



#### **Explained**

- 1. India's Renewable Rise
- 2. Governors Appointment
- 3. Copyright Laws for Deepfakes
- 4. Global Capability Centres

#### Decoded

5. GST Reform



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## INDIA'S RENEWABLE RISE

Ministry of New and Renewable Energy



#### India's Renewable Rise: Non-Fossil Sources Now Power Half the Nation's Grid

## Achieves 50% clean power capacity five years ahead of target, setting global benchmark for sustainable growth

Posted On: 14 JUL 2025 6:37PM by PIB Delhi

India has achieved a landmark in its energy transition journey by reaching 50% of its installed electricity capacity from non-fossil fuel sources—five years ahead of the target set under its Nationally Determined Contributions (NDCs) to the Paris Agreement. This significant milestone underscores the country's steadfast commitment to climate action and sustainable development, and signals that India's clean energy transition is not only real but also accelerating under the leadership of Prime Minister Shri Narendra Modi.

Union Minister of New and Renewable Energy Shri Pralhad Joshi said "In a world seeking climate solutions, India is showing the way. Achieving 50% non-fossil fuel capacity five years ahead of the 2030 target is a proud moment for every Indian. Prime Minister Shri Narendra Modi's leadership continues to drive Bharat's green transformation — paving the path towards a self-reliant and sustainable future."

**Backdrop:** India has achieved 50% clean power capacity five years ahead of target. **Relevance:** GS 3/Energy



#### About the news

India has reached a major milestone in its energy transition by achieving 50% of its installed electricity capacity from non-fossil fuel sources, five years ahead of the target outlined in its Nationally Determined Contributions (NDCs) under the Paris Agreement. This achievement highlights the nation's strong commitment to climate action and sustainable development.

#### India's "Panchamrit" targets

Announced at **COP26** are five key climate commitments:

- 500 GW of non-fossil fuel energy capacity by 2030.
- 50% of total energy needs from renewables by 2030.
- Reduce 1 billion tonnes of carbon emissions by 2030.
- Cut the carbon intensity of the economy by 45% by 2030.
- Achieve **net-zero emissions** by **2070**.



#### Installed Electricity Capacity by Source (RE + Large Hydro Combined)

Sector	Capacity (in GW)	Percentage
Thermal	242.04 GW	49.92%
Nuclear	8.78 GW	1.81%
RE (including Large Hydro)	234.00 GW	48.27%
Total	484.82 GW	100%



Installed Electricity Capacity by Source (Large Hydro and RE Separately)

Sector	Capacity (in GW)	Percentage
Thermal	242.04 GW	49.92%
Nuclear	8.78 GW	1.81%
Large Hydro	49.38 GW	10.19%
RE	184.62 GW	38.08%
Total	484.82 GW	100%



#### Fossil vs Non-Fossil Energy Share in Installed Capacity

Sector	Capacity (in GW)	Percentage
Thermal (Fossil Fuel)	242.04 GW	49.92%
Non-Fossil Fuel (RE + LH + Nuclear)	242.78 GW	50.08%
Total	484.82 GW	100%



#### Initiatives to promote renewable energy

- 1. National Solar Mission (NSM) 2010
- 2. Green Energy Corridors
- 3. Production Linked Incentive (PLI) Scheme Solar PV Manufacturing 2021
- 4. PM-KUSUM Scheme
- 5. Development of Solar Parks and Ultra Mega Solar Power Projects
- 6. Rooftop Solar Programme
- 7. PM Surya Ghar: Muft Bijli Yojana 2024
- 8. National Bio-Energy Mission Phase 1: 2021–2026
- 9. Green Hydrogen Mission 2023



- National Solar Mission (NSM)
  - Launched in 2010 under the National Action Plan on Climate Change (NAPCC)
  - Target: 100 GW of solar capacity by 2022 (extended to 280 GW by 2030)
  - Focuses on
    - grid-connected,
    - rooftop, and
    - off-grid solar installations.
- International Solar Alliance (ISA)
  - $\circ~$  Founded by India and France in 2015
  - $\circ~$  Aims to promote solar energy in 121 tropical countries.
  - o Headquartered in Gurugram, India.
  - o Supports
    - technology transfer,
    - capacity building, and
    - low-cost finance.



- Production Linked Incentive (PLI) Scheme Solar PV Manufacturing
  - Launched in 2021 to boost domestic manufacturing of high-efficiency solar modules.
  - ₹24,000 crore allocated for "National Programme on High Efficiency Solar PV Modules to establish a manufacturing capacity of Giga Watt (GW) scale in high-efficiency solar PV modules and cells.

#### • PM-KUSUM Scheme

- o It aims to achieve a total solar capacity addition of 34.8 GW by March 2026
- Supports solar pumps, solarization of grid-connected pumps, and decentralized solar power plants.
- Development of Solar Parks and Ultra Mega Solar Power Projects" scheme
  - Provide solar power developers with readily available infrastructure, including land, power evacuation systems, etc., facilitating a plug-and-play model.
  - Target to develop 40 GW of solar capacity by March 2026.

#### Rooftop Solar Programme

- Target to install **30 GW** of rooftop solar (RTS) capacity by FY 2027.
- The "PM Surya Ghar: Muft Bijli Yojana" scheme is a key component.
- PM Surya Ghar Muft Bijli Yojana: Launched in 2024-25 budget for rooftop solar plant project with an investment of over 75,000 crore rupees to provide solar power for about 1 crore households and to provide them 300 units of free electricity every month.

#### Wind Energy Initiatives

- o India's Wind energy potential:
  - 695.5 GW at 120 meters
  - 1,164 GW at 150 meters above ground level.
- $\circ~$  India is the 4th largest wind power generator globally
- India's wind energy target is **140 GW by 2030.**
- Wind power capacity has recently surpassed 51 gigawatts (GW) as of May.
  - Gujarat (Installed capacity of 12,677 MW)
  - Tamil Nadu (11,739 MW)
  - Karnataka

#### • Green Energy Corridors

- Infrastructure initiative to strengthen transmission networks for evacuating renewable energy.
- $\circ$  Implemented in two phases:
  - intra-state and
  - inter-state corridors.
- $\circ~$  Helps integrate large-scale solar and wind projects into the national grid.
- National Bio-Energy Mission
  - Aims to generate power, biogas, and other bio-fuels from various waste streams like municipal solid waste, industrial effluents, and agricultural residues.
  - The program is being implemented in two phases, with Phase 1 approved for the period **2021-22 to 2025-26** with a budget of Rs. 858 crore.
- Green Hydrogen Mission (2023)
  - Target: 5 MMT of green hydrogen production capacity by 2030
  - Supports renewable-powered hydrogen production for industrial decarbonization.





- Q1. Consider the following statements regarding India's climate and energy commitments:
  - 1. India aims to achieve 500 GW of non-fossil fuel energy capacity by 2030 under its Panchamrit targets.
  - 2. India has already met its target of 50% installed electricity capacity from non-fossil fuel sources five years ahead of schedule.
  - 3. India has committed to achieving net-zero carbon emissions by 2050.
  - 4. India is currently the 4th largest wind power generator in the world.

Which of the statements given above are correct?

- (a) 1, 2 and 3 only
- (b) 1, 2 and 4 only
- (c) 1 and 3 only
- (d) 2 and 4 only

## **NEW GOVERNORS FOR HARYANA GOA;** LADAKH GETS NEW L-G

### **New Governors for Haryana** Goa; Ladakh gets new L-G

Kavinder Gupta appointed Lieutenant-Governor of Ladakh; Ashok Gajapathi Raju is the new Governor of Goa, and Ashim Kumar Ghosh to take charge as the Governor of Harvana

#### The Hindu Bureau NEW DELHI

ormer Deputy Chief Minister of Jammu and Kashmir Kavinder Gupta was appointed Lieutenant-Governor of Ladakh on Monday, replacing B.D Mishra, a communication by the President's Secretariat said. The President has accepted the resignation of Brigadier Mishra (retd), the statement said.

Former Civil Aviation Minister Pusapati Ashok Gajapathi Raju was appointed Governor of Goa and a senior Bharatiya Janata Party (BIP) leader from West Bengal, Ashim Kumar Ghosh, was appointed Governor of

Haryana. The appointments will take effect from the dates they will assume charge, the statement said.

Brigadier Mishra (87) was appointed to the post on February 12, 2023 on removal of R.K Mathur, a retired bureaucrat.

(From left) Kavinder Gupta, Ashim Kumar Ghosh and Pusapati Ashok Gajapathi Raju appointed as Lieutenant Governor of Ladakh, Governor of Haryana and Governor of Goa respectively, on Monday. ANI

Mr. Gupta belongs to protection of land, re-Jammu and he served as sources and employment. the Mayor of Jammu for Mr. Raju, a senior Teluthree consecutive terms gu Desam Party (TDP) from 2005 to 2010. He is alleader from Andhra Praso a national executive desh, will succeed P.S member of the BJP. Sreedharan Pillai as the

The fresh appointment Goa Governor, Mr. Pillai of Mr. Gupta comes in the was sworn in as the Goverwake of a fresh agitation nor of Goa on July 15, 2021. call given by the Ladkh ci-Mr. Raju (74) served as the Civil Aviation Minister vil society groups on demands for statehood and between May 27, 2014 and constitutional safeguards.

in protests, demanding

March 10, 2018 under After the special status Prime Minister Narendra of Jammu and Kashmir un-Modi. der Article 370 was read down by Parliament on Au-

appointed State vice-president. From 1999 to 2002, Mr. Ghosh, who headed he served as the State prethe party's West Bengal ungust 5, 2019, civil society it between 1999 and 2002, groups in Ladakh erupted

sident of West Bengal BJP. He was a member of the will succeed Bandaru Dat-BJP National Executive tatreya as Haryana Goverfrom 2004 to 2006.

#### Haryana, Goa and Ladakh get new faces in Raj Bhavan



(From left) TDP's Ashok Gajapathi Raju (Goa Governor); Bengal BJP's Ashim Kumar Ghosh (Haryana Governor); former J&K Dy CM Kavinder Gupta (Ladakh L-G)

#### JATIN ANAND NEW DELHI, JULY 14

nor. A former Labour and

Employment Minister, Mr.

Dattatreya assumed charge

as Governor of Haryana on

1944 in Howrah, West Ben-

gal. He joined the BIP in

Mr. Ghosh was born in

July 15, 2021.

lectual Cell.

THE CENTRE on Monday effected a gubernatorial reshuffle, announcing the appointment of senior TDP leader Ashok Gajapathi Raju as the Governor of Goa, senior West Bengal BJP leader Ashim Kumar Ghosh as Governor of Harvana, and former Jammu & Kashmir deputy chief minister Kavinder Gupta as the Lieutenant Governor of Ladakh.

A senior BJP hand from J&K 1991 and was a long-time with early ties to the RSS, who member of the State Intelserved as Deputy CM during a three-month stint in 2018 as part In 1996, Mr. Ghosh beof the PDP-BJP government, came the State Secretary of Gupta takes over from Brig(Dr)B D Mishra (retd). Gupta also the BIP and in 1998, he was headed the J&K unit of the Bharatiya Janata Yuva Morcha, the BIP's youth wing, from 1993-98. With Ladakh becoming a

Union territory after it was split from J&K as part of the August 2019 changes, Gupta is the third occupant of its Raj Bhavan. Raju, a former Union Minister

of Civil Aviation, relieves senior Kerala BJP leader PS Sreedharan Pillai as Goa Governor. He is one of the senior-most leaders of N Chandrababu Naidu-led TDP, a key ally of the BIP-led NDA. He started his political innings in 1977 when he joined the Janata Party, on whose ticket he won from the Vizianagaram Assembly seat in the 1978 polls.

In Haryana, old BJP hand and the party's former West Bengal unit president Ashim Kumar Ghosh will take over as Governor from veteran BIP leader and former Minister of State for Labour and Employment Bandaru Dattatreya. Dattatreya has been serving as the Haryana Governor since July 2021.

A former professor of political science in Kolkata's Maharaja Srischandra College, Ghosh also served as the Bengal BIP president from 1999 to 2002.

Sources said Pillai and Dattatreya had completed their respective tenures as Governor and could be absorbed in organisational roles now

**Backdrop:** New Governors Appointed in Haryana, Goa, and Ladakh. **Relevance:** GS2- Executive

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#### About the news

Centre announced a major gubernatorial reshuffle:

- Kavinder Gupta, former Deputy Chief Minister of Jammu & Kashmir, was appointed Lieutenant Governor of Ladakh, replacing Brigadier (Dr) B.D. Mishra (Retd.).
- Pusapati Ashok Gajapathi Raju, senior TDP leader and former Union Civil Aviation Minister, was appointed Governor of Goa, succeeding P.S. Sreedharan Pillai.
- Ashim Kumar Ghosh, senior BJP leader from West Bengal, was appointed Governor of Haryana, replacing Bandaru Dattatreya.



#### **How is Governor Appointed**

- Constitutional Basis:
  - Article 155 Governor is appointed by the **President** by warrant under his hand and seal.
- Eligibility:
  - Must be a citizen of India
  - Minimum **35 years** of age
- Tenure & Removal:
  - Holds office for **5 years**
  - Can be removed anytime by the President (serves at President's pleasure)
  - Can be reappointed or transferred to another state
- Other Key Points:
  - One person can be Governor of two or more states (Article 153)
  - Not elected rather appointed on advice of the Union Government.



#### **Role of Governor**

Constitutional Head:

Acts as the **nominal executive** of the state; all executive functions in the name of the Governor (Article 153–162).

• Legislative Role:

Summons, prorogues, and dissolves the state legislature; gives **assent to bills**, can **withhold**, **return**, or **reserve** them for the President (Article 200).

• Executive Role:

Appoints Chief Minister, Council of Ministers, Advocate General, and members of the State PSC; administers oaths.

• Judicial Role:

Has the power to grant pardons, reprieves, and commutations (Article 161).

- Discretionary Powers:
  - o Appointing CM in case of hung assembly
  - o Recommending President's Rule (Article 356)
  - o Reserving bills for President
  - o Sending reports to Centre
- During Emergency:

Acts as the **Centre's representative** and runs the state on behalf of the President.

### **Articles relating to Governor**

Article	Subject
153	Governors of States
154	Executive Power of the State
155	Appointment of Governor
156	Term of Office of Governor
157	Qualifications for Appointment as Governor
158	Conditions of Governor's Office
159	Oath or Affirmation by the Governor
160	Discharge of the Functions of the Governor in Certain Contingencies
161	Power of the Governor to Grant Pardons and Reprieves
175	Right of Governor to Address and Send Messages to the House
176	Special Address by the Governor
200	Assent to Bills
201	Bills Reserved for Consideration of the President
213	Power of Governor to Promulgate Ordinances



#### Lieutenant Governor (L-G)

• L-G is the constitutional head of some Union Territories, appointed by the President under Article 239.

#### Union Territories with an L-G

- Delhi
- Puducherry
- Jammu & Kashmir
- Ladakh
- Andaman and Nicobar Islands

Other UTs have Administrators, not L-Gs.



