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The Analyst

CURRENT AFFAIRS Handout

8th March 2026

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8th March 2026

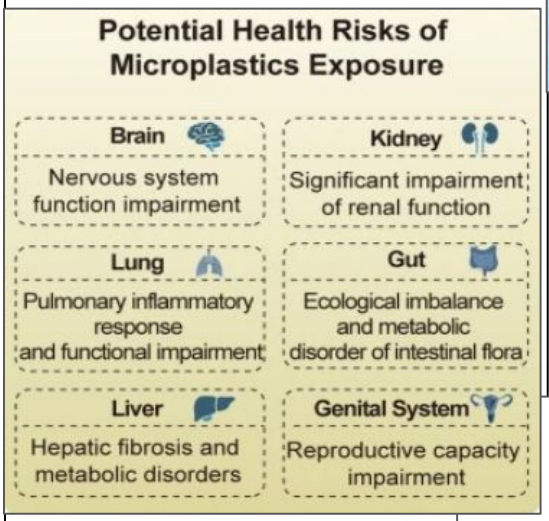
'Pyramids' of Plastic in Future

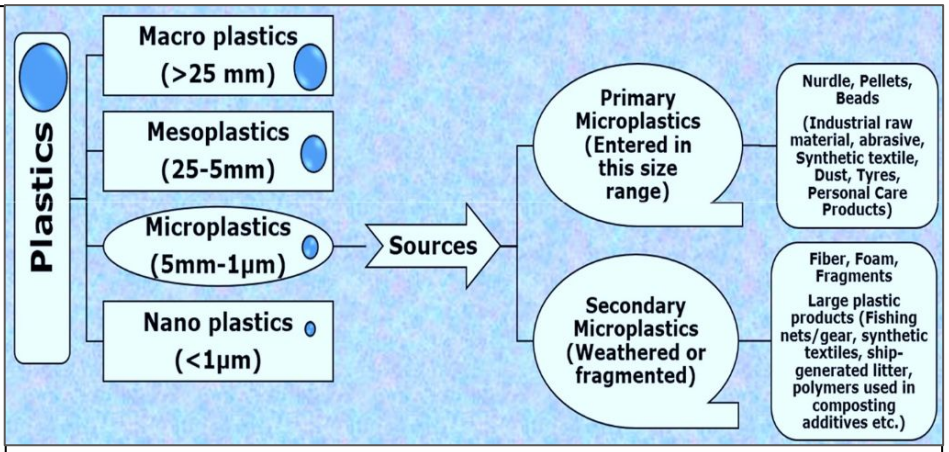
CONTEXT: 12,000 mn tonnes of plastic — 2,000-times the mass of the Great Pyramid of Giza — will inundate land□lls and the natural environment by 2050.

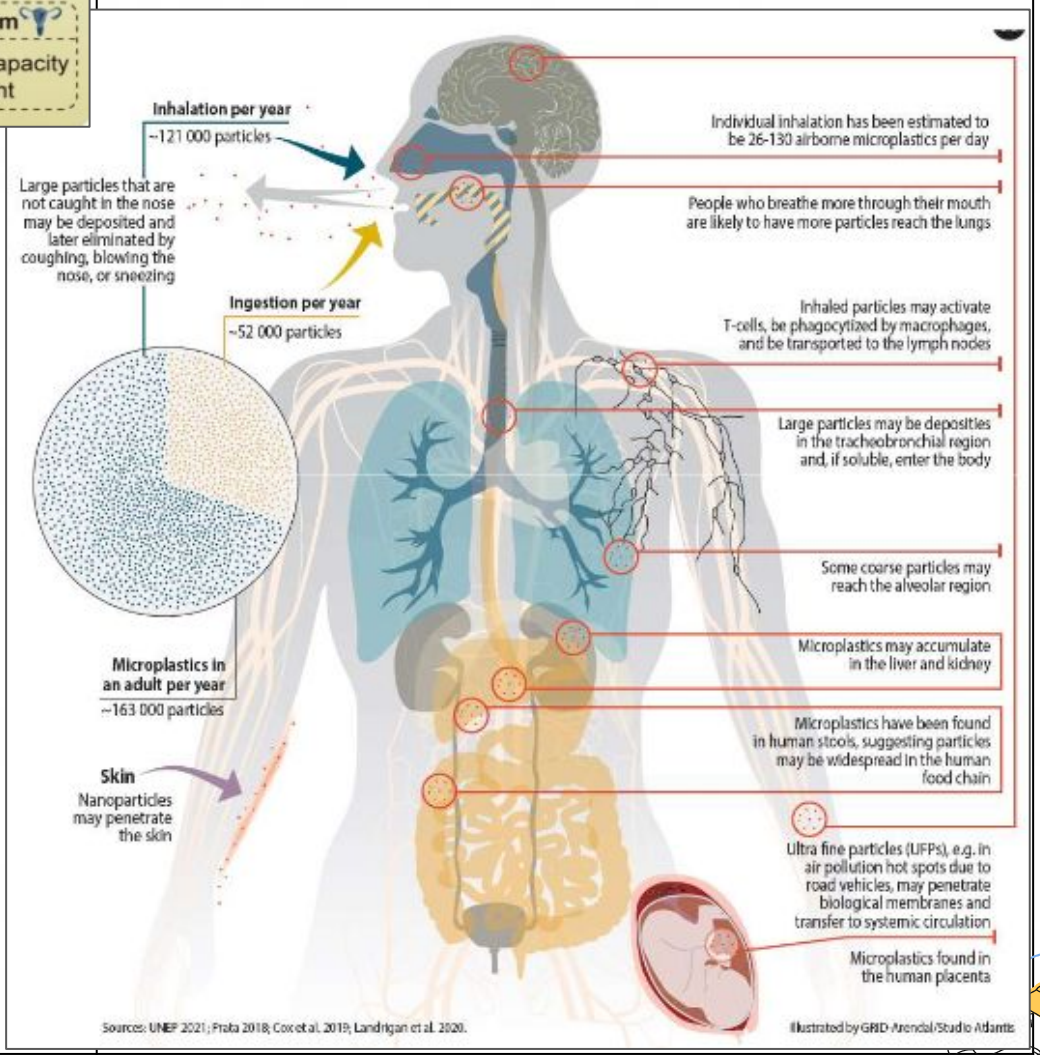
Basics

- Oceans - 9-14 mn tons annually
- Rivers as conduits
- Agriculture - 12.5 mn tons
- Packaging

Health Impact







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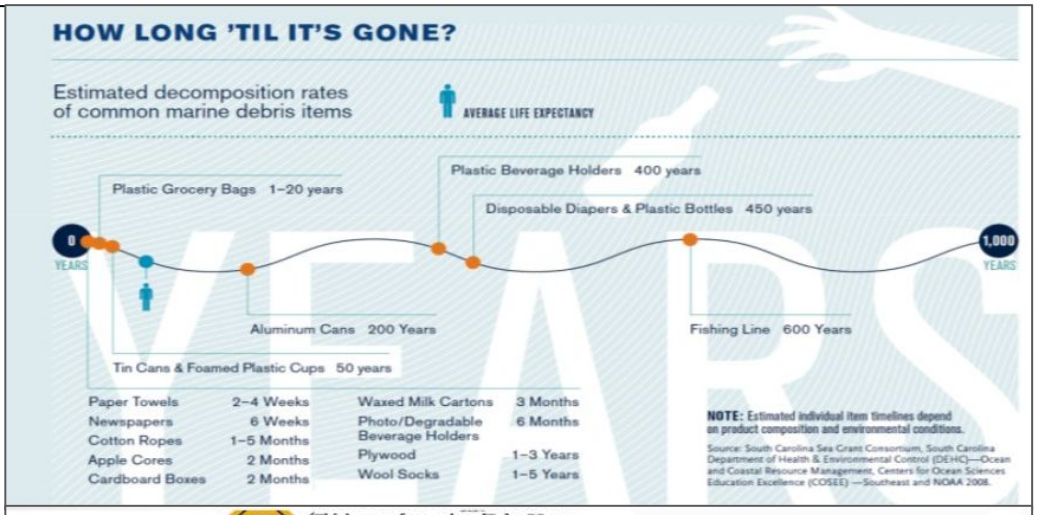
CONTEXT: 12,000 mn tonnes of plastic — 2,000-times the mass of the Great Pyramid of Giza — will inundate land□lls and the natural environment by 2050.

Challenges

- Industrial need
- No Global Treaty
- Costly alternatives
- Inefficient recycling
- Microplastics
- Marine plastic pollution

Steps Taken

- UNDP India's Plastic Waste Management Program (2018-2024)
- Ban on Single-Use Plastics
- Plastic Waste Management (Amendment) Rules, 2022
- India Plastics Pact - by 2030
- Project REPLAN
- GoLitter Partnerships Project



Plastic Waste Management (Amendment) Rules, 2024

- Expanded Definitions - manufacturer
- Responsibility of Local Bodies
- Selling of Plastic Raw Materials
- Registration and Reporting Obligations for Manufacturers and Importers
- Introduction of New Biodegradable Plastics Category
- Thickness Requirement Exemption for compostable/biodegradable Carry Bags
- Pre-consumer Waste Processing Obligations
- Minimum Recycling Target Introduction
- Micro and Small Enterprise Exemption from EPR Obligations

Call for Global Plastic Treaty

- Compensation for Developing Nations
- Technology Transfer
- Dedicated Multilateral Fund
- No restrictions on polymer production
- Pragmatic Phase-Outs
- Single-Use Plastic Ban

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'Pyramids' of Plastic in Future

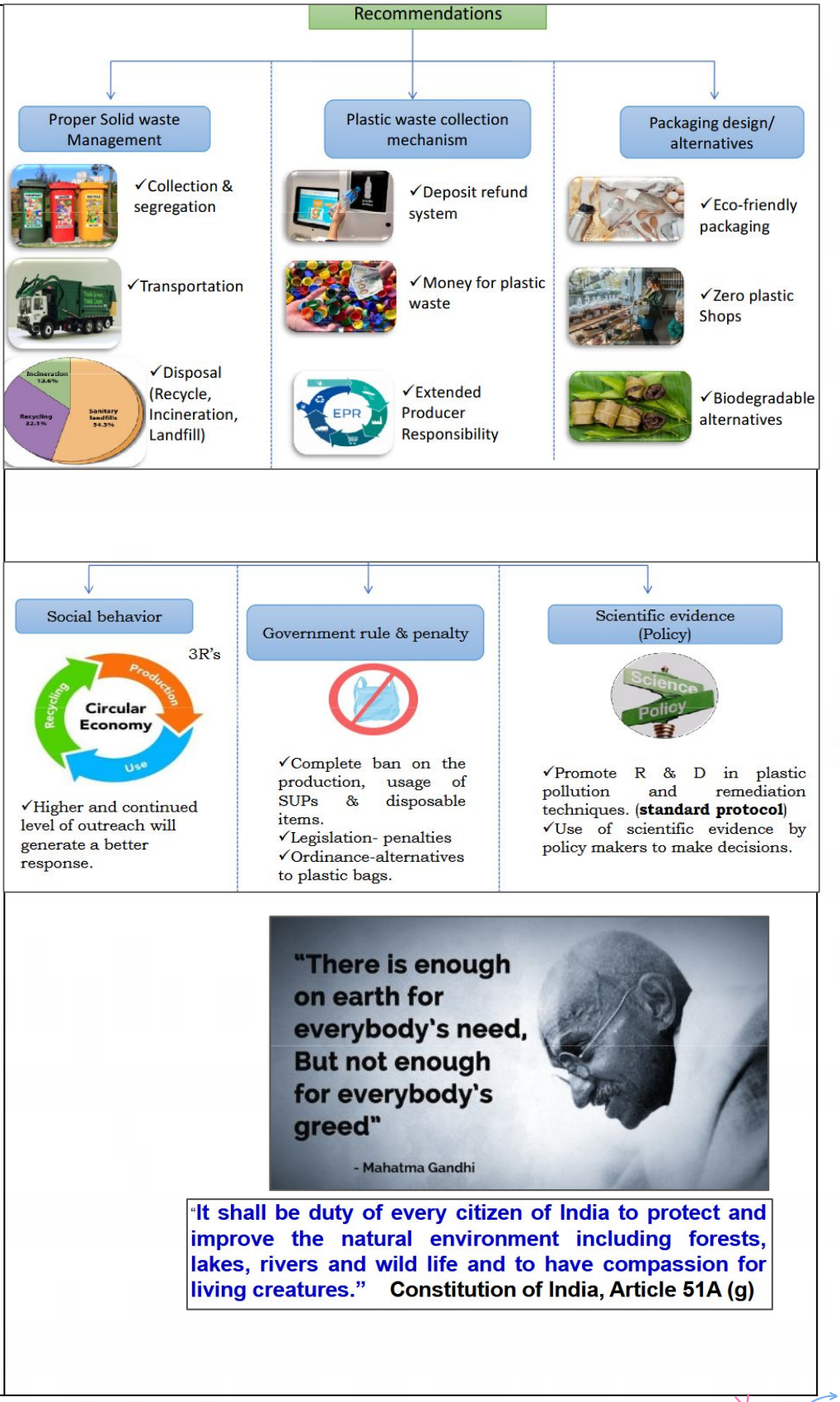
CONTEXT: 12,000 mn tonnes of plastic — 2,000-times the mass of the Great Pyramid of Giza — will inundate land□lls and the natural environment by 2050.

Suggestions

- Phasing out SUP - Models
- Promoting Circular Economy
- Scaling Alternatives
- Global Treaty

Mains Practice Question

What are the challenges associated with plastic waste management in India? Discuss the steps taken by the Government to address plastic pollution and suggest further measures to ensure sustainable plastic management.



"It shall be duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wild life and to have compassion for living creatures." Constitution of India, Article 51A (g)

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India-Nepal

CONTEXT: First elections in Nepal since last year's Gen Z protests.

Significance of India for Nepal

- **Trade** Partner, 1/3rd FDI
- **Defence**
  - Equipment & Training
  - Joint Exercise - Surya Kiran
  - Gorkha Regiment
- **Connectivity**
  - Border Infra, Rail Links, ICPs
- **Energy**
  - Agreement on Power Trade, Cross-border Transmission Interconnection & Grid Connectivity
  - Hydroelectric projects - Arun-3 run of the river, Western Gandak, Devighat, Trisuli
  - Petro Pipeline - Motihari to Amlekhgunj

- **Cultural**
  - Treaty of Peace & Friendship 1950
  - Sister City Agreements - Kathmandu Varanasi, Lumbini Bodhgaya

- **Developmental Assistance**
  - 2015 Nepal EQ
  - Financial Aid

Significance of Nepal for India

- **Geopolitical**
  - Strategic position - buffer state
  - Natural barrier
- **Geoeconomic**
  - Duty free access to market - India-Nepal Trade, SAFTA
  - Energy - hydro potential
- **Geostrategic**
  - Regional stability
  - Law enforcement, counter terrorism

Challenges

- Trade Imbalