



# NEWS ANALYSIS

19 JULY 2024

# Today's Prelims Practice Question

Which of the following Air Defence systems are correctly matched?

1.Iron Dome: Israel

2.S400: Russia

3.THAAD: USA

4.Iron Beam: India

Select the correct answer code:

a) 2, 3

b) 1, 2, 3

c) 1, 2, 4

d) 1, 2, 3, 4

# EXPLANATION

THAAD: USA

Iron Dome: Israel

Iron Beam: Israel

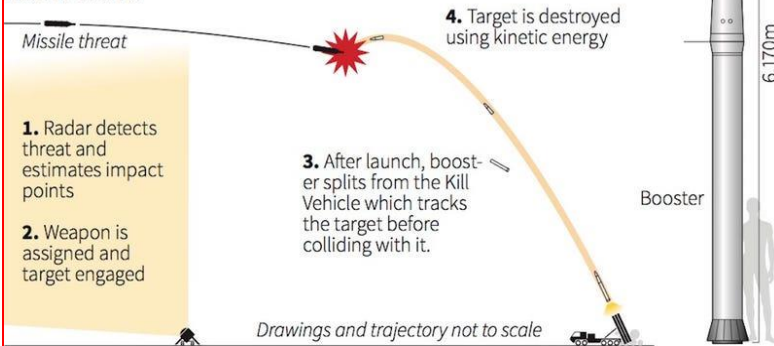
S400: Russia

Advanced Air Defence: India

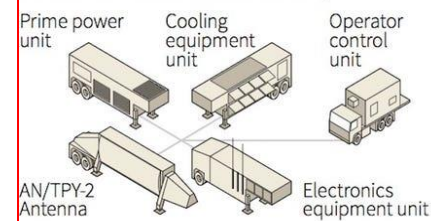
## THAAD missile defence system

The Terminal High Altitude Area Defence (THAAD) system targets incoming ballistic missiles in their terminal phase.

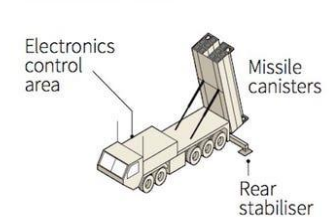
### How it works



### Radar and fire control battery



### Launcher unit



Sources: Missile Defense Agency; Raytheon; Global Security; Lockheed Martin

Staff, 08/07/2016

REUTERS

# Today's Prelims Practice Question

Which of the following countries are not members of both BIMSTEC and SAARC?

1. Myanmar
2. Bhutan
3. Maldives
4. Sri Lanka

Select the correct answer code:

- a) 1, 3, 4
- b) 1, 3
- c) 2, 3, 4
- d) 2, 3

# Over 800 elephants died in Kerala in 8 years

## Over 800 elephants died in Kerala in 8 years

**Sarath Babu George**  
THIRUVANANTHAPURAM

Kerala's forests recorded 845 elephant deaths between 2015 and 2023, with studies indicating an increasing trend in the death rate over time.

The findings were given in the report of an elephant population estimation undertaken in the State's four elephant reserves.

An analysis also highlights a stark trend: younger elephants, particularly those under 10 years of age, face the highest risk of mortality, with an alarming rate of approximately 40%. This increase in deaths among calves has been attributed to elephant Endotheliotropic Herpesviruses - Haemorrhagic Disease (EEHV-HD),



**Alarming note:** The report said that calves faced a higher risk of death from Haemorrhagic Disease, a viral infection. PTI

that coexists with elephants.

### Immunity in herds

The Forest Department has cited a recent study in Sri Lanka that shed light on the potential mitigating factors. Calves in larger herds exhibit better survival

rates due to shared immunity. Exposure to various strains within larger herds enables calves to develop antibodies that effectively combat EEHV-HD, thus enhancing their chances of survival.

The population estimation report underscores

the need to restore natural habitats and check the fragmentation of elephant herds to prevent EEHV-HD from becoming a major threat to the survival of Asian elephants in the region. Elephant herd sizes are found to shrink significantly in sub-optimal habitats where fodder availability is severely constrained.

### Current threats

The document observes that elephants have been facing increasing vulnerability due to shrinking habitats and rising fragmentation exacerbated by climate change. Key factors contributing to their susceptibility include declining population sizes, sensitivity to high temperatures, competition from invasive plant species disrupting their food

sources, and heightened sensitivity to diseases.

It also reports that several critical variables influencing elephant distribution patterns, including land-use changes, water balance in the climate, temperature fluctuations, and disturbances are induced by human activities.

Recognising the need for a systematic approach to understand and mitigate elephant deaths, the study has recommended a structured protocol akin to Tamil Nadu's Elephant Death Audit Framework (EDAF). The proposed framework would facilitate comprehensive investigations into the causes of elephant deaths, that would help to identify patterns, assess threats, and implement targeted conservation measures effectively.