#### **Role of the L-G**

- Executive Head of the UT, represents the President.
- In UTs with legislatures, appoints Chief Minister and Ministers.
- Can summon, dissolve, or prorogue the legislature.
- Can withhold or reserve bills for the President's assent.
- In case of disagreement with the elected govt, can refer matters to the President.

#### Special Note: Delhi (Article 239AA)

• L-G acts on the advice of the elected govt **except** in key areas like **police**, **land**, **and public order**.





#### Q2. Consider the following statements: (UPSC Prelims 2025)

- 1. The Constitution of India explicitly mentions that in certain spheres, the Governor of a State acts in his/her own discretion.
- 2. The President of India can, of his/her own, reserve a bill passed by a State Legislature for his/her consideration without it being forwarded by the Governor of the State concerned.

Which of the statements given above is/are correct?

#### (a) 1 only

- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

## HOW DENMARK PLANS TO USE COPYRIGHT LAWS TO PROTECT AGAINST DEEPFAKES

### How Denmark plans to use copyright law to protect against deepfakes

#### AMAAL SHEIKH NEW DELHI, JULY 14

IN WHAT is a pioneering effort to tackle the rise of deepfake content, now ubiquitous across the Internet, Denmark has proposed extending copyright protections to individuals' facial features, appearance, and voice.

The proposed amendment to Denmark's copyright law will effectively make it illegal to share deepfake content of another person without their consent, empowering individuals to get such forgeries taken down from online platforms, and seek compensation for their publication - similar to how copyright laws traditionally protect creative works.

#### Rise of deepfakes

Deepfakes are a form of synthetic media which depict believable and realistic videos. pictures, or audio of events that never happened - they show real people doing or saying things that they never did or said.

While media has long been manipulated for nefarious purposes, artificial intelligence

#### protection against deepfakes:

Imitation protection, which bars others from publicly sharing realistic digital recreations of a person's physical traits, like facial features and voice:

Performance protection, that covers artistic performances such as non-verbal or improvised acts that may not meet the usual copyright thresholds; and

Protection for performing artists. specifically targeting digital mimicry of musicians, actors, performers, etc.

more sophisticated than ever before. The volume of deepfake content online has risen dramatically in recent years, and deepfakes have become increasingly difficult to spot. Authorities around the world have struggled to catch up with the technology which has been used to create pornographic content, spread misinformation, and pull off so-

phisticated con jobs. Most existing laws dealing with deepfakes criminalise specific harms arising out of the technology, such as deepfake porn or the publication of manipulated media during elections. The Danish Bill, introduced last month and currently in the consultation stage, is harm-agnostic in that it directly addresses the publication of deepfakes and not specific harms they may cause.

Danish culture minister Jakob Engel-Schmid said the Bill gives people "the right to your own voice, your own facial features, and no one can copy that without your consent".

#### What the Bill proposes

The Bill introduces three new forms of

The most notable here is the protection extended to ordinary individuals. The proposed Section 73(a) makes it illegal to share realistic deepfakes mimicking a person's appearance, voice, or characteristics for up to 50 years after their death.

The operative word here is "realistic". The Bill does not bother about intent- any deepfake can be taken down as long as it looks real and creates confusion. At the same time, content that is clearly stylised is not protected. The Bill proposes a kind of consent-based

protection: deepfake content can only be has made such manipulation easier and shared with the permission of the individual impersonated in it. It is the responsibility of the person sharing the content to prove that consent was obtained, and this consent can also be withdrawn at any time.

The Bill also makes online platforms responsible for taking down deep fakes, and proposes heavy penalties if they fail to do so.

#### Caveats & limitations

Protections offered by the Bill only extended to content in the public sphere: the Bill does not make it illegal to generate deepfakes but simply bars their publication. Certain forms of expressions, such as satire or parody, remain outside the Bill's protections, although the Bill does not grant blanket exemptions. Civil courts will decide what content to take down on a case-to-case basis, based

on protections for free expressions provided in the European Convention of Human Rights. While ambitious and potentially agendasetting, especially in the light of Denmark's

presidency of the European Union, critics say implementing such a law will be challenging.

The law's mandate is restricted to Danish territory, making it impossible to prosecute wrongdoers operating elsewhere in the world. "Denmark may be granting a new right, but if the mechanisms to enforce it are slow. burdensome or inconsistent, the real-world impact could be minimal," Francesco Cavalli, chief operating officer of Sensity AI, a company that offers deepfake detection tools, told The NYT. "Regulation without enforcement is a signal, not a shield," he said.

At the same time, many are looking at the Danish example as a blueprint for other countries, many of which do not have standalone legislation to address digital impersonation at the moment.

Indian courts have thus far resorted to concepts of privacy, defamation, and publicity rights when dealing with deepfakes. Notably, the Delhi High Court extended protections against unauthorised use of their likenesses to actors Amitabh Bachchan in 2022 and Anil Kapoor in 2023. The rulings however looked at these figures specifically as celebrities. The Danish Bill extends similar protections to ordinary citizens.

**Backdrop:** Denmark has introduced a draft Bill to amend its copyright law to protect individuals from deepfake content.

