

Adi Cascade

Paper 3: Enviro & Biodiversity , Conservation,
Environmental Pollution & Degradation



Context

Making of check dams on streams and removal of boulders may wipe out the local population of Adi cascade frogs (*Amolops adicola*), a recently discovered species in Arunachal Pradesh, scientists claimed.

Brief notes About Adi cascade

- The species was discovered while revisiting a century-old Adi expedition in 2018 and named after the land of the Adi tribe where the frogs dwell, particularly post-monsoon.
- The call of the frog is quite unique with continuous notes almost like a cricket.
- They are delivered at very short intervals, not long call groups — giving an impression of being continuous: A typical call lasts 485.2 milliseconds.
- The species is predominantly found in open riverine landscapes and human-inhabited rural areas.
- Males were mostly observed on tree saplings, fern fronds, and banana plants in and around the cultivated land.
- Locally known as Juri (stream) Tatic (frog) — is considered a local delicacy.

What are Cascade Frogs?

- The nomenclature ‘cascade frogs’ draws on their preference for small waterfalls.
- Cascade frogs, in general, depend on the flow of water.
- Both adults and tadpoles of Adi cascade frogs, the species in question, are particularly adapted to fast flowing sections of stream.

Rich biodiversity of Arunachal

- Arunachal, a biodiversity hotspot, is home to many endemics, endangered and threatened species as well as to indigenous people who depend on its biological resources.

- The Forest Survey of India in 2019 estimated that Arunachal had 66,688 sq km of forests — 79.6 per cent of the state's area.
- Global Forest Watch, however, estimated the forests cover at 74 per cent of its total land area.

Source: Down to Earth

Computer Tomography

Paper 3: Science Tech Art Culture Conservation,
Environmental Pollution & Degradation



Context

The first computed tomography image – a CT scan – of the human brain was made 50 years ago, on Oct. 1, 1971.

Brief notes About Computer Tomography (CT)

- A CT scan is a medical imaging technique used in radiology to get detailed images of the body noninvasively for diagnostic purposes.
- The multiple X-ray measurements taken from different angles are then processed on a computer using reconstruction algorithms to produce tomographic (cross-sectional) images (virtual “slices”) of a body.

How does it work?

- They use a narrow X-ray beam that circles around one part of your body. This provides a series of images from many different angles.
- A computer uses this information to create a cross-sectional picture. Like one piece in a loaf of bread, this two-dimensional (2D) scan shows a “slice” of the inside of your body.
- This process is repeated to produce a number of slices.
- The computer stacks these scans one on top of the other to create a detailed image of your organs, bones, or blood vessels.
- For example, a surgeon may use this type of scan to look at all sides of a tumor to prepare for an operation.

Its development

- Since its development in the 1970s, CT has proven to be a versatile imaging technique.
- While CT is most prominently used in diagnostic medicine, it also may be used to form images of non-living objects.
- The 1979 Nobel Prize in Physiology or Medicine was awarded jointly to South African-American physicist Allan M. Cormack and British electrical engineer Godfrey N. Hounsfield “for the development of computer-assisted tomography”.