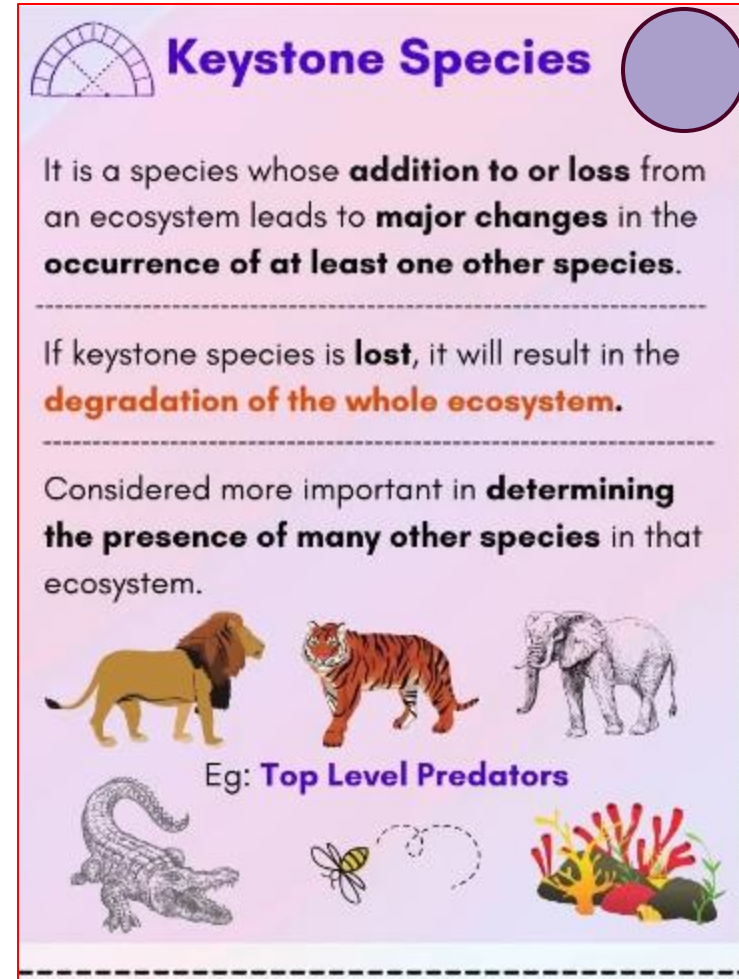
## CONTEXT

- Kerala's forests recorded **845 elephant deaths between 2015 and 2023**, with studies indicating an increasing trend in the death rate over time.

- Younger elephants, particularly those under 10 years of age, face the highest risk of mortality, with an alarming rate of **approximately 40%**.
- This increase in deaths among calves has been attributed to **elephant Endotheliotropic Herpesviruses – Haemorrhagic Disease (EEHV-HD)**.

### Immunity in herds

- Calves in larger herds exhibit better survival rates due to shared immunity.
- Exposure to various strains within larger herds enables calves to develop antibodies that effectively combat EEHV-HD, thus enhancing their chances of survival.




**Keystone Species**


It is a species whose **addition to or loss** from an ecosystem leads to **major changes** in the **occurrence of at least one other species**.

If keystone species is **lost**, it will result in the **degradation of the whole ecosystem**.

Considered more important in **determining the presence of many other species** in that ecosystem.



Eg: **Top Level Predators**



The infographic is titled 'Keystone Species' and features a decorative arch and a purple circle. It defines a keystone species as one whose addition or loss causes major changes in the occurrence of at least one other species. It notes that the loss of a keystone species leads to the degradation of the whole ecosystem. It is considered more important in determining the presence of many other species in that ecosystem. Examples of top-level predators are shown: a lion, a tiger, and an elephant. Below them, other species are illustrated: a crocodile, a bee, and coral.

- **Need to restore natural habitats and check the fragmentation of elephant herds** to prevent EEHV-HD from becoming a major threat to the survival of Asian elephants in the region.
- Elephant herd sizes are found to shrink significantly in sub-optimal habitats where fodder availability is severely constrained

### Current threats

- Elephants have been facing increasing vulnerability due to **shrinking habitats and rising fragmentation exacerbated by climate change.**
- Key factors contributing to their susceptibility include **declining population sizes, sensitivity to high temperatures, competition from invasive plant species disrupting their food sources,** and heightened sensitivity to diseases.

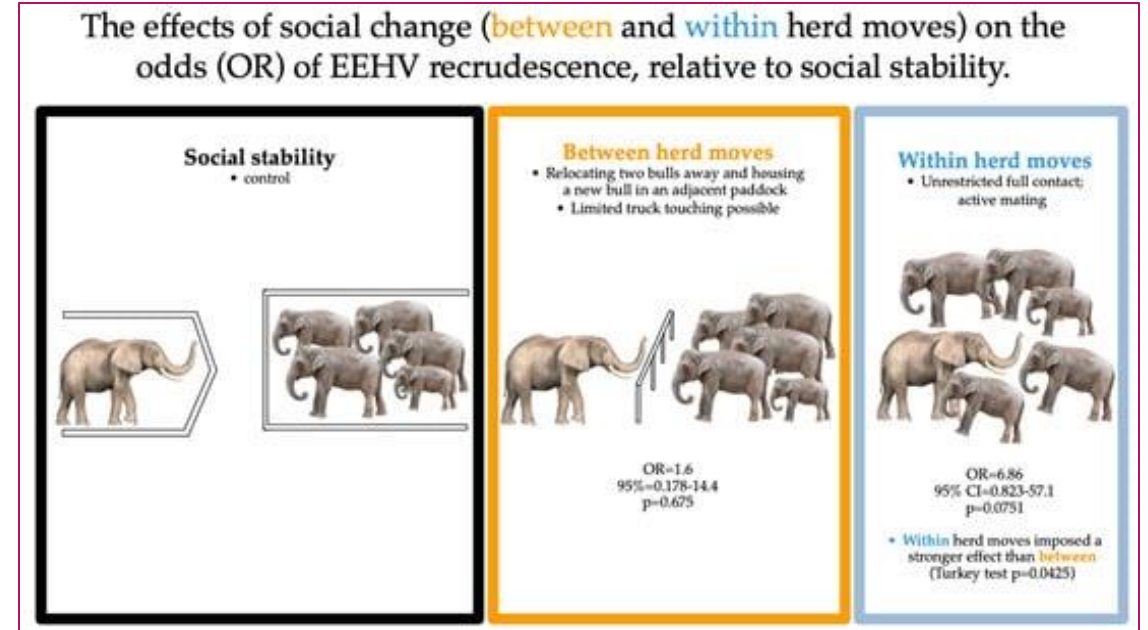
**PREGNANT WILD ELEPHANT DIES IN KERALA AFTER CRACKER-FILLED PINEAPPLE EXPLODES IN HER MOUTH**



- Several critical variables influencing elephant distribution patterns, including land-use changes, water balance in the climate, temperature fluctuations, and disturbances are induced by human activities.

## Way forward

- There is need for a systematic approach to understand and mitigate elephant death.
- The proposed framework would facilitate comprehensive investigations into the **causes of elephant deaths, that would help to identify patterns, assess threats, and implement targeted conservation measures effectively.**





# India and a Case for Strategic Autonomy

## India and a case for strategic autonomy

**I**n July 11, 2024, two days after Prime Minister Narendra Modi had concluded his first visit to Moscow since Russia invaded Ukraine on February 24, 2022, Eric Garcetti, the United States Ambassador to India, said, "In times of conflict there is no such thing as strategic autonomy; we will, in crisis moments, need to know each other." When Mr. Modi was in Russia, on the eve of a North Atlantic Treaty Organization (NATO) summit in Washington, the Joe Biden administration had expressed its "concerns" publicly. "We have expressed those [concerns] privately, directly to the Indian government and continue to do so," a U.S. State Department spokesperson said.

President Joe Biden's National Security Adviser Jake Sullivan joined the debate on July 13 by telling MSNBC that "a bet on Russia as a long-term, reliable partner is not a good bet... Russia would side with China over India any day of the week". There were reports in the U.S. media that U.S. officials had asked New Delhi to postpone Mr. Modi's Moscow visit as the NATO summit was to begin on July 9, but India decided to go ahead with the plan, which "disturbed" the Biden administration.

### Stress points, historical overview

While the overall trajectory of the strategic partnership between India and the U.S. seems steady, stress points have appeared in the relationship in recent years. Of these, the most consequential was India's refusal to toe the western line vis-à-vis Russia on the Ukraine war. While the U.S. and its allies imposed economic sanctions on Russia and supplied weapons worth billions of dollars to Ukraine to fight the invading troops, India maintained its strategic partnership with Moscow, expanded its energy cooperation and refused to condemn the invasion at international fora, even as it called for bringing the war to an end and show respect towards the territorial sovereignty and integrity of all countries. For India, this was a neutral position, but in the West, this was seen as economic support for the Russian President Vladimir "Putin's war". This caused wrinkles in the India-U.S. partnership, which has widened over the past two and a half years. The public comments by top U.S. officials earlier this month were the sharpest manifestation of the persisting stress points.

Ambassador Garcetti's comment that strategic autonomy is meaningless during the time of crises goes against the very premise of strategic autonomy. A simple definition of the concept is that countries should be able to make decisions that best serve their national interests, irrespective of the pulls and pressures from other parties. There are two elements in this concept.

The first is the inherent conviction that a nation is capable of taking decisions that serve its interests. The second is that the nation should have the will



Stanly Johny

and the resources to take those decisions even in the face of high pressure. So, if India is not able to take autonomous foreign policy decisions during the times of "conflict" and "crisis moments", as Mr. Garcetti has said, it is not exercising its strategic autonomy.

All Indian governments since Independence have followed strategic autonomy in one form or the other, whether it is called non-alignment, multi-alignment, multi-directional foreign policy or strategic autonomy. And they did not follow this as a dogma but as a foreign policy approach to the country's interests in a choppy international system. A conventional understanding about India's foreign policy was that it was too idealistic in the initial years to understand the currents of power politics. But non-alignment and Asian solidarity, as envisaged by Prime Minister Jawaharlal Nehru and others, helped India, a newly decolonised republic that was born into a bipolar global order, mobilise voices in the Third World and stay out of both blocs and pursue its interests and those of the newly decolonised countries. This gave both a moral footing and pragmatic levers to India's foreign policy.

India initially stayed equidistant to both the capitalist and the communist blocs. But after the U.S. formed new treaty alliances in Asia (Pakistan became a member of both the Southeast Asia Treaty Organization, or SEATO and the Central Treaty Organization, or CENTO) and China moved closer towards the U.S. after breaking up with the Soviet Union, India began building stronger ties with Moscow, but without forfeiting its strategic autonomy. And when the Soviet Union and the communist bloc collapsed by 1991, India chose greater integration with the global economy and closer strategic partnership with the West.

### Great power rivalry

From India's point of view, the global order is again changing. The U.S. remains the world's most powerful country but the world order is no longer unipolar. China, already the world's second largest economy, is rising as a strong competitor to America's global primacy. Russia is challenging the western security architecture in Europe, militarily. In West Asia, a shadow war between Israel, an American ally, and Iran, a close Russian strategic partner, is heating up. In an anarchic order, India wants to strike a balance between great powers without joining any alliance system. And for this, maintaining its strategic autonomy is essential.

The Russia policy is a case in point. While energy ties with Russia are largely opportunistic and driven by cheap prices (India's crude imports from Russia jumped from \$2.4 billion in 2021-22 to \$46.5 billion in 2023-24), the defence partnership is structural. Russia is the source of over 40% of India's defence imports, and 86% of the Indian military's equipment is of Russian

origin. This cannot be undone overnight. Russia is also an important partner in continental Asia where India works with Eurasian powers for economic progress, connectivity and tackling security challenges.

To be sure, Russia's deepening ties with China alter the essence of India's historical partnership with Moscow. But it is also an opportunity to recast the India-Russian partnership as a more equal bilateral partnership – during the Cold War it was heavily lopsided – where both sides would be mindful of each other's sensitivities. India would not like to see Russia, cut off from the West, going completely into the Chinese embrace, and Moscow would like to have multiple options rather than putting all its eggs in one basket of the 'Middle Kingdom'. If India were part of any alliance systems, such as Germany, for example, which had to silently accept the destruction of the Nord Stream pipeline which it part owns, India would not have the strategic space to pursue its partnership with Russia, while staying a closer partner of the West. Here, autonomy plays a major part.

### Positive-sum game

The U.S. need not see this as an unfriendly foreign policy choice. India is not a disruptive, revisionist power. It supports a multilateral global order, and that is because it wants the international system to be more representative in line with the geopolitical realities of the present. The world is already multipolar, economically, but a similar transition has not taken place in its power dynamics. India wants to improve the system where its voice, and that of the Global South, would be heard with greater interest. For New Delhi, strategic autonomy does not call for isolationism. It calls for greater engagement with different power centres rooted in informed national interest. Theorists of strategic autonomy do not look at foreign policy as a zero-sum game, where one party gains something at the expense of others. For them, it is a positive-sum game, where everyone gains. For example, India's energy trade with Moscow made sure that Russian crude kept flowing into the market, helping steady global oil prices. Its close cooperation with Russia can also act as a speed breaker in Moscow's quasi-alliance with China, which the West sees as the only "revisionist" power that has the capability to rewrite the existing global order.

Unfortunately, India's partners in the West, who are agitated over New Delhi's Russia ties and its emphasis on strategic autonomy, do not appreciate the bigger picture. This is the unipolar mentality – you are either with us or against us. This approach was not quite successful even during the unipolar era, as the two-decade-long war against terror would testify. How is it going to work, post-unipolarity?

## Context

- India's recent diplomatic maneuvers, including Prime Minister Modi's visit to Moscow amidst the ongoing Ukraine conflict, have sparked a debate on the concept of strategic autonomy.
- This debate highlights the challenges and imperatives for India to maintain its independent foreign policy in a rapidly changing global order.

## Stress Points in India-U.S. Relations:

- **Discrepancies over Russia:** India's neutral stance on the **Russia-Ukraine conflict**, characterized by continued energy cooperation with Moscow, has created friction with the U.S. and its allies, who view this as support for Russia.
- **Public Criticisms:** Recent public comments by U.S. officials, including the National Security Adviser and the U.S. Ambassador to India, have highlighted the perceived inconsistencies in **India's strategic partnership with the West**.
- **Historical Context:** India's **strategic autonomy, rooted in its non-aligned movement post-independence**, has always aimed at balancing relations with major powers to serve national interests.



## Great Power Rivalry and India's Position:

- **Evolving Global Order:** The unipolar world led by the U.S. is shifting towards a multipolar one, with **China's rise and Russia's assertive military actions** challenging the Western-dominated global order.
- **Strategic Balancing:** India seeks to navigate this complex landscape by maintaining its **strategic autonomy**, ensuring it is not drawn into any single alliance system while engaging with multiple power centers.
- **Russia's Role:** Despite Russia's closer ties with China, India's defense and energy partnerships with Russia remain crucial. This relationship is seen as an opportunity to reframe the bilateral ties on more equal terms.



## Positive-Sum Approach to Strategic Autonomy:

- **Multilateralism:** India advocates for a **multilateral global order that reflects contemporary geopolitical realities**, aiming for a more representative international system.
- **Engagement and Independence:** **Strategic autonomy does not imply isolationism** but promotes active engagement with various power centers based on informed national interests.
- **Broader Benefits:** **India's energy trade with Russia helps stabilize global oil markets**, and its balanced foreign policy can moderate Russia-China relations, contributing to global stability.

### Know the term

- **Strategic autonomy:**  
Denotes the ability of a state to pursue its **national interests** and adopt its **preferred foreign policy** without being constrained in any manner by other states user.
- **Global South:** Generally, refers to countries described as **“developing,” “less developed”** or **“underdeveloped.”**
  - The concept originated from the **Brandt report** which distinguished between those countries with comparatively higher **GDP per capita** (mostly concentrated in the Northern

# Role of finance commission

## What is the role of the Finance Commission?

How is horizontal devolution of taxes between States decided? For how long do the recommendations of the Commission last? Why do States complain that the Centre does not give them an ample share of the tax revenue? From where do States get their funds?

### EXPLAINER

Prashanth Perumal

#### The story so far:

The sixteenth Finance Commission headed by former Niti Aayog Vice-Chairman Arvind Panagariya has begun its work by inviting suggestions from the public on the mandate set for it by the Centre. The latest Finance Commission, which consists of five members including the chairman, was constituted in December last year and is expected to submit its recommendations by October, 2025. Its recommendations will be valid for five years starting from April 1, 2026.

#### What is the Finance Commission?

The Finance Commission is a constitutional body that recommends how tax revenues collected by the Central government should be distributed among the Centre and various States in the country. The Centre, however, is not legally bound to implement the suggestions made by the Finance Commission. The Commission is reconstituted typically every five years and usually takes a couple of years to make its recommendations to the Centre.

#### How does the Commission decide?

The Finance Commission decides what proportion of the Centre's net tax revenue goes to the States overall (vertical devolution) and how this share for the States is distributed among various States (horizontal devolution). The horizontal devolution of funds between States is usually decided based on a formula created by the Commission that takes into account a State's population, fertility level, income level, geography, etc. The vertical devolution of funds, however, is not based on any such objective formula. Nevertheless, the last few Finance Commissions have recommended greater vertical devolution of tax revenues to States. The 13th, 14th and 15th Finance



GETTY IMAGES

Commissions recommended that the Centre share 32%, 42% and 41% of funds, respectively, from the divisible pool with States. It should be noted that the Centre may also aid States through additional grants for certain schemes that are jointly funded by the Centre and the States.

The 16th Financial Commission is also expected to recommend ways to augment the revenues of local bodies such as panchayats and municipalities. It should be noted that, as of 2015, only about 3% of public spending in India happened at the local body level, as compared to other countries such as China where over half of public spending happened at the level of the local bodies.

#### Why is there friction between the Centre and States?

The Centre and the States have been at loggerheads over the issue of sharing tax

revenues for a while now. The Centre collects major taxes such as the income tax, the corporate tax, and the goods and services tax (GST) while the States primarily rely on taxes collected from the sale of goods such as liquor and fuels that are beyond the ambit of GST. The States, however, are responsible for the delivery of many services to citizens, including education, healthcare and the police. This has led to complaints that the Centre has reduced the power of the States to collect taxes and that it does not give enough funds to the States to match with the scale of their responsibilities.

#### What are the disagreements?

The States and Centre often disagree on what percentage of the total tax proceeds should go to the States and about the actual delivery of these funds.

States argue that they should receive

more funds than what is recommended by the Finance Commission as they have greater responsibilities to fulfil than the Centre. They also point out that the Centre does not even share the amount of funds recommended by the Finance Commissions, which they believe is already too low. For example, according to analysts, the Centre has devolved an average of only 38% of funds from the divisible pool to the States under the current Fifteenth Finance Commission as against the Commission's actual recommendation of 41%.

Further, States have complaints about what portion of the Centre's overall tax revenues should be considered as part of the divisible pool out of which the States are funded. It is believed that cesses and surcharges, which do not come under the divisible pool and hence not shared with the States, can constitute as much as 28% of the Centre's overall tax revenues in some years, causing significant revenue loss for States. So, the increased devolution of funds from the divisible pool, as recommended by successive Finance Commissions, may be offset by rising cess and surcharge collections. In fact, it is estimated that if cesses and surcharges that go to the Centre are also taken into account, the share of States in the Centre's overall tax revenues may fall to as low as 32% under the 15th Finance Commission.

More developed States such as Karnataka and Tamil Nadu have also complained that they receive less money from the Centre than what they contribute as taxes. Tamil Nadu, for example, received only 29 paise for each rupee that the State contributed to the Centre's exchequer while Bihar gets more than ₹7 for each rupee it contributes. In other words, it is argued that more developed States with better governance are being penalised by the Centre to help States with poor governance. Some critics also believe that the Finance Commission, whose members are appointed by the Centre, may not be fully independent and immune from political influence.

### THE GIST

The sixteenth Finance Commission headed by former Niti Aayog Vice-Chairman Arvind Panagariya has begun its work by inviting suggestions from the public on the mandate set for it by the Centre.

States argue that they should receive more funds than what is recommended by the Finance Commission as they have greater responsibilities to fulfil than the Centre. They also point out that the Centre does not even share the amount of funds recommended by the Finance Commissions, which they believe is already too low.

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## Context

- The sixteenth Finance Commission headed by former Niti Aayog Vice-Chairman Arvind Panagariya has begun its work by inviting suggestions from the public on the mandate set for it by the Centre.
- The latest Finance Commission, which consists of five members including the chairman, was constituted in December last year and is expected to submit its recommendations by October, 2025. Its recommendations will be valid for five years starting from April 1, 2026.

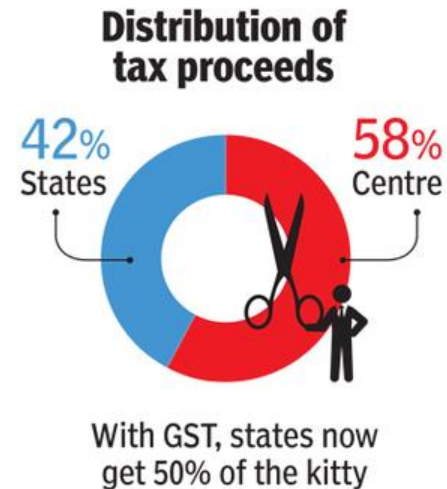
## Finance Commission

- The Finance Commission is a **constitutional body** that recommends how tax revenues collected by the Central government should be distributed among the Centre and various States in the country
- The Commission is reconstituted typically every five years and usually takes a couple of years to make its recommendations to the Centre.

## Commission decide

- **The Finance Commission decides what proportion of the Centre's net tax revenue goes to the States overall** (vertical devolution) and how this share for the States is distributed among various States (horizontal devolution).


### HOW TAXES ARE SPLIT





- Article 280 of the Constitution mandates the finance commission to recommend the distribution of the net proceeds of taxes between the Centre and the states every five years
- 15th Finance Commission's recommendations on tax sharing between Centre and states are to kick in from April 2020

- The **horizontal devolution of funds** between States is usually decided based on a formula created by the Commission that takes into account a **State's population, fertility level, income level, geography, etc.**
- The vertical devolution of funds, are not based on any such objective formula.
- The Centre may also aid States through additional grants for certain schemes that are jointly funded by the Centre and the States.
- **The 16th Financial Commission is also expected to recommend ways to augment the revenues of local bodies** such as panchayats and municipalities.


## What's Fin Commission All About...


➤ Finance Commission is a Constitutionally-mandated body that is to be set up every 5 years 

➤ Its core responsibility is to evaluate the Centre and state's finances 

➤ It has to decide the formula for sharing of taxes between the Centre & states, and also the formula for the sharing of resources among 

states, factoring in various parameters

➤ The Centre provides additional terms of reference for the panel 


➤ First Finance Commission was set up in 1951. There have been 15 so far 

➤ Current Finance Commission's award is valid up to 2025-26 

## Friction between the Centre and States

- The Centre collects major taxes such as the income tax, the corporate tax, and the goods and services tax (GST) while the States primarily rely on taxes collected from the sale of goods such as liquor and fuels that are beyond the ambit of GST.
- The States, are responsible for the delivery of many services to citizens, including education, healthcare and the police.

### Highlights of 15<sup>th</sup> Finance Commission



States → funds ← Center


**Govt has constituted 15th Finance Commission & framed its mandate**

**CONSTITUTIONAL MANDATE**


- Formula for sharing of net taxes between Centre and states
- Recommendation for the five years beginning April 1, 2020
- Taxes that will form part of the shareable kitty
- Division of taxes among states

Principles for grant-in-aid to states

Steps to raise consolidated fund of states



**NK Singh appointed as chairman of 15th Finance Commission**





# Time to make climate part of green impact reports

## Time to make climate part of green impact reports

Ramya Kannan

If one thing is apparent from the changing weather over the last few years, it is the repeated extremes that we have encountered. Extreme heat and humidity, storms that cause severe and ruinous flooding across wide areas in urban settlements, and very cold winters. It is clear that climate change is touching human lives and our health in myriad ways. As the World Health Organisation says, "Climate change threatens the essential ingredients of good health – clean air, safe drinking water, nutritious food supply, and safe shelter – and has the potential to undermine decades of progress in global health."