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**Relevance:** GS 3 - Data Security

#### **About the news**

- Denmark has proposed a **pioneering amendment to its copyright law** to combat deepfake content.
- The amendment extends copyright-style protections to an individual's face, voice, and appearance.
- It makes sharing **realistic deepfakes without consent illegal**, even if no specific harm is caused.



#### What is a Deepfake?

A **deepfake** is a highly realistic but fake image, video, or audio created using **artificial intelligence**. It digitally mimics a person's **face**, **voice**, **or actions**, making it appear they said or did things they never actually did.

Often used for **entertainment**, but also misused for **misinformation**, **fraud**, **or explicit content**, deepfakes raise serious concerns about **privacy and deception**.

#### **Challenges of Deepfakes**

- Spread of Misinformation: Fake videos can distort facts and mislead the public.
- Fraud and Identity Theft: Used to impersonate people for scams.
- Reputation Damage: Can falsely place individuals in compromising situations.
- **Privacy Violations**: Especially through non-consensual deepfake pornography.
- Undermines Trust: Makes it harder to trust real audio-visual content.
- Legal Gaps: Difficult to regulate and enforce across borders.

- Imitation Protection
  - Prohibits public sharing of realistic digital recreations of a person's physical traits like **voice or facial features**.
- Performance Protection
  - Covers **non-verbal or improvised acts** that may not qualify for traditional copyright protection.
- Protection for Performing Artists
  - Specifically addresses digital mimicry of musicians, actors, and performers.



#### **Special Features**

- Applies to Ordinary Citizens: Not limited to celebrities—all individuals get protections.
- Consent-Based Rule:
  - Deepfakes can only be published with **explicit**, **provable consent** from the person depicted.
  - o Consent can be withdrawn at any time.
- Posthumous Protection: Protection remains valid for 50 years after a person's death.
- Only content that looks real is covered; stylised or obvious fakes are excluded.
- Platform Liability: Online platforms must take down deepfakes or face heavy penalties.

- No Ban on Creation: It is not illegal to generate deepfakes—only their publication is restricted.
- Exceptions: Such content is not automatically protected but must be judged case-by-case.
- Geographical Limits: The law only applies within Denmark, making enforcement against global actors difficult.
- Implementation Concerns: Critics worry about slow enforcement and jurisdictional limitations.



### **Existing Measures in India Against Deep fakes**

Detection Efforts:

Agencies like **CERT-In** and startups are working on deep fake detection tools.

- IT Act, 2000:
  - Sec 66E: Punishes non-consensual image sharing.
  - Sec 67/67A: Covers obscene and explicit content online.

#### • IT Rules, 2021:

Mandates social media platforms to remove flagged deep fake content promptly and appoint grievance officers.

• Right to Privacy:

Deep fakes violating privacy can be challenged under the **Puttaswamy** judgment (2017).

#### • Court Rulings:

Delhi High Court granted **Personality Rights** to actors **Amitabh Bachchan** (2022) and **Anil Kapoor** (2023) from misuse of likeness.

#### • Election Commission Guidelines:

Prohibit manipulated content in political campaigns.





## Q3. Which of the following best defines a "Deepfake"?

- (a) A type of malware that steals personal data by mimicking secure websites.
- (b) A digitally altered media file created using artificial intelligence to realistically imitate a person's appearance, voice, or actions.
- (c) A tool used to enhance image resolution in digital photography using AI.
- (d) A computer-generated simulation used for training in virtual environments.

#### EMPLOYMENT BY GCCS IN INDIA EXPECTED TO GO UP TO 2.8 MILLION BY 2030, SAYS FM

## N NEXT

## GCC jobs induce skilled workers to return to India: FM

#### The Hindu Bureau NEW DELHI

Finance Minister Nirmala Sitharaman on Monday painted a rosy picture of the Global Capability Centre (GCC) sector, saying the high quality jobs being generated here are now encouraging workers from abroad to stay in India.

Speaking at the Confederation of Indian Industry's GCC Summit, Ms. Sitharaman said that GCCs in India currently employ nearly 2.16 million people, with this employment having grown at a compounded annual growth rate of 11% over the past five years. She added that conservative estimates suggest this number is expected to grow to 2.8 million by 2030.

"The GCC sector contributes \$68 billion as direct gross value addition, which is 1.6% of our GDP," Ms. Sitharaman said.

## Employment by GCCs in India expected to go up to 2.8 million by 2030, says FM

#### ENS ECONOMIC BUREAU NEW DELHI, JULY 14

APPROXIMATELY HALF of Fortune 500 companies have set up their Global Capability Centres (GCCs) in India, Union Finance Minister Nirmala Sitharaman said on Monday, adding that GCCs currently employ nearly 2.16 million professionals and the number is expected to go up to 2.80 million by 2030.

"All the GCCs in India employ nearly 2.16 million professionals. The CAGR at which it has grown is 11 per cent over the last five years. And this number of 2.16 million is



Finance Minister Nirmala Sitharaman at the CII Global Capability Centre Summit, in New Delhi. ANI

expected to go to 2.80 million by 2030. This is a very conservative number," she said at Confederation of Indian Industry's (CII's) event named 'The GCC Opportunity in India'. Over 32 per cent of global GCC talent is currently based in India, she said adding that the country's GCC sector contributes \$68 billion as direct gross value addition(GVA), that is, around 1.6 per cent of the national GDP. "By 2030, the gross value addition from GCCs could potentially range between \$150 billion to \$200 billion. That is the scope we have before us and the potential we can see," she said. The setup rate of engineering research&development GCCs has

grown 1.3 times faster than the overall GCC setup over the last 5 years, indicating a clear shift towards high-value-added work in India, the minister said. "...they are not just for product development, it is not services in operation and it is not just delivery, complex work that requires a significant understanding of the business context and the imperatives. The setup rate, and this is again one interesting detail - the setup rate of engineering research and development, the GCCs have grown 1.3 times faster than the overall GCC setup over the last five years," she said.

FULL REPORT ON www.indianexpress.com

**Backdrop:** Employment by GCCs in India expected to go up to 2.8 million by 2030 **Relevance:** GS 3 - Employment

#### About the news

Union Finance Minister Nirmala Sitharaman, at CII's

'The GCC Opportunity in India' summit,

highlighted the rapid growth and impact of Global Capability Centres (GCCs) in India:

- Global Capability Centres (GCCs) in India employ 2.16 million people (2024).
- Employment is growing at a CAGR (Compound Annual Growth Rate) of 11% over the past 5 years.
- Estimated to reach 2.8 million by 2030.
- Over 32% of global GCC talent is based in India.

#### **Economic Contribution**

- GCCs contribute **\$68 billion** in **direct Gross Value Addition (GVA)** about **1.6% of India's GDP**.
- By 2030, GVA from GCCs may reach \$150-\$200 billion.



#### **Global Capability Centres (GCCs)**

GCCs (Global Capability Centres) are strategic units of multinational corporations (MNCs) that manage core business functions.

- Evolved from back-office support to centres of innovation and decision-making.
- Play a critical role in digital transformation and global operations.

#### Key Functions Handled by GCCs

- IT services
- Financial operations
- Customer support
- Human resources
- Research & Development (R&D)

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#### **GCC Setup Trends**

- **1 new GCC set up per week** on average in 2024; similar trend expected in 2025.
- Engineering R&D GCCs grew 1.3x faster than overall GCC setup in last 5 years.
- GCCs are evolving from service delivery units to strategic leadership hubs.



- India is Preferred due to:
  - Large skilled talent base
  - Cost-effectiveness
  - Supportive business ecosystem
- Top companies like Microsoft, Goldman Sachs, and others have established significant GCCs in India.
- In terms of **Talent & Workforce India** accounts for:
  - 28% of global STEM(Science, Technology, Engineering, and Mathematics) workforce
  - o 23% of global software engineering talent
  - **42.7%** of STEM graduates in India are **women**
  - o 35% of GCC workforce is female
- **Cost-effective talent**: Indian workforce is **30–50% cheaper** than US, UK, Australia.



#### **Return of Skilled Workers**

High-quality jobs in India's GCCs are **inducing skilled Indian workers abroad to return** home.

The government will take **supportive measures** to attract more GCCs and help them scale operations in India.



- Generates Employment
  - Provides high-skilled job opportunities across sectors like IT, finance, and R&D.
- Boosts Economy
  - $\circ~$  Contributes significantly to national income and industrial output.
- Utilizes Skilled Talent
  - $\circ~$  Leverages India's strong base of STEM and software professionals.
- Promotes Diversity
  - $\circ~$  Encourages greater participation of women in the tech workforce.
- Offers Cost Advantage
  - $\circ~$  Makes India an attractive destination for multinational operations.
- Drives Innovation
  - o Facilitates research, digital transformation, and strategic global functions.
- Encourages Return of Talent
  - $\circ~$  Attracts Indian professionals working abroad to return.
- Enhances Global Integration
  - o Strengthens India's position in global business and technology ecosystems.







- Q4. What is a Global Capability Centre (GCC) in the context of business operations?
  - (a) A foreign policy unit of a country operating overseas.
  - (b) A manufacturing unit set up abroad for export-oriented production.
  - (c) A strategic offshore unit of a multinational company that manages core business functions like IT, finance, and R&D.
  - (d) A regional trade agreement among developing countries for capacity building.

# **GST REFORM**

## Nİ NEXT I AS

## GST reforms: Home Minister set to open talks for consensus on rate rationalisation

Contentious issues on table, require Central ministries and states on board

#### LIZ MATHEW & AANCHAL MAGAZINE NEW DELHI, JULY 13

TO IMPART urgency to the process of overhauling the Goods and Services Tax (GST) regime, Union Home Minister Amit Shah is set to initiate discussions with all stakeholders — states as well as Central ministries — to build consensus and resolve contentious outstanding issues.

Amongst the many proposals on the table, the one to do away with the 12 per cent slab has been hanging fire for long. This involves shifting some items to the lower 5 per cent slab, and some others to the higher 18 per cent slab. Though this would simplify the multiple rate structure, it is estimated to result in significant revenue losses of Rs 70,000-80,000 crore for the Centre and states combined, top sources said.

"Any tweaks in GST structure right now, especially when it has stabilised after eight years of rollout, are not going to be easy. A lot of factors will be in consideration, and revenue loss is a big factor. No state, whether Opposition or BJP, will accept the proposals easily. Therefore, the Home Minister plans to hold discussions with states beforehand," the source told *The Indian Express*. The sources said that the

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Union Home Minister

Amit Shah

Bringing political heft to table

IT IS not the first time

Shah has held discussions on economic sub-

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**Backdrop:** Union Home Minister set to open talks for consensus on GST rate rationalisation **Relevance:** GS 3/Economy

## About the news

To expedite the overhaul of the GST regime, Union Home Minister Amit Shah will engage with states and central ministries to build consensus and resolve key issues. A major proposal under consideration is the removal of the **12% tax slab**, with items to be redistributed between the **5% and 18% slabs** to simplify the tax structure.



## What is GST? (Goods and Services Tax)

The Goods and Services Tax (GST) is a comprehensive, multi-stage, destination-based indirect tax that replaced many indirect taxes previously levied by the Centre and States in India.

- Introduced on: 1st July 2017
- Constitutional Amendment: 101st Amendment Act, 2016
- Administered by: GST Council (Centre + States)
- Key Principle: One Nation, One Tax, One Market



#### Taxes Replaced by GST

GST subsumed multiple central and state taxes, such as:

Central Taxes:	State Taxes:	
<ul> <li>Central Excise Duty</li> <li>Service Tax</li> <li>Central Sales Tax (CST)</li> <li>Additional Customs Duty (CVD)</li> </ul>	<ul> <li>VAT/Sales Tax</li> <li>Octroi and Entry Tax</li> <li>Purchase Tax</li> <li>Entertainment Tax</li> <li>Luxury Tax</li> </ul>	

#### **GST** Components

- **CGST** Central GST (collected by Centre)
- **SGST** State GST (collected by State)
- **IGST** Integrated GST (for inter-state transactions, collected by Centre and shared)



## **GST Tax Slabs**

There are **five main GST tax slabs**, plus exemptions:

Slab (%)	Examples		
0%	Unbranded food, fresh vegetables, milk, etc.		
5%	Essential items: Packaged food, medicines, transport services		
12%	Packaged food items, toothpaste, household items, diagnostic kits		
18%	Soaps, shampoos, electronics, financial services (major revenue contributor), Educational services etc.		
28%	Luxury items: cars, air conditioners, tobacco, sin goods		



- Significant Increase in Tax Collections
  - GST has contributed to **robust growth in indirect tax revenue**, indicating better compliance and formalisation.
    - Gross GST collection doubled in five years to reach an all-time high of ₹22.08 lakh crore in the FY 2024-25 fiscal year, from ₹11.37 lakh crore in FY21.

Financial Year	Gross GST Collection (₹ lakh crore)	YoY Growth	
2017-18*	7.19	_	
2018-19	11.77	+63.7%	
2019-20	12.22	+3.8%	
2020-21	11.36	-7.0%	
2021-22	14.83	+30.6%	
2022-23	18.10	+22.0%	
2023-24	20.18	+11.5%	
2024-25	22.08	+9.4%	



2017-18*	7.19
2018-19	11.77
2019-20	12.22
2020-21	11.36
2021-22	14.83
2022-23	18.10
2023-24	20.18
2024-25	22.08
	2018-19 2019-20 2020-21 2021-22 2022-23 2023-24

Gross GST Collection (₹ lakh crore)

## Achievements of GST (Goods and Services Tax)

- Boost to Formalisation of the Economy
  - GST has incentivised registration and invoicing, reducing the scope of black economy.
    - The number of GST-registered taxpayers increased from 70 lakh in 2017 to over 1.53 crore in 2025
- Elimination of Tax Cascading ("Tax on Tax")
  - Introduction of Input Tax Credit (ITC) has streamlined supply chains and reduced production costs.
    - A manufacturer no longer pays excise + VAT on the same product. Instead, GST is charged once with ITC benefit on inputs like raw materials and packaging.
- One Nation, One Tax, One Market
  - GST unified India into a **single common market**, replacing a complex web of state and central taxes.
    - GST has reduced the logistics cost and increased the average distance trucks travel from 225 km before GST to 300-325 km [Economic Survey 2023-24]



- Technological Transformation and Transparency
  - Implementation of e-invoicing, e-way bills, and return filing via GSTN has improved transparency and reduced tax evasion.
    - Over 2,400 Cr B2B Invoices generated since its rollout.
    - Over the two years 2023-24 and 2024-25, fake ITC claims worth
       ₹1.01 lakh crore were detected and blocked through AI and data analytics
- Strengthening Cooperative Federalism
  - The GST Council has emerged as a **model of Centre-State cooperation**, where major decisions are taken by consensus.
    - Over 50 GST Council meetings held since July 2017, with consensus in over 90% of decisions
- Improvement in Ease of Doing Business
  - GST reduced the compliance burden for businesses operating across states and removed cascading levies.
    - A company operating in 5 states earlier had to register for VAT separately. Now it needs only one GSTIN per state.
- Enhanced Taxpayer Services
  - Automation, faceless assessments, and grievance redressal have made GST compliance easier and less discretionary.
    - Over 70 lakh taxpayers used the GST grievance redressal portal in FY 2023–24 [GSTN Annual Report 2024]



