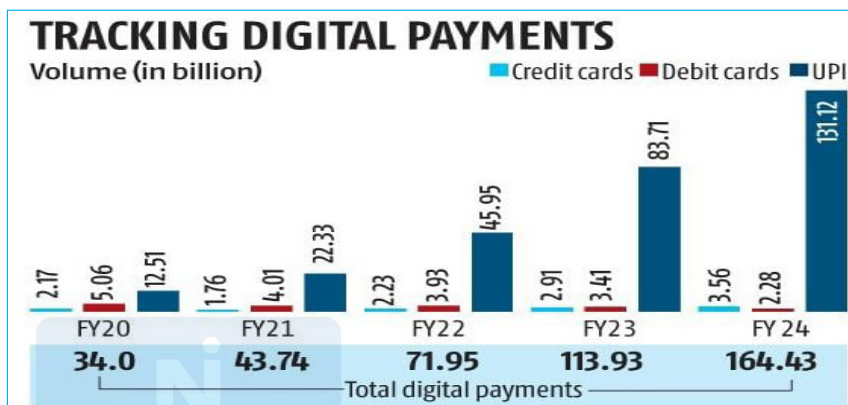
- Total number of NBFCs-9500 plus and share in lending- about 20-22% in 2022.
- Balance sheet is also doubled- 2015- Rs 20 lakhs crores to 2020- Rs 49 lakhs crores.

#### DIGITAL PAYMENT-

- As per RBI, cash transactions in India account for nearly 50% of all transactions.
- According to a report by Credit Suisse, 72% of India’s consumer transactions take place in cash.

According to the Reserve Bank of India's (RBI) annual report 2023,

- **UPI's share**, compared to the cumulative volume of digital payments in the country, has grown from 73.4 per cent in FY23 to 79.7 per cent in FY24.
- The **volume of digital payments** in FY24 was pegged at 164.4 billion transactions, up 44 per cent on a year-on-year (Y-o-Y) basis, from 113.9 billion transactions in FY23. In FY20, the country recorded a total of 34 billion digital UPI transactions.
- In FY24, the number of PoS terminals increased by 14.3 percent on a Y-o-Y basis to 8.9 million.
- **Debit card transactions** have continued to decline, reaching a five-year low. In FY24, the RBI recorded 2.28 billion transactions on debit cards, a 33 per cent Y-o-Y decrease, from 3.41 billion transactions in FY23. The latest numbers are nearly half of the 5.06 billion debit card transactions recorded in FY20.



### IBC-Insolvency and Bankruptcy Code, 2016

- In terms of value, the IBC has helped resolve ~Rs 3.16 lakh crore of debt stuck in 808 cases in 2017-23.
- On average, creditors have realised ~32% of the admitted claims and ~169% of the liquidation value.
- Other mechanisms (such as the Debt Recovery Tribunal, the SARFAESI Act and Lok Adalat) had an average recovery rate of 5-20%, which underscores IBC as the one with higher recovery for lenders.

#### Problems-

- Recovery rates have fallen from 43% to 32% between March 2019 and September 2023, even as the average resolution time has increased from 324 to 653 days versus the stipulated 330 days.
- Significant delay in the pre-IBC admission stage (650 days in fiscal 2022 increased from about 450 days in fiscal 2019).

### Urban Cooperative Banks

According to the RBI, Status of Urban Cooperative Banks in 2022:

- **Number and Presence:** Currently, there are 1,514 Urban Cooperative Banks in India
- **Credit to Agriculture Contribution:** Contributing 11% of the total credit to the sector.
- **Deposit Base:** The total deposit base of Urban Cooperative Banks is at ₹5.26 trillion.
- **Sector Share:** As of March 31, 2020, an estimated 94% of entities in the banking sector were UCBs, showcasing their prevalence.
- **Share in the Banking Sector:** 3.24% of deposits and 2.69% of advances.
- **Financial Inclusion Impact:** Urban Cooperative Banks cater to the financial needs of approximately 85.2 million depositors and 6.7 million borrowers.

## FIN-TECH

- As per the Economic Survey 2022-23, Indian fintech companies witnessed an 87% adoption rate across varied user bases as opposed to the global average rate of 64%.

As per INVEST INDIA-

- The Indian FinTech industry's **market size** is \$584 Bn in 2022 and is estimated at ~\$1.5 Tn by 2025.
- The Fintech sector in India has witnessed funding accounting to 14% share of Global Funding.
- The Fintech Market Opportunity is estimated to be \$2.1 Tn by 2030.
- Indian fintechs were the 2nd most funded startup sector in India in 2022.
- Indian Fintech startups raised \$5.65 Bn in 2022.
- UPI recorded the highest ever volume of transactions in May 2024 – 14.03 Bn
- Daily transactions on the UPI platform can touch 1 Bn by 2025
- **Digital Payments** increased by 76% in transactions and 91% in value (2022)
- A pan-India digital payments survey (covering 90,000 respondents) revealed that 42% of respondents have used digital payments
- **JAM Trinity:**
  - **Jan Dhan Yojana:** The world's largest financial inclusion initiative, "Jan Dhan Yojna", has helped in new bank account enrolment of over 523.9 Mn beneficiaries
  - **Aadhaar:** The world's largest biometric identification system (1.3+ Bn Aadhaars generated so far)
  - **Mobile connectivity:** India has the 2nd highest number of smartphone users

**Facts** from Ministry of Electronics and Information Technology Annual Report 2022.

- 840 million Indians have an online presence, and by 2025 another 400 million Indians will enter the digital world.
- Internet connections have increased by 250% in 9 years.
- The cost of per GB of Data has been reduced by 96%.
- Under Pradhan Mantri Jan-Dhan Yojana: 500 million new bank accounts have been opened; and
- 330 million RuPay Debit Cards have been distributed.
- India leads in global digital payments with 90 million transactions in 2022.
- UPI transactions in India to date – Rs.35 trillion.
- 46% of global digital payments are done in India.
- 50 times increase in transaction volume since 2017-18.
- Direct Benefit Transfer (DBT) from 'Jan Dhan-Aadhaar-Mobile' (JAM).
- 1.38 Billion Aadhaar - digital identities have been generated.
- Covering over 300 schemes across 52 ministries

- An amount of Rs.300 million directly transferred to the bank accounts.
- DigiLocker stores around 6 billion documents.
- 2.2 billion covid vaccinations through Co-WIN App.
- Under BharatNet, 600,000 kilometers of Optical Fiber Cable (OFC) has been laid.
- UMANG App - Unified Mobile Application for New Age Governance with 53 million Registrations.

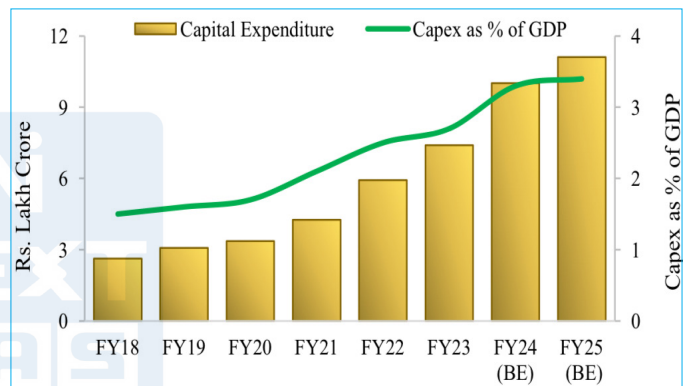
## 4. GOVERNMENT BUDGET IN GOVERNMENT BUDGETING

### FISCAL POLICY

#### HIGHLIGHTS OF THE INTERIM UNION BUDGET 2024-25

- **Fiscal deficit-**

YEAR	FISCAL DEFICIT as % of GDP (UNION GOVT)	FISCAL DEFICIT as % of GDP-COMBINED
1. 2024-25(BE)	5.1	about 8.1
2. 2023-24(RE)	5.8	8.9
3. 2022-23(FE)	6.4	9.8
4. 2020-21	9.2	13



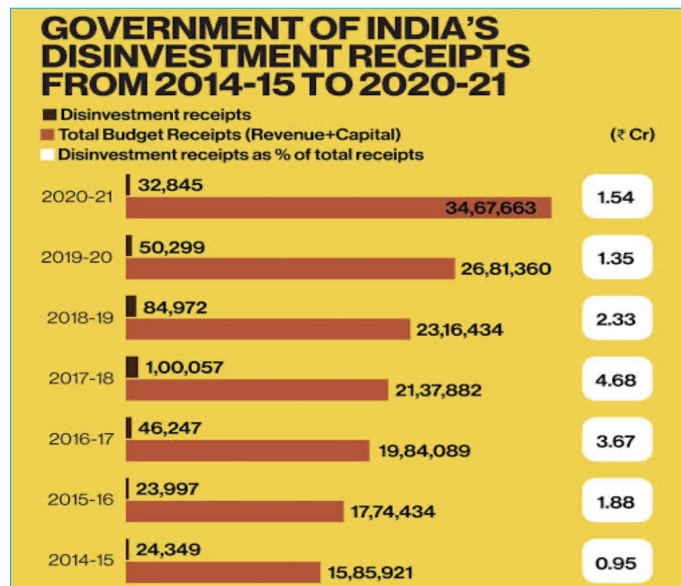
**CAPEX-** As per Budgeted estimates about ₹1.1 trillion in 2024-25 almost 4.5 times level in 2014-15.

- **Disinvestment-** The disinvestment target for 2024-25 is Rs 50,000 crore, lower than the budget target of 2023-24 (Rs 61,000 crore).
- **Real GDP GROWTH RATE-** As per NSO data,

Year	Growth Rate (%)
2024-25	6.8 (IMF prediction)
2023-24	8.2
2022-23	7.0
2021-22	9.7

Other Data-

- **Debt to GDP Ratio-** As per Ministry of Finance, The General Government debt (including both State and Centre) has steeply declined from about 88 per cent in FY 2020-21 to about 81 per cent in 2022-23.

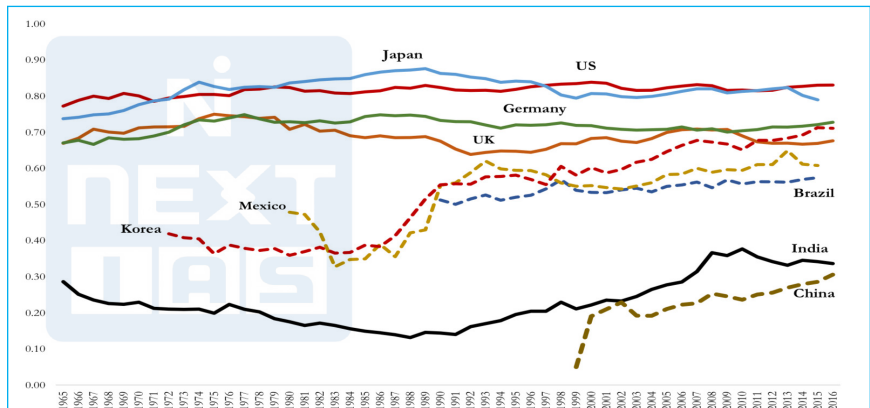


Country	2002	2010	2018	2022
India	82.9	66.4	70.4	81.0
China	25.9	33.9	56.7	77.0
South Africa	31.8	31.2	51.5	71.1

Country	2002	2010	2018	2022
Germany	59.9	82.0	61.9	66.1
Japan	154.1	205.9	232.4	260.1
USA	55.5	95.1	107.4	121.3
UK	34.1	74.0	85.2	101.9
Sri Lanka	96.3	68.7	83.6	115.5

**Tax to GDP Ratio-**

- Organisation for Economic Co-operation and Development (OECD) countries have an average tax-to-GDP ratio of more than 30% with it even going up in excess of 40% in the Nordic countries, whereas for India Combined (centre+state).
- The direct to indirect tax ratio in India is around 55:45 (Budget Estimates 2023-24), whereas on an average the OECD economies have the ratio of 50:50
- As per the Ministry of Finance, India’s tax-to-GDP ratio is projected to hit 11.7% in 2024-25, showcasing a steady increase from 11.6% in 2023-24 and 11.2% in 2022-23.
- Direct tax-to-GDP ratio, which reflects the share of taxes in the overall output generated in the country, rose to a 15-year high of 6.11 per cent in the financial year 2022-23, time-series data released by the Central Board of Direct Taxes (CBDT).



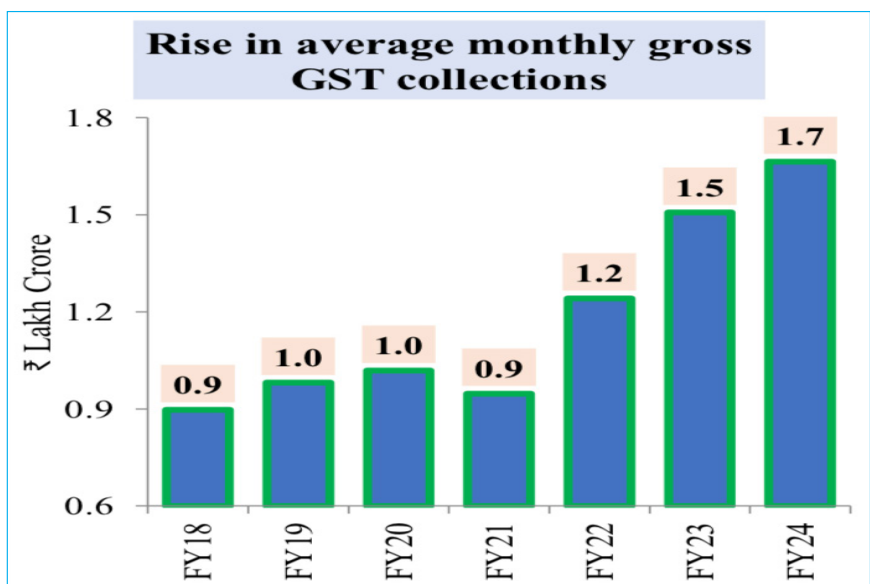
**Gender Budgeting-**

India’s Gender Budget has allocated INR 2.23 lakh crore in the Union Budget 2023-24. This is ~30% higher than Budgetary allocation in 2022-23 (INR 1.71 lakh crore, Budget estimate) but only ~2% than actual allocation (INR 2.18 lakh crore, Revised Estimate).

**GST DATA-**

- **As per Ministry of Finance,**

**E-way bills-** AS PER Ministry of Electronics & IT



YEAR	NO. OF BILLS (in Crores)
2018-19	55.8
2019-20	62.9
2020-21	61.7

## Ease of Doing Business-

- **As per** Ministry of Finance,

Tax rationalization efforts over the years

- No tax liability for income upto Rs 7 lakh, up from Rs 2.2 lakh in FY 2013-14
- Presumptive taxation threshold for retail businesses increased to Rs 3 crore from Rs 2 crore
- Presumptive taxation threshold for professionals increased to Rs 75 lakh from Rs 50 lakh
- Corporate income tax decreased to 22% from 30% for existing domestic companies
- Corporate income tax rate at 15% for new manufacturing companies

Achievements in tax-payer services

- Average processing time of tax returns has reduced to 10 days from 93 days in 2013-14
- Faceless Assessment and Appeal introduced for greater efficiency
- Updated income tax returns, new form 26AS and pre-filled tax returns for simplified return filing
- Reforms in customs leading to reduced Import release time
  - Reduction by 47% to 71 hours at Inland Container Depots
  - Reduction by 28% to 44 hours at Air Cargo complexes
  - Reduction by 27% to 85 hours at Sea Ports

As per Economic Survey of India 2021-22,

- India's rank in the Ease of Doing Business (EoDB) Index for 2019 has moved upwards to the 63rd position in 2020 from 77th in 2018 as per the Doing Business Report (DBR):
- India has improved its position in 7 out of 10 indicators

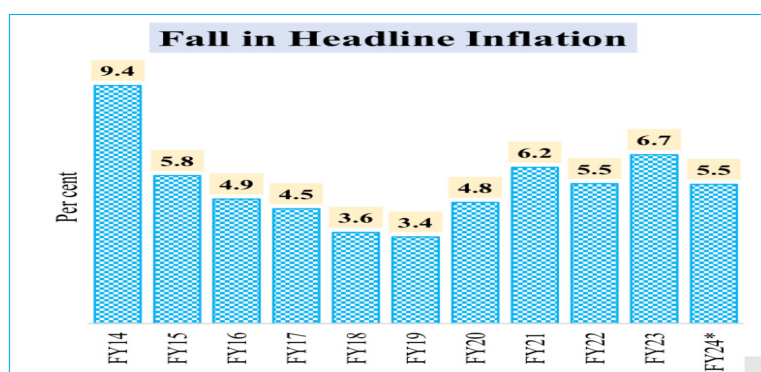
## MONETARY POLICY-

- In 2015, the RBI and the Center entered into a Monetary Policy Framework Agreement that stipulated a primary objective of ensuring price stability while keeping in mind the objective of growth.
- Accordingly, the Reserve Bank of India Act, of 1934 was amended and the Flexible Inflation Target (FIT) was adopted in 2016 to establish a liaison between monetary policy and inflation in India.
- For the period 2021-25, the inflation is to be kept in the range of 4 (+/-2) percent.

## Inflation-

CPI historical data- As per NSO,

Year	CPI Inflation Rate
2024 (APRIL)	4.83%
2024 (FEB)	5.09%
2023	6.7%
2022	5.5%
2021	6.2%



**5. EXTERNAL SECTOR**

**TRADE-**

As per Ministry of Commerce & Industry,

Countrywide-

- In 2023-24, the **trade deficit** with China rose to \$85 billion, Russia to \$57.2 billion, Korea to \$14.71 billion and Hong Kong to \$12.2 billion against \$83.2 billion, \$43 billion, \$14.57 billion and \$8.38 billion, respectively, in 2022-23.

		2023-24 (USD Billion)	2022-23 (USD Billion)
Merchandise	Exports	437.06	451.07
	Imports	677.24	715.97
Services*	Exports	339.62	325.33
	Imports	177.56	182.05
Overall Trade (Merchandise+ Services)*	Exports	776.68	776.40
	Imports	854.80	898.01
	Trade Balance	-78.12	-121.62

- China became India's **largest trading partner** with \$118.4 billion in two-way trade, surpassing the US, whose bilateral trade with India stood at \$118.28 billion.

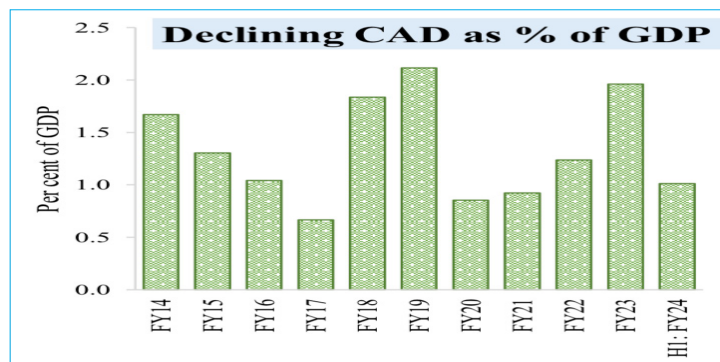
**Current Account Deficit (CAD)-**

- As per RBI data, India's current account deficit widened to \$67 billion or 2 percent of GDP in the financial year 2022-23 from \$38.7 billion or 1.2 percent of GDP recorded in the 2021-22.

**Forex Reserves -**

As per RBI,

- India's foreign exchange reserves is \$653.711 billion in June 2024.
- Foreign currency assets- \$574.134 billion.
- India's gold reserves- \$56.956 billion.



**Oil Import-**

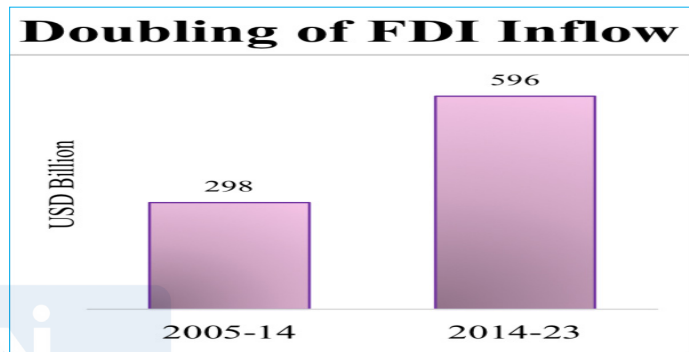
- According to data from the oil ministry's Petroleum Planning & Analysis Cell (PPAC), India, the world's third biggest oil consuming and importing nation, spent \$119.2 billion in 2021-22 (April 2021 to March 2022), up from \$62.2 billion in the 2020-21.
- According to PPAC, India imported 212.2 million tonnes of crude oil in 2021-22, up from 196.5 million tonnes in the 2020-21.
- According to PPAC, India's oil import dependence was 85 per cent in 2019-20, which declined marginally to 84.4 per cent in the following year before climbing to 85.5 per cent in 2021-22.

**INVESTMENT -**

As per Department for Promotion of Industry and Internal Trade(DPIIT)-



- **FDI inflow** in India stood at USD 36 billion in 2013-14 and registered its highest ever annual FDI inflow of USD 85 billion in the financial year 2021-22.
- During FY 2022-23, FDI inflow of USD 71 billion (provisional figure) has been reported. During the current financial year, 2023-24 (up-to September 2023) FDI worth USD 33 billion has been reported.
- FDI inflow in the last 9 financial years (2014-23: USD 596 billion) has increased by 100% over the previous 9 financial years (2005-14: USD 298 billion) and is nearly 65% of the total FDI reported in the last 23 years (USD 920 billion).
- FDI equity inflow in the manufacturing sectors in the last 9 financial years (2014-23) (USD 149 billion) has increased by 55% over the corresponding period of the previous nine years (2005-14) (USD 96 billion).
- Karnataka emerges as the top FDI equity inflow recipient state in India.
- Top FDI equity inflows from Singapore (27%) followed by U.S.A (18%).
- Computer Software and Hardware becomes the top recipient sector of FDI Equity inflow with a share of around 25%.
- As per Invest India data, Mauritius (25%), Singapore (23%), USA (9%), Netherland (7%) and Japan (6%) emerge as top 5 countries for FDI equity inflows into India FY 2023-24



### World Investment Report 2024 by UNCTAD

- Global foreign direct investment (FDI) in 2023 decreased marginally, by 2 per cent.
- FDI flows to developing countries fell by 7 per cent to \$867 billion, mainly due to an 8 per cent decrease in developing Asia.
- India fell seven spots in the global foreign direct investment (FDI) ranking to 15 as inflows declined 43% to \$28 billion in 2023. The country saw FDI inflows worth \$49 billion in 2022.

### FTAs-

As per data analysis of trade by NITI AAYOG-

- In the period between 2017 and 2022, India's exports to its FTA partners increased by 31 per cent, while its imports increased by 82 per cent.
- India's FTA utilisation remains very low at around 25 per cent, while utilisation for developed countries typically sits between 70–80 per cent.
- According to data from the Global Trade Research Initiative (GTRI), India's imports from countries with which it has free trade agreements (FTAs), such as the UAE, South Korea, and Australia, increased by about 38% during the fiscal years 2019-24, reaching USD 187.92 billion. In contrast, exports to FTA partners rose by 14.48% to \$122.72 billion in the fiscal year 2023-24 from \$107.20 billion in 2018-19.

## 6. INDUSTRY

### As per ECONOMIC SURVEY 2022-23 Industry shows Steady Recovery

- Overall Gross Value Added (GVA) by the Industrial Sector (for the first half of FY 22-23) rose 3.7 per cent, which is higher than the average growth of 2.8 per cent achieved in the first half of the last decade.
- **PMI manufacturing has remained in the expansion zone** for 18 months since July 2021, and Index of Industrial Production (IIP) grows at a healthy pace.
- **Credit to Micro, Small and Medium Enterprises (MSMEs) has grown by an average of around 30%** since January 2022 and credit to large industry has been showing double-digit growth since October 2022.
- **Electronics exports rise nearly threefold**, from US \$4.4 billion in FY19 to US \$11.6 Billion in FY22.
- **India has become the second-largest mobile phone manufacturer globally**, with the production of handsets going up from 6 crore units in FY15 to 29 crore units in FY21.
- **Foreign Direct Investment (FDI) flows into the Pharma Industry has risen four times**, from US \$180 million in FY19 to US \$699 million in FY22.
- The **Production Linked Incentive (PLI) schemes** introduced across 14 categories, with an estimated capex of ₹4 lakh crore over the next five years, to plug India into global supply chains. Investment of ₹47,500 crores has been seen under the PLI schemes in the FY22, which is 106% of the designated target for the year. Production/sales worth ₹3.85 lakh crore and employment generation of 3.0 lakh have been recorded due to PLI schemes.
- **Over 39,000 compliances have been reduced and more than 3500 provisions decriminalized** as of January 2023.

<b>Textile Industry in India</b>	
<b>Market Size and Growth</b>	<b>Estimated market size: Over \$150 billion</b>
	<b>Export market: Over \$40 billion</b>
	<b>Projected global textile and apparel trade by 2025-26: \$1,000 billion</b>
	<b>Projected Indian market size by 2025-26: \$250 billion</b>
<b>Global Position and Contribution</b>	<b>India's share in global textile and apparel market: 4%</b>
	<b>Position in global textile market: 5th</b>
	<b>Contribution to Indian GDP: 3%</b>
	<b>Contribution to industrial output: 7%</b>
	<b>Contribution to India's export earnings: 12%</b>
<b>Specific Achievements</b>	<b>Employment contribution: More than 21% of total employment</b>
	<b>Second largest producer of silk in the world</b>
	<b>95% of world's hand woven fabric comes from India</b>
	<b>6th largest producer of Technical Textiles with 6% global share</b>
	<b>Largest producer of cotton &amp; jute in the world</b>

### Special Economic Zones (SEZs)-

- The SEZ Act, 2005 involves state governments in export promotion and infrastructure creation.
- **Performance and Impact:** Exports from SEZs reached Rs 3,34,000 crore by 2019. Employment generation in SEZs was approximately 19.96 lakh persons. Investments of Rs 4,90,000 crore were made in SEZs.

- The National Manufacturing Policy (NMP) of 2011 aimed to increase the share of manufacturing in GDP to 25% and generate 100 million jobs over a decade.

As per Ministry of Commerce & Industry,

- SEZs have touched new heights in terms of performance in Exports of Rs. 22,840 Crore in 2005-06 has increased to Rs. 7,59,524 Crore in 2020-21;
- Investment of Rs. 4,035.51 Crore in 2005-06 has increased to Rs. 6,17,499 Crore (cumulative basis) by 2020-21 and
- Employment provided to 1,34,704 persons in 2005-06 has increased to 23,58,136 persons (cumulative basis) in 2020-21.
- About 376 SEZs are notified but currently, only 270 SEZs are operational in India.
- SEZ EXPORT share in Total export- 30%.

### MSMEs-

As per the latest information received from Ministry of Statistics & Programme Implementation,

- The share of **MSME Gross Value Added (GVA)** in all India Gross Domestic Product (GDP) during the year 2019-20, 2020-21 and 2021-22 was 30.5%, 27.2% and 29.2% respectively.
- The share of MSME **manufacturing** output in all India Manufacturing output during the year 2019-20, 2020-21 and 2021-22 was 36.6%, 36.9% and 36.2% respectively.

As per the information received from Directorate General of Commercial Intelligence and Statistics (DGCIS),

- the share of **export** of MSME specified products in all India exports during the year 2020-21, 2021-22 and 2022-23 was 49.4%, 45.0% and 43.6% respectively.