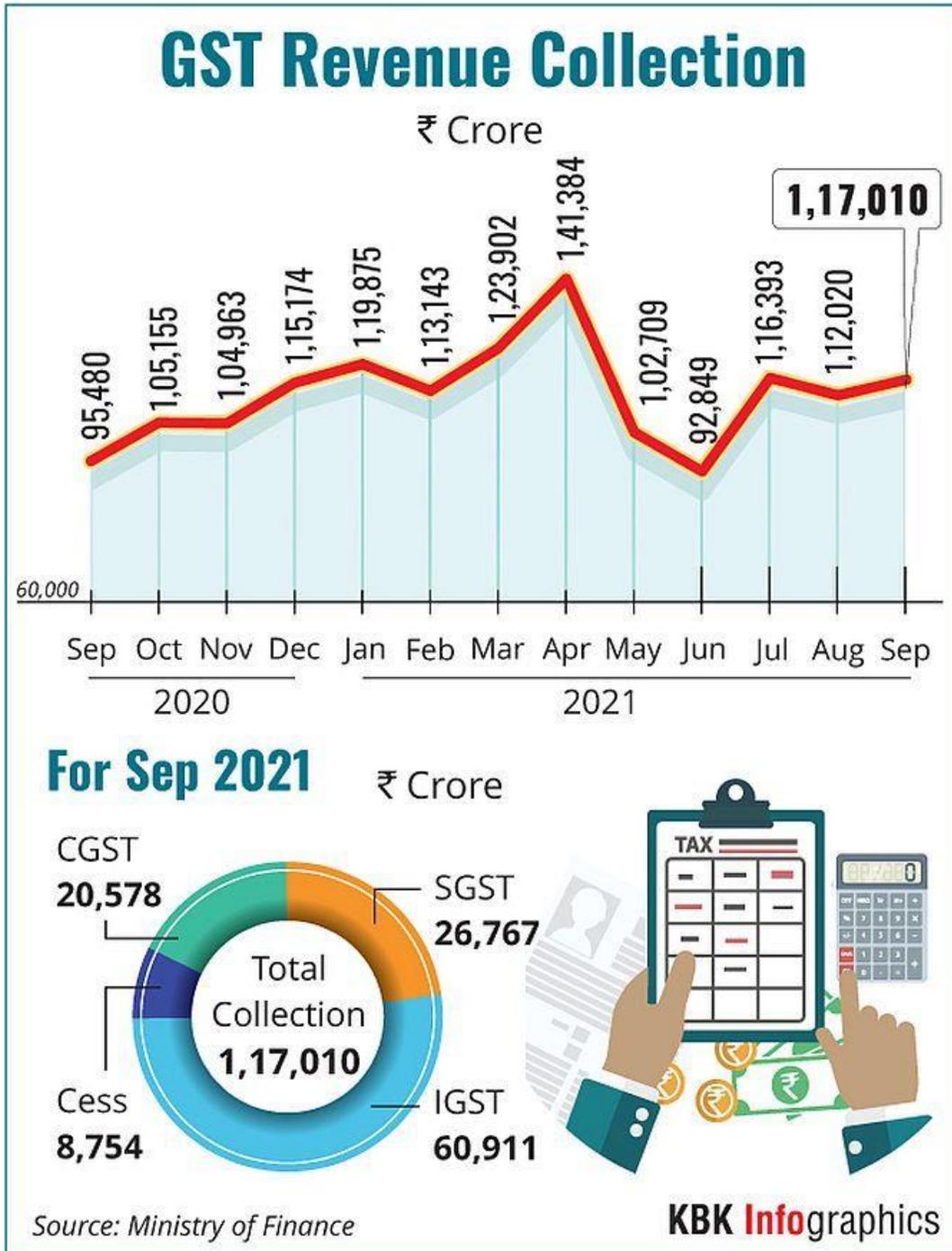
What are major Threats

- CT scans use X-rays, which produce ionizing radiation.
- Such radiation may damage your DNA and lead to cancer.
- The risk increases with every CT scan we get.
- Ionizing radiation may be more harmful in children.

Source: Down to Earth

GST collections hit 5-month high

Paper 3: Indian Economy



Context

India's gross Goods and Services Tax (GST) revenues crossed ₹1.17 lakh crore in September, hitting a five-month high.

What is the news says ?

- September's revenues were 23% higher than a year ago and 27.3% more than collections in the pre-pandemic month of September 2019.
- Revenues from import of goods were 30% higher while indirect tax collected on domestic transactions, including the import of services, were 20% higher in September, compared to the same month in 2020.
- Among the major States, GST revenues grew 29% in Karnataka, 28% in Gujarat, followed by 22% in Maharashtra and 21% each in Tamil Nadu and Andhra Pradesh.
- Telangana recorded a 25% surge in revenues, while Odisha saw a sharper 40% rise.

What are the major Significance

- This clearly indicates that the economy is recovering at a fast pace.
- Coupled with economic growth, anti-evasion activities, especially action against fake billers have also been contributing to the enhanced GST collections.
- It is expected that the positive trend in the revenues will continue and the second half of the year will post higher revenues.

Issues underlying

- Though GST revenues are picking up pace after the impact of the Covid-19 pandemic, revenue buoyancy under GST is being seen as a concern.
- This is especially after the legally mandated compensation to states for revenue shortfall from the GST implementation comes to an end in June 2022.

Short notes about Goods and Services Tax

- The GST is a value-added tax levied on most goods and services sold for domestic consumption.
- It was launched into operation on the midnight of 1st July 2017.
- It subsumed almost all domestic indirect taxes (petroleum, alcoholic beverages, and stamp duty are the major exceptions) under one head.
- The GST is paid by consumers, but it is remitted to the government by the businesses selling the goods and services.
- GST is levied at four rates viz. 5%, 12%, 18% and 28%. The schedule or list of items that would fall under these multiple slabs is worked out by the GST council.

What are the Types

- The GST to be levied by the Centre is called Central GST (CGST) and that to be levied by the States is called State GST (SGST).

- Import of goods or services would be treated as inter-state supplies and would be subject to Integrated Goods & Services Tax (IGST) in addition to the applicable customs duties.

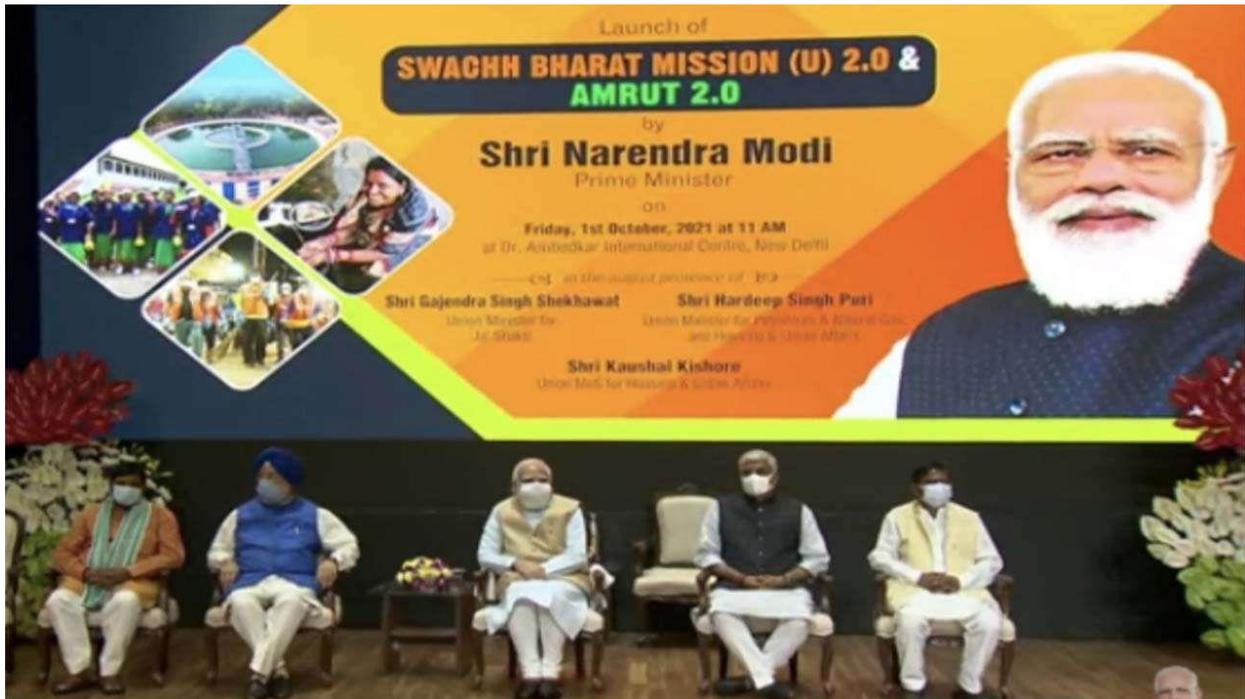
Brief notes about The GST Council

- It is a constitutional body (Article 279A) for making recommendations to the Union and State Government on issues related to GST.
- The GST Council is chaired by the Union Finance Minister and other members are the Union State Minister of Revenue or Finance and Ministers in charge of Finance or Taxation of all the States.
- It is considered as a federal body where both the centre and the states get due representation.