## Major issues and problems in the GST system:

- **Complex Rate Structure:** Despite the intent of simplification, GST has **multiple tax** slabs (0%, 5%, 12%, 18%, 28% + cess), leading to **classification disputes.**
- Frequent Rate Changes and Policy Uncertainty: It is creating confusion among businesses and affecting pricing.
  - GST on **textiles** and **footwear** was changed in 2022 to fix the inverted duty structure, causing protests from small traders.
- Inverted Duty Structure: Input taxes are higher than output taxes, leading to accumulated credits and refund delays.
  - In **textile and footwear**, businesses pay 12–18% GST on inputs but charge 5% on finished goods, leading to blocked working capital.
- Poor IT Infrastructure and Technical Glitches:GSTN (Goods and Services Tax Network) has faced issues like portal crashes, slow filing, and delays in returns and refunds.
  - Businesses faced difficulty uploading returns during the GSTR-3B deadlines.

- **Delay in GST Compensation to States:** States were promised compensation for 5 years for loss of revenue, but there were delays in payouts, especially during COVID-19.
  - In 2020-21, states like **Punjab and Kerala** faced fiscal stress due to delayed compensation from the Centre.
- Compliance Burden on Small Businesses: GST requires monthly returns, invoice matching, and audit requirements which are hard for MSMEs to manage.
   A small business must file GSTR-1, GSTR-3B, GSTR-9, etc. multiple times a year, increasing dependence on paid professionals.
- Exclusion of Key Sectors: Important sectors like petroleum, electricity, and alcohol are outside GST, leading to partial taxation and compliance overlap.
  - Petrol attracts VAT by states, not GST, causing lack of uniformity in fuel pricing and cascading of taxes for logistics.
- Evasion and Fake Invoices: GST has seen growing cases of fake input tax credit (ITC) claims and bogus firms created to evade tax.
- Burden on States' Fiscal Autonomy: States lost their power to independently raise indirect taxes and now depend on the GST Council for tax decisions.

- Revenue Loss Concerns: Merging or eliminating slabs, like the 12% slab, may result in significant revenue loss (₹70,000–80,000 crore).
- **Political Opposition:** States, **regardless of ruling party**, have resisted changes that may affect their fiscal autonomy or burden their electorate.
- Impact on Common Consumers: Moving items from 12% to 18% slab could make essential goods more expensive (e.g., juices, medical kits, packaged food).
- Complexity in Shifting Items Between Slabs: Reallocation of goods/services from one slab to another requires detailed sector-wise analysis.
- Lack of Agreement on 'Ideal' Number of Slabs: Some propose a 3-slab system, others argue for retaining multiple slabs for equity and policy flexibility.
- Political Sensitivity of Certain Sectors: GST on health, insurance, education, etc., is politically sensitive

### **Measure required**

- Simplify GST Rate Structure
  - Move from 5+ tax slabs (0%, 5%, 12%, 18%, 28%) to a three-tier structure (e.g., 8%, 16%, 28%),.
  - It will reduce classification disputes and make tax system easier for businesses and consumers.

#### • Bring Petroleum, Alcohol, and Electricity under GST

 It will eliminate cascading taxes, enhance supply chain efficiency, and reduce production costs.

#### Correct Inverted Duty Structures

- **Rebalance GST rates** in sectors like **textiles, fertilizers, and footwear**, where output tax is lower than input tax.
- o It will make sectors more competitive and export-friendly.

#### **Streamline GST Compliance and Returns**

- Merge GSTR-1 and GSTR-3B into a single return and introduce quarterly filing for all MSMEs with turnover up to ₹5 crore.
  - It will reduces compliance burden on small businesses and encourages voluntary registration and participation.



- Improve IT Infrastructure (GSTN)
  - Upgrade GSTN servers and user interface and Integrate e-way bills, e-invoicing, and returns seamlessly.
  - It will ensure smoother filing experience, fewer delays, and real-time data processing.
- Strengthen GST Council and Federal Cooperation
  - Institutionalise post-compensation revenue-sharing formula and enhance transparency and data sharing between Centre and States.
  - o It will build **trust and coordination**, critical for long-term reforms like inclusion of petroleum.
- Improve the Advance Ruling System
  - Establish a National Appellate Authority for Advance Rulings (NAAAR) and ensure rulings are uniform and binding across all states.
  - o It will reduce contradictory interpretations and business uncertainty.
- Curb Tax Evasion with Smart Enforcement
  - Use data analytics, AI, and risk profiling to identify fake invoices and shell firms.

## **Conclusion:**

A reformed GST will not only enhance ease of doing business but also boost revenue buoyancy, formalise the economy further, and uphold the cooperative federalism envisioned at its core. With political will and stakeholder consensus, GST can truly evolve into a **Good and Simple Tax**, as originally envisioned.





Q. Enumerate the indirect taxes which have been subsumed in the goods and services tax (GST) in India. Also, comment on the revenue implications of the GST introduced in India since July 2017. (250 words) [CSE 2019]





Q. Critically evaluate the success and limitations of the GST regime after eight years of implementation. What lessons can be drawn for future tax reforms in India?