As per Udyam Registration Portal, the total number of persons employed in MSMEs which were registered from 01.07.2020 to 01.08.2023 in India was 12,36,15,681.

The Government has taken a number of recent initiatives to support MSMEs in the country, include;

- Rs. 5 lakh crore Emergency Credit Line Guarantee Scheme (ECLGS) for business, including MSMEs.
- Rs. 50,000 crore equity infusion through MSME Self-Reliant India Fund.
- New revised criteria for classification of MSMEs.
- No global tenders for procurement up to Rs. 200 crores.
- Launching of an online Portal "Champions" in June, 2020 to cover many aspects of e-governance including grievance redress and handholding of MSMEs.
- Inclusion of Retail and Wholesale trades as MSMEs w.e.f. 02nd July, 2021.
- Non-tax benefits extended for 3 years in case of an upward change in status of MSMEs.
- Roll out of Raising and Accelerating MSME Performance (RAMP) programme with an outlay of Rs. 6,000 crore over 5 years.

### Electronics Sector

- Electronics is the largest manufactured and traded category globally, valued at over USD 2 trillion. Out of this, China supplies almost over 50%.

- India is expected to become a USD 1 Trillion digital economy by FY26.
- The electronic devices industry valued at \$118 bn in 2019-20 is segmented as Mobile Phones (24%), Consumer Electronics (22%), Strategic Electronics (12%), Computer Hardware (7%), LEDs (2%) and Industrial Electronics (34%) comprising of Auto, Medical and other industrial electronic products.
- Top most importer of India’s Electronic goods: The United States and the United Arab Emirates (UAE) are the largest markets for India’s electronic goods export. In FY24 (up to February), the U.S. accounted for approximately 35% of India’s electronic goods exports, amounting to \$8.7 billion, while the UAE accounted for 12% with \$3 billion.
- The electronics sector of India contributes around 3.4% of the country’s Gross Domestic Product (GDP).

A report titled ‘Globalise to Localise’ by India Council for Research on International Economic Relations (ICRIER) shows

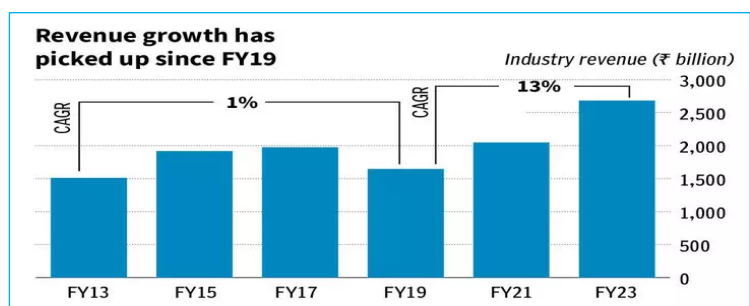
- Past:
  - In 2014, India was increasingly dependent on Electronics imports.
- Present Scenario:
  - Today, India is a 76 billion dollar manufacturing economy with 16 billion dollars of exports in FY 2021-22, with a target of 21 to 25 billion dollars of exports in next year.
  - Electronics as a sector has jumped to the 6th largest export from India this year.
  - Mobile phones constitute the single largest component of electronics exports from India.
  - They are expected to contribute nearly 50% of the total electronics exports by next year.
- Targets: By 2026, India has clearly laid out a goal of 300 billion dollar manufacturing with a 120 billion dollar of exports.

Facts-

- In 2008, Vietnam removed local content requirements on its FDI which encouraged Samsung to move its manufacturing base from South Korea to Vietnam, and today, 60% of all Samsung smartphones are manufactured in Vietnam.
  - As a result, Vietnam has climbed from the 47th position in global electronics exports ranking in 2001 to the 7th position in 2021.
- In FY23, Tamil Nadu emerged as India’s foremost exporter of electronic goods, contributing 30% to the country’s total electronic goods exports in FY24.

**TELECOM-**

- The Indian telecom industry with one of the world’s highest data traffic per connection offers immense growth potential.
- Industry **revenue** growth has accelerated after FY19 with CAGR of 13 per cent (FY19-23), compared to just 1.4 per cent during FY13-19.



- Industry consolidation (number of service providers has dropped from 10 in 2017 to just 4 in 2023) augurs well for future pricing growth.
- The industry's revenue witnessed a decline of negative six per cent CAGR during FY16-19 due to heightened competitiveness and pricing pressure.
- Since FY19, revenue has been on a steady rise with revenue CAGR of 13 per cent during FY19-23.
- According to TRAI's Indian Telecom Services Performance Indicators from Jan. to Mar. 2023, India's internet penetration as of Mar. 2023 exceeded 880 million users, while the number of telecom subscribers has surpassed 1,172 million. India is the world's second-largest telecommunications market with a subscriber base of 1.16 billion.
- As per TRAI, average wireless data usage per wireless data subscriber was 11 GB per month in FY20.
- India has an overall tele-density of 85.11 %, with the tele-density of the rural market at 58.37% while that of the urban market is at 134.78%.
- FDI inflow in the telecom sector stood at USD 39.02 billion between April 2000-September 2022.
- There are fewer than 25% of towers in India connected to fiber networks, compared to more than 70% in developed nations.
- In India, adequate tele-density has been achieved, but there is a large discrepancy between penetration in urban (55.42%) and rural (44.58%) areas.
- Available spectrum is less than 40% as compared to European nations and 50% as compared to China

## 7. SERVICES SECTOR

### As per ECONOMIC SURVEY 2022-23,

- The services sector witnessed a swift rebound in FY22, **growing** Year-on-Year (YoY) at 8.4% compared to a contraction of 7.8% in the previous financial year
- As per the First Advance Estimates, Gross Value Added (GVA) in the services sector is estimated to grow at 9.1% in FY23, driven by 13.7% growth in contact-intensive services sector.
- The Survey highlighted that PMI services witnessed an uptick and expanded to 58.5 in December 2022
- The Economic Survey observed that the bank credit to Services Sector saw a **YoY growth** of 21.3% in November 2022, the second highest in 46 months, with the improvement in vaccination coverage and recovery in the services sector
- India is a significant player in services trade, being among the top ten services exporter countries in 2021", noted the Survey. Services exports registered growth of 27.7% during April-December 2022



- The Survey noted that the IT-BPM revenues registered YoY growth of 15.5% during FY22 compared to 2.1% growth in FY21, with all sub-sectors showing double-digit revenue growth. Within the ITBPM sector, IT services constitute the majority share (greater than 51%). Exports (including hardware) witnessed a growth of 17.2% in FY22

**Contribution of India’s Service Sector:**

- The services sector contributes over 50% to India’s GDP.
- India is the export hub for software services. The Indian IT outsourcing service market is expected to grow 6–8% between 2021 and 2024.
- In September 2023, India retained its 40th rank in the Global Innovation Index (GII), due to successful advancements in services that are technologically dynamic and can be traded internationally.
- The Indian services sector was the largest recipient of FDI inflows worth USD 108 billion between April 2000 and December 2023.

**E-COMMERCE SECTOR**

**8. INFRASTRUCTURE**

**As per Economic Survey 2022-23, Physical Infrastructure**

- **Public Private Partnerships** In-Principal Approval granted to 56 projects with Total Project Cost of ₹57,870.1 crore under the VGF Scheme, from 2014-15 to 2022-23.
- **National Infrastructure Pipeline**
  - 89,151 projects costing ₹141.4 lakh crore under different stages of implementation
  - 1009 projects worth ₹5.5 lakh crore completed
- **National Monetisation Pipeline**
  - ₹ 9.0 lakh crore is the estimated cumulative investment potential.
  - ₹ 0.9 lakh crore monetisation target achieved against expected ₹0.8 lakh crore in FY22.
  - FY23 target is envisaged to be ₹1.6 lakh crore (27 per cent of overall NMP Target)
  - PM GatiShakti National Master Plan creates comprehensive database for integrated planning and synchronised implementation across Ministries/ Departments.

India's E-commerce Sector		
<b>Market Size and Growth</b>	<i>Expected to reach INR 4,416.68 billion in 2024</i>	
	<i>Annual growth rate of 11.45%</i>	
	<i>Projected to reach INR 7,591.94 billion by 2029</i>	
<b>UPI Transactions</b>	<i>Touched INR 125.94 trillion in 2022</i>	
	<i>User base exceeds 800 million</i>	
<b>E-commerce Users</b>	<i>Expected to reach 501.6 million by 2029</i>	
	<b>User penetration:</b>	<i>22.1% in 2024</i>
		<i>Anticipated increase to 34.0% by 2029</i>
	<i>Average revenue per user (ARPU): INR 14,121</i>	
<b>Government e-Marketplace (GeM)</b>	<i>Achieved highest GMV of \$2011 billion in FY 2022-23</i>	
	<i>Cumulative GMV exceeding INR 4.5 trillion by July 2023</i>	
<b>Online Order Insights</b>	<i>60% from two-tier cities and smaller towns</i>	
	<i>70% for electronics and apparel</i>	
<b>Social Media Shopping Trends</b>	<b>By 2025:</b>	<i>Millennial consumers drive 33% of global social media shopping expenditure</i>
		<i>Gen Z at 29%</i>
		<i>Gen X at 28%</i>
<b>Mobile Commerce (m-commerce)</b>	<i>Sales expected to surpass \$3 trillion globally by 2027</i>	

## Making Indian Logistics Globally Competitive

- National Logistics Policy
- Rapid increase in National Highways (NHs) /Roads Construction with 10457 km NHs/roads constructed in FY22 compared to 6061 km in FY16.
- Budget expenditure increased from ₹1.4 lakh crore in FY20 to ₹2.4 lakh crore in FY23 giving renewed push to Capital expenditure.
- 2359 Kisan rails transported approximately 7.91 lakh tonnes of perishables, as of October 2022.
- More than one crore air passengers availed the benefit of the UDAN scheme since its inception in 2016.
- Near doubling of capacity of major ports in 8 years.
- Inland Vessels Act 2021 replaced 100-year-old Act to ensure hassle free movement of Vessels promoting Inland Water Transport.
- **NITI Aayog report**, Fast Tracking Freight in India: A Roadmap for Clean and Cost-Effective Goods Transport India has the potential to:
  1. Reduce its logistics cost by 4% of GDP
  2. Achieve 10 gigatonnes of cumulative CO2 emissions savings between 2020 and 2050
  3. Reduce nitrogen oxide (NOx) and particulate matter (PM) emissions by 35% and 28%, respectively, until 2050

India's Logistics Sector	
<b>Logistics Performance Index (LPI) Ranking</b>	<p>World Bank's LPI 2023: India ranks 38 out of 139 countries</p> <p>Improvement in rank: Improved by 6 places from 2018 (ranked 44)</p> <p>Improved by 16 places from 2014 (ranked 54)</p> <p>Comparison: China: 26th rank Vietnam: 39th rank</p>
<b>Sector Overview</b>	<p>Valued at US\$ 190 billion in 2019</p> <p>Employs over 22 million people directly</p> <p>Expected growth rate: 8-10% over the medium term</p>
<b>Logistics Share of GDP</b>	<p>NITI Aayog 2017: Logistics share of GDP was 13.5% in India</p> <p>Developed economies: Typically 8-10% of GDP</p>
<b>Embodied Logistics Costs</b>	<p>Average: 18% of the final price of goods in India</p> <p>Developed economies: Typically 9-10% of the final price of goods</p>
<b>Challenges</b>	<p>Poor performance on Customs (efficiency of clearing process/speed, simplicity)</p> <p>Infrastructure sub-indices of the LPI</p>
<b>Growth Potential</b>	<p>Expected growth in infrastructure development</p> <p>Initiatives to improve efficiency and reduce costs</p>
<b>Employment</b>	<p>Significant employment contribution with over 22 million direct jobs</p>



4. India Can Save Logistics Fuel Worth ₹311 Lakh Crore between 2020 and 2050.
- **National Logistics Policy (NLP)2022**, Logistics costs have to be cut by half to be near global benchmarks by 2030 by reducing the cost of logistics from 14-18% of GDP to global best practices of 8%.

## 9. AGRICULTURE AND ALLIED ACTIVITIES

### GENERAL FACTS

- As per the Ministry of Agriculture, the share of agriculture in total Gross Value Added (**GVA**) of the economy has declined from 35% in 1990-91 to 15% in 2022-23.
- In growth terms, the agriculture and allied sector has registered an average **annual growth** of 4 percent during the last five years(2017-22).
- According to the Periodic Labour Force Survey (PLFS) conducted by the National Sample Survey Office (NSSO), about 45.76% of the total workforce is engaged in agriculture and allied sectors during 2022-23.
- The Ministry of Agriculture and Farmers Welfare has released Second Advance Estimates for 2023–24 Kharif Foodgrains– 1541.87 LMT/ RabiFoodgrains– 1551.61 LMT

### 10th Agricultural Census 2015-16 key-highlights-

- showed a 1.53 per cent decline in total operated area at 157.14 million hectare as compared to 2010-11 data,
- The average size of operational holding declined to 1.08 hectares (ha) in 2015-16 compared to 1.15 ha in 2010-11.
- census also found out that the percentage share of female operational holders has increased from 12.79 per cent in 2010-11 to 13.87 per cent in 2015-16
- 70% of rural households depends on agriculture.
- Small and marginal farmers with less than two hectares of land account for 86.2% of all farmers in India, but own just 47.3% of the crop area.
- Semi-medium and medium land holding farmers owning between 2-10 hectares of land account for 13.2% of all farmers, but own 43.6% of crop area.

As per Economic Survey 2019-20,

- **Agricultural productivity** is also constrained by lower level of mechanization in agriculture which is about 40 % in India, much lower than China (59.5 %) and Brazil (75 %).
- Livestock sector has been growing at a CAGR of 7.9 % during last five years.
- During the last 6 years ending 2017-18, Food Processing Industries sector has been growing at Average Annual Growth Rate (AAGR) of around 5.06 %.
- **Dominance of food crops:** 75% of the cultivated area is under food crops like Wheat, Rice and Bajra, while 25% of cultivated area is under commercial crops.

### AGRICULTURAL INFRASTRUCTURE

- Agriculture Infrastructure Fund aims at providing a medium/long term debt financing facility till 2025-2026 through 3% **interest subvention and credit guarantee** support on loans for creation of post-harvest management infrastructure and community farming assets.
- As per Ministry of Agriculture & Farmers Welfare Agriculture Infrastructure Fund (AIF), the scheme has mobilized more than Rs.30,000 crore for projects in the agriculture infrastructure sector with a sanctioned amount of Rs.15,000 crore under AIF
- The NITI Aayog cited a study that estimated annual **post-harvest losses** close to Rs 90,000 crore.



### Irrigation-

According to updated data from Niti Aayog,

- In 2022-23, of the 141 million hectares of **gross sown area** in the country, nearly 73 million hectares, or 52%, had irrigation access, up from 41% in 2016.
- Agriculture accounts for nearly 80% of the country's annual available water use, or 700 billion cubic metres.
- Of the total irrigation-infrastructure expansion, micro irrigation facilities through sprinklers and drip systems were installed in 8 million hectares.
- Out of the total irrigated area in the country, 40% is currently watered through canal networks, while 60% through groundwater.
- Conventional **surface irrigation** provides only 60% efficiency but drip irrigation has nearly 90% efficiency.
- A micro-irrigation fund (MIF) with corpus of ₹5000 crore was created with the National Bank for Agriculture and Rural Development (NABARD) during 2018-19

### Cold Storage-

- As per the study conducted by NABARD Consultancy Services (NABCONS) in 2015 on "All India Cold-chain Infrastructure Capacity (AICIC-2015)", the required capacity of cold storages at that time was 351.00 lakh MT against the existing capacity of 318.23 lakh MT in 2014.
- In 2023, there are 8,653 cold stores in the country with a capacity of 394.17 lakh MT.

### Agricultural Credit-

Working Group constituted by the Reserve Bank of India to review agricultural credit report-

- The interest subvention scheme for short-term crop loans has increased the share of such loans in agricultural credit from 51% in 2000 to 75% in 2018.
- **Loan waivers:** Since 2014-15, 10 states have announced loan waivers worth Rs 2.4 lakh crore (1.4% of the 2016-17 GDP), mostly near elections.
- **Credit for allied activities:** The Working Group observed that allied activities (livestock, forestry, and fisheries) receive only 10% of the total agricultural credit while they contribute 40% of the agricultural output.
- **Sources of credit:** in 2016-17, 72% of the credit requirement of agricultural households was met through institutional sources and 28% from non-institutional sources such as relatives and moneylenders.
- **Credit for small and marginal farmers:** small and marginal farmers hold 86% of the operational landholdings and have 47% share in the total operated area (2015-16). However, only 41% of such farmers could be covered by banks.

NABARD All India Rural Financial Inclusion Survey' (NAFIS) by NITI Aayog shows-

- That average agriculture household income was a mere Rs 8,931 per month in 2016-17
- While cultivation is still a major source of income (35 per cent), followed by daily wage labourer (34 per cent), livestock rearing contributes only 8 per cent of their income.

- **Indebtedness and agricultural households:** The survey shows that 41 per cent of rural households are indebted, of which majority (43 per cent) are agriculture households.
- The average loan per household from non-institutional sources is Rs 63, 645 whereas average loan from a financial institution is Rs 28, 207.
- On an average, rural households have a debt of Rs 91,852.
- **Insurance:** Only one-fourth of the total rural households have any kind of insurance such as life insurance, vehicle, accident or health insurance.
- **Pension:** only 19 per cent of rural households get any kind of pension. 20 per cent of agriculture households got a pension.
- **Financial Inclusion:** Around 49 per cent of total rural households report savings in a financial institution and around 53 per cent of agriculture households to save in financial institution
- Only 20 per cent rural households reported being associated with Self Help Groups.

### SEEDS-

- It is estimated that the direct contribution of quality seed alone to the total production is about 15 – 20% depending upon the crop and it can be further raised up to 45% with efficient management of other inputs.
- As per World Seed Trade Statistics, India has sixth largest size of domestic seed market in the world, estimated to be at about 1300 million dollars. However, India's share in global trade in seeds (import & export) is only about 37 million dollars only.
- The cost of seed typically constitutes around 3 to 6% of the total cost of production, but it can provide up to a 15-20% yield advantage.
- As per extant policy, FDI is permitted up to 100% under the automatic route in development and production of seeds
- 25th report of the Standing Committee on Agriculture 2021 says that in India, share of private sector in India's seed market has increased from 57.3 per cent in 2017-18 to 64.5 per cent in 2020-21. Wheat and paddy account for about 85 percent of this seed market
- A 2019 report by Indian Council of Food and Agriculture says that the country's seed market reached a value of US \$4.1 billion in 2018, registering a growth rate of 15.7 per cent in 2011-18, and is expected to grow at 13.6 per cent in 2019-24, reaching a value of US \$9.1 billion by 2024.
- As per Ministry of Agriculture & Farmers Welfare, increase of total foodgrains production from 252.02 million tonnes in 2014-15 to 296.65 million tonnes during 2019-20, which is a 17.71% increase. The productivity of foodgrains which was 2028 kg/ha in 2014-15, has increased to 2325 kg/ha during 2019-20 (14.64% increase). Especially noteworthy is the production of pulses which has increased from 17.15 million tonnes in 2014-15 to 23.15 million tonnes in 2019-20 which is about 35% increase.
- As per Ministry of Agriculture & Farmers Welfare, only around 15 per cent of India's total cropped area is planted with freshly obtained quality seeds every year. A huge 85 per cent area is sown with farm saved seeds. This ratio varies from crop to crop between 7% in staple crops to maximum 70% in some vegetables and fruits. For wheat and rice, it is between 9 to 18%.

### Fertiliser-

- Import Dependency for Fertilisers: India's dependency on import at present is to the extent of 25% of our requirement of Urea, 90% in the case of Phosphates and 100% in case of Potash.
- Disparities in Fertiliser Consumption: The intensity of Fertiliser consumption varies greatly from region to region.
  - Example: 40.5 kg/ha of total nutrients in Rajasthan to 184 kg/ha in Punjab.
  - Urea accounts for 82 percent of total nitrogen consumption
  - Di-ammonium phosphate for 63 percent of phosphate consumption.
- As per Agricultural Statistics at a Glance 2021 , The ideal ratio of Nitrogen, Potassium and Phosphate fertilizers at the all-India level is 4:2:1 as a rule of thumb (Economic Survey 1993 - 94). Since urea is subsidized to the extent of more than 200 per cent, excessive consumption is there. The ratio of N/K use at all India levels in 2021 is 6.4:1, far beyond the ideal ratio
- The introduction of 100% neem coated urea. In the last 10 years, urea production has risen to 310 lakh metric tonnes from 225 lakh metric tonnes in 2014.

### Agricultural SUBSIDIES-

As per Agricultural Statistics at a Glance 2021-

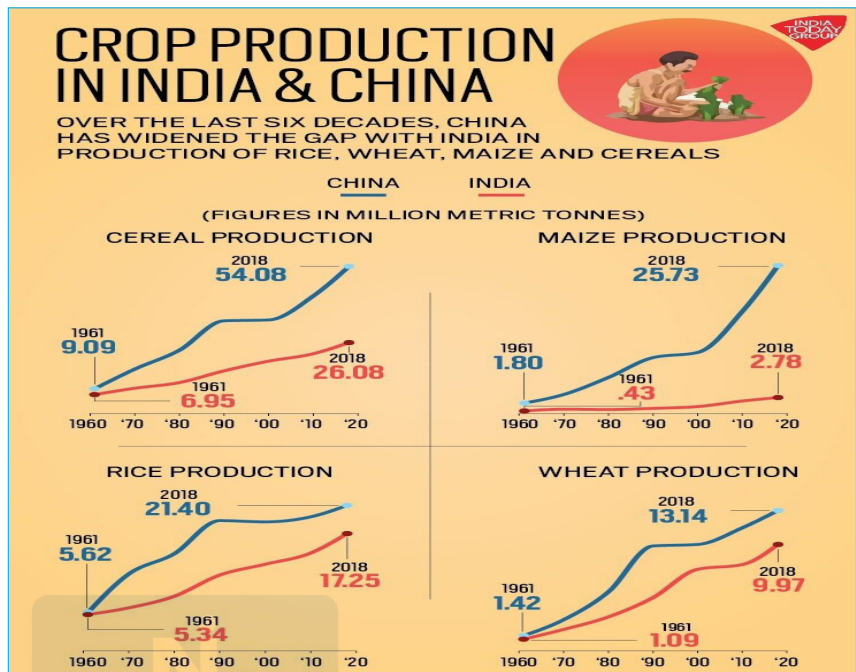
- **Input subsidy** is a micro-intervention, it constituted 3% of GDP and 8.5% of agricultural income in 2021, making it a macroeconomic issue.
- The 3-Fs, known as **food, fertilizer and fuel subsidy**, constitute 95% of the total subsidy. In 1991, fertilizer subsidies amounted to 4,389 crores, up to Rs 1.89 lakh crore revised budget estimate for FY24., representing a 40-fold increase.
- At present, per hectare allotted subsidies on fertilizers is around Rs.3330/- which was Rs.941/- in 1991, reflecting a thirty-fold increase in 30 years.
- **Power subsidy** expenditure is highest at 46 per cent, followed by fertilizer and irrigation subsidies at 40 and 14 per cent, respectively.
- At 2011–12 prices, the sum of three key input subsidies (fertilizer, electricity, and irrigation) increased from Rs 492 billion in 1991–92 to Rs 1513.21 billion in 2018–19.

### Agricultural Marketing-

- As per Ministry of Agriculture & Farmers Welfare, as on 31.03.2020, there are 6845 numbers of Agriculture Produce Marketing Committee (**APMC**) markets in the country.
- 2018-19 Union budget to develop and upgrade the existing 22,000 rural haats into GrAMs, but only 1,251 have come up till 2022. This is barely six per cent of the target.
- There were 6,630 regulated wholesale markets in the country as on March 31, 2017, with an average density of 496 square km per market.
- Only 14 per cent had a pucca internal road. Just 24 per cent had electricity, four per cent had toilet facilities, eight per cent had a boundary wall or fencing and 15 per cent had a raised platform.
- The Standing Committee on Agriculture observed that the average area served by an APMC market is 496 sq. km., which is much higher than the 80 sq. km. recommended by the National Commission on Farmers (Chair: Dr. M. S. Swaminathan) in 2006.

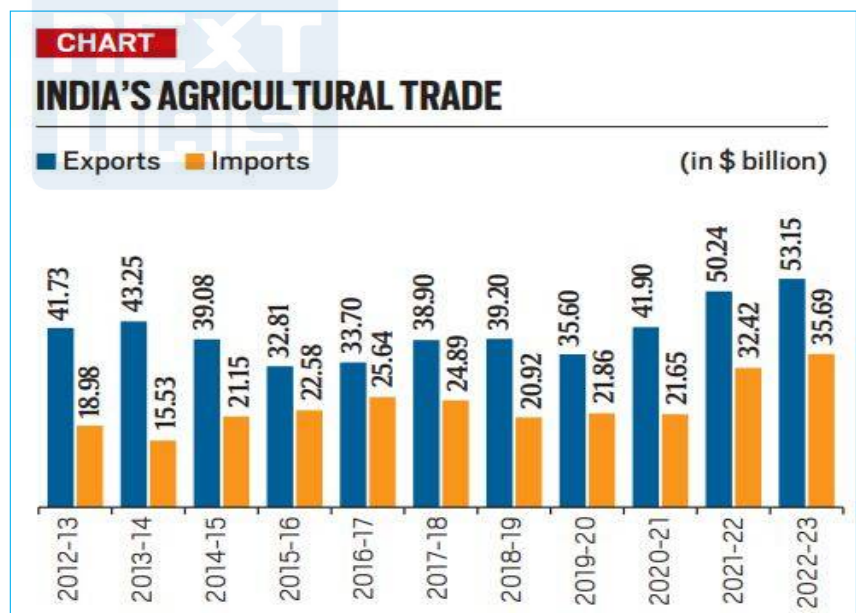
**AGRICULTURAL YIELD-** As per FAO,

- Agricultural productivity is low in India. India produces 27 Qtls. wheat per hectare.
- France produces 71.2 Qtls per hectare and Britain 80 Qtls per hectare.
- Average annual productivity of an agricultural labourer is 162 dollars in India, 973 dollars in Norway and 2408 dollars in USA.



**Agricultural Exports-**

- India's share in global exports of agriculture products was merely 2.2% in 2016.
- As per Ministry of Commerce and Industry, India's agricultural exports fell 8.2% in the fiscal year ended March 31, 2024 on the back of shipment curbs on a host of commodities, from cereals and sugar to onions.
- The value of farm exports totaled \$48.82 billion in 2023-24, down from the record \$53.15 billion of 2022-23 and \$50.24 billion for 2021-22 .



- From its modest beginnings with annual exports of USD 0.6 billion in exports during 1987-88, proactive interventions by the Agricultural and Processed

Food Products Export Development Authority (**APEDA**) have taken agricultural exports to a remarkable figure of USD 26.7 billion in the fiscal year 2022-23

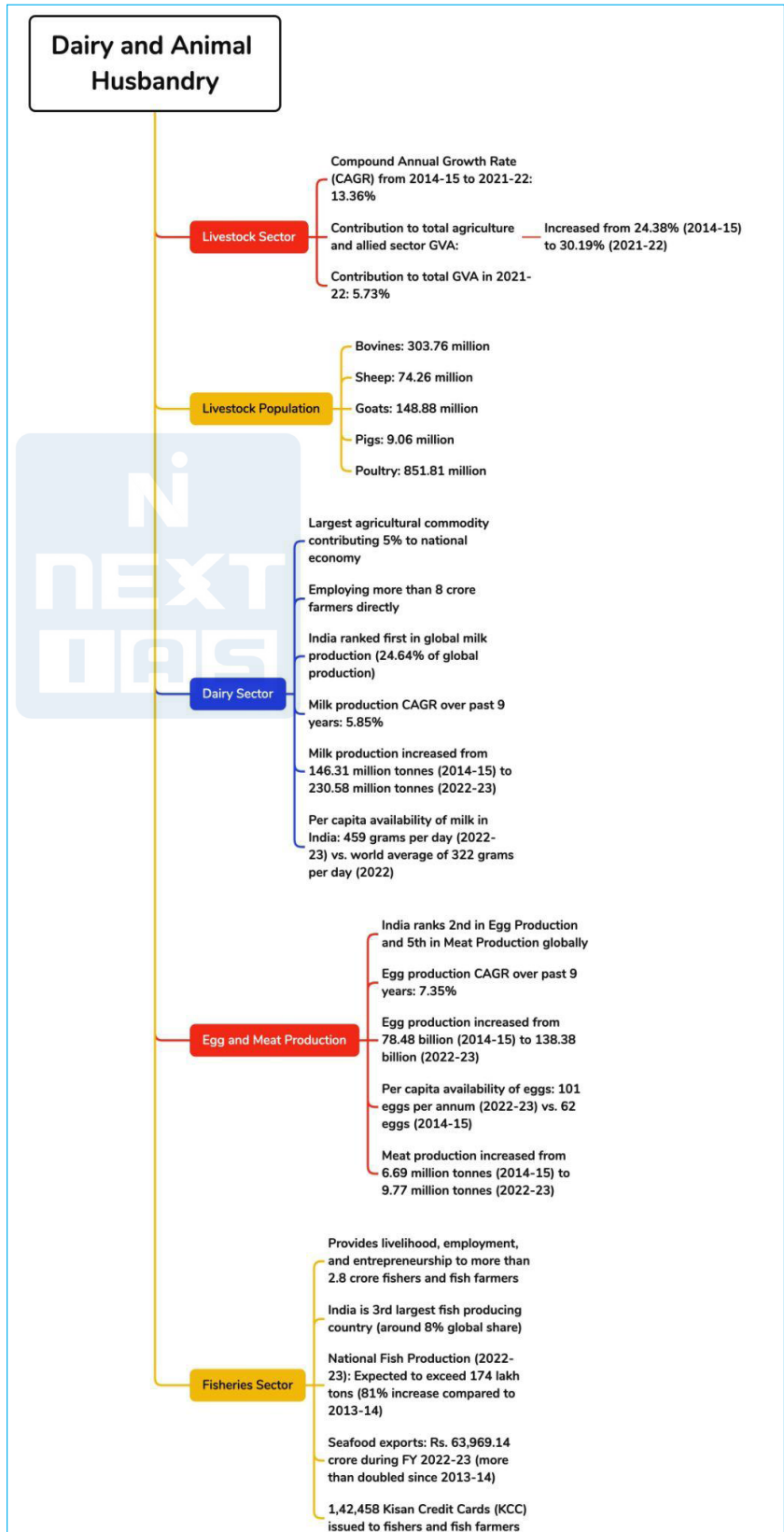
**Agricultural R&D and Innovation-**

- National Agricultural Research System (NARS) coordinated at the apex level by the ICAR/ Department of Agricultural Research and Education (DARE), comprises of 98 Agricultural Research Institutes, 5 Deemed Universities and 3 Central Agricultural Universities besides 63 State Agricultural Universities.
- Government has established a network of 731 Krishi Vigyan Kendras (KVKs) at district level which are coordinated by 11 Agricultural Technology Application and Research Institute (ATARI).

- During 2018-22, training of 62.99 lakhs farmers, 1.49 lakhs On-farm trials and 10.29 lakhs field level demonstrations were conducted by the KVKs and ICAR Institutes.
- Agricultural mechanization - During the period from 2014-15 to December, 2023 an amount of Rs 6405.55 crore has been allocated for agricultural mechanization.
- From within the funds of Sub-Mission on Agricultural Mechanization (SMAM), so far an amount of Rs 141.41 crores have been released towards Kisan drone promotion, which includes purchase of 317 Drones for their demonstration in 79070 hectares of land and supply of 527 drones to the farmers on subsidy.
- Under Rashtriya Krishi Vikas Yojana (RKVY), 1554 **agri-startups** including 387 women led startups working in various field of agriculture & allied sector have been supported with technical and financial assistance of Rs. 111.57 crores released in instalments through various KPs and R-ABIs from 2019-20 to 2023-24.

### Organic Farming-

- According to NSSO data, ~ 70% of Agriculture households spend more than they earn and more than half of farmers are indebted because of the rising cost of external inputs.
- According to the Economic Survey 2019-20, 1.6 lakh farmers are practising ZBNF in ~ 1000 villages using some form of State support.
- Karnataka was the pioneer , AP planned to become India's 1st State to practise 100% NF by 2024.
- A 2017 study in AP claimed a sharp decline in input costs and improvement in yields.



- In 2018, the government introduced the Rashtriya Krishi Vikas Yojana, a centrepiece programme for the Green Revolution, with an appropriation of Rs 3,745 crore for the fiscal year 2019–20. While just Rs 325 crore was allotted to the Paramparagat Krishi Vikas Yojana
- Under PKVY, an assistance of Rs.50,000 per ha for a period of three years is provided to States for promotion of organic farming.
- As per Ministry of Agriculture & Farmers Welfare, Since 2015-16, an area of 11.85 lakh ha has been brought under organic farming through PKVY scheme and Government also intends to another 6.00 lakh ha area to organic through PKVY during the period from 2022-23 to 2025-26.

# NEXT IAS











## AIM 2024-25

**15 Months Intensive Process Oriented**

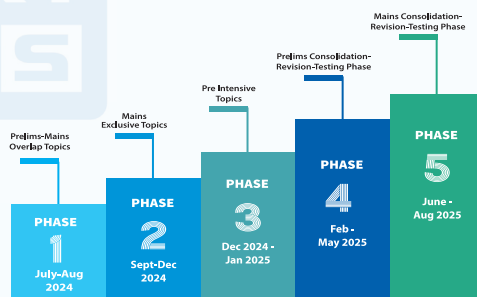
### ADVANCED INTEGRATED MENTORSHIP PROGRAM

to Crack CSE 2025

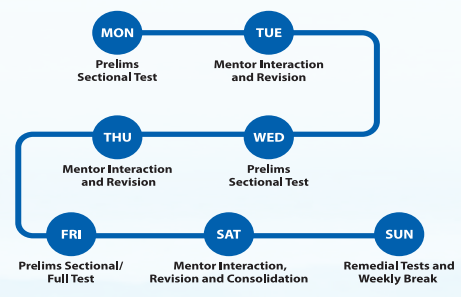
#### What does AIM Program include?

-  **Exhaustive Syllabus Coverage**  
1500+ high relevance themes covering Prelims & Mains.
-  **Systematic Schedule**  
Well structured and phased schedule held accountable by Mentors.
-  **Note Making**  
Consolidated & fortified notes through regimented assignments.
-  **Answer Writing**  
Assessment, Revision & Simulator Tests to master answer writing.
-  **Mentorship Support**  
Guidance by highly experienced & dedicated Mentors.
-  **Prelims Competence**  
6 months intensive Prelims preparation with workbooks and simulators.
-  **Essay Writing**  
Extensive essay writing practice throughout the year.
-  **Current Affairs**  
Exhaustive Current Affairs coverage with CAP, MAC and WCA.
-  **Enhancement Sessions**  
100+ hours of Prelims enhancement sessions.
-  **Highly Relevant Dedicated Workshops**  
Dedicated Workshops to orient CSE 2025 preparations.

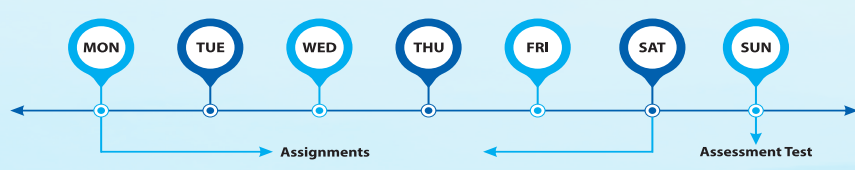
#### Various Phases of AIM Program



#### A Prelims Week in AIM




#### A Mains Week in AIM



**AIM Helpline :**  
☎ 9289140303  
✉ aim@nextias.com

**LAST DATE TO APPLY : 20<sup>th</sup> JULY, 2024**

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## SECURITY

### 1. ROLE OF EXTERNAL STATE & NON-STATE ACTORS

#### LWE- Left Wing Extremism

As per Ministry of Home Affairs,

- The number of LWE related **violent incidents** have come down by 76% in 2022 in comparison to 2010.
- The number of resultant **deaths** (Security Forces + Civilians) have also reduced by 90 % in 2022 as compared to the high of 2010.
- Geographical spread of violence has also significantly reduced and only 176 Police Stations of 45 districts reported LWE related violence in 2022 as compared to 465 Police Stations of 96 districts in 2010.
- Decline in geographical spread is also reflected in the fact that of the total 45 districts reporting LWE violence in 2022, only 10 districts reported 72% of the total violence.

During 2017-22 some of the measures taken by MHA are as under:

- For the expansion of the **road** network, 13620 km of roads have been constructed.
- To improve **telecom connectivity**, 13823 towers have been sanctioned in LWE affected areas. More than 3700 towers have already been commissioned so far.
- For **financial inclusion** of the local populace in the LWE affected districts 4903 new Post Offices have been opened. Further, 955 Bank Branches and 839 ATMs have been opened in 30 Most LWE Affected Districts since April-2015.
- For **skill development** 46 ITIs and 49 Skill Development Centres (SDCs) have been made functional in LWE affected districts.
- For **quality education** in tribal blocks of LWE affected districts 130 Eklavya Model Residential School (EMRS) have been made functional in LWE affected districts.

#### NORTH-EAST INSURGENCY-

- North East India shares about 5500 kms of border with 5 countries - Bhutan, Nepal & China on its north; Myanmar on its east; and Bangladesh on its south and west. This constitutes approximately 60% of India's land borders and more than 90% of NE states land borders.
- **Multi-Ethnic Region** – NE is the most ethnically diverse region in India. It is home to around 40 million people including 213 of the 635 tribal groups.
- **Internal Displacement** – Internal displacement is also an ongoing problem. From the 1990s to the start of 2011, over 800,000 people were forced to flee their homes in episodes of inter-ethnic violence in western Assam, along the border between Assam and Meghalaya, and in Tripura. According to conservative estimates, some 76,000 people remain in internal displacement in NE due to the prolonged armed violence.

As per Ministry of Home Affairs,

- From 2014 till 2022, more than 8000 insurgents have **surrendered**.
- The Disturbed areas under Armed Forces Special Powers Act (**AFSPA**) have been completely withdrawn from Tripura (2015) and Meghalaya (2018) and significantly reduced in Nagaland, Assam and Manipur.

Years	Incident	Extremist killed	Extremist arrested	SFs killed	Civilian killed	Extremist surrendered	Arms surrendered	Arms recovered	Persons Kidnapped
2014	824	181	1934	20	212	291	151	1104	369
2015	574	149	1900	46	46	143	69	828	267
2016	484	87	1202	17	48	267	93	605	168
2017	308	57	995	12	37	130	27	405	102
2018	252	34	804	14	23	161	58	420	117
2019	223	12	936	4	21	158	67	312	108
2020	163	21	646	5	3	2696	445	466	69
2021	209	40	686	8	23	1473	471	367	94
2022	158	6	417	2	6	793	37	155	77

**J&K Separatism-**

As per Ministry of Home Affairs,

The year-wise details of investments reported by the Union Territory of Jammu and Kashmir are as follows:

Description	2018	2023 (by 30 November 2023)
Events initiated by terrorists	228	43
Encounters	189	48
Civilians killed	55	13
security personnel killed in action	91	25

Source: CID , Jammu and Kashmir)

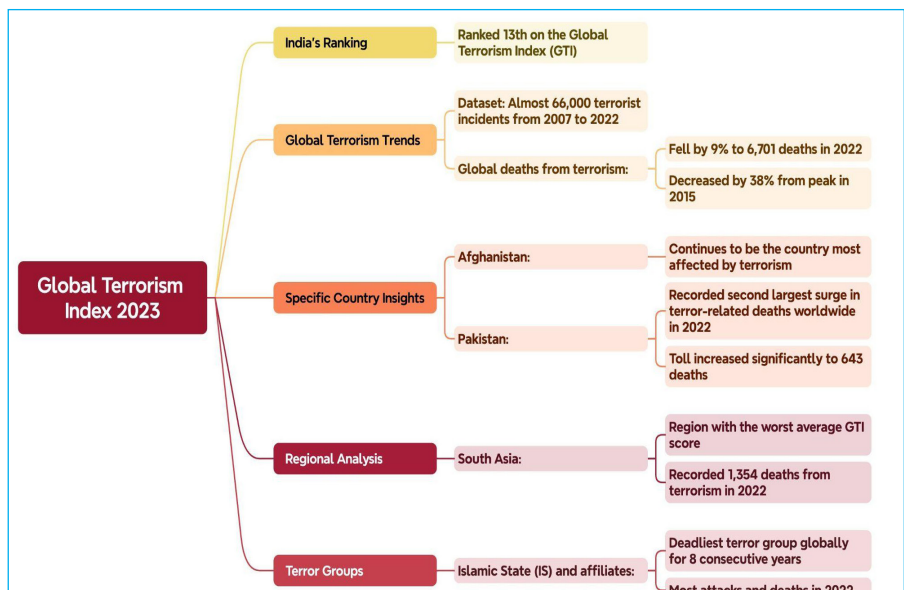
**Terrorism.**

Seizure of black money

- The word ‘black money’ is not defined under the Income Tax Act, 1961, Customs Act, 1962, CGST Act, 2017, Central Excise Act, 1944 and erstwhile Chapter V of Finance Act, 2017.
- Government enacted a comprehensive and a stringent new law, namely, the **Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015 (BMA, 2015)**.
- FIU-India has also entered into Memoranda of understanding (MoUs) with 48 countries to strengthen bilateral relationships with its foreign counterparts since 2008 upto 2022 for exchange of intelligence.

Year	Investment amount (in Rs crores)
2019-20	296.64
2020-21	412.74
2021-22	376.76
2022-23	2153.00
2023-24 ( up to 31 October 2023)	2079.76
Total	5319.

As per Ministry of Finance,





The details of actions taken by Income Tax Department under BMA, 2015 are as under:

- 648 disclosures involving undisclosed foreign assets worth Rs. 4,164 crore were made in the one-time three months compliance window, under BMA, 2015, which closed on 30th September 2015. The amount collected by way of tax and penalty in such cases was about Rs. 2,476 crore.

The details of actions taken by ED in relation to cases involving violations related to BMA, 2015 are as under:

- During investigation in 13 PMLA cases in relation to predicate offences involving violations related to BMA, 2015, proceeds of crime amounting to Rs. 42.57 crore has been attached/seized and 03 Prosecution complaints have been filed.

Fake Indian Currency Notes (FICN)-

- As per data of National Crime Records Bureau (NCRB), there is declining trend in Fake Indian Currency Notes (FICN) seized during the years 2017, 2018 and 2019.

RBI Annual Report 2021-22:

- Counterfeit ₹500 notes (new series): 79,669
- Counterfeit ₹2000 notes: 13,604

NCRB 2020 Data:

- Total FICN seized: 92,994
- Highest seizures in West Bengal, Uttar Pradesh, and Karnataka.

## 2. TECHNOLOGY AND INTERNAL SECURITY

### Cybersecurity

- Since inception of **Citizen Financial Cyber Fraud Reporting and Management System**, more than Rs. 1200 Crore have been saved in more than 4.7 lakh complaints. A toll-free Helpline number '1930' has been operationalized to get assistance in lodging online cyber complaints.
- National Cybercrime Reporting Portal (NCRP) was launched in 2019, The portal has been used for more than 14 crore times till January 2024, which shows its credibility and usefulness. More than 31 lakh cybercrime complaints have been reported by citizens and more than 66,000 FIRs have been registered by LEAs of States/UT.
- Through **Crime and Criminal Tracking Network & Systems (CCTNS)**, 99.9% Police Stations (16,597) are registering 100% FIRs directly and 28.98 crore Police records have been registered. More than 12.30 crore requests have been disposed of by the State Police, out of 12.82 crore service requests received from citizens.
- National Cyber Crime Helpline number 1930, is helping the common citizen in registering online financial frauds. All States/UTs have been on boarded and more than 263 banks, e-commerce companies and others have been integrated. With the help of this system, more than Rs 1,100 crore of citizen's money which was syphoned off by cyber criminals have been saved, thus, benefitting more than 4.3 lac victims.
- **I4C** is instrumental in Blocking of more than 2,95,000 fake SIM cards, more than 46,000 IMEI, more than 2800 websites/URLs, 595 Mobile Applications.

## Vulnerabilities in cybersecurity-

As per NCRB Report,

- Cybercrime **reporting** surged by 24.4%, totalling 65,893 cases, a significant surge from 52,974 cases in 2021.
- **Cyber fraud** constituted the majority of cases (64.8%) of registered cases, followed by extortion (5.5%), and sexual exploitation(5.2%).
  - The crime rate under this category rose from 3.9 in 2021 to 4.8 in 2022.
- The cybersecurity firm's HUNTER, stated that the perpetrators of the cyberattack were "willing to sell [the] entire **Aadhaar** and Indian passport database for \$80,000.
- CloudSEK, an AI company that monitors cyber threats, noted in an August 2022 report that, in 2021, the Indian **healthcare** sector saw the second highest number of attacks after the US; India experienced 7.7 percent of all attacks on the healthcare industry worldwide .
- Cyfirma, reported in March 2021 that a Chinese state-backed hacking group, APT-10 (also known as Stone Panda), was targeting IT systems of major Indian **COVID-19 vaccine** developers .
- According to the Indian Computer Emergency Response Team (CERT-IN)'s **India Ransomware Report 2022**, there has been a 53 percent hike in the number of ransomware attacks in several sectors including critical infrastructure.
- The State of Application Security Report by Indusface said that around 90 per cent of India's **banking and insurance** sectors faced bot attacks in 2023.
- The Cisco Cybersecurity Readiness Index 2024 reveals that only 4% of **organisations** in India are ready to tackle modern cybersecurity risks, compared to 3% globally, and 59% of organizations are still in the beginner stages of readiness.
- India has ranked tenth (10th) in **Global Cybersecurity Index (GCI)2020** by ITU (International Telecommunication Union) by moving up 37 places.

A study by TeamLease,

- **Skilled cybersecurity professionals** has the demand-supply gap stood at 30 per cent.
- The report further says Indian organizations experienced over 2,000 weekly attacks in 2023.
- India's cybersecurity **workforce** stood at around 0.3 million in 2023, up from 0.21 million in 2022, and 0.1 million in 2021. This compares to the global workforce of some 4.7 million cybersecurity professionals.
- The staffing firm has projected India's cybersecurity **market** share to reach \$3.5 billion by 2027, with an expected compound annual growth rate (CAGR) of 8.05 per cent.
- 73 percent of employers find cybersecurity an extremely /important domain.
- Around 42 per cent of organisations feel a targeted cyber attack is a major security risk.

## 3. DEFENCE

### 1. Defence Modernisation

- Capital Outlay for defence services has gone up from Rs 80,959.08 crore in FY 2019-20 to Rs 1,32,301.27 crore in FY 2023-24.
- The projected and allocated funds under Capital Acquisition (Modernisation Budget) in BE 2023-24 are as follows: BE- Rs 1.32 lakhs crores.

## 2. Defence Indigenisation

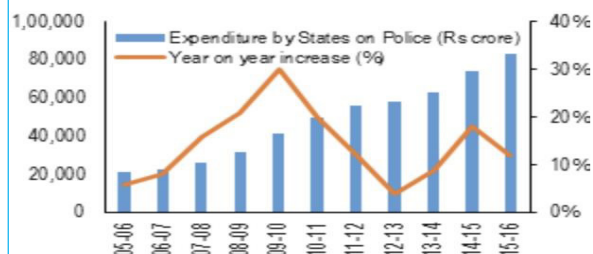
- In BE 2023-24, to encourage indigenous industry to contribute to defence modernisation, funds for the financial year 2023-24 have been earmarked in the ratio of 75:25, where 75% i.e. Rs 99,223.03 crore is for **Domestic procurement** and 25% i.e. Rs 33,078.24 crore is for Foreign procurement.
- Priority to procurement of capital items from domestic sources under Defence Acquisition Procedure (DAP)-2020; Notification of four '**Positive Indigenisation Lists**' of total 411 items of Services and four 'Positive Indigenisation Lists' of total 4,666 items of Defence Public Sector Undertakings (DPSUs)
- Establishment of 2 **Defence Industrial Corridors**, one each in Uttar Pradesh and Tamil Nadu; Opening up of Defence Research & Development (R&D) for industry, start-ups and academia with 25 % of Defence Research and Development budget;
- Liberalisation of Foreign Direct Investment (**FDI**) policy allowing 74% FDI under automatic route.
- **Record Defence Production:** The value of defence production in Financial Year (FY) 2022-23 crossed the figure of Rs one lakh crore for the first time ever. It was Rs 95,000 crore in FY 2021-22 (Ministry of Defence).
- **Record Defence Exports:** defence exports reached an all-time high of approx. Rs 16,000 crore in FY 2022-23, almost Rs 3,000 crore more than the previous financial year. It has risen over 10 times since 2016-17. India is now exporting to over 85 countries.
- **INS-Vikrant**-With 76% indigenous content, the 262.5 m long and 61.6 m wide ship is equipped with state-of-the-art equipment/systems, designed for a crew of around 1,600 officers and sailors. (Ministry of Defence).

## 4. POLICE

As per data maintained by National Crime Record Bureau, the **conviction rate** of States/UTs relating to cognizable crime under Indian Penal Code (IPC) and Special & Local Laws (SLL) crimes during 2018, 2019 and 2020 is 66.6, 66.4 and 73.4 respectively.

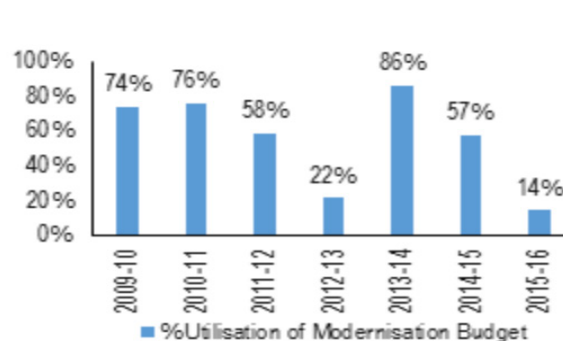
- "Police" is a **State subject** falling in List-II (State List) of the Seventh Schedule of the Constitution of India.
- The Standing Committee on Home Affairs report 'Police - Training, Modernisation and Reforms' in February 2022 found that there is a nearly 21% shortfall against the sanctioned strength of 26.2 lakh in state police forces. Note that the United Nations recommended standard is 222 police per lakh persons.

**Figure 4: Expenditure by states on police over the last decade**



Note: Includes expenditure on union territories.

**Utilisation of funds for modernisation (%)**



The Status of Policing in India Report, 2023

- 51% of respondents reported that their household or residential colony has CCTV coverage.
- CCTV coverage highest in capital cities, with 61% respondents reporting the presence of CCTV cameras in residential areas; in mid-sized and small cities-46% .

**SCIENCE AND TECHNOLOGY**

**1. SPACE**

**India in Space: A \$100 Billion Industry by 2040” a report by consultancy firm Arthur D. Little shows-**

- Currently, India’s space industry is **valued** at \$8 billion with a 2% share in the global space economy.
- India has the **potential** to develop a \$40-\$100 billion space industry by 2040.
- The Indian government aspires for the country’s space sector to account for 9% of the global industry by 2030.
- With its current trajectory, India’s space economy could reach \$40 billion by 2040
- The **global space market** is projected to reach \$1 trillion by 2040 as per various analysts.
- India’s space market is growing at an annual growth rate of 4% in recent years.
- **Indian space startups** have received a total funding of over \$200 million since 2021.
- Indian Space startups received \$112 million in funding in 2022 and of the \$247 million received since 2016, \$204 million, or just over four-fifths has come in 2021 and 2022

Facts Related to Space Sector	
<b>Space Start-Ups</b>	<b>Start-Ups:</b> <ul style="list-style-type: none"> <li>4 in 2014</li> <li>189 in 2023 (as per DPIIT Start-Up India Portal)</li> </ul>
<b>IN-SPACe and MoUs</b>	<b>IN-SPACe:</b> <ul style="list-style-type: none"> <li>Signed around 45 MoUs with NGEs for space systems and applications support</li> </ul>
<b>Launch Vehicle Missions</b>	<b>Till 2013:</b> <ul style="list-style-type: none"> <li>40 launch vehicle missions</li> <li>Nearly 3 launches per year</li> </ul> <b>2014-2023:</b> <ul style="list-style-type: none"> <li>53 launch vehicle missions</li> <li>Average of 6 launches per year</li> </ul>
<b>Foreign Satellite Launches by ISRO</b>	<b>Till 2013:</b> <ul style="list-style-type: none"> <li>Launched 35 foreign satellites</li> </ul> <b>2014-2023:</b> <ul style="list-style-type: none"> <li>Launched more than 380 foreign satellites</li> <li>Earned:                             <ul style="list-style-type: none"> <li>Over 220 Million Euros</li> <li>Over 170 Million US Dollars (from American satellites)</li> </ul> </li> </ul>
<b>Cost Comparison: Chandrayaan-3 vs Russian Moon Mission</b>	<b>Recent failed Russian moon mission:</b> <ul style="list-style-type: none"> <li>Cost: Rs. 16,000 crores</li> </ul> <b>Chandrayaan-3 mission:</b> <ul style="list-style-type: none"> <li>Cost: Around Rs. 600 crores</li> </ul>
<b>India's Space Capabilities</b>	<b>5th among spacefaring nations with end-to-end capabilities in space R&amp;D</b>
<b>Operational Satellites</b>	<b>Total: 53 operational satellites (end of 2022)</b> <ul style="list-style-type: none"> <li>21 Communication Satellites</li> <li>8 Navigation Satellites</li> <li>21 Earth Observation Satellites</li> <li>3 Science Satellites</li> </ul>

- Currently, **Space tourism tickets** are priced at \$50,000- \$100,000. It will be a fairly premium experience.
- **China** is conducting 10 times more launches per year and has 500 active satellites compared with India's 50.

**Indian scenario-** As per ISRO,

- Since the beginning of the Indian space era, a total of 127 Indian satellites, including those from private operators/academic institutions, have been launched till 31st December 2023.
- As of 31 Dec 2023, the **number of operational satellites** owned by Govt. of India is 22 in LEO (Low Earth Orbit) and 29 in GEO (Geo-synchronous Earth Orbit). In addition, three Indian deep space missions were also active by the end of 2023, namely, Chandrayaan-2 Orbiter, Aditya-L1, and the Propulsion Module of Chandrayaan-3.

Under the **amended FDI policy**, 100% FDI is allowed in space sector.

- Upto 74% under Automatic route: Satellites-Manufacturing & Operation.
- Upto 49% under Automatic route: Launch Vehicles and associated systems or subsystems, Creation of Spaceports.
- Upto 100% under Automatic route: Manufacturing of components and systems/ sub-systems for satellites.

**New Space India Limited-**

- Engaged by Dept. of Fisheries for National Rollout plan for installation of 1,00,000 MSS terminal on fishing vessels.
- Supply order from DRDO for building 4 satellite flight model.
- During 2023, NSIL successfully accomplished launch of 46 International Customer satellites onboard PSLV, LVM3 and SSLV
- During 2023, NSIL has signed 15 Technology Transfer Agreements for transferring ISRO developed Technologies to Industry

**Space Budget:** In the Interim Union Budget 2024, the allocation for the space department saw a modest 4 per cent increase, from Rs 12,545 crore to Rs 13,043 crore.

**Space Junk:** Globally a total of 3143 objects originating from 212 launches and on-orbit break-up events were added to the space object population in 2023 compared to 2533 objects from 179 launches in 2022.

## 2. BIOTECHNOLOGY

As per Department of Biotechnology, Year-end Review 2023

- **Reform-**The 14 Autonomous Institutions (AIs) of Department of Biotechnology (DBT) were subsumed under one Apex Autonomous Society viz. Biotechnology Research and Innovation Council (BRIC).
- **National Biopharma Mission (NBM):** NBM has enabled support for development of 15 vaccine candidates for cholera, influenza, dengue, chikungunya, pneumococcal disease, covid-19 (early development) and related technologies; 21 biosimilar products and related technologies for diabetes, rheumatological and ophthalmic diseases, cancer; 29 medical devices & diagnostics.

**India BioEconomy Report 2023-**

- In 2014, India's bioeconomy stood at just about \$10 Billion.
- Bioeconomy of the country has reached **\$137 billion in 2023** which is expected to reach \$300 Bn by 2030.

- India’s bioeconomy experienced robust growth in 2022, surging by 29%. The dominant player has been the bioindustrial sector that contributed 59% to the bioeconomy figure, followed by biopharma at 49%.
- The report further highlights that a total number of 35000 cumulative startups is projected for 2030, and 13470 for 2025.
- India poised to be among top 5 Global Bio-manufacturing Hubs by 2025

**Budget-** In the Interim Budget 2024-25, the Department of Biotechnology (DBT) was allotted Rs. 2,251.52 crore (US\$ 271 million).

**Investment-** As per Department of Biotechnology data,

- Investment in India’s bioeconomy increased 400%, reaching Rs. 4,200 crore (US\$ 507.77 million) in 2022 from Rs. 10 crore (US\$ 1.20 million) in 2014.

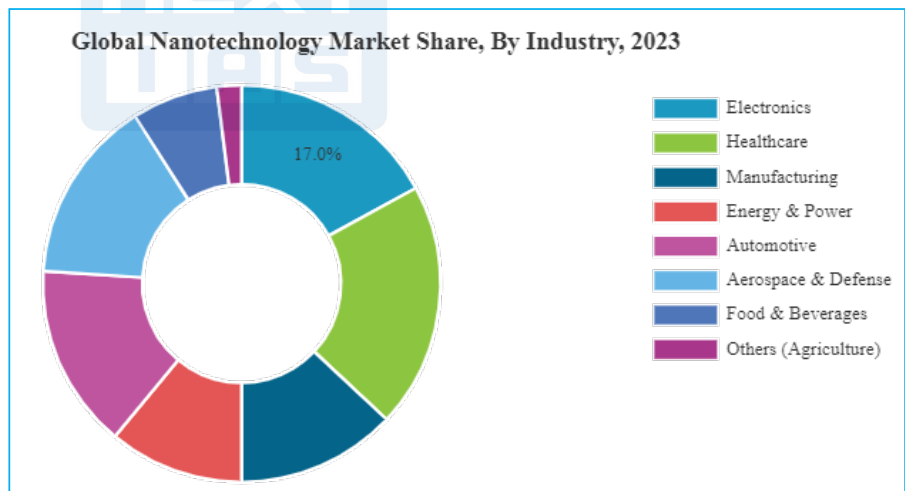
**FDI Policy-**

- 100% FDI is allowed under the automatic route for greenfield pharma.
- 100% FDI is allowed under the government route for brownfield pharma.
- FDI up to 100% is allowed under the automatic route for the manufacturing of medical devices.

**3. NANOTECHNOLOGY**

As per Inkwood Research, The **India nanotechnology in energy applications market** was valued at **\$679.44 million in 2022**, growing at a **CAGR of 13.25%** during the forecast period, **2023 to 2030**.

**As per Fortune Business Insight report**, The global nanotechnology market size is projected to grow from \$91.18 billion in 2024 to \$332.73 billion by 2032, at a CAGR of 17.6%.



**4. EMERGING TECHNOLOGIES**

**Artificial Intelligence- AI**

**Potential-**

The report, ‘Rewire for Growth by Accenture,’ estimates that AI has the potential to increase India’s annual growth rate of gross value added (GVA) by 1.3 percentage points, lifting the country’s income by 15 percent in 2035.

- Artificial Intelligence (AI) could add US\$957 billion to the Indian economy by changing the nature of work

As per E&Y report, The cumulative impact of Generative AI on India’s GDP may range from US\$1.2 trillion to US\$1.5 trillion, contributing an additional 0.9% to 1.1% in annual CAGR.

**Adoption-**

State of AI in India report by Deloitte

- The survey reveals that only 39 percent of the represented businesses are looking at more than 20 percent increase in AI investments.
- Ahead of the United States and China, India recorded the highest growth in hiring for AI from 2016-2020 and a higher AI skills penetration rate.
- Increased confidence in AI as businesses plan 82 percent in 2021 and 88 percent in 2022.

**Investment**

Intel-IDC study 2024,

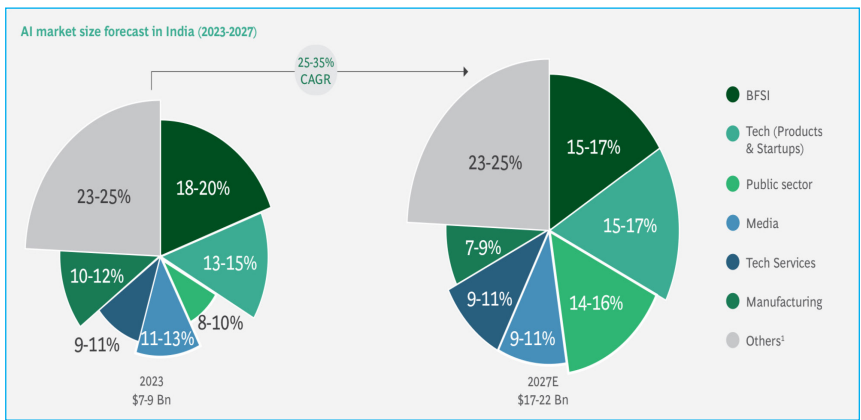
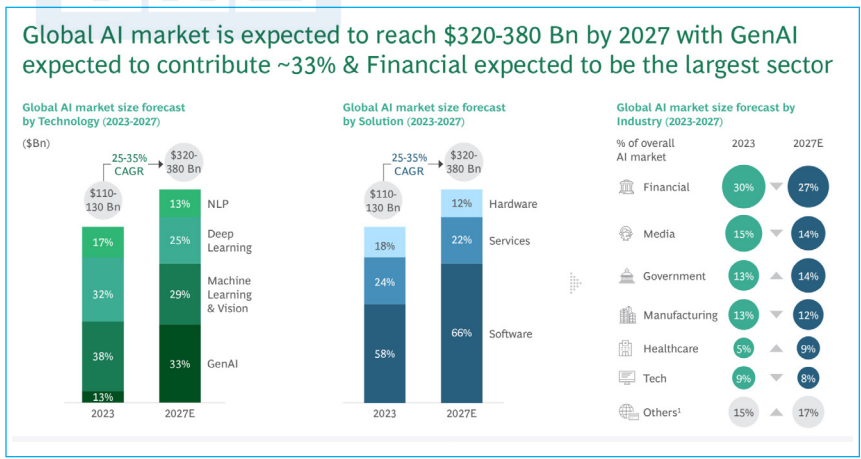
- Spending on artificial intelligence (AI) in India is expected to grow at a compound annual growth rate of 31.5 per cent from 2023 and might reach \$5.1 billion by 2027.
- The AI software sector is projected to be the primary driver of overall market growth, reaching \$2.6 billion by 2027.
- Entities in India spent \$1,703.8 million on AI in 2023, with banking, financial services and insurance, being the highest spending sector.
- Overall spending on AI across the globe, 50 per cent of it is coming from the US.
- Spending on AI infrastructure is projected to hit \$733 million by 2027.

**AI Market-**

- The AI market in India is projected to reach \$8 billion by 2025, growing at a CAGR of over 40% from 2020 to 2025.

The report “Unlocking Value from Data and AI: The India Opportunity” highlights by Nasscom-BCG

- India's artificial intelligence market is projected to touch \$17 billion by 2027, growing at an annualised rate of 25-35% between 2024 and 2027
- Almost 93% of investments made by Indian tech services and made-in-India product players concentrate on digital content, data analytics and supply chain.
- India has the second highest installed talent base, with 420,000 employees working in AI job functions.



## Internet of Things IoT-

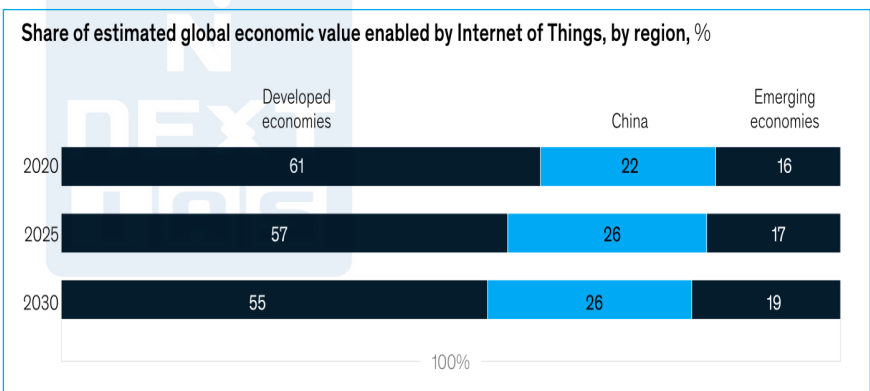
Potential in India-

- India e-economy report by Google, Temasek and Bain & Company shows that **India's internet economy** is likely to grow six-fold to \$1 trillion in gross merchandise value (GMV) by 2030, to reach twice the size of IT services by value.
- According to Frost & Sullivan report, The Indian Internet of Things (**IoT**) **market** is projected to reach \$9.28 billion by 2025 from \$4.98 billion in 2020.
- As per Nasscom, The IoT market in India is poised to reach USD 15 billion by 2020, accounting for nearly 5 per cent of the total global market

### Potential-

As per McKinsey latest report on IoT

- By 2030, we estimate that it could enable \$5.5 trillion to \$12.6 trillion in value globally.
- Factory setting will account for the largest amount of potential economic value from the IoT, around 26 percent, in 2030. The human-health setting is second, representing around 10 to 14 percent of estimated IoT economic value in 2030.
- The 2030 IoT economic-value potential of the developed world will account for 55 percent of the global total, decreasing from 61 percent in 2020.
- Autonomous vehicles use of IoT expected CAGR between 2020 and 2030 is 37 percent - \$0.3 trillion in 2030, from \$0.01 trillion in 2020.

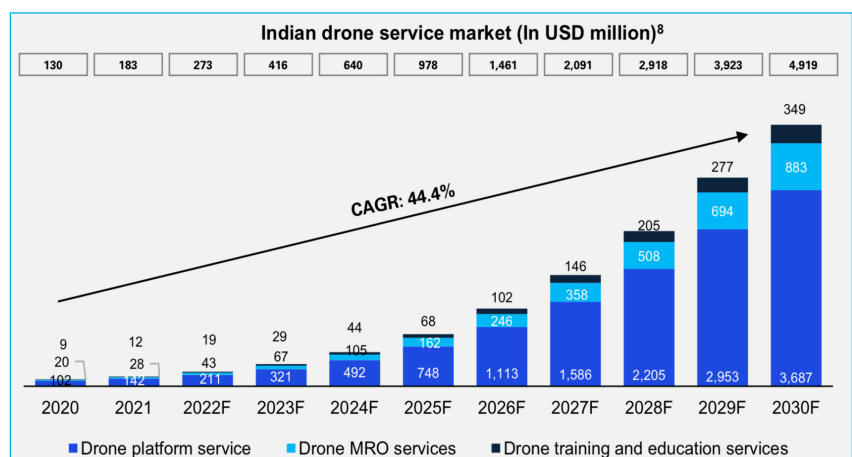


### Drones-

- As per Ministry of Civil Aviation, the **size** of the Drone market is projected to increase from Rs 2900 Crore in 2020 to about Rs 77,300 Crore in 2025 at a CAGR of 80% and is further expected to reach up to Rs 2,95,000 Crore by 2030.
- As per the Ministry of Civil Aviation projections, the Indian drone manufacturing industry is expected to reach Rs 900 crore by 2025 from just Rs 60 crore in 2020-21, according to a study conducted by Nexgen Exhibitions.
- India's drone industry is expected to generate around five lakh **job** opportunities, 15,000 of which are in manufacturing

Ease of Regulations-

- The number of **permissions** needed has been drastically reduced from 25 to five, and the types of fees from 72 to four.
- The revamped drone airspace map released in September





2021 has classified up to 90 percent of Indian airspace as the green zone for flying drones up to 400 feet.

- MoCA has earmarked INR 120 crore under the PLI scheme to incentivise the development of drones and drone components over the next three years

### Automation and Robotics-

As per International Federation of Robotics,

- **Sales** of industrial robots in India reached a new record of 4,945 units installed in 2021. This is an increase of 54 percent compared to the previous year (2020: 3,215 units).
- The automotive industry remains the largest customer for the robotics industry in India with a share of 31% in 2021.
- India's **robot density** in the automotive industry, which is the number of industrial robots per 10,000 employees, reached 148 robots in 2021. **China's** robot density hit 131 units in 2010 and skyrocketed to 772 units in 2021.

Others-

- India's **surgical robotics** market to grow 5 times . It is estimated to expand at a compound annual growth rate (CAGR) of 20 per cent between 2017 and 2025 to hit the size of \$350 million, compared with \$64.9 million in 2016.
- As per Bluewave Consulting, India **industrial robotics market** size was estimated at USD 4.92 billion in 2022. During the forecast period between 2023 and 2029, the size of India industrial robotics market is projected to grow at a CAGR of 12.60% reaching a value of USD 11.29 billion by 2029.

### 5G-

According to the **Ericsson Mobility Report 2023**,

- India will have 130 million 5G users by the end of 2023. Expected to rise to 860 million subscribers by 2029.
- Ericsson pegged India's 5G subscriber base at 31 million users, rising by over 4x in 2023 itself. Going forward, the next six years will see 5G subscribers grow by 6.6x.
- Global 5G subscribers are projected to grow 63% annually to 1.6 billion accounts. By the end of 2029, 5G subscribers are projected to grow to 5.3 billion—India, thus, is expected to account for just over 16% of all 5G users worldwide.

### Investment-

- According to rating agency Fitch, Jio is investing \$13-14 billion (\$1.08-1.16 lakh crore) to roll out its 5G standalone network, whereas, Airtel is investing \$3-4 billion (\$24,928-33,237 crore) on 5G non-standalone network.

### Impact-

The report, titled 'India's 5G rollout: Revolutionising the People Supply Chain,' by TeamLease-

- It is estimated that 5G will deliver \$13.2 trillion in global economic value by 2035 and generate 22.3 million jobs in the 5G global value chain. Moreover, global 5G mobile subscriptions are projected to reach five billion by the end of 2028.

- India needs 8 million **skilled workers** in 5G tech by 2025 to unlock potential
- Significant impact of 5G on **job creation** over the coming years, at least 46 percent of participants foresee job creation ranging from 61-80 percent within the first year of 5G's implementation.

According to Ookla, "India ranked 14th globally in 5G median download speeds with 301.86 Mbps based on Q4 2023 data".

### **Skill required-**

- India will require 22 million skilled workers in 5G-focused industries by 2025 in areas such as cloud computing, robots, and the Internet of Things (IoT), according to a report by the Telecom Sector Skill Council (TSSC).

### **Electric Vehicles -**

Potential and trend-

As per India Electric Vehicle Report 2023 by Bain & Company,

- EVs accounted for about **5% of total vehicle sales** between October 2022 and September 2023—and could reach more than 40% penetration by 2030
- 2W EVs form the majority of EV sales today, accounting for 85%–90% of all EV units sold in India, followed by 4W EVs (7%–9% of sales) and 3W EVs (5%–7% of sales).

CareEdge reported- The **total EV sales** reached 1.53 million in 2023, up from 1.02 million in 2022.

- The overall share of EVs in India's auto sales has risen sharply to 6.38% in 2023 from 1.75% in 2021.

**Environmental benefits-** As per NITI Aayog report,

- The emissions impact of electric vehicles is much lower than petrol or diesel vehicles.
- From an efficiency perspective, electric vehicles can convert around 60% of the electrical energy from the grid to power the wheels, but petrol or diesel cars can only convert 17%-21% of the energy stored in the fuel to the wheels. That is a waste of around 80%.
- Fully electric vehicles have zero tailpipe emissions, but even when electricity production is taken into account, petrol or diesel vehicles emit almost 3 times more carbon dioxide than the average EV.
- To reduce the impact of charging electric vehicles, India is ambitious to achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by the year 2030

### **Charging Infrastructure-**

- As per Ministry of Power, 12,146 nos. of public EV charging stations are operational across the country, as on 02.02.2024.
- The Confederation of Indian Industry (CII) report on 'Changing Infrastructure for Electric Vehicles', states that India might require a minimum of 1.32 million charging stations by the end of 2030 .

## 5. RESEARCH AND DEVELOPMENT

### Status-

- As per Ministry of Science & Technology Annual Report 2022 India ranks **6th** globally in R&D investment in terms of US\$ Purchasing Power Parity (PPP).
- As per the latest available statistics of Ministry of Science & Technology, India's **spending** on Research and Development (R&D) is consistently increasing in last 10 years and has increased nearly tripled from Rs. 39,437.77 crore in 2007-08 to Rs. 1,13,825.03 crore in 2017-18.

As per Ministry of Science & Technology Annual Report 2022

- India's significant rise in terms of **number of publications** in SCI journals - globally ranked 3rd now from 6th in 2013
- India occupies 3rd rank in terms of **number of PhDs awarded** in Science and Engineering (S&E) (nearly 25,000) after the USA and China.
- India ranks 3rd globally in terms of **number of Startups** (77,000) and in terms of no of UNICORNS (107) in the world.
- India created a massive jump in its global ranking of **Global Innovation Index (GII)** from 81st in the year 2015 to 40th in 2022 among 130 economies of the world. India ranks 2nd among 34 lower middle-income economies and 1st among 10 Central and Southern Asian economies in terms of GI.
- India ranks 3rd among the most attractive investment destinations for technology transactions in the world.
- The Gross Expenditure on R&D (**GERD**) has increased more than three times in the last 10 years.
- India's GERD as a percentage share of GDP, has been **0.7%** during the last 3 years. The corresponding figures for some developed and developing countries include, Israel (4.9), South Korea (4.5), Japan (3.3), Germany (3.1), USA (2.8), France (2.2), China (2.1), UK (1.7), Canada (1.5), Brazil (1.2), Russia (1.0) and South Africa (0.8).
- **Women's participation** in extramural R&D has also doubled in the last 9 years.
- India is ranked 9th in terms of resident **patent filing**
- **NIDHI** (National Initiative for Developing & Harnessing Innovations) impacts on India's Innovation ecosystem by nurturing 3,681 startups through a network of 153 incubators created by DST, which generated 65,864 jobs as cumulative direct employment, created a wealth of Rs 27,262 crores and generated 1,992 intellectual property.
- Number of researchers per million population in India has increased to 255 in 2017 from 218 in 2015 and 110 in 2000.

The **budget** of the Department of Agricultural Research & Education (DARE) has increased from Rs. 7846.17 crores in 2019-20 to Rs. 9504 crores in 2023-24.

### Women in Science-

- According to a report by the National Science Foundation, women make up only **14%** of the total workforce in STEM fields in India.

- A study conducted by UNESCO found that only 35% of **STEM** students in higher education in India are women.
- Recent data from the Department of Science and Technology (DST) showed women made up 28% of participants in 2018-19 in extramural Research and Development (R&D) projects, up from 13% in 2000-01.

All India Survey on Higher Education (AISHE) report 2021-22-

- Females continues to remain poor in **engineering and technical courses** at 29.1% against 70.9% male students.
- In medical science courses, there were 17.05 lakh students enrolled with 57.6% females and 42.4% male students.
- India has a total of 56,747 **female researchers** which is 16.6 per cent of total researchers in the country.

## ENVIRONMENT

### 1. ECOSYSTEM AND ECOLOGY

#### Terrestrial Ecosystem:

#### 1. FOREST

**Deforestation-** According to the Global Forest Resources Assessment 2020 (FRA 2020) report by United Nations Food and Agriculture Organization(FAO), the rate of forest loss has declined in the period of 1990-2020.

- **Total forest area:** The world's total forest area is 4.06 billion hectares (bha), which is 31% of the total land area. This area is equivalent to 0.52 hectares per person.
- **Top countries in forest cover** — the Russian Federation, Brazil, Canada, the United States of America and China constituted more than 54% of the world's forests.
- **Forest loss:** According to the report, the world has lost 178 million hectares (mha) of forest since 1990, an area the size of Libya.
- **Decline in rate of forest loss:** It was 7.8 mha per year in the decade 1990–2000, 5.2 mha per year in 2000–2010 and 4.7 mha per year in 2010–2020.
- **Types of forest loss:** The largest proportion of the world's forests are tropical (45%), followed by boreal, temperate and subtropical.
- **Protected forest areas** worldwide estimate around 726 mha. The protected forest areas increased by 191 mha since 1990.
- **Forest Firerability;** VulneA study by the Council on Energy, Environment, and Water (CEEW) found that over 30% of districts in India are susceptible to severe forest fires.

#### Acts pertaining to Forest in India:

- The Indian Forest Act, 1927
- The Wildlife Protection Act, 1972

- The Wild Life (Protection) Amendment Act, 2006
- The Forest (Conservation) Act, 1980

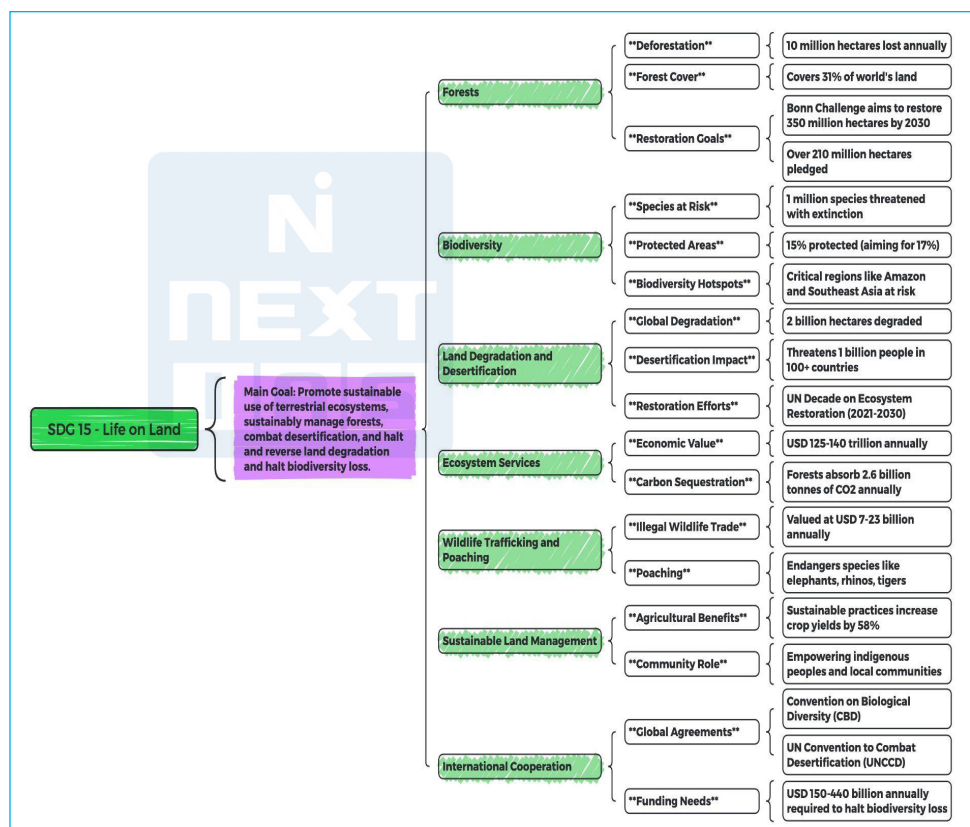
## 2. DESERT ECOSYSTEM

Desert habitats are found in less than 25cm of annual rainfall. According to the Desertification and Land Degradation Atlas 2021, at least 30% of India's total geographical area is under the category of "degraded land".

- **Bonn Challenge:** Launched in 2011, the Bonn Challenge aims to restore 150 million hectares of degraded and deforested landscapes by 2020 and 350 million hectares by 2030. India joined the Bonn Challenge in 2015, committing to restore 26 million hectares of degraded and deforested land by 2030, creating an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent through forest and tree cover by 2030.

- **Land Degradation;**

Deforestation and forest degradation contribute around 12% of global greenhouse gas emissions, according to the International Union for Conservation of Nature (IUCN). Forests play a vital role in carbon sequestration, absorbing about 2.6 billion tonnes of carbon dioxide annually, which represents nearly 33% of carbon dioxide emissions from fossil fuel combustion.



## AQUATIC ECOSYSTEM:

### Wetlands in India

- In India, according to the National Wetland Inventory and Assessment compiled by the Indian Space Research Organisation (ISRO), wetlands are spread over 1,52,600 square kilometres (sq km) which is 4.63 per cent of the total geographical area of the country
- Of the 1,52,600 sq km, inland-natural wetlands account for 43.4% and coastal-natural wetlands 24.3%.
- Rivers/streams occupy 52,600 sq km, reservoirs/barrages 24,800 sq km, inter-tidal mudflats 24,100 sq km, tanks/ponds 13,100 sq km and lake/ponds 7300 sq km.
- In state-wise distribution of wetlands, Gujarat is at the top 17.56 percent of total geographical area of the state or 22.7 percent of total wetlands areas of the country .
- **Mangrove Cover in India:** According to the Indian State Forest Report 2021, Mangrove cover in India is 4992 sq. Km which is 0.15% of the country's total geographical area.

**Global Wetlands Outlook**

- Globally, wetlands cover 4 per cent of the geographical area of the world
- Approximately 35 per cent of the world’s wetlands were lost between 1970-2015 with annual rates of loss accelerating from 2000

**Wetland Degradation: India**

- According to estimates by Wetlands International South Asia, nearly 30% of the natural wetlands in India have been lost in the last three decades mainly to illegal construction, unsustainable urbanisation, agricultural expansion and pollution
- Mumbai has lost maximum wetlands (71%) — from 1970 to 2014. Other major cities that faced wetland loss include Ahmedabad (57%), Bengaluru (56%), Hyderabad (55%), Delhi and National Capital Region (38%), and Pune (37%)
- Less than 31 percent of the domestic wastewater from Indian urban centres is treated, compared to 80 percent in the developed world.
- Fertiliser consumption in India has increased from about 2.8 million tonne in 1973–1974 to 28.3 million tonne in 2010–2011.