Further, the WHO estimates that between 2030 and 2050, climate change is expected to cause approximately 2,50,000 additional deaths per year from malnutrition, malaria, diarrhoea and heat stress alone. The direct costs to health are estimated to be between \$2 and 4 billion per year by 2030. Regions with weak health infrastructure – mostly in developing countries – will be the least able to cope without assistance to prepare and respond.

The World Bank records



According to the global climate change index, parts of Bangladesh's southern region may vanish into the ocean in a few decades, as coastal erosion has increased noticeably. GETTY IMAGES

that as the global climate crisis escalates, the devastating impact it will have on human health and well-being will also accelerate. No one anywhere around the globe is beyond its reach, though millions of people – notably women, children, the elderly, ethnic minorities, people with pre-existing health conditions, and those living in poverty – are among the most vulnerable. A recent study done in India by the faculty of Public Health at the Sri Ramachandra Institute of Higher Education and Research (SRIHER) in Chennai showed that working in extreme heat can double the risk of stillbirth and miscarriage for pregnant women, shocking researchers as they had pre-

viously underestimated the impact.

### Climate footprint

It is in this context that we record a significant public interest litigation that was filed in the Madras High Court last week. The plea was filed by G. Sundarajan of the environmental NGO Poovulagin Nanbargal. The point he makes is simple and crucial. There is no climate change component in the environmental impact assessment (EIA) – a clearance that is mandatory for large-scale construction or development projects. Quoting previous judgements on the issue, the petitioner laid out reasons why climate change should be a crucial part of any EIA before consent is

given for a large project to begin. The requirement is very simple. For instance, says Sundarajan, if there is a plan to set up a chemical factory near a settlement, an environmental impact assessment would measure the impact of its functioning on the surrounding environment in terms of pollution of water, earth, and sound.

When one does an assessment of the impact of climate change, it is necessary to scope out the consequences of its presence, starting from day one, when construction begins, until the end of that factory's life. This will also include the carbon footprint, emissions of greenhouse gases, and impact on the health of nearby communities. It would also be necessary to prepare an Environmental Management Plan to mitigate the impact. This should be submitted as a document to the government for evaluation before a decision is ta-

ken to grant clearance.

The First Division Bench of the Madras High Court said the plea appeared to be just and called on the Centre to reply in two weeks. In its progress through the courts, this is likely to become an index case, as it stands on the cusp of the global realisation that climate change is no longer something that can be ignored or swept under the rug.

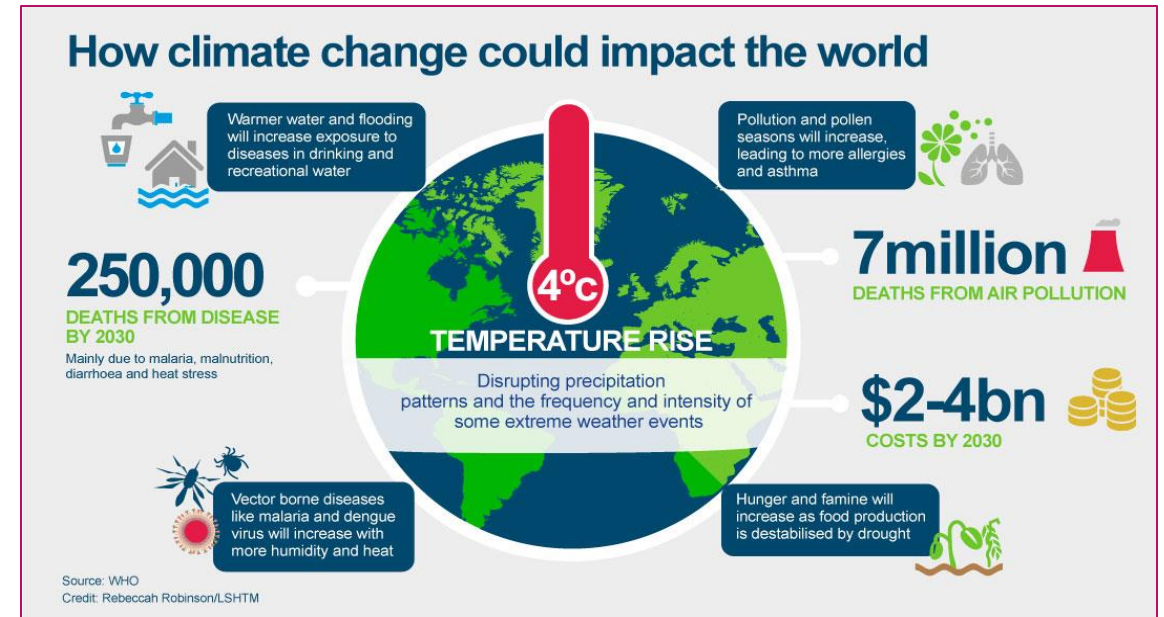
Several nations have already enacted legislation to prepare for and prevent, to the extent possible, the ills of climate change. These include the Bahamas, France, Chile, the United States, China, and Australia. As a nation that will be deeply impacted by climate change, it would be appropriate for India to enact laws that will attempt to conserve gains and prevent further environmental degradation due to human activity.