Source: The Hindu

SBM-U and AMRUT Mission

Paper 2: Governance , Government Scheme/Policies



Context

The PM has launched the second phase of the Swachh Bharat Mission-Urban and Atal Mission for Rejuvenation and Urban Transformation.

Notes about Swachh Bharat Mission-Urban 2.0

The Mission will focus on ensuring complete access to sanitation facilities to serve additional populations migrating from rural to urban areas in search of

employment and better opportunities over the next 5 years.

- **Complete liquid waste management** in cities in less than 1 lakh population to ensure that all wastewater is safely contained, collected, transported, and treated so that no wastewater pollutes our water bodies.
- **Source segregation-** Under Sustainable Solid Waste Management, greater emphasis will be on source segregation.
- **Material Recovery Facilities** and waste processing facilities will be set up, with a focus on phasing out single-use plastic.
- **Construction & demolition waste processing** facilities will be set up.
- **Mechanical sweepers** deployed in National Clean Air Programme cities and in cities with more than 5 lakh population.
- **Remediation of all legacy dumpsites** will be another key component of the Mission.

Notes about AMRUT 2.0

- **Water management:** It will build upon the progress of AMRUT to address water needs, rejuvenate water bodies, better manage aquifers, reuse treated wastewater, thereby promoting circular economy of water.
- **Water supply:** It would provide 100% coverage of water supply to all households in around 4,700 ULBs.
- **Sewerage:** It will provide 100% coverage of sewerage and septage in 500 AMRUT cities.

- **Rejuvenation of water bodies and urban aquifer management:** It will be undertaken to augment sustainable fresh water supply.
- **Recycle and reuse of treated wastewater:** It is expected to cater to 20% of total water needs of the cities and 40% of industrial demand.
- **Pey Jal Survekshan:** It will be conducted in cities to ascertain equitable distribution of water, reuse of wastewater and mapping of water bodies.

Source: The Hindu

Caste census

Paper 1:

Indian Society Population & Associated Issues

Caste-based census		Commissions dealing with issues related to OBCs		The OBC vote in Lok Sabha elections	
YEAR	OUTCOME	Commission	Key Findings/Recommendations	Year	Percentage
1872	Classified population into Brahmins, Kshatriyas, Rajpoots, other castes based on profession, native Christians, Aboriginal tribes, semi-Hindooised tribes	Kaka Kaleikar Commission (1953)	Identified 2,399 backward castes, including 837 most backward castes. Recommended caste-based census in 1961. Report rejected. Government says no objective tests for identifying backward class.	1996	25.00%
1901	1,642 castes	Mandal Commission (1979)	Identified OBCs comprise 52% of India's population, granted 27% reservation in government jobs.	1998	21.00%
1931	4,147 castes	Rohini Commission (2017)	Recommends 27% reservation for OBCs be divided into four sub-categories. Finds 97% of jobs and educational seats went to 25% sub-castes. 10% of the 2,633 OBC communities cornered 25% of these jobs, while 983 communities had zero representation.	1999	25.00%
1941	Census curtailed due to World War II			2004	24.00%
2011*	Over 46 lakh caste names, sub-castes, surnames and gotras. Caste numbers withheld citing inaccuracies. <small>*socio-economic and caste census</small>			2009	24.00%
				2014	15.00%
				2019	15.00%

Party	1996	1998	1999	2004	2009	2014	2019
Congress	25.00%	21.00%	25.00%	24.00%	24.00%	15.00%	15.00%
BJP	19.00%	26.00%	23.00%	23.00%	22.00%	34.00%	44.00%
Regional Parties	49.00%	44.00%	41.00%	43.00%	42.00%	43.00%	27.00%

SOURCE: LOKSABHA

“The data will aid effective drafting of policies considering many sections of OBCs have not received benefits in proportion to their population.”
Nitish Kumar, Bihar CM

Caste census will be in national interest and will turn out to be a historic pro-poor measure. It will help the most deprived. If animals and trees can be counted, why not people?
Tajashwi Yadav, RJD Leader

There are several practical and technical difficulties in conducting a caste census, but still BJP supported it as a matter of principle.
Sushil Kumar Modi, Senior BJP leader

The Government of India has decided as a matter of policy not to enumerate caste-wise population other than SCs and STs in census.
Nityanand Rai, Union Minister of State for Home Affairs

Context

- A continuous and unabated push towards including caste in the forthcoming census enumeration has finally ended with the Union government position into the Supreme Court.

- The Centre had decided as a matter of policy not to enumerate caste-wise population other than Scheduled Castes and Scheduled Tribes.

Existing issue: Delay in the Census itself

- That a decadal exercise has faced discontinuation with the pandemic is damaging enough, which will require reconstruction for the year 2021.
- We are also not sure how the Registrar General and Census Commissioner, who could not conduct the census on time, will be able to add any other additional questions including enumeration of caste.
- The Election Commission did its job in conducting elections during Covid-19 but not the Census Commissioner.

Why caste cannot be included at this hour?

- In the midst of an uncertain environment, conducting a census is unavoidable since it is not an overnight exercise.
- Imposing the collection of caste information may dilute the exercise at the very least and send wrong signals regarding its purpose.

Why we should let the Census go its way?

There need to be sincere efforts towards putting systems in place in context to the Census.

(a) Population Enumeration

- There is a need to conduct the population enumeration at the earliest and providing an update of India's population dynamics in comparable terms to be read against the past.
- The absence of population enumeration and its discontinuation can have implications for gauging the evolving changes as well as its prospects.

(b) Age-sex composition

- Census offers some tentative clues towards the age-sex composition of the population under varying sets of assumptions.
- Besides, it offers more detailed information — on households, assets, marital status, education, migration etc since the last census of 2011.
- Moreover it would provide accurate data about India's large chunk of population which is ageing.

(c) Impact of the Pandemic

- A decade of rapid fertility declines and rising mobility needs serious assessment in terms of its impact on the population dynamics.
- In the absence of any clue regarding population, together with a pandemic with its devastating course of fatalities, the need for a population enumeration is all the more urgent.
- Estimated and projected numbers can serve as approximations to the extent of the assumptions being realistic and accurate.

(d) Planning for the next FYP

- A 14th five-year plan being in the offing makes it a crucial year to have the real numbers towards making the planning exercise effective.
- Preparing our human capital of quality and adaptability to the emerging labour market is the need of the hour, and at the same time.

Impediments created by including Caste

An attribute like caste being obtained in a census exercise makes matters complex on multiple grounds such as:

- **Caste within Caste:** Given the differences in caste hierarchies across various regions of the country, a comparative reading along with generating a common hierarchy may be a challenge.
- **Caste over occupation linked predicaments:** Further, caste linked deprivation or adversity may not be as common as occupation linked predicaments, which become easier to compare across states/regions.
- **Anonymity and bias:** An intimate and personalised attribute like caste may have its differential exposition between urban and rural residents. Urban residents' need for anonymity can always bias the reporting on caste.
- **Identity crisis:** Above all, recognition and adherence to caste identity is to a large extent shaped by progressive ideals, cosmopolitanism and education, which has its own regional divide in the country between the north and the south.

Other concerns

- **Accuracy of reporting:** With such complexities associated with divulging caste identity, one cannot be sure of its accuracy in reporting on the one hand and the possible bias linked to other attributes on the other.
- **Existing status-quo:** The attributes obtained in the census like age, sex, residence, occupation and religion in themselves have not received adequate exploration to add to the understanding of differential population dynamics.
- **Non-intervention:** Considering caste with its wide-ranging count as another fresh attribute may not be of worth as neither will it offer sensible outcome differences nor facilitate identification for intervention.

Way forward

- The census enumeration should be a priority and the proposed digital enumeration should become more effective in generating required data of quality and accuracy.
- The upcoming census is certain to reveal interesting realities of population dynamics that go beyond the narrow and regressive outlook of the caste count to help gauge the transformation in human capital.

Conclusion

- In fact, attributes like caste and religion that are not modifiable should be less important compared to modifiable attributes like education, occupation and other endowment linked attributes.

- Hence, the moral lies in rising above ascribed attributes in defining outcomes to that of achieved ones.
- Such an approach has a dual advantage of gauging distribution across attributes as well as their response to outcomes.

Source: The Indian Express