**Provisions to protect:**

- Ramsar Convention.
- Wetlands (Conservation and Management) Rules, 2017.
- Coastal Zone Management Act.
- London and MARPOL Convention for Marine and shipping pollution.

**Coral Reefs**

- **Conditions:** Corals rarely develop in water deeper than 165 feet (50 meters). Corals generally live in water temperatures of 20–32° C. They have tolerance to a very narrow temperature range.
- Worldwide, coral reefs cover an estimated 110,000 square miles (284,300 square kilometres).

**Benefits:**

- Reef tourism brings in billions of dollars each



year and supports thousands of jobs. The Great Barrier Reef generates more than 1.5 billion dollars every year for the Australian economy, from fishing and tourism

- Reef animals are an important source of protein. Coral reefs provide about 10% of the fish caught worldwide (70-90% for the Southeast Asian countries)
- As per an estimate, the total annual net benefit of the world's coral reefs is \$29.8 billion. Reefs are the backbone of tropical regions' economies

**Coral bleaching** matters because it's not an isolated phenomenon. According to the National Oceanic and Atmospheric Association, between 2014 and 2017 around 75% of the world's tropical coral reefs experienced heat-stress severe enough to trigger bleaching

## 2. BIODIVERSITY

**Indo-Himalayan Realm:** India is situated within the Indo-Malayan realm, home to approximately 7.6% of the world's mammals, 14.7% of amphibians, 6% of birds, 6.2% of reptiles, and 6.0% of flowering plant species.

- **Biodiversity Hotspot:** India is one of the most biodiverse regions globally, featuring four of the world's 36 biodiversity hotspots: the Western Ghats, the Eastern Himalayas, the Indo-Burma hotspot, and the Sundaland biodiversity hotspot.
- **Megadiverse Country:** India houses over 500 species of mammals, more than 200 species of birds, and 30,000 different species of insects. India is recognized as one of the 17 megadiverse countries. The nation boasts 7 Natural World Heritage sites and eleven Biosphere Reserves.

### Conservation Efforts:

- The National Wildlife Database Centre of Wildlife Institute of India (WII) has been developing a National Wildlife Information System (NWIS) on the Protected Areas of the country.
- India has a **network of 1014 Protected Areas** including 106 National Parks, 573 Wildlife Sanctuaries, 115 Conservation Reserves and 220 Community Reserves covering a total of **1,75,169.42 km<sup>2</sup>** of geographical area of the country which is approximately **5.32%**.
- **Ecosystem Restoration:** The UN has declared **2021-2030 as the Decade on Ecosystem Restoration**, emphasizing the restoration of degraded terrestrial ecosystems, including forests.

## 3. CLIMATE CHANGE

### India's Carbon Emissions Profile

- **Global Position:** India ranks as the 3rd largest emitter globally. If emissions continue to increase at the historical rate of 5%, India's emissions will grow fivefold.
- **Population vs. Emissions:** Although India's population represents one-sixth of the world's population, it has historically accounted for only 3.3% of the cumulative global emissions.
- **Key Sectors:** The industrial and power sectors are responsible for the majority of India's emissions, totaling 2.7 GtCO<sub>2</sub>e. About one-third of emissions originate from the steel and cement sectors, another third from the power sector, and the remaining from transportation and other sectors. Agriculture and allied activities contribute nearly 17% of total emissions.

## Impact of Climate Change:

### Key Takeaways from the **Synthesis Report of IPCC AR6**

- **GreenHouse Gas(GHG) emissions** will lead to increasing global warming in the near term, and it's likely this will reach 1.5°C between 2030 and 2035.
- The world is currently at around 1.1°C of warming, and current climate policies are projected to increase global warming by 3.2°C by 2100.
- The IPCC has “very high confidence” that the risks and adverse impacts from climate change will escalate with increasing global warming.
- To keep within the 1.5°C limit, emissions need to be reduced by at least 43% by 2030 compared to 2019 levels and at least 60% by 2035.
- Losses and damages will disproportionately affect the poorest and most vulnerable populations, particularly those in Africa and least-developed countries, creating more poverty.
- Tracked climate finance for mitigation falls short of the levels needed to limit warming to below 2°C or to 1.5°C across all sectors and regions.

**Human-Induced Climate Change:** A study by World Weather Attribution in July 2021 revealed that heatwaves and wildfires are “unimaginable” without human-induced climate change.

**Internal Displacement due to Climate Change:** In 2021, nearly five million people in India were internally displaced due to climate change and disasters, according to the United Nations’ annual Global Trends Report by the UN Refugee Agency (UNHCR).

**Marine Heatwaves and Ocean Acidification:** As per State of the Global Climate 2023, The global ocean experienced an average daily Marine Heatwave coverage of 32%, well above the previous record of 23% in 2016.

### **The ‘Global Sea-Level Rise’ and Implications by the World Meteorological Organisation (WMO) :**

- Between 2013 and 2022, sea levels experienced an average annual rise of **4.5 mm**, the highest recorded rate to date.
- In 2020, approximately **11% of the global population (around 896 million people)** lived within the Low Elevation Coastal Zone.
- This number is projected to exceed **1 billion people by 2050**, indicating a potential increase in the population exposed to coastal areas with low elevation.

**Extreme Climatic Events:** A 2021 report by The Council on Energy, Environment, and Water found that 75% of districts in India, representing over half the population, are vulnerable to extreme climate risks.

- Between 1990 and 2019, India incurred losses exceeding \$100 billion. The intensity of floods, landslides, heavy rainfall, and droughts has also significantly increased.
- Over 40% of Indian districts are experiencing a swapping trend, where flood-prone areas are becoming drought-prone, and vice versa.
- The number of urban heat islands is increasing due to rising heatwaves. The average temperature in India has risen by 0.62°C from 1901 to 2020, according to the India Meteorological Department (IMD).



**Threats to Glaciers:** Glaciers on the UNESCO World Heritage list face a significant threat, with one-third under imminent danger, despite efforts to limit temperature increases.

- These glaciers, found in Africa, Asia, Europe, Latin America, North America, and Oceania, are **losing 58 billion tons of ice annually and contribute to nearly 5%** of observed global sea-level rise.
- **Ice Mass Loss Data:** Data from NASA's Gravity Recovery and Climate Experiment shows that Greenland lost an average of 286 billion tons of ice per year between 1993 and 2016, while Antarctica lost about 127 billion tons of ice per year during the same period. The rate of Antarctica's ice mass loss has tripled in the last decade

### Emissions Gap Report 2023

Temperature Rise Trajectory:

- **Current Pledges:** Existing commitments under the Paris Agreement project a global temperature increase of 2.5-2.9°C above pre-industrial levels by the end of the century.
- **Necessary Emission Cuts:** To limit warming to 1.5-2°C, significant reductions in emissions, ranging from 28-42% by 2030, are required.

Global Emissions Trends:

- **Record High Emissions:** In 2022, greenhouse gas (GHG) emissions reached a new peak of 57.4 GtCO<sub>2</sub>e, marking a 1.2% rise from the previous year.
- **Fossil CO<sub>2</sub> Emissions:** These emissions, which constitute about two-thirds of the total GHG emissions, grew by 0.8-1.5% in 2022.
- **Other GHGs:** Emissions of fluorinated gases increased by 5.5%, methane by 1.8%, and nitrous oxide (N<sub>2</sub>O) by 0.9% in 2022.
- **G20 Emissions:** Collectively responsible for 76% of global emissions, G20 countries saw a 1.2% rise in 2022. Increases were noted in China, India, Indonesia, and the USA, while Brazil, the EU, and Russia saw decreases.

Emissions from Major Economic Sectors:

- **Energy Supply:** Largest contributor with 20.9 GtCO<sub>2</sub>e (36% of total emissions).
  - **Industry:** 25% of total emissions.
  - **Agriculture and LULUCF:** 18% of total emissions.
  - **Transport:** 14% of total emissions.
  - **Buildings:** 6.7% of total emissions.

Mitigation Efforts:

- **Future Projections:** With current policies and pledges, global warming is likely to reach 3°C above pre-industrial levels by century's end.
- **Impact of NDCs:** Implementing unconditional Nationally Determined Contributions (NDCs) could limit temperature rise to 2.9°C, and conditional NDCs might cap it at 2.5°C.
- **Likelihood of 1.5°C Target:** Even under the most optimistic scenario, the probability of limiting warming to 1.5°C is only 14%.
- **NDC Updates:** Nine countries have updated their NDCs, potentially reducing emissions by about 9% annually by 2030.

**Global Climate Risk Index 2021:** India has improved its rankings, moving from 5th in the 2020 Index to 7th in the 2021 Index.

### India's Commitments to Combat Climate Change

UPDATED Nationally Determined Contributions (NDCs) 2022, under the Paris Agreement

#### Emissions Intensity Reduction:

- OLD-Reduce the emissions intensity of GDP by 33-35% from 2005 levels by 2030.
- NEW-Reducing the emission intensity of its GDP by 45% by 2030, compared to the 2005 level.

#### Renewable Energy:

- OLD-Aim for **40% cumulative electric power** installed capacity from non-fossil fuel-based sources by 2030, with a **target of 450 GW** of renewable energy capacity.
- NEW-To meet **50% of cumulative electric power** installed capacity from non-fossil fuel-based energy resources by 2030.
- **Carbon Sink Creation:** Create an additional carbon sink of 2.5 to 3 billion tonnes of CO<sub>2</sub> equivalent through increased forest and tree cover by 2030.

#### Long-Term Targets

- **Net-Zero Emissions:** Achieve net-zero carbon emissions by 2070, announced at COP26 in 2021.
- **Panchamrit Strategy:** A five-point climate action plan introduced at COP26:
  - Increase non-fossil energy capacity to 500 GW by 2030.
  - Meet 50% of energy needs from renewable sources by 2030.
  - Reduce total projected carbon emissions by 1 billion tonnes by 2030.
  - Lower the carbon intensity of the economy by less than 45% by 2030.
  - Achieve net-zero emissions by 2070.

**National Policy on Biofuels, 2018-** Instead of 2030, the Centre plans to move ahead with its ethanol blending target of 20% of petrol containing ethanol by 2025-26.

#### Results of National Mission for Enhanced Energy Efficiency (NMEEE) Implementation

1. In the 1st cycle of PAT, implemented by BEE, in the period from 2012 to 2015, 400 industries were able to reduce their emissions to the tune of 31 Million Tonnes of Carbon Dioxide.
2. In the 2nd PAT cycle which is from April 2016 to March 2019, the target for reducing energy consumption is 8.869 Million Tonnes of Oil Equivalent (MTOE) encompassing 11 sectors.

#### The National Electric Mobility Mission Plan (NEMMP)

- The 1st Phase of FAME India Scheme was implemented through four focus areas namely (i) Demand Creation, (ii) Technology Platform, (iii) Pilot Project and (iv) Charging Infrastructure
- In the 1st phase of the scheme, about 2.78 lakh EVs were supported with total demand incentives. In addition, 465 buses were sanctioned to various cities/states under this scheme.
- **FAME India Phase-II:**The Ministry of Heavy Industries is implementing the scheme for five years, starting April 1, 2019, with a total budget of Rs. 10,000 crore.

## 4. ENVIRONMENTAL POLLUTION AND DEGRADATION

### Air Pollution

- **Air Quality-Global Air Quality, WHO:** 99% of the global population breathes air exceeding air quality limits, with harmful particles leading to various diseases.
- According to the 'World Air Quality Report 2023', India 3rd most polluted country in world, IQAir finds; 42 cities in top 50 are Indian
- As per, progress report on NCAP from **Centre for Research on Energy and Clean Air (CREA)**- Only 49 of 131 cities recorded an improvement in air quality in FY 21-22.
- Less than 50% utilisation of total funds released under NCAP.
- Only 37 cities completed source apportionment studies (list out and quantify major sources of pollution in a city) which were supposed to be completed in 2020.

Major Sources of Air Pollution in India :

- 51% of the pollution is caused by industrial pollution, 27% by vehicles, 17% by crop burning and 5% by other sources.
- Residential Sector contribute up to 25% of ambient PM2.5 concentrations in India.
- Power Sector Power generation from coal contributes approximately 60% of total SO2 emissions and 45% of total NOx emissions in India. These emissions significantly impact regional and local air quality.
- Construction Activities: Construction activities are responsible for approximately 10% of air pollution in certain regions.

Health and Economic Impact

- **Child Mortality:** Air pollution kills 100,000 children under five annually in India, accounting for 12.5% of all deaths.
- **Economic Burden:** World Bank (2016) reports \$225 billion lost in labor income in 2013; total welfare losses at \$5.11 trillion annually.
- Economic Impacts: According to a report by Dalberg Advisors, if India had achieved safe air quality levels in 2019, its GDP would have increased by USD 95 billion, or 3%.

Environmental Initiatives

- **Ethanol-Blended Petrol:** India met its 10% ethanol blend target ahead of schedule; aims to double by 2025-26 to reduce oil import dependence and address environmental concerns.
- **NCAP:** Launched in 2019, aiming for a 20%-30% reduction in Particulate Matter air pollution by 2024 (baseline: 2017).
- The Centre has set a new target of a 40% reduction in particulate matter concentration in cities covered under the National Clean Air Programme (NCAP) by 2026, updating the earlier goal of 20 to 30% reduction by 2024

### Water Pollution

- **According to the Yamuna Monitoring Committee:** only 2% of the Yamuna riverflows through Delhi, the city is responsible for 76% of the pollution burden on the river.

- **CPCB (2018):** In India, 351 contaminated river stretches have been found. The study of water quality for identifying contaminated river stretches discovered that rivers and streams in 31 states and Union territories (UT) did not fulfil the water quality requirements.
- **The concentration of Polluted River Stretches:** Almost 60% of polluted river stretches are concentrated in eight states: Maharashtra, Assam, Madhya Pradesh, Kerala, Gujarat, Odisha, West Bengal, and Karnataka.
- **WEF:** It's estimated that around 70% of surface water in India is unfit for consumption.
- **According to research done by the Central Water Commission, heavy metal contamination was detected in 65% of water samples collected from various water quality sites around the country.**
- **River Pollution:** India's 14 major, 55 minor and several hundred small rivers receive millions of litres of sewage, industrial and agricultural wastes.
- **Marine and Coastal Pollution:** Roughly 80% of marine and coastal pollution originates on land – including agricultural run-off, pesticides, plastics and untreated sewage.
- India ranks 120 among 122 countries in the water quality index, an astounding 2,00,000 people die each year due to polluted water.
- Composite Water Management Index' report by NITI Aayog findings-
  - 600 million Indians face high to extreme water stress and about two lakh people die every year due to inadequate access to safe water.
  - The average annual per capita water availability is expected to reduce to 1,486 cubic meters per person per year by 2021 from 1,545 cubic meters per person per year in 2011.

## SDG 6 - Clean water and sanitation

### Land pollution

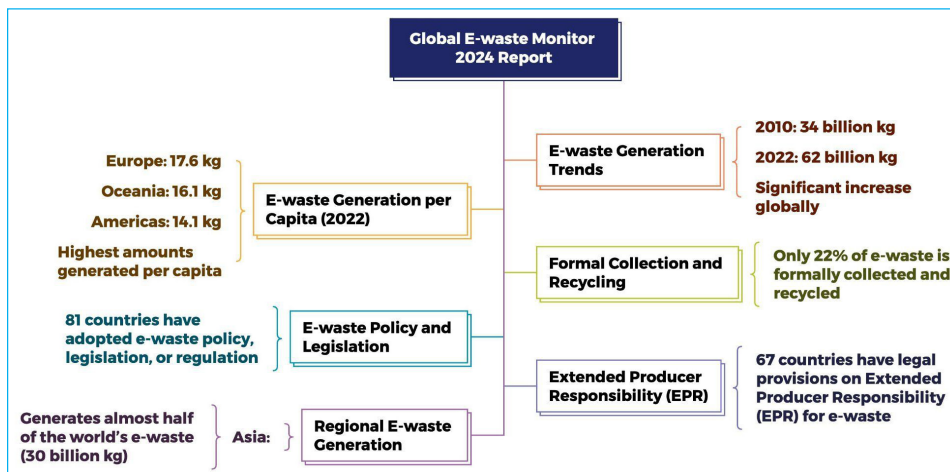
- Nutrient loss in soil, equivalent to 3.7 million hectares, primarily due to the depletion of soil organic matter (SOM), is a prevalent issue.
- Desertification and Land Degradation Atlas (ISRO): About 30% of India's land is degraded.
- **United Nations Convention to Combat Desertification (UNCCD):** the impact of soil degradation could amount to \$23 trillion in lost food, ecosystem services and income worldwide by 2050.
- **State of Biofertilizers and Organic Fertilisers in India (CSE) Report:** About 85 % of the samples were found to be deficient in organic carbon; 97 per cent samples were deficient in available nitrogen; 83 per cent were deficient in phosphorus; and 71 per cent in potassium.

### E-waste pollution in India:

- According to the Central Pollution Control Board (CPCB), India generated more than 10 lakh tonnes of e-waste in 2019-20, an increase from 7 lakh tonnes in 2017-18. Against this, the e-waste dismantling capacity has not been increased from 82 lakh tonnes since 2017-18.
- In 2018, the Ministry of Environment had told the NGT that 95% of e-waste in India is recycled by the informal sector and scrap dealers unscientifically dispose of it by burning or dissolving it in acids.

- The volume of e-waste in India has witnessed a significant surge to 1.6 million tonnes in 2021-22.
- The 65 cities in India generate more than 60% of the total generated e-waste, whereas 10 states generate 70% of the total e-waste.

India Cellular & Electronics Association report, e-waste management in India is predominantly informal, with approximately 90% of e-waste collection and 70% of recycling being managed by a competitive informal sector.



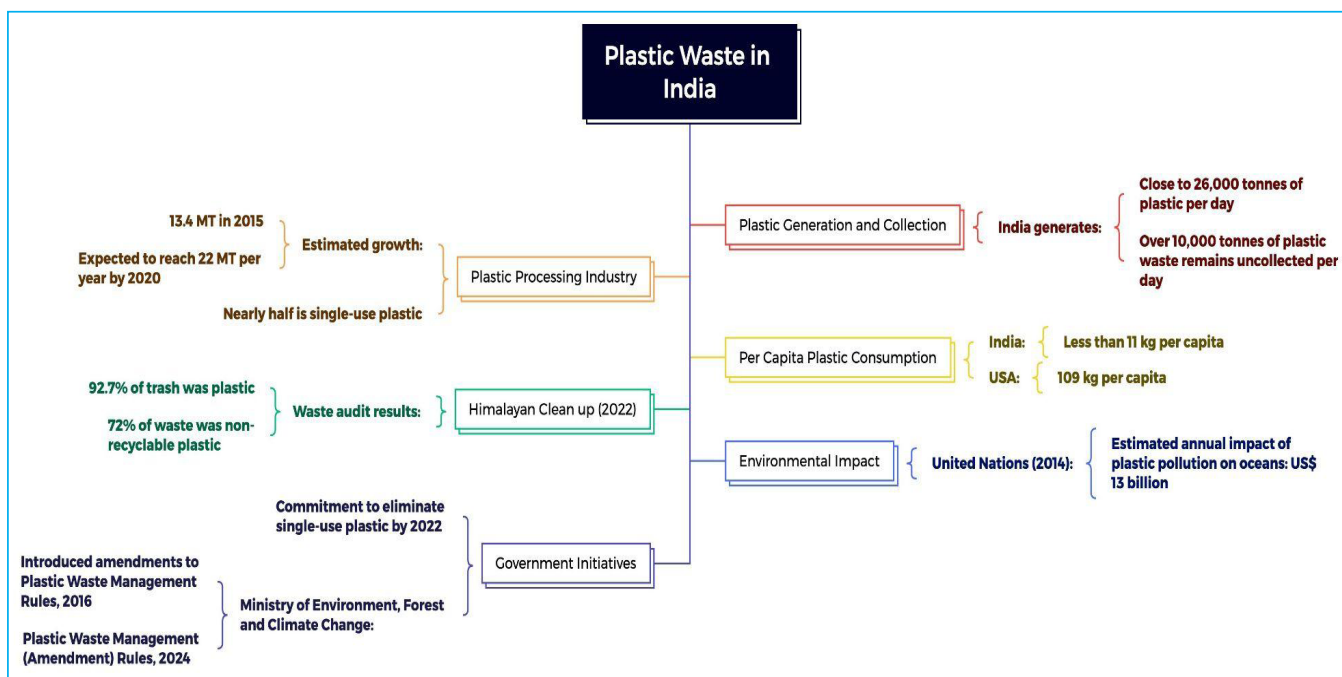
E-Waste Management Rules, 2016

- The Ministry of Environment, Forest and Climate Change notified the E-Waste Management Rules, 2016 in supersession of the E-waste (Management & Handling) Rules, 2011.
- Over 21 products (Schedule-I) were included under the purview of the rule.

PLASTIC POLLUTION

Plastic Waste as a Global Phenomenon:

- Over 3 billion tonnes of plastic has been produced since 1950, and about 60% of that has ended up in landfills or in the natural environment.
- Only 9% of all plastic waste ever produced has been recycled and about 12% has been incinerated, while the remaining 79% has accumulated in landfills, dumps or the natural environment.



## 5. RENEWABLE ENERGY

India stands, as per REN21 Renewables 2024 Global Status Report.

- **4th globally in Renewable Energy Installed Capacity (including Large Hydro),**
- **4th in Wind Power capacity &**
- **5th in Solar Power capacity .**

The country has set an enhanced target at the COP26 of 500 GW of non-fossil fuel-based energy by 2030.

As of May 2024, Renewable energy sources, including **large hydropower, have a combined installed capacity of 193.57 GW.**

The following is the installed capacity for Renewables:

- **Wind power:** 46.42 GW
- **Solar Power:** 84.27 GW
- **Biomass/Co-generation:** 10.35 GW
- **Small Hydro Power:** 5 GW
- **Waste To Energy:** 0.59 GW
- **Large Hydro:** 46.92 GW

India's Climate and Renewable Energy Targets

Carbon Intensity Reduction

- **Target:** Reduce the carbon intensity of the economy by less than 45% by the end of the decade.

Renewable Energy Goals

- **Installed Capacity:** Achieve 50% of cumulative electric power installed capacity from renewables by 2030.
- **Overall Target:** Install 500 GW of renewable energy capacity by 2030.

Green Hydrogen Production

- **Production Goal:** Produce 5 million tonnes of green hydrogen by 2030.
- **Supporting Capacity:** Supported by 125 GW of renewable energy capacity.

Solar Energy

- **Potential:** India lying in the tropical belt has an advantage of receiving peak solar radiation for 300 days, amounting 2300-3,000 hours of sunshine equivalent to above 5,000 trillion kWh.
- **Solar Parks:** 50 solar parks with a total capacity of 37.49 GW have been approved.

Wind Energy

- **Potential:** Gross potential of 302 GW at 100 meter and 695.50 GW at 120 meter above ground level (Ministry of New and Renewable Energy).
- **Offshore Wind Target:** 30 GW of offshore wind energy by 2030.
- **Most of this potential exists in seven windy States-**Gujarat (highest), Rajasthan, Maharashtra, Tamil Nadu, Madhya Pradesh, Karnataka, Andhra Pradesh.

- **Site Identification:** Potential sites for offshore wind energy have been identified.
- **Other Information: Five nations':** Germany, USA, Denmark, Spain and India account for 80% of the world's installed wind energy capacity.

**Union Budget 2023 Highlights:** Green Growth identified is one of the nodes in the SAPTARISHI (7 priorities).

- \$2.4 Bn National Hydrogen Mission for production of 5 MMT by 2030, \$36 Mn additional in Budget.
- 4 GWh Battery Energy Storage Systems supported through Viability Gap Funding.
- Pumped Storage Projects has received a push with a detailed framework to be formulated.
- \$1.02/2.5 Bn Central Sector Support for ISTS infrastructure for 13 GW Renewable Energy from Ladakh.