(ramya.kannan@thehindu.co.in)

## Context

- Extreme heat and humidity, storms that cause severe and ruinous flooding across wide areas in urban settlements, and very cold winters. It is clear that climate change is touching human lives and our health in myriad ways.

- **“Climate change threatens** the essential ingredients of good health — clean air, safe drinking water, nutritious food supply, and safe shelter — and has the **potential to undermine decades of progress in global health.**”
- Between 2030 and 2050, climate change is expected to cause approximately 2,50,000 additional deaths per year from **malnutrition, malaria, diarrhoea and heat stress alone.**
- The direct costs to health are estimated to be between \$2 and 4 billion per year by 2030. Regions with weak health infrastructure — mostly in developing countries — will be the least able to cope without assistance to prepare and respond.
- Millions of people — notably women, children, the elderly, ethnic minorities, people with pre-existing health conditions, and those living in poverty — are among the most vulnerable.



- Working in extreme heat can double the risk of stillbirth and miscarriage for pregnant women.

## Climate footprint

- The total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions are increasing rapidly causing **climate change**
- Construction of factories include carbon footprint, emissions of greenhouse gases, and impact on the health of nearby communities.

## EIA

- **Environmental Impact Assessment (EIA)** is a process of evaluating the likely environmental impacts of a proposed project or development, taking into account **inter-related socio-economic, cultural and human-health impacts**, both beneficial and adverse.

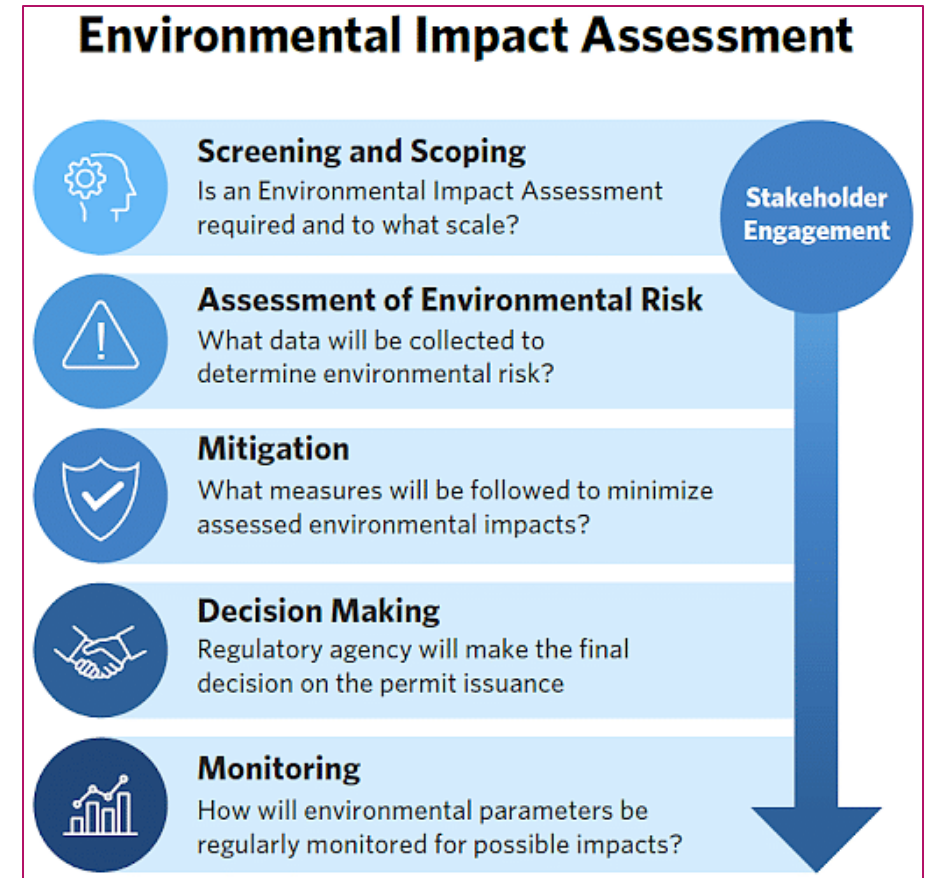


## Importance of EIA

- EIA links environment with development for environmentally safe and sustainable development.
- EIA provides a cost effective method to eliminate or minimize the adverse impact of developmental projects.
- EIA enables the decision makers to analyse the effect of developmental activities on the environment well before the developmental project is implemented.

## Wayforward

- It would be appropriate for India to enact laws that will attempt to conserve gains and prevent further environmental degradation due to human activity.





# Thank you

## Address

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