# **NEXT IAS**

## **CASE STUDIES AND EXAMPLES**

**GENERAL STUDIES - IV**



# **AIM**

**ADVANCED INTEGRATED MENTORSHIP  
PROGRAM FOR CSE 2025**



Keywords	Examples (E) - Definition (D) - Quotes (Q)
<p><b>1.) Ethics:</b></p>	<p>E-&gt; Taxi driver found wallet with cash and jewels of a passenger. He went back to the hotel and returned the wallet.</p> <p>E-&gt; Sachin Tendulkar mentioned in his autobiography how his father wanted him to become a good human more than a good player. He is known to have upheld ethics on and off the field.</p> <p>E-&gt; One problem with ethics is the way it's often used as a weapon. If a group believes that a particular activity is wrong it can then use morality as the justification for attacking those who practice that activity. Ex: Homosexuality, moral policing, cow lynching etc.</p>
<p>D-&gt; It is the study of human action from the point of view of its rightfulness and wrongfulness.</p>	<p>Q-&gt; "Do not do unto others, as you would not be done by".</p> <p>Q-&gt; In law, a man is guilty if he violates the rights of others. In ethics, he is guilty if he only thinks of doing so. – Immanuel Kant</p> <p>Q-&gt; "Work for a cause, not for applause. Live life to express, not to impress; don't strive to make your presence noticed, just make your absence felt."</p>
<p><b>2.) Ethical management and Management of Ethics (MoE):</b></p>	<p>E-&gt; Once JRD Tata and Mother Teresa were invited to be chief guests at a function. Near the venue, a poor man had fallen unconscious due to starvation. JRD in order to be punctual did not help the poor person. Mother Teresa on seeing the person first ensured that he received help and then went to the function and thus was considerably late. This incident was told by JRD who later repented his actions. (Ethics is more important than Rules).</p>
<p>D-&gt; EM refers to corporate management that not only fulfills economic goals and legal responsibilities, but also meets the ethical expectations.</p> <p>MoE refers to managing ethics and values in an organization through internal processes, compliance and codes of conduct.</p>	<p>Q-&gt; "Ethics is knowing the difference between what you have a right to do and what is right to do."</p> <p>Q-&gt; There are two types of people in this world, good and bad. The good sleep better, but the bad seem to enjoy the waking hours much more. – Woody Allen.</p>

<p><b>3.) Resilience:</b></p>	<p>E-&gt; Steve Jobs calls getting fired from Apple as the best thing that could have ever happened to him. It freed him to enter one of the most creative periods of his life.</p> <p>E-&gt; Arunima Sinha, a national-level volleyball player, was pushed out of a running train by robbers in 2011. As a result, one of her legs had to be amputated. But later she became the first female amputee to climb Mount Everest.</p>
<p><b>D-&gt;</b> It is the ability to withstand adversity and bounce back from difficult life events.</p>	<p><b>Q-&gt;</b> "Enthusiasm is common. Endurance is rare." - Angela Duckworth.</p> <p><b>Q-&gt;</b> 'Do not judge me by my successes, judge me by how many times I fell down and got back up again.' - Nelson Mandela.</p>
<p><b>4.) Morality:</b></p>	<p>E-&gt; A 'morality' bank has been opened in a Chinese city through which people can exchange points earned by good deeds for free services like haircuts and health checkup.</p> <p>E-&gt; When Draupdi asked Yudhishthara why be moral after they were banished to the jungle and Duryodhana was made the king, Yudhishthara said that Being moral is important for stability and harmony in society, to ensure dharma . He said that I am moral because that is the way I am.</p> <p>E-&gt; Arrest of a woman for selling her 2 year old boy to a TN couple because she wants to get remarried but her BoyFriend doesn't want her previous marriage child with them (immoral).</p>
<p><b>D-&gt;</b> It is the belief that some behavior is right and acceptable and that other behavior is wrong.</p>	<p><b>Q-&gt;</b> "Morality is an attitude we hold towards the people whom we personally dislike".</p> <p><b>Q-&gt;</b> Dante Alighieri says "the hottest places in Hell are reserved for those who in times of moral crisis preserve their neutrality".</p> <p><b>Q-&gt;</b> We have in fact, two kinds of morality, side by side: one which we preach but do not practice, and another which we practice, but seldom preach. - Bertrand Russell</p>

<p><b>5.) Ethics in Private relationships:</b></p>	<p>E-&gt; Kesab Chandra Sen opposed child marriage but married his own underage daughter to Maharaja of Cooch Bihar. Consequently his followers abandoned him and founded Sadharan Brahma Samaj (1878)</p> <p>E-&gt; President Clinton's impeachment process was initiated because of his scandalous affair with Monica Lewinsky.</p>
<p>D-&gt; Private relationships are those relations which have least impact on the life of others in society i.e. relation remains private so long as it does not harm interest of others.</p>	<p>Q-&gt; "The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands at times of challenge and controversy."</p> <p>Q-&gt; Life is an indivisible whole - Gandhi. (can't do right in one aspect and wrong in another).</p>
<p><b>6.) Ethics in Public Relationships:</b></p>	<p>E-&gt; When Gandhi lost to Bose in the 1939 Tripuri session as his candidate Sittaramya lost, in the congratulatory speech Bose called Gandhi "Rashtrapita" and Gandhi called Bose "netaji", which shows humbleness, humility and large heartedness.</p>
<p>D-&gt; moral principles that a person may follow while conducting business in their professional life.</p>	<p>Q-&gt; Abraham Lincoln said "you can fool some people all the time and all of the people some time but you can't fool all the people all the time."</p>
<p><b>7.) Lessons from life of leaders:</b></p>	<p>E-&gt; Bhagat Singh said one should be ready to die so that the country can live.</p>
<p>D-&gt; A leader is someone with a vision and the path to realizing it. He/She is the one in-charge, the person who convinces other people to follow.</p>	<p>Q-&gt; "Do not follow where the path may lead. Go instead where there is no path and leave a trail." - Ralph Waldo Emerson</p> <p>Q-&gt; "The very essence of leadership is that you have to have vision. You can't blow an uncertain trumpet." - Theodore M. Hesburgh</p> <p>Q-&gt; "A genuine leader is not a searcher for consensus but a molder of consensus." - Martin Luther King Jr.</p>

<p><b>8.) Lessons from life of reformers:</b></p>	<p>E-&gt; Vivekananda, who had humanist philosophy, emphasized on peace and harmony in society, cultural rejuvenation. According to him, a nation is advanced in proportion as education is spread among the masses.</p> <p>E-&gt; Lincoln’s fight against slavery is an example of moral courage.</p> <p>E-&gt; Dr. Kalam’s commitment to space and nuclear field is a testament to his professional competence.</p>
<p><b>D-&gt;</b> Someone who plans or supports changes to a system, law, organization, etc. in order to make it more modern or effective.</p>	<p><b>Q-&gt;</b> A reformer cannot afford to have close intimacy with him whom he seeks to reform.- Gandhi.</p> <p><b>Q-&gt;</b> Stability without change leads to degeneration while change without stability leads to chaos.</p> <p><b>Q-&gt;</b> “I came into this world, not chiefly to make this a good place to live in, but to live in it, be it good or bad”. - Thoreau</p>
<p><b>9.) Role of Family in values:</b></p>	<p>E-&gt; American/Christian society considers happy married family life auspicious. Therefore, you’ll find US Presidential candidates or State Governor candidates- always appearing in the media with their wives and daughters, holding hands, sharing hugs and kisses, running parallel social media accounts.</p> <p>E-&gt; Sravan Kumar- dutiful son, service to parents.</p> <p>E-&gt; Lakshman gave up a comfortable life to go with Rama. Bharat gave up his kingdom.</p>
<p><b>D-&gt;</b> “There is an expiry date on blaming your parents for steering you in the wrong direction; the moment you are old enough to take the wheel, responsibility lies with you.” - J.K.Rowling</p>	<p><b>Q-&gt;</b> Someone’s dream is dependent on someone’s direction; Someone’s success is related to someone’s support; Someone’s curiosity is linked to someone’s care; This is what a family does. The ultimate objective is welfare of all.</p> <p><b>Q-&gt;</b> Leave everything for the Family but never leave the family for anything.</p> <p><b>Q-&gt;</b> You don’t teach morals and ethics and empathy and kindness in schools. You teach that at home and children learn by example - Judy Sheindlin.</p>

<p><b>10.) Role of Education in values:</b></p>	<p>E-&gt; Gopal Krishna Gokhale : He was the political guru of Gandhi and in many ways he shaped the ideology and outlook of Gandhi towards India and life.</p> <p>E-&gt; If a teacher is promoting his private coaching class during official class in the school, he is indirectly imparting materialistic values to students that education is a commodity that can be sold.</p>
<p>D-&gt; The intellect should not be the slave of the passions, but the servant of the heart. Education should be in a way such that Einstein's brain should be coupled with Buddha's heart. Napoleon's dynamism should be combined with Vivekananda's passion for helping human beings.</p>	<p>Q-&gt; "The three key societal members who can make a difference are father, mother and teacher" -A P J Abdul Kalam.</p> <p>Q-&gt; "Don't limit a child to your own learning for he was born in another time" .- Tagore.</p>
<p><b>11.) Role of Society in values:</b></p>	<p>E-&gt; If you're living in a building with people from a variety of caste, religion and regional background, you develop tolerance.</p> <p>E-&gt; Sports sponsorship by cigarette companies (Sponsorship of World Cup in 1996 by Wills) influences the adolescent children's mind and helps initiate smoking.</p>
<p>D-&gt; Society is an organized group of persons associated together for religious, benevolent, cultural, scientific, political, patriotic, or other purposes.</p>	<p>Q-&gt; "Work needs to be a reflection of your social values. You are how you work!"</p> <p>Q-&gt; "A people that values its privileges above its principles soon loses both."</p>
<p><b>12.) Prejudice:</b></p>	<p>E-&gt; Honor killing, inter caste conflict, love jihad, discrimination against north east people.</p> <p>E-&gt; The holocaust happened due to the prejudice towards jews.</p> <p>E-&gt; Gender Discrimination.</p>

<p><b>D-&gt;</b> A preconceived opinion that is not based on reason or actual experience.</p>	<p><b>Q-&gt;</b> "Prejudice is a burden that confuses the past, threatens the future and renders the present inaccessible."  <b>Q-&gt;</b> "Do you know what we call opinion in the absence of evidence? We call it prejudice."</p>
<p><b>13.) Role Model:</b></p>	<p><b>E-&gt;</b> Recent incident of Cristiano Ronaldo's preference for water over a Coca Cola drink, had cost the soft drink giant Coca Cola an unimaginable \$4 billion, which shows the influence of a leader/role model on Society.  <b>E-&gt;</b> Mahatma Gandhi is a great role model for children. He championed non-violent resistance as an alternative to war and showed that you can be powerful and influential without resorting to violence or aggression.</p>
<p><b>D-&gt;</b> A role model is defined as a person who someone admires and whose behavior they try to copy.</p>	<p><b>Q-&gt;</b> "Children are great imitators, so give them something great to imitate."  <b>Q-&gt;</b> "A role model should be like the light at the end of a tunnel, guiding you when you are lost." - Cristina Imre</p>
<p><b>14.) Friendship:</b></p>	<p><b>E-&gt;</b> Karna friendship with Duryodhana  <b>E-&gt;</b> Krishna Sudama  <b>E-&gt;</b> Friendship of Kopperuncholan, an early Chola King, and Pisiranthaiyar, a poet from the neighboring Pandya Kingdom, who never met each other during their lifetime but shared a great deal of affection for one another.</p>
<p><b>D-&gt;</b> A relationship of mutual affection between people.</p>	<p><b>Q-&gt;</b> "Don't make friends who are comfortable to be with. Make friends who will force you to lever yourself up." – Thomas J. Watson  <b>Q-&gt;</b> "Each friend represents a world in us, a world possibly not born until they arrive, and it is only by this meeting that a new world is born." – Anais Nin</p>
<p><b>15.) Values:</b></p>	<p><b>E-&gt;</b> In Mahabharata, Duryodhana tells Krishna: "I know of Dharma, but I am not inspired to pursue it". "I know of Adharma, but I am not able to withdraw from it".  <b>E-&gt;</b> Private hospitals' focus on hefty bills rather than service to mankind even during adversity like Covid, shows a crisis of ethical values.</p>

<p>D-&gt; Values are the beliefs of a person or a social group in which they have emotional investment.</p> <p>D-&gt; It is an enduring belief, mode of conduct or state of existence that is personally preferable.</p>	<p>Q-&gt; Einstein remarked “try not to become a man of success, but a man of values”.</p> <p>Q-&gt; “Real kindness seeks no return; What return can the world make to rain clouds?”- Thiruvalluvar.</p>
<p><b>16.) Norms:</b></p>	<p>E-&gt; Changing role of women in the Indian armed forces (old set norms breaking).</p> <p>E-&gt; Bindu Ammini made history as she became the first woman to enter Sabarimala Temple by breaking societal norms and customs.</p>
<p>D-&gt; These are the rules of behavior in a specific situation.</p>	<p>Q-&gt; Every generation has someone who steps outside the norm and offers a voice for the unspeakable attitudes of that time. I represent everything that's supposed to be wrong, everything that's forbidden - Sam Kinison</p> <p>Q-&gt; We learn the social norms of our society and modify our behavior accordingly.</p>
<p><b>17.) Ego:</b></p>	<p>E-&gt; The way, Parikshit, who succeeded Yudhishtira to the throne of Hastinapur in Mahabharata, brought on his own death.</p> <p>E-&gt; The character Bheema in Mahabharata was also very proud of his physical strength until one day, his “Ishta deva” decided to teach him a lesson. The lord of the wind sent Hanuman, the elder brother of Bheema to teach him a lesson of humility.</p> <p>E-&gt; Adolf Hitler’s policies precipitated World War II and led to the genocide known as the Holocaust, which resulted in the deaths of some 6 million Jews and another 5 million non-combatants.</p>

<p>D-&gt; The ego usually refers to an individual's sense of self or perception of their identity. It can encompass a person's thoughts, beliefs, attitudes, and values, and can be seen as a mediator between the individual and the external world.</p>	<p>Q-&gt; "They are forever free who renounce all selfish desires and break away from the ego cafe of I, me and mine" - Bhagavad Gita.</p> <p>Q-&gt; "More the knowledge, lesser the ego. Lesser the knowledge, more the ego." - Albert Einstein.</p>
<p><b>18.) Non-Violence/ Peace:</b></p>	<p>E-&gt; Gandhiji's principle of truth and non-violence emphasizes the use of reform of heart rather than use of violence.</p> <p>E-&gt; Treaty of Versailles was signed between the Western allies and Germany at the end of World War I, to maintain peace in a war which claimed more than 20 million lives.</p>
<p>D-&gt; An abstaining from violence or from the use of physical force, as in efforts to obtain civil rights or in opposing government policy.</p>	<p>Q-&gt; An eye for an eye would make the whole world blind</p> <p>Q-&gt; Non-violence, which is the quality of the heart, cannot come by an appeal to the brain.</p>
<p><b>19.) Forgiveness:</b></p>	<p>E-&gt; In Mahabharata - if Karn had forgiven his mother Kunti for abandoning him, if Draupadi had forgiven the Kauravas, then the whole war could have been avoided.</p> <p>E-&gt; Nobuo Fujita, was a Japanese fighter pilot, who bombed the west coast of the United States over Oregon during World War II. One town that was greatly affected by Fujita's raids was that of Brookings, Oregon. In 1962, Fujita returned to the United States and brought with him a 400-year-old Samurai sword as a final symbol of his surrender and good will, which the town accepted.</p>



<p><b>D-&gt;</b> A conscious, deliberate decision to release feelings of resentment or vengeance toward a person or group who has harmed you, regardless of whether they actually deserve your forgiveness.</p>	<p><b>Q-&gt;</b> "Every saint has a past and every sinner a future".</p> <p><b>Q-&gt;</b> "An eye for an eye would make the whole world blind".</p> <p><b>Q-&gt;</b> "To err is human, to forgive the divine".</p>
<p><b>20.) Change:</b></p>	<p><b>E-&gt;</b> Japan, an ardent proponent of nuclear disarmament, refrained from building nuclear weapons.</p> <p><b>E-&gt;</b> When Rosa Parks refused to give up her seat to a white passenger on a Montgomery, Alabama bus in 1955, that action became the catalyst for a nationwide boycott against segregated buses. The boycott ultimately prompted one of America's most important Supreme Court decisions, which ruled in favor of integration in public transportation.</p>
<p><b>D-&gt;</b> To put or take (a thing) in place of something else; substitute for, replace with, or transfer to another of a similar kind.</p>	<p><b>Q-&gt;</b> "Change needs to begin with one" - Tagore.</p> <p><b>Q-&gt;</b> 'The measure of intelligence is the ability to change' -Albert Einstein</p> <p><b>Q-&gt;</b> 'The greatest discovery of all time is that a person can change his future by merely changing his attitude' -Oprah Winfrey</p>
<p><b>21.) Persuasion:</b></p>	<p><b>E-&gt;</b> ASHA workers have been effective in improving the habits of breastfeeding and Child nutrition.</p> <p><b>E-&gt;</b> Gadar Movement: They simplified the "Drain of wealth theory" in their pamphlets and newspapers.</p> <p><b>E-&gt;</b> Selfie with Daughter.</p> <p><b>E-&gt;</b> Catchy Slogans required: "Kutch nahi dekha toh kuch nahi dekha" - to promote Gujarat tourism.</p>
<p><b>D-&gt;</b> A process in which one person or entity tries to influence another person or group of people to change their beliefs or behaviors.</p>	<p><b>Q-&gt;</b> "Don't raise your voice, improve your argument."</p> <p><b>Q-&gt;</b> "If you want to persuade, appeal to interest not to reason." - Benjamin Franklin</p>

<p><b>22.) Aptitude:</b></p>	<p>E-&gt; An administrator may have good aptitude for solving the communal issues but may have a negative attitude towards a particular community. Eg - Jat violence.</p> <p>E-&gt; Arjuna vs Duryodhan, both had aptitude but it was Arjuna who had the right attitude that led to success.</p>
<p>D-&gt; The capacity to acquire competence or skill through training.</p>	<p>Q-&gt; "Aptitude is the natural ability to do something, while attitude is the determination to do it well."</p> <p>Q-&gt; It is not your aptitude, but your attitude that determines your altitude.</p>
<p><b>23.) Integrity:</b></p>	<p>E-&gt; PS Appu: Recommended dismissal of a probationer for severe indiscipline. When the recommendation was rejected allegedly because of the closeness of the person with the State home minister, he resigned as director of LBSNAA in protest.</p> <p>E-&gt; A senior police officer ordered his men to fire on unarmed/peaceful protestors. Policemen of integrity will refuse even though seniors orders are to be strictly followed.</p> <p>E-&gt; Stopping at a red light signal at 3am in the night, even when the entire road was clear.</p> <p>E-&gt; Sachin Tendulkar brought integrity in practice on the cricket field many times by walking off when he knew he had edged the ball even if the umpire gave him not out.</p> <p>E-&gt; Yudhisthira was honest but lacked integrity when he told Drona about Ashwathama's death.</p> <p>E-&gt; Sir M. Visvesvrayya, then dewan of mysore state, used govt. vehicle while he went to tender his resignation. After tendering his resignation, he drove back by his private vehicle.</p> <p>E-&gt; Mohammand Ali, despite being threatened with consequences, stood up against the Vietnam war.</p> <p>E-&gt; Though Gandhi was a friend of Ambalal Sarabhai, still he took up the workers' cause in the 1918 Ahmedabad Mill strike.</p>

<p>D-&gt; The quality of being honest and having strong moral principles that you refuse to change.</p>	<p>Q-&gt; Calamity is the test of integrity. – Samuel Richardson.</p> <p>Q-&gt; The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands at times of challenge and controversy. – Martin Luther King, Jr.</p> <p>Q-&gt; Integrity is doing the right thing, even when no one is watching. – C.S. Lewis</p> <p>Q-&gt; Integrity gives you real freedom because you have nothing to fear since you have nothing to hide.</p> <p>Q-&gt; Live in such a way that you would not be ashamed to sell your parrot to the town gossip. – Will Rogers</p>
<p>24.) Empathy:</p>	<p>E-&gt; Operation Sulaimani in Priyadarshini estate Kerala, where IAS Prashant Nair used Tourism to combat hunger and malnutrition in a Tribal Community.</p> <p>E-&gt; Mother Teresa - spent her entire life serving the diseased, devoted herself.</p> <p>E-&gt; Raja Ram Mohan Roy was moved by the plight of his sister in law who died as Sati, hence he undertook sati reforms.</p> <p>E-&gt; In a humble gesture towards a physically challenged man who was unable to sit on a chair, Osmanabad district collector Kaustubh Diwegaonkar sat along with him on the floor in his chamber to listen to his grievances.</p>
<p>D-&gt; The ability to share someone else's feelings or experiences by imagining what it would be like to be in that person's situation</p>	<p>Q-&gt; “Don’t cast shadows on anyone unless you are providing shade.” – Terri Guillemets</p> <p>Q-&gt; If you look into someone’s face long enough, eventually you’re going to feel that you’re looking at yourself. – Paul Auster</p>
<p>25.) Tolerance:</p>	<p>E-&gt; Anekantavada- Gandhi said “The golden rule of conduct is mutual toleration, seeing that we will never all think alike and we shall always see Truth in fragments and from different points of vision”.</p> <p>E-&gt; Akbar’s doctrine of Sulh-i-kul.</p> <p>E-&gt; Launch of Ek bharat shreshtha bharat program to promote understanding amongst the people of different states.</p>

<p>D-&gt; The ability to deal with something unpleasant or annoying, or to continue existing despite bad or difficult conditions.</p>	<p>Q-&gt; Think for yourself and let others enjoy the privilege of doing so too.</p> <p>Q-&gt; Tolerance is the virtue of the man without convictions.</p>
<p><b>26.) Compassion:</b></p>	<p>E-&gt; Abdul Sattar Edhi ran the world’s largest ambulance service to serve everyone beyond caste, creed, belief in a divided country like Pakistan. (Social Service)</p> <p>E-&gt; Prasanth Nair, DM of Kozhikode district, launched ‘Operation Sulaimani’, a free food programme, to ensure that no one is denied food on account of an empty or lost wallet.</p> <p>E-&gt; Azim Premji of Wipro, who has virtually given his entire fortune of \$22 billion for philanthropic causes.</p> <p>E-&gt; Florence Nightingale was the founder of modern nursing and a social reformer and statistician. She came to prominence while serving as a manager for the war effort during The Crimean War, in which she organized caregiving efforts at Constantinople.</p>
<p>D-&gt; A strong feeling of sympathy and sadness for the suffering or bad luck of others and a wish to help them.</p>	<p>Q-&gt; Mark Twain once said that kindness is a language which the deaf can hear and the blind can see.</p> <p>Q-&gt; “The purpose of human life is to serve, and to show compassion and the will to help others.” – Albert Schweitzer</p>
<p><b>27.) Dedication to Public service:</b></p>	<p>E-&gt; TN Seshan asserted the supremacy of ECI in electoral matters making it a fiercely independent and autonomous body. His firm enforcement of the MCC stopped state govts from announcing sops, using govt machinery and transferring inconvenient officials.</p> <p>E-&gt; Karimul Haque, known as 'Bike Ambulance Dada', received Padma Shri award in 2017 for his unique way of social service by ferrying patients to medical facilities on his motorbike.</p> <p>E-&gt; Anuradha Koirala, a Social activist from Nepal has helped rescue and rehabilitate more than 15000 victims of sex trafficking.</p>

<p>D-&gt; A public service is a service which is provided by government to people living within its jurisdiction, either directly (through the public sector) or by financing private provision of services.</p>	<p>Q-&gt; "The best way to find yourself is to lose yourself in the service of others."</p> <p>Q-&gt; I think there's no higher calling in terms of a career than public service, which is a chance to make a difference in people's lives and improve the world. - Jacob Lew</p>
<p><b>28.) Leadership:</b></p>	<p>E-&gt; Dr. APJ Kalam's readiness to move with the times, especially see India's necessity to go nuclear, and negotiate for global peace from a position of national strength- marks his leadership and foresightedness.</p> <p>E-&gt; It was Gandhi's leadership that won him the praise of his opponents when Ellen Wilkinson remarked that 'Gandhi was the best policeman the Britishers had in India'.</p> <p>E-&gt; Satish Dhawan was the chairman of ISRO during the first launch of SLV, the mission failed. He took the responsibility for failure. In the next attempt, when the launch was successful, he gave full credit to the team that had worked for it.</p> <p>E-&gt; KK Paul, as the Delhi Police Commissioner, used to travel in buses to send out a message to pickpockets.</p>
<p>D-&gt; "Leadership is about making others better as a result of your presence and making sure that impact lasts in your absence." - Harvard Business School.</p> <p>D-&gt; Leadership is the act of motivating a group of people towards achieving a common goal.</p>	<p>Q-&gt; A leader is one who knows the way, goes the way and shows the way.</p> <p>Q-&gt; A good leader takes a little more than the share of blame and a little less than his share of credit.</p> <p>Q-&gt; Great leadership is about to know when to be in front and when to be back.</p>

<p><b>29.) Gratitude/Humility:</b></p>	<p>E-&gt; Dr Kalam had invited a cobbler as one of the Presidential Guests to Raj Bhavan in Kerala.</p> <p>E-&gt; The missile man of India, on the day of his death, thanked a security guard for his work personally who was in his convoy and guarding the route by standing in an open gypsy with his gun.</p>
<p>D-&gt; A strong feeling of appreciation to someone or something for what the person has done to help you.</p>	<p>Q-&gt; "People with clenched fists cannot shake hands" - Indira Gandhi</p> <p>Q-&gt; "Before badgering a weak person, imagine yourself before a more powerful man".</p>
<p><b>30.) Selflessness &amp; Service to mankind:</b></p>	<p>E-&gt; Idea of Nishkama Karma from the Gita is to perform our duties selflessly without expecting the fruits of our actions. Actions are more important than the consequences.</p> <p>E-&gt; Selfless service of Baba Amte for leprosy patients in Maharashtra</p> <p>E-&gt; IAS Armstrong Pame, who built a 100 km road in Manipur in spite of lack of government funding, and donated a major amount from his own pocket for that.</p>
<p>D-&gt; The quality of caring more about what other people need and want than about what you yourself need and want.</p>	<p>Q-&gt; "Renunciation of objects, without the renunciation of desires, is short-lived, however hard you may try".</p> <p>Q-&gt; The best way to find yourself is to lose yourself in the service of others - Mahatma Gandhi.</p>
<p><b>31.) Commitment:</b></p>	<p>E-&gt; In Mahabharata, Bhishma did not fight a warrior like Shikhandi because of his personal commitments.</p> <p>E-&gt; In Ramayana, Bharata set an example that it is not right to accept what isn't justly ours.</p> <p>E-&gt; Armstrong Pame, Miracle Man of Manipur, built 100 kms of road by crowdfunding.</p>
<p>D-&gt; : An agreement or pledge to do something in the future.</p>	<p>Q-&gt; Stay committed to your decisions, but stay flexible in your approach. - Tony Robbins</p> <p>Q-&gt; If you don't make a total commitment to whatever you are doing, then you start looking to bail out the first time the boat starts leaking - Lou Holtz</p>

<p><b>32.) Loyalty:</b></p>	<p>E-&gt; A rajput Prince conspired to be killed. Panna who worked in the court learnt of the conspiracy. In order to save the Prince, she replaced the Prince with her own kid. Her own kid got killed.</p> <p>E-&gt; Ashraf Ghani fled from his own country, when the Taliban was trying to take control, which questioned his loyalty towards his country.</p>
<p>D-&gt; It implies a faithfulness that is steadfast in the face of any temptation to renounce, desert, or betray.</p>	<p>Q-&gt; "The whole point of loyalty was not to change: stick with those who stuck with you." - Larry McMurtry</p> <p>Q-&gt; "Confidentiality is a virtue of the loyal, as loyalty is the virtue of faithfulness." - Edwin Louis Cole</p>
<p><b>33.) Perseverance:</b></p>	<p>E-&gt; E Sreedharan displayed perseverance while completing the Delhi metro project before the stipulated time.</p> <p>E-&gt; Indian hockey team which failed to qualify for the Olympics in 2008 for the first time, ended up finishing 2nd in the champions trophy in 2016.</p>
<p>D-&gt; continued effort to do or achieve something, even when this is difficult or takes a long time.</p>	<p>Q-&gt; "Shoot for the moon. Even if you miss, you'll land among the star" - Les Brown.</p> <p>Q-&gt; "When the going gets tough, the tough gets going".</p> <p>Q-&gt; "Too many people are thinking the grass is greener on the other side of the fence, when they ought to just water the grass they are standing on".</p> <p>Q-&gt; "You may be disheartened if you fail, but you are doomed if you don't try".</p>
<p><b>34.) Character:</b></p>	<p>E-&gt; Lack of character disturbs the moral fabric of society. Eg- 2g scam, black money, me too movement.</p> <p>E-&gt; Abraham Lincoln was born to a poor background in a one-room cabin in Hardin County, Kentucky. His father was illiterate, while his mother died when he was nine. Still he went on to become America's sixteenth President and he was someone, who had a tragic beginning to life and an even more tragic ending.</p>

<p><b>D-&gt;</b> The aggregate of features and traits that form the individual nature of some person or thing.</p>	<p><b>Q-&gt;</b> “Literary Education is of no value, if it is not able to build up a sound character” - Gandhi.</p> <p><b>Q-&gt;</b> Be more concerned with your character than your reputation, because your character is what you really are, while your reputation is merely what others think you are.</p>
<p><b>35.) Anger:</b></p>	<p><b>E-&gt;</b> Military action by the US and UK in Syria against alleged chemical attacks by Russia is largely driven by their anger towards the Assad regime and Russia.</p> <p><b>E-&gt;</b> In a fit of anger, Tripura DM Shailesh Kumar Yadav abused and thrashed people for attending a wedding during the pandemic, while also threatening the hosts with arrest.</p>
<p><b>D-&gt;</b> Bhagavad-Gita mentions that anger is the gateway to hell. It is a negative emotion which can drive the intellect to act destructively.</p>	<p><b>Q-&gt;</b> “All my best ideas were born of anger,” - Kailash Satyarthi.</p> <p><b>Q-&gt;</b> “Speak when you are angry and you will make the best speech you will ever regret.” - Ambrose Bierce</p>





Keywords	Examples (E) - Definition (D) - Quotes (Q)
<p><b>36.) Conscience</b></p>	<p><b>E-&gt;</b> Gandhi recalled non-violence movement due to violence while today's politicians don't shy from creating many graveyards to win elections.</p> <p><b>E-&gt;</b> Employees in private as well as public organizations are expected not only to do the things right but also do the right things. Here, conscience comes to play a role in identification of right things.</p> <p><b>E-&gt;</b> Before the emergency, JP pleaded with police and civilian bureaucrats to hear their conscience and not follow orders from the top.</p>
<p><b>D-&gt;</b> Conscience may be defined as the special act of mind that comes into being when the intellect passes judgment on the merit of a particular act.</p> <p><b>D-&gt;</b> While Conscience means the guiding inner voice, crisis of conscience is when one's actions are contrary to one's beliefs and values,</p>	<p><b>Q-&gt;</b> Human voice can never reach the distance that is covered by the still, small voice of conscience.</p> <p><b>Q-&gt;</b> A quiet conscience makes one strong – Anne Frank</p> <p><b>Q-&gt;</b> Conscience determine how you act when you are alone while law determine how you act when you are with others</p> <p><b>Q-&gt;</b> Gandhi Ji famously said, "There is a higher court than courts of justice and that is the court of conscience. It supersedes all other courts.</p> <p><b>Q-&gt;</b> "In the eyes of British, I might be a criminal but in my conscience, I am innocent"- Gandhi</p>
<p><b>37.) Strengths and Weaknesses</b></p>	<p><b>E-&gt;</b> The first thing which Hanuman did after reaching Lanka was to do a complete analysis of the situation, assessing their strengths and weaknesses, the various threats and opportunities which he had in the enemy's camp.</p> <p><b>E-&gt;</b> Former IAS Officer Dr. P. D. Shenoy optimized the performance of the Karnataka State Road Transport Corporation (KSRTC), which had made losses continuously for 13 years until he became its MD and in that year the corporation made profit.</p>
<p><b>D-&gt;</b> Strength is a person's or entity's advantage or positive attribute, while weakness is a limitation or a point of vulnerability.</p>	<p><b>Q-&gt;</b> "Strength does not come from winning. Your struggles develop your strengths. When you go through hardships and decide not to surrender, that is strength."</p> <p><b>Q-&gt;</b> Greatness lies not in being strong, but in the right use of strength.</p>
<p><b>38.) Emotional Intelligence</b></p>	<p><b>E-&gt;</b> French Open 2021 runner-up Stefanos Tsitsipas lost his grandmother just before the final match against Novak</p>

	<p>Djokovic, but still he fought like a warrior until the end.</p> <p><b>E-&gt;</b> IPS Officer Arif Shaikh's "Chuppi Todd campaign" in Raipur showed how a small intervention can make a difference in the lives of those suffering from domestic violence amid the lockdown.</p> <p><b>E-&gt;</b> An astrologer and social activist has turned the religious practice of offering water and milk in temples into a unique way of water conservation in Jaipur, Rajasthan.</p>
<p><b>D-&gt;</b> The ability of an individual to reason with emotions and to use emotions in reasoning is called Emotional Intelligence.</p> <p>"75% of careers are derailed for reasons related to emotional competencies, including inability to handle interpersonal problems; unsatisfactory team leadership during times of difficulty or conflict; or inability to adapt to change or elicit trust." — <b>The Center for Creative Leadership</b></p>	<p><b>Q-&gt;</b> "As much as 80% of adult success comes from EQ" – Daniel Goleman.</p> <p><b>Q-&gt;</b> "All learning has an emotional base." – Plato</p> <p><b>Q-&gt;</b> "Cherish your own emotions and never undervalue them." — Robert Henri</p>
<p><b>39.) Public Servant</b></p>	<p><b>E-&gt;</b> The death of District and Additional Judge Uttam Anand in Dhanbad, Jharkhand, who was handling cases of mafia killings in Dhanbad and had rejected the bail requests of two gangsters, highlights the price honesty/integrity has to pay.</p> <p><b>E-&gt;</b> A civil servant shall perform his duty to the nation with utmost integrity and righteous manner, but at the same time shall practice it with prudence and in a practical manner.</p>
<p><b>D-&gt;</b> Section 2 of PoCA 1988, defines public servant as a person in the service or pay of the Government or remunerated by the Govt for the performance of public duty.</p> <p>The rights of a civil servant under the constitution should be subordinate to the overall requirement of public interest and the contractual right of the state.</p>	<p><b>Q-&gt;</b> The best way to find yourself is to lose yourself in the service of others. - Mahatma Gandhi</p> <p><b>Q-&gt;</b> There is no higher religion than human service. To work for the common good is the greatest creed. - Woodrow Wilson</p>
<p><b>40.) Ethics in Public Administration</b></p>	<p><b>E-&gt;</b> Parkinson's law refers to the tendency among people at work to finish their tasks only just in time for the deadline even though they are capable of completing it</p>

	<p>earlier. It is used as a criticism against the inefficiencies of bureaucracies in large organizations.</p> <p><b>E-&gt;</b> When government officials disclose any potential conflicts of interest, such as financial holdings that could impact their decision-making, and recuse themselves from matters where their impartiality could be compromised.</p>
<p><b>D-&gt;</b> It refers to the moral principles and values that guide the behavior and decision-making of government officials and agencies, emphasizing honesty, integrity, transparency, and accountability in serving the public interest.</p>	<p><b>Q-&gt;</b> “Every duty is holy and devotion to duty is the highest form of worship” - Swami Vivekananda.</p>
<p><b>41.) Wisdom</b></p>	<p><b>E-&gt;</b> Vijay Kharadi, IAS Gujarat, married in a mass marriage ceremony to save money and use it for a good cause.</p> <p><b>E-&gt;</b> IAS officer Devansh Yadav has empowered local SHGs in Arunachal Pradesh to start endeavors like a sanitary pad making unit and a bamboo furniture unit.</p>
<p><b>D-&gt;</b> It is the ability to make sensible decisions and judgements because of your knowledge or experience. The 3 ways to gain wisdom: by reflection, by imitation, by experience.</p>	<p><b>Q-&gt;</b> “As love is the highest quality of heart, wisdom is one of the mind”.</p> <p><b>Q-&gt;</b> Yesterday I was clever, so I wanted to change the world. Today I am wise, so I am changing myself.</p> <p><b>Q-&gt;</b> Knowing others is intelligence; knowing yourself is true wisdom. Mastering others is strength; mastering yourself is true power.</p>
<p><b>42.) Honesty</b></p>	<p><b>E-&gt;</b> Austria Health Minister Rudolf Anschober resigned citing his exhaustion with corona work, and that he is suffering from blood pressure problems and the country needs a fit Health Minister.</p> <p><b>E-&gt;</b> During one of my exams, I wrote something wrong, the invigilator who knew me personally, corrected me but still I didn't change the answer.</p> <p><b>E-&gt;</b> Ate at a restaurant, forgot to pay the bill, later realized, went back and paid.</p>
<p><b>D-&gt;</b> It is the quality of being truthful, straightforward, and sincere in one's words and actions, without deceit or deception.</p>	<p><b>Q-&gt;</b> “Slander cannot destroy an honest man when the flood recedes, the rock is there”.</p> <p><b>Q-&gt;</b> Truth without love is brutality and love without truth is hypocrisy.</p> <p><b>Q-&gt;</b> “If you tell the truth, you don't have to remember anything”.</p>
<p><b>43.) Reverence</b></p>	<p><b>E-&gt;</b> People stand in silence and remove their hats during the national anthem or during a moment of remembrance,</p>

	<p>such as on Veterans Day.</p> <p><b>E-&gt;</b> The way people show respect and admiration during religious ceremonies, such as bowing or kneeling in prayer, in various faiths around the world.</p>
<p><b>D-&gt;</b> It is a feeling or attitude of deep respect tinged with awe; veneration. It is seen as “response to something excellent in a moral or spiritual way and above oneself”.</p>	<p><b>Q-&gt;</b> Just as white light consists of colored rays, so reverence for life contains all the components of ethics: love, kindness, sympathy, empathy, peacefulness and power to forgive. - <b>Albert Schweitzer</b></p> <p><b>Q-&gt;</b> God is not greater if you reverence Him, but you are greater if you serve Him. - <b>Saint Augustine</b></p>
<p><b>44.) Faithfulness</b></p>	<p><b>E-&gt;</b> On February 6, 2018, Prince Charles wanted to give industrialist Ratan Tata a lifetime achievement award for philanthropy at Buckingham Palace. But Tata couldn't turn up for the event as his dog was terribly ill and he didn't leave it for the award.</p> <p><b>E-&gt;</b> A couple committing to their many years of relationship and finally marrying each other despite many odds and outside attractions.</p>
<p><b>D-&gt;</b> The quality of being true to one's word or commitments, as to what one has pledged to do, professes to believe, etc.</p>	<p><b>Q-&gt;</b> Faithfulness knows no difference between small and great duties. – <b>John Ruskin</b></p> <p><b>Q-&gt;</b> God has no larger field for the man who is not faithfully doing his work where he is.</p> <p><b>Q-&gt;</b> One thing you can give and still keep is your word.</p>
<p><b>45.) Uprightness</b></p>	<p><b>E-&gt;</b> GR Khairnar, former civil servant in BMC, Maharashtra, fought back land mafias and cleared public land of encroachments, even suffering injuries in doing so.</p> <p><b>E-&gt;</b> U. Sagayam's non-tolerant attitude towards corruption got him transferred 20 times in his 20-year tenure. Sagayam became the first civil servant who declared his assets.</p>
<p><b>D-&gt;</b> It is the quality of being morally and ethically sound, marked by honesty, integrity, and adherence to principles of right conduct.</p>	<p><b>Q-&gt;</b> “Man is born with uprightiness. If one loses it, he will be lucky if he escapes with his life.” - Confucius</p> <p><b>Q-&gt;</b> “Men find happiness neither by means of the body nor through possessions, but through uprightiness and wisdom. - Democritus</p>
<p><b>46.) Punctuality</b></p>	<p><b>E-&gt;</b> Gandhiji always used to spin charkha, even while talking to people, never wasting a single second of his time and being of service to the society, nation and mankind.</p> <p><b>E-&gt;</b> A teacher who joins the video call 5 minutes prior to the agreed time with his students and does not make them wait.</p>

<p><b>D-&gt;</b> It is the habit of being on time or completing tasks promptly as scheduled.</p>	<p><b>Q-&gt;</b> Punctuality is a quality the need of which is bound up with social cooperation. - Bertrand Russell  <b>Q-&gt;</b> I owe all my success in life to having always been a quarter of an hour before my time. - Horatio Nelson</p>
<p><b>47.) Autonomy/ Being Independent</b></p>	<p><b>E-&gt;</b> You are free in Kant's sense only if you live by your own reason. If someone brainwashes you into doing something, you are not free.  <b>E-&gt;</b> If you buy expensive shoes only because you've had the desire implanted in you through advertising, then you are also not free.</p>
<p><b>D-&gt;</b> It is the ability and freedom to make independent decisions and act without external control or influence.</p>	<p><b>Q-&gt;</b> Control leads to compliance; autonomy leads to engagement. - Daniel H. Pink  <b>Q-&gt;</b> Men are created different; they lose their social freedom and their individual autonomy in seeking to become like each other. - David Riesman</p>
<p><b>48.) Greed</b></p>	<p><b>E-&gt;</b> It was the greed of Duryodhan who could not even give 5 villages to Pandavas, which eventually led to the war of Mahabharata.  <b>E-&gt;</b> Frequent arrests of bureaucrats caught taking bribes.</p>
<p><b>D-&gt;</b> It is an intense and excessive desire for material wealth, possessions, or power, often at the expense of ethical or moral principles.</p>	<p><b>Q-&gt;</b> As per Bhagavad Gita, greed robs learned men of his wisdom and is a gateway to hell.  <b>Q-&gt;</b> "A man with one watch knows what time it is. A man with two is never quite sure."</p>
<p><b>49.) Ignorance</b></p>	<p><b>E-&gt;</b> The manner and speed with which US has pullout from Afghanistan (with Taliban making fast inroads into the country) after a 20-year presence in the country and Joe Biden's words that US was never there to rebuild Afghanistan and they have achieved what they intended to (to prevent Afghanistan becoming a base from which US can be attacked), highlights the selfish intent of major capitalist powers.  <b>E-&gt;</b> Often the authorities ignore the interests of tribals while making policies for their region in the name of development.  <b>E-&gt;</b> The way youth is ignoring the elderly in the fast moving present life especially in tier-I cities.</p>
<p><b>D-&gt;</b> It is a lack of knowledge or awareness about a particular subject, issue, or fact, often resulting in uninformed or misguided beliefs and actions.</p>	<p><b>Q-&gt;</b> Nothing in the world is more dangerous than sincere ignorance and conscientious stupidity. - Martin Luther King, Jr.  <b>Q-&gt;</b> The greatest obstacle to discovery is not ignorance - it is the illusion of knowledge. - Daniel J. Boorstin</p>
<p><b>50.) Prudence (Cardinal Virtue)</b></p>	<p><b>E-&gt;</b> The District Collector of Dewas, Umakant Umrao</p>

	<p>helped the farmers in Madhya Pradesh to fight against drought by constructing over 16,000 ponds.</p> <p><b>E-&gt;</b> IAS Officer, Smita Sabharwal, popularly known as 'the people's officer', launched a campaign called "Fund Your City" in Warangal. She appealed to residents to help her build the infrastructure of Naxal affected areas, which resulted in the construction of traffic junctions and foot over-bridges.</p>
<p><b>D-&gt;</b> Aristotle defined prudence as "the right reason applied to practice". It is the virtue that allows us to judge correctly what is right and wrong in a given situation.</p>	<p><b>Q-&gt;</b> Prudence is the knowledge of things to be sought, and those to be shunned. - Marcus Tullius Cicero.</p> <p><b>Q-&gt;</b> The prudent man does himself good; the virtuous one does it to other men. - Voltaire.</p>
<p><b>51.) Justice</b></p>	<p><b>E-&gt;</b> Shah Bano Begum case (1985): Milestone case for Muslim women's fight for rights. SC upheld the right to alimony for a Muslim woman and said that the CrPC, 1973 is applicable to all citizens irrespective of their religion.</p> <p><b>E-&gt;</b> P Narahari, as district collector in Madhya Pradesh, worked towards building a barrier-free environment that ensures that people with disabilities can move about safely and independently.</p>
<p><b>D-&gt;</b> It is the constant and permanent determination to give everyone his or her rightful due.</p>	<p><b>Q-&gt;</b> "Legal rights can never outweigh natural ones".</p> <p><b>Q-&gt;</b> Justice will not be served until those who are unaffected are as outraged as those who are. - <b>Benjamin Franklin</b></p>
<p><b>52.) Fortitude</b></p>	<p><b>E-&gt;</b> Fighter pilot Abhinandan Varthaman displayed quality of fortitude during 2019 India-Pak standoff.</p> <p><b>E-&gt;</b> Doctors operating on Covid positive patients.</p> <p><b>E-&gt;</b> Entry of Abhimanyu in Chakravyahu in Mahabharata.</p>
<p><b>D-&gt;</b> It means courage and patience shown by somebody who is suffering great pain or facing great difficulties. It gives strength.</p>	<p><b>Q-&gt;</b> "The virtue of prosperity is temperance; the virtue of adversity is fortitude."</p> <p><b>Q-&gt;</b> I know of no higher fortitude than stubbornness in the face of overwhelming odds. - <b>Louis Nizer</b></p>
<p><b>53.) Temperance</b></p>	<p><b>E-&gt;</b> Road rage seen in recent times is a result of not keeping temperance in human behavior.</p> <p><b>E-&gt;</b> People stealing their own house belongings or even murdering their loved ones just to fulfill some desires like buying an iPhone etc.</p> <p><b>E-&gt;</b> Mob Lynching.</p>
<p><b>D-&gt;</b> It is the restraint of our desires or passions. It is the cardinal value given by Aristotle.</p>	<p><b>Q-&gt;</b> "There is no difference between knowledge and temperance; for he who knows what is good and embraces it, who knows what is bad and avoids it, is</p>

	<p>learned and temperate”.</p> <p><b>Q-&gt;</b> Temperance is moderation in the things that are good and total abstinence from the things that are foul. - <b>Frances E. Willard</b></p>
<b>54.) Humanity</b>	<p><b>E-&gt;</b> Kannan Gopinathan, an IAS officer, who took leave from his post of Dadra &amp; Nagar Haveli District Collector, to work for Kerala Flood Relief in 2018, is an epitome of empathy, Social capital, dedication to society and public cause.</p> <p><b>E-&gt;</b> Arunachalam Muruganantham, the man who revolutionized women’s health by inventing cheap sanitary napkins.</p>
<b>D-&gt;</b> It is the quality of being compassionate, empathetic, and considerate of the welfare and dignity of all people, reflecting a commitment to shared values of kindness and respect.	<p><b>Q-&gt;</b> “You must not lose faith in humanity. Humanity is an ocean; if a few drops of the ocean are dirty, the ocean does not become dirty”.</p> <p><b>Q-&gt;</b> My humanity is bound up in yours, for we can only be human together. - Desmond Tutu</p>
<b>55.) Happiness</b>	<p><b>E-&gt;</b> Helping a disabled person in crossing the road can be happiness for someone.</p> <p><b>E-&gt;</b> Celebrating a birthday at some old age home with elderly people can be a source of happiness instead of throwing a party at some 5-star hotels.</p> <p><b>E-&gt;</b> Anshu Pragyan Das, IFS officer, worked to develop Muduligadia into the first Village in Odisha to attain self-sustainability with zero waste and 100% Eco-friendly initiatives of livelihood.</p>
<b>D-&gt;</b> It is a state of well-being and contentment, characterized by positive emotions and a sense of satisfaction with one's life.	<p><b>Q-&gt;</b> “Leave your footprints on the sand of time by your good work” - Vivekanada</p> <p><b>Q-&gt;</b> “Happiness cannot be pursued it must be ensued”</p>
<b>56.) Success</b>	<p><b>E-&gt;</b> The visuals of a Covid positive Chartered Accountant (CA) aspirant focusing on his studies in a Covid ward in Odisha hospital were a testimony to his dedication for success.</p> <p>(“Success is not coincidence. You need dedication. Your dedication makes you forget your pain. After that Success is only formality”).</p> <p><b>E-&gt;</b> Aruna Sundararajan, Kerala cadre IAS officer was the feminist torchbearer who headed the Kudumbashree project, which has created benchmarks in the field of women empowerment and has created significant employment opportunities for women.</p>

<p><b>D-&gt;</b> It is the achievement of one's goals, objectives, or the realization of a desired outcome, often accompanied by a sense of accomplishment.</p>	<p><b>Q-&gt;</b> Our success should be defined by what we want and not what others want from us.  <b>Q-&gt;</b> "Stay Hungry; Stay Foolish" - Steve Jobs</p>
<p><b>57.) Hatred</b></p>	<p><b>E-&gt;</b> The recent case of a lynch mob in Dimapur who beat a rape convict to death is an example.  <b>E-&gt;</b> Endless revenge in Gaza strip, Yemen-Arabia, Charlie Hebdo Incidence, Syrian crisis etc.  <b>E-&gt;</b> Gandhi didn't want to counter the British by violence, rather he chose the strategy which left them defenseless.</p>
<p><b>D-&gt;</b> It is a strong and intense feeling of hostility, aversion, or extreme dislike toward a person, group, or thing, often rooted in negative emotions.</p>	<p><b>Q-&gt;</b> "An eye for an eye only ends up making the world blind".  <b>Q-&gt;</b> "Darkness cannot drive out darkness; only light can do that. Hate cannot drive out hate; only love can do that."  – Martin Luther King, Jr.</p>
<p><b>58.) Constitutional Morality</b></p>	<p><b>E-&gt;</b> Triple Talaq case, Sabarimala Case, Aadhaar Case etc.  <b>E-&gt;</b> Reasonable restrictions on the fundamental rights of the citizens  <b>E-&gt;</b> Sedition Act</p>
<p><b>D-&gt;</b> It means adherence to the norms of the Constitution, not only in letter but spirit too.</p>	<p><b>Q-&gt;</b> "Constitutional Morality is a beacon of light which helps to preserve the faith and trust of people in the democratic processes".  <b>Q-&gt;</b> "Constitutional morality is not a natural sentiment. It has to be cultivated. We must realize that our people have yet to learn it. Democracy in India is only a top-dressing on an Indian soil which is essentially undemocratic." — <b>B.R. Ambedkar</b></p>
<p><b>59.) Knowledge</b></p>	<p><b>E-&gt;</b> Use of knowledge depends on the intent. Nuclear power can be used to produce energy or create atomic bombs.  <b>E-&gt;</b> Little knowledge can be a dangerous thing- Abhimanyu in Chakravyuh  <b>E-&gt;</b> Knowledge without integrity: Satyam scam; Insider trading; Osama Bin Laden.  <b>E-&gt;</b> Knowledge with integrity: Ashok Khemka (bureaucrat); APJ Abdul Kalam (Former President of India)  <b>E-&gt;</b> Integrity without knowledge: ISIS (terror group).</p>
<p><b>D-&gt;</b> It is the information, understanding, or skill that you get from experience or education.</p>	<p><b>Q-&gt;</b> If money is your hope for independence you will never have it. The only real security that a man will have in this world is a reserve of knowledge, experience, and ability. - <b>Henry Ford</b></p>



	<p><b>Q-&gt;</b> Beware of false knowledge; it is more dangerous than ignorance. - <b>George Bernard Shaw</b></p>
<b>60.) RTI</b>	<p><b>E-&gt;</b> RTI enquiry by Internet Freedom Foundation revealed that Facial Recognition Technology (FRT) used for online verification of beneficiaries at vaccination centers, is not backed by any legislation or legal order. <b>E-&gt;</b> Adarsh Society Scam. <b>E-&gt;</b> An RTI filed by a non-profit organization revealed that the Delhi government had diverted Rs 744 crore from funds earmarked for the welfare of the Dalit community to the Commonwealth Games.</p>
<b>D-&gt;</b> 2nd ARC called RTI as a beacon of transparency.	<p><b>Q-&gt;</b> Beware of he who would deny you access to information, for in his heart he dreams himself your master. - <b>Sid Meier</b> <b>Q-&gt;</b> Information is the most valuable commodity in the world today and this business is about giving people access to information that is relevant to their lives. - <b>James Murdoch</b></p>
<b>61.) Code of Ethics</b>	<p><b>E-&gt;</b> Confidentiality - Lawyers must maintain their clients' confidence at all times. <b>E-&gt;</b> Consideration - Teachers should put the needs of their students first. <b>E-&gt;</b> A focus on climate change has become an integral part of companies' codes of ethics, detailing their commitment to sustainability.</p>
<b>D-&gt;</b> A code of ethics is a set of principles and rules used by individuals and organizations to govern their decision-making process, as well as to distinguish right from wrong.	<p><b>Q-&gt;</b> You must question a code of ethics that never impedes your progress. - Robert Breault <b>Q-&gt;</b> All men alike stand condemned, not by alien codes of ethics, but by their own, and all men therefore are conscious of guilt. - C. S. Lewis</p>
<b>62.) Code of Conduct</b>	<p><b>E-&gt;</b> A cousin of yours asked for a Government contract. Without a code, it would be a moral choice on the part of a civil servant. With a code, it would remind the civil servant of his duty and consequences of the act. <b>E-&gt;</b> Hippocratic Oath" taken by medical professionals, which outlines ethical principles such as patient confidentiality, doing no harm, and providing the best possible care to patients.</p>
<b>D-&gt;</b> Code of Conduct Rules 1964 also endorses the unquestionable importance of honesty and integrity in professional life.	<p><b>Q-&gt;</b> "Our code of conduct is definitive; it is not negotiable."— Thomas S. Monson</p>

<p><b>63.) Citizens Charters</b></p>	<p><b>E-&gt;</b> Income tax department's citizen charter has empowered tax payers by increasing awareness regarding their rights.  <b>E-&gt;</b> Citizen charter of Indian post is one of the success stories.  <b>E-&gt;</b> As a next step to citizen charter, states like Madhya Pradesh, Kerala etc., have passed the right to service.  <b>E-&gt;</b> Citizen report cards, Jan Bhaagidaari in cities like Bangalore, Delhi etc., are offshoots of citizen charter.</p>
<p><b>D-&gt;</b> Citizen charter is the written voluntary declaration by service providers highlighting the standards, timeline, grievance redressal mechanism and other service-related information.</p>	<p><b>Q-&gt;</b> The Citizen's Charter is a promise of performance." - Rajiv Gandhi  <b>Q-&gt;</b> "Good governance with a citizen-friendly approach is the cornerstone of a vibrant democracy."</p>
<p><b>64.) Work Culture</b></p>	<p><b>E-&gt;</b> K. Jairaj, Karnataka-cadre IAS officer was to approve the dismissal of a lady typist on the grounds of unruly behavior by her against her colleagues. Jairaj sir delved a little deeper into the issue and found out that she had been a widow and one co-worker misused her, promising her a new life. And this had pushed her into depression. Adding salt to the wound, her co-workers started abusing her in filthy language. This had made her lose her temper. Later, considering her precarious financial condition and need to educate her son, two increments were cut and she was reinstated to service. Later, her son got a very good job in Infosys.  <b>E-&gt;</b> Ruchika Girhotra case of 1990, when a 14 year old girl was raped by an IPS.  <b>E-&gt;</b> Shanmugam Manjunath was a marketing manager for IOC, who was murdered for sealing a corrupt petrol station in Lakhimpur Kheri, UP.</p>
<p><b>D-&gt;</b> Work Culture is a set of collective beliefs, values, rules and behavior which an organization as a whole conforms to.</p>	<p><b>Q-&gt;</b> When you are holding a public office, you can't go around accusing people in haste. It breaks the office discipline, destroys the staff morale.  <b>Q-&gt;</b> There's nothing of any importance in life — except how well you do your work. Nothing. Only that. Whatever else you are, will come from that. It's the only measure of human value. - <b>Ayn Rand</b></p>
<p><b>65.) Quality of Service Delivery</b></p>	<p><b>E-&gt;</b> High Out-Of-Pocket Expenditure on health in India signifies the poor quality of service delivery in Government hospitals.  <b>E-&gt;</b> Car companies often recall cars due to potential defects and suffer losses in order to ensure best possible service delivery to its customers.</p>

	<p><b>E-&gt;</b> Use of contract teachers who are hired locally at the village level shows that contract teachers are significantly less likely to be absent (15% compared to 25%) and are much more likely to be engaging in teaching activity even though they are paid only Rs. 1,000 a month as opposed to an average of Rs. 7,500 a month for government-employed teachers.</p> <p><b>E-&gt;</b> Social audit fixes accountability of public servants, increases efficacy and effectiveness of service delivery in local development programmes.</p>
<p><b>D-&gt;</b> It refers to the level of excellence and effectiveness in providing services to meet the needs and expectations of customers or clients.</p>	<p><b>Q-&gt;</b> “If you don’t take care of your customer, your competitor will.” – Bob Hooley</p> <p><b>Q-&gt;</b> “Right or wrong, the customer is always right.” – Marshall Field</p> <p><b>Q-&gt;</b> Quality is never an accident. It is always the result of intelligent effort. - <b>John Ruskin</b></p>
<p><b>66.) Utilization of Public Funds</b></p>	<p><b>E-&gt;</b> In an evaluation of TPDS, the erstwhile Planning Commission found 36% leakage of PDS rice and wheat at the all-India level.</p> <p><b>E-&gt;</b> The mis-utilization of funds meant for the Commonwealth Games, Delhi, 2010, resulted in cost overruns and quality issues.</p>
<p><b>D-&gt;</b> DPSP brings two ethical concerns in UoPF: To develop an economic system that does not result in concentration of wealth &amp; To utilise public funds in a manner that maximises common good.</p>	<p><b>Q-&gt;</b> Nothing is easier than spending public money. It does not appear to belong to anybody. The temptation is overwhelming to bestow it on somebody. - <b>Calvin Coolidge</b></p> <p><b>Q-&gt;</b> Public money ought to be touched with the most scrupulous consciousness of honor.- <b>Thomas Paine</b></p>
<p><b>67.) Corruption</b></p>	<p><b>E-&gt;</b> Mahesh Buch, former Bureaucrat was the one to ‘mercilessly weed out from the IAS, IPS and Indian Forest Service all those who are slackers, derelict in their duty, partisan and corrupt’.</p> <p><b>E-&gt;</b> India was ranked 86/180 in Corruption Perception Index 2020 by Transparency International.</p> <p><b>E-&gt;</b> During the Corona Crisis, people were caught hoarding and selling essential items of utmost necessity at super inflated prices.</p> <p><b>E-&gt;</b> Institutionalization of Corruption- Teacher asking his school students to join his own Tuition classes for better understanding.</p> <p><b>E-&gt;</b> Political Corruption: The Trump Organization, The company owned by former US president Donald Trump has been charged for criminal tax fraud, conspiracy and</p>

	<p>falsifying business records.</p> <p><b>E-&gt;</b> 2013 Teacher Recruitment scandal in Haryana and Fodder scam in Bihar are examples of political corruption.</p> <p><b>E-&gt;</b> Young DRDO scientist from Madhu's Pradesh, honey trapped by Pakistan based terrorist outfits.</p>
<p><b>D-&gt;</b> Corruption is a multi-dimensional and dysfunctional phenomenon, which can be defined as the abuse of interested power for private gains. Amoral Familism and Anticipatory Socialization are the two major reasons for corruption at societal level in India.</p>	<p><b>Q-&gt;</b> "Corruption and bribery are against the very nature of democracy and freedom." – Jawaharlal Nehru.</p> <p><b>Q-&gt;</b> "Corruption is a form of violence that destroys the lives and futures of millions of people." – Kailash Satyarthi</p>
<p><b>68.) Bioethics</b></p>	<p><b>E-&gt;</b> Cloning, gene Therapy, human genetic engineering, astroethics, DNA editing.</p> <p><b>E-&gt;</b> The concept of informed consent applies in a clinical research setting.</p> <p><b>E-&gt;</b> organ donation and transplantation.</p>
<p><b>D-&gt;</b> It is the study of contentious ethics brought about by advancement in biology and medicine.</p>	<p><b>Q-&gt;</b> Instead of the traditional emphasis on the sanctity of life, bioethics began to stress the quality of life, meaning that many damaged humans, young and old, don't qualify for personhood because their lives have lost value. - John Leo</p>
<p><b>69.) Environmental Ethics</b></p>	<p><b>E-&gt;</b> USA withdrew from the Paris Agreement.</p> <p><b>E-&gt;</b> Developed nations not following the principle of Common But Differentiated Responsibility (CBDR).</p> <p><b>E-&gt;</b> Aristotle talked about three forms of justice in his Nicomachean Ethics: [When applied to climate change]</p> <p>1) Distributive Justice: Climate change funding should be distributed in the principles of equity. 2) Commutative justice: Requires fairness in all types of agreements/treaties. 3) Corrective justice: Giving punishment/fines to undo the injustice and/or Giving compensation to the victim.</p>
<p><b>D-&gt;</b> It is a branch of ethics that concerns the moral principles and values guiding human interactions with the environment, emphasizing responsible and sustainable practices to protect and preserve the natural world.</p> <p>EE concerns human beings' Ethical relationship with the environment.</p>	<p><b>Q-&gt;</b> Take care of the earth and she will take care of you.</p> <p><b>Q-&gt;</b> We won't have a society if we destroy the environment. – Margaret Mead</p> <p><b>Q-&gt;</b> Environment is no one's property to destroy; it's everyone's responsibility to protect. – Mohith Agadi</p>

<p><b>70.) Ethics &amp; Poverty alleviation</b></p>	<p><b>E-&gt;</b> Operation Sulaimani-a free food programme introduced in the city of Kozhikode, India, by the district administration and Kerala Hotel and Restaurants.  <b>E-&gt;</b> Avoiding unnecessary expenditure on luxury and using the same money to fund the education of your househelp's children.</p>
<p><b>D-&gt;</b> Ethics in poverty alleviation involves the application of moral principles and values to guide efforts to reduce poverty, with a focus on fair and just practices, equitable resource distribution, and the protection of vulnerable populations.</p>	<p><b>Q-&gt;</b> Mother Teresa once said that loneliness and the feeling of being unwanted is the most terrible poverty.  <b>Q-&gt;</b> "It takes nothing to stay in poverty, but everything to break free from it."</p>



Keywords	Examples (E) - Definition (D) - Quotes (Q)
<b>71.) Normative Ethics</b>	E-> Healthcare professionals adhering to ethical principles like patient autonomy and confidentiality, emphasizing the importance of following universal rules and duties, even when faced with challenging situations.
D-> Normative ethics is a branch of philosophy that explores and provides frameworks for determining what is morally right and wrong. It seeks to establish principles, rules, or guidelines for ethical behavior and decision-making.	Q-> "Live so that when your children think of fairness and integrity, they think of you."
<b>72.) Meta ethics</b>	E-> When people from different cultures have varying moral beliefs, metaethics comes into play when examining whether there are universal moral truths or if morality is culturally relative.
D-> Metaethics is the study of moral thought and moral language. Rather than addressing questions about what practices are right and wrong, and what our obligations to other people or future generations are, metaethics asks what morality actually is.	Q-> The rules of morality are not the conclusion of our reason.
<b>73.) Applied ethics</b>	E-> Is it ethical for a business owner to bluff during negotiations with another company? E-> Bioethics. E-> moral issues regarding abortion, euthanasia, sex before marriage, death penalty.
D-> Also called practical ethics, it is the application of ethics to real-world problems. It attempts to answer the question of how people should act in specific situations.	Q-> The first step in the evolution of ethics is a sense of solidarity with other human beings.
<b>74.) Ethical altruism</b>	E-> Voluntarily donating organs to save lives, exemplifying ethical altruism by prioritizing the well-being of others over personal interests.
D-> It is a moral theory that suggests individuals should prioritize the well-being and interests of others over their own, promoting selflessness and helping others for the greater good.	Q-> Every man must decide whether he will walk in the light of creative altruism or in the darkness of destructive selfishness. - <b>Martin Luther King, Jr.</b>

<p><b>75.) Utilitarianism</b></p>	<p>E-&gt; Redistribution of excess money from the rich to the poor. E-&gt; Jeremy Bentham advocated for the rights of animals when there were no laws protecting animals from cruelty.</p>
<p>D-&gt; It is an ethical theory that suggests the best action is the one that maximizes overall happiness or well-being for the greatest number of people. It focuses on the consequences of actions to determine their moral value.</p>	<p>Q-&gt; The only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not sufficient warrant. - <b>John Stuart Mill</b></p>
<p><b>76.) Consequentialism</b></p>	<p>E-&gt; A life was saved when someone lied to the mob who attacked his neighbor for marrying outside his religion. E-&gt; The officer tricked her into admitting her guilt—the end sometimes justifies the means.</p>
<p>D-&gt; It is a moral theory that judges the morality of an action solely based on the outcomes or consequences it produces, rather than the intrinsic nature of the action itself.</p>	<p>Q-&gt; Some philosophers think that the idea of a consequentialist virtue theory is strange, but the real strength of consequentialism is that it can emulate the requirements of other moral theories when it is the case that acting on those theories would improve the world. - <b>Dale Jamieson</b></p>
<p><b>77.) Virtue Ethics</b></p>	<p>E-&gt; JK Rowling donated £1m to help homeless people and those affected by domestic abuse during the coronavirus pandemic. E-&gt; A person exhibiting virtue ethics might demonstrate courage in the face of adversity, facing challenges with resilience and determination based on the virtue of fortitude.</p>
<p>D-&gt; It is an ethical theory that emphasizes the development of good character traits and moral virtues in individuals as the key to ethical decision-making, rather than focusing on specific rules or consequences.</p>	<p>Q-&gt; "Virtue ethics invites us to sculpt our character with the chisel of moral virtues, shaping not just what we do, but who we become in the pursuit of a virtuous life."</p>
<p><b>78.) Deontology</b></p>	<p>E-&gt; Respecting the autonomy of others in medical decision-making, where healthcare professionals prioritize the patient's right to make decisions about their treatment, even if the professional disagrees with the choice. E-&gt; Denis Mukwege, helped victims of sexual violence in the Democratic Republic of Congo, despite facing life threats and various assassination attempts.</p>

<p><b>D-&gt;</b> It is an ethical theory that asserts that the morality of an action is based on whether it adheres to a set of moral principles or duties, regardless of the consequences.</p>	<p><b>Q-&gt;</b> "Duty, not outcome, defines the moral path in deontology."</p>
<p><b>79.) Anthropogenic view</b></p>	<p><b>E-&gt;</b> Climate Change Denial <b>E-&gt;</b> Environmental Exploitation</p>
<p><b>D-&gt;</b> Anthropocentrism can refer to the point of view that humans are the only, or primary, holders of moral standing. It often implies that humans are responsible for causing or significantly contributing to the issue in question.</p>	<p><b>Q-&gt;</b> "Anthropocentrism blinds us to the interconnected tapestry of life, where every thread, no matter how small, plays a vital role in the intricate harmony of our planet."</p>
<p><b>80.) Ethical Egoism</b></p>	<p><b>E-&gt;</b> Someone choosing a job opportunity that offers personal benefits, even if it doesn't benefit others. <b>E-&gt;</b> An individual could lie to gain professional advancement, even though this may put their colleagues at a disadvantage.</p>
<p><b>D-&gt;</b> It is the normative theory that the promotion of one's own good is in accordance with morality. In the strong version, it is held that it is always moral to promote one's own good, and it is never moral not to promote it.</p>	<p><b>Q-&gt;</b> God is the Sun and when His rays fall upon your heart, not impeded by the clouds of egoism, the lotus blooms and the petals unfold. <b>Q-&gt;</b> Every man must decide whether he will walk in the light of creative altruism or in the darkness of destructive selfishness. - <b>Martin Luther King, Jr.</b></p>
<p><b>81.) Benevolence</b></p>	<p><b>E-&gt;</b> Donating to a local charity, volunteering at a community shelter, or helping a neighbor in need without expecting anything in return are real-life examples of benevolence. <b>E-&gt;</b> Frontline workers like nurses and paramedics working with extra efforts during pandemic.</p>
<p><b>D-&gt;</b> It is a disposition or quality of being kind, charitable, and showing goodwill towards others, often expressed through acts of generosity and kindness.</p>	<p><b>Q-&gt;</b> "You know someone is truly special when the most beautiful thing they have is a kind soul." - <b>Matshona Dhliwayo</b> <b>Q-&gt;</b> "Live your life in such a way that you'll be remembered for your kindness, compassion, fairness, character, benevolence, and a force for good who had much respect for life, in general."</p>
<p><b>82.) Misfeasance</b></p>	<p><b>E-&gt;</b> IAS Neera Yadav was sentenced to four years' rigorous imprisonment after being convicted of misusing her official position as IAS officer of Uttar Pradesh to fraudulently allot land in Noida.</p>



<p><b>D-&gt;</b> It refers to the improper or negligent performance of a legal duty, typically by a public official or person in authority, which results in harm or damage to another individual or entity.</p>	<p><b>Q-&gt;</b> The real and effectual discipline which is exercised over a workman is that of his customers. It is the fear of losing their employment which restrains his frauds and corrects his negligence. - <b>Adam Smith</b></p>
<p><b>83.) Personal Ethics and Professional Ethics</b></p>	<p><b>E-&gt;</b> A Doctor is hesitant to attend to an accident victim spontaneously because he is under the dilemma of his personal ethics (save the life immediately) and professional ethics (wait for the legal procedure before starting treatment).</p>
<p><b>D-&gt;</b> Personal ethics deal with ethics in personal life while professional ethics deal with holistic competence at the workplace.</p>	<p><b>Q-&gt;</b> "Work for a cause, not for applause."  <b>Q-&gt;</b> In law a man is guilty when he violates the rights of others. In ethics he is guilty if he only thinks of doing so. - <b>Immanuel Kant</b></p>
<p><b>84.) VIP Culture</b></p>	<p><b>E-&gt;</b> The recent incident at Delhi's Thyagraj stadium, where an IAS officer-couple got the stadium cleared by sending the athletes early so that they can walk with their dog on the tracks.  <b>E-&gt;</b> Exclusive lanes and privileges at airports for VIPs and government officials, leading to delays for regular travelers.</p>
<p><b>D-&gt;</b> It refers to the practice of giving special privileges, attention, and treatment to individuals who are considered "very important persons" (VIPs) due to their status, position, or influence, often at the expense of equality and fairness in society.</p>	<p><b>Q-&gt;</b> My career should adapt to me. Fame is like a VIP pass wherever you want to go.</p>
<p><b>85.) Negative Values</b></p>	<p><b>E-&gt;</b> Osama Bin Laden, very talented but his contribution to society was dependent on his (negative) values.</p>
<p><b>D-&gt;</b> These refer to undesirable moral or ethical principles or beliefs.</p>	<p><b>Q-&gt;</b> "Dwelling on the negative simply contributes to its power." — Shirley MacLaine.</p>
<p><b>86.) Lessons from life of administrators</b></p>	<p><b>E-&gt;</b> Visvesvaraya, known for his excellence, openness and purity was critical of the lazy and fatalist attitude of an Indian Society.</p>
<p><b>D-&gt;</b> An administrator is a person or entity responsible for managing and overseeing the operations, policies, and resources of an organization, system, or institution.</p>	<p><b>Q-&gt;</b> Ignorance allowed politicians to fool people and bad administrators to be re-elected. - <b>Malala Yousafzai</b>  <b>Q-&gt;</b> We are the administrators of our money. We will have to give God an account of the use we make of it up to the last cent.</p>

<p><b>87.) Attitude</b></p>	<p>E-&gt; Swachh Bharat Campaign involved changing the attitude of people.</p> <p>E-&gt; The unpopularity of highly revered judicial figures was highlighted by the death of Justice Uttam Anand in Dhanbad, Jharkhand, who when taken to hospital post accident, was recognised by none as the District and Additional Judge.</p> <p>E-&gt; Femina Miss India 2020 runner-up Manya Singh, the daughter of an auto-rickshaw driver is an epitome of perseverance and single-minded focus in the face of difficulties she faced in her life.</p>
<p>D-&gt; Attitude refers to an individual's overall evaluation, feelings, or disposition toward a particular person, object, idea, or situation. It encompasses a person's beliefs, emotions, and behaviors in response to what they perceive.</p>	<p>Q-&gt; "Your attitude, not your aptitude, will determine your altitude".</p>
<p><b>88.) Behavior</b></p>	<p>E-&gt; Greeting elderly people with kind words even if they behave awkward due to age related factors.</p> <p>E-&gt; Teachers caught asking school children to do their massage or other chorus by skipping studies shows negative behavior.</p>
<p>D-&gt; Behavior refers to the actions, reactions, or conduct of an individual or organism in response to various internal and external stimuli or situations. It flows from 3 main sources- desire, emotions and knowledge.</p>	<p>Q-&gt; Behavior is the mirror in which everyone shows their image.</p>
<p><b>89.) Discrimination</b></p>	<p>E-&gt; An Indian para-athlete Kanchanmala Pande, had been forced to beg for money in Berlin because the Paralympic Committee of India had refused to help her out with sufficient funds, later she won a silver medal there.</p> <p>E-&gt; The discovery of hundreds of graves in Canada highlights the Cultural Genocide- where indigenous people faced systemic discrimination and violence at the hands of the state itself.</p>
<p>D-&gt; The unfair or prejudicial treatment of people and groups based on characteristics such as race, gender, age, or sexual orientation.</p>	<p>Q-&gt; No one is born hating another person because of the color of his skin, or his background, or his religion. - <b>Nelson Mandela</b></p> <p>Q-&gt; Love comes more naturally to the human heart than its opposite. - <b>Nelson Mandela</b></p>

<p><b>90.) Preferential Treatment</b></p>	<p>E-&gt; Government gives a preferential treatment to minorities, backward classes and Dalits communities to ensure inclusive growth.</p> <p>E-&gt; Tokyo Declaration - when a compromise solution was reached over the question of preferential treatment for goods of developing countries in the markets of developed nations.</p>
<p>D-&gt; Preferential treatment involves giving advantages, privileges, or special consideration to a particular individual or group over others, often based on factors like their status, relationships, or characteristics, which can lead to inequality or unfairness.</p>	<p>Q-&gt; “When people get used to preferential treatment, equal treatment seems like discrimination.” — Thomas Sowell</p>
<p><b>91.) Stereotypes</b></p>	<p>E-&gt; One of the most damaging stereotypes associated with Northeast Indians is the perception that they all look alike.</p> <p>E-&gt; An analysis of Indian advertisements on television and YouTube has shown that they further gender stereotypes — they depict women as married, less likely to be shown in paid occupation, and more likely to be depicted as caretakers and parents than male characters.</p>
<p>D-&gt; A stereotype is a widely held but oversimplified and generalized belief or idea about a particular group of people or things, often based on limited or inaccurate information.</p>	<p>Q-&gt; “When I look at a person, I see a person - not a rank, not a class, not a title.”</p> <p>Q-&gt; There's a difference between being yourself and being your stereotype. - <b>Iggy Azalea</b></p>
<p><b>92.) Social Influence</b></p>	<p>E-&gt; One bad influence is enough to ruin our entire life, like Shakuni was to Kauravas.</p> <p>E-&gt; Foot in the door and Door in the Face.</p>
<p>D-&gt;</p>	<p>Q-&gt; Attitude is greatly shaped by influence and association. - <b>Jim Rohn</b></p> <p>Q-&gt; Think twice before you speak, because your words and influence will plant the seed of either success or failure in the mind of another. - <b>Napoleon Hill</b></p>
<p><b>93.) Impartiality</b></p>	<p>E-&gt; FIR shall be registered impartially, socio-economic status of an individual should not be a filter.</p> <p>E-&gt; Role of Julian Assange in releasing DNC emails.</p>
<p>D-&gt; It means acting according to the merits of the case and being impartial to one and all.</p>	<p>Q-&gt; He who experiences the unity of life sees his own self in all beings. - <b>Gautama Buddha</b></p> <p>Q-&gt; Impartiality is a pompous name for indifference, which is an elegant name for ignorance.- <b>Gilbert K. Chesterton</b></p>

94.) Non-partisanship	E-> Telangana IAS officer touching the feet of the CM in a public function, in the name of seeking blessings on the Fathers Day. E->
D-> According to 2nd ARC, non-partisanship is political neutrality or political impartiality and means that a public servant would serve the Government of the day to the best of his abilities.	Q-> "Some people would regard people who look like they do as ugly if they did not look like them." - <b>Mokokoma Mokhonoana</b>
95.) Neutrality	E-> A judge giving his decision on the basis of facts rather than getting influenced by the background of the E->
D->	Q-> Take sides. Neutrality helps the oppressor, never the victim.- <b>Elie Wiesel</b> Q-> With a great moral issue involved, neutrality does not serve righteousness; for to be neutral between right and wrong is to serve wrong. - <b>Theodore Roosevelt</b>
96.) Objectivity	E-> Reporting facts without personal bias in journalism. E-> Voting in the election on the basis of merit and not nepotism or external favours.
D-> It means basing your advice and decisions on rigorous analysis of evidence.	Q-> Objectivity is the delusion that observations could be made without an observer. - <b>Heinz von Foerster</b>
97.) Conviction	E-> In Nirbhaya Gang Rape Case, Four men were convicted for the brutal gang rape and murder of a young woman in Delhi. The convictions resulted in death sentences for the perpetrators.
D-> The act of deciding officially in a court of law that someone is guilty of a particular crime.	Q-> "A 'No' uttered from the deepest conviction is better than a 'Yes' merely uttered to please, or worse, to avoid trouble". - Mahatma Gandhi.
98.) Conduct	E-> R.Anandakumar, IAS TamilNadu enrolled his daughter in a Government school- to give a message to the larger society. E-> A lawyer maintaining client confidentiality and adhering to ethical standards in the legal profession.
D->	Q-> "Conduct of a man is the expression of his character".
99.) Ethical Dilemma in Private	E-> Taking credit for others' work.

	E-> whether to disclose a friend's secret that may affect others negatively or keeping it confidential to maintain trust.
D-> An ethical dilemma is a complex situation that often involves an apparent mental conflict between moral imperatives.	Q-> "Even the most rational approach to ethics is defenseless if there isn't the will to do what is right." - Alexander Solzhenitsyn
<b>100.) Ethical Dilemma in Public</b>	E-> Recent controversy surrounding West Bengal Chief secretary Alapan Bandyopadhyay, where he faced a dilemma of whether to serve the centre or the state. E-> A lawyer defending a client who is guilty faces an ethical dilemma. E-> An SDM who has to protect government lands and remove encroachments might, in the process, make some poor families homeless.
D-> A Dilemma can be defined as a situation that demands a choice between two competing principles, where satisfying one would lead to compromise of the other. It can occur in 2 circumstances: Conflict of Interest & Crisis of Conscience.	Q-> "An ethical dilemma is similar to choosing between two horns to sit on, both equally pointed". Q-> "Goals must take precedence over means where questions of human life are involved".
<b>101.) Crisis Of Conscience</b>	E-> I saw an old lady struggling outside from my classroom window. Although school doesn't allow me to go out, I nevertheless did. E-> Whistleblowers in Corruption Cases: Individuals who expose corruption within government or corporate sectors often face a crisis of conscience.
D-> A crisis of conscience refers to a profound internal conflict or dilemma experienced by an individual when faced with a situation that challenges their deeply held moral or ethical beliefs.	Q-> In matters of conscience, the law of the majority has no place. – Mahatma Gandhi. Q-> Never do anything against conscience even if the state demands it. – Albert Einstein.
<b>102.) Accountability</b>	E-> U.S. President Richard Nixon was held accountable for the Watergate scandal, which involved illegal activities, leading to his resignation. E-> Athletes who are caught using banned substances are held accountable with sanctions and disqualifications from competitions, such as the Lance Armstrong doping case.

D->	Q-> "It is wrong and immoral to seek to escape the consequences of one's acts." — Mahatma Gandhi
<b>103.) Responsibility</b>	E-> Dual system of governance after Battle of Buxar- authority without responsibility. E-> Throughout the COVID-19 pandemic, healthcare professionals, frontline workers, and volunteers demonstrated a strong sense of responsibility.
D-> It is the state or condition of being accountable or answerable for one's actions, decisions, and obligations.	Q-> "Take responsibility of your own happiness, never put it in other people's hands." Q-> "You become responsible, forever, for what you have tamed."
<b>104.) Ethical issues in IR</b>	E-> When Strategic edge dominated and Ethics did not matter: Cold war, Decision to drop a nuclear bomb even though the war was won, Presence of US in Indian Ocean, Maritime Silk route initiative by China, lack of concerted fight against terrorism, China's action of supporting Masood Azhar, Refugee crisis - baby washing up on Turkish shore. E-> When Ethics dominated: Establishment of UN with the objective of peace and harmony, Birth of NAM, Gujral doctrine, Panchsheel, Komagata Maru apology by Canada, Aboriginal apology by Australia in 2008, Obama visited Hiroshima, 2016 E-> Cyber espionage, Syrian refugee crisis, Snowden controversy, Cambridge Analytica scandal and the moral issues pertaining to big tech companies like Facebook and Google. E-> European Union's "Green passport" bans intra-European travel for passengers who haven't taken one of the four vaccines recognised by the EU. E-> In 1971, US President Robert Nixon pulled out of Bretton Woods, because he wanted freedom to print more dollars to finance the Cold War and arms race against the USSR.
D-> International relations are often guided by vested interests and individualism rather than mutual benefit and prosperity.	Q-> "It was Buddha, not Alexander who conquered the world" - Tagore. Q-> The world has achieved brilliance without wisdom,

	power without conscience. Ours is a world of nuclear giants and ethical infants.
<b>105.) Legal not Ethical</b>	<p>E-&gt; Euthanasia, Capital punishment, Abortion.</p> <p>E-&gt; Tobacco advertising, while regulated by law, has often been criticized for ethical reasons due to the known health risks.</p> <p>E-&gt; Corporate Lobbying.</p>
D-> Ethics is not just law but it is broader than law. Law and ethics are different in their treatment of convicted persons. Law does not take into effect factors like ignorance, voluntariness, free will etc., while deciding legality of an action. But ethics takes into effect those factors while deciding the ethicality of an action.	Q-> "In law we are guilty when we violate the rights of others, in ethics we are guilty when we think of harming others" - Kant
<b>106.) Ethical not Legal</b>	E-> Civil Disobedience movement during India's freedom struggle was ethical but not legal.
D->	<p>Q-&gt; "Ethics start where law ends".</p> <p>Q-&gt; "Good people do not need laws to tell them to act responsibly, while bad people will find a way around the laws" - Plato.</p>
<b>107.) Conflict of Interest</b>	<p>E-&gt; ICICI-Videocon alleged bank loan controversy.</p> <p>E-&gt; Kuvempu, Jnanpith awardee, a poet and Karnataka's pride, was once Vice-Chancellor of Mysore University. His son Poornachandra Tejaswi was studying BA in the same university. Once, an English Professor approached Kuvempu and told him that his son had scored marks below minimum pass-mark in English Paper and asked Kuvempu as to what to do. Kuvempu went through the answer script and instructed the professor to award even lesser marks.</p> <p>E-&gt; Suppose an IAS officer is a part of an interview panel. While taking interviews, he/she discovers that a candidate is a son of his friend. Then that IAS officer should disclose that fact. He should abstain from taking interviews with that candidate.</p> <p>E-&gt; Shooting a person in fake encounter might be against the personal ethics of the officer.</p>

D->	Q-> The most difficult thing is to recognize that sometimes we too are blinded by our own incentives. Because we don't see how our conflicts of interest work on us. - <b>Dan Ariely</b>
<b>108.) Probity in Governance</b>	<p>E-&gt; PS Appu: Recommended dismissal of a probationer for severe indiscipline. When the recommendation was rejected allegedly because of the closeness of the person with the State home minister, he resigned as director of LBSNAA in protest.</p> <p>E-&gt; U Sagayam, was the first IAS officer in TamilNadu to declare his assets and post it on a website.</p> <p>E-&gt; Vigilance Awareness Week-2020 was observed from 27th October to 2nd November, 2020 on the theme "Satark Bharat, Samriddh Bharat" to instill values of honesty, integrity and probity in public servants.</p>
D->	Q-> Take from a man his reputation for probity, and the more shrewd and clever he is, the more hated and mistrusted he becomes.
<b>109.) Nepotism</b>	<p>E-&gt; Karan Johar, a prominent Bollywood filmmaker, has faced criticism for promoting star kids (children of established actors and filmmakers) in his films.</p> <p>E-&gt; India's largest conglomerate, Reliance Industries, has faced criticism for the prominent role of the Ambani family members in the company's leadership.</p>
D-> It is the practice of showing favoritism or granting preferential treatment to one's relatives, typically in matters of appointments, promotions, or opportunities, regardless of their qualifications or merit.	<p>Q-&gt; "Nepotism is the enemy of talent." – Gore Vidal</p> <p>Q-&gt; "Nepotism is the lazy man's way of filling a position." – Ron Lewis</p>
<b>110.) Administrative Secrecy</b>	<p>E-&gt; The discussions and decisions made during cabinet meetings are generally kept confidential, with only limited information being made available to the public.</p> <p>E-&gt; Official Secrets Act.</p>
D-> It refers to the practice of withholding or keeping certain government information, documents, or decisions confidential from the public or unauthorized individuals.	<p>Q-&gt; "A picture is a secret about a secret, the more it tells you the less you know."</p> <p>– <b>Diane Arbus</b></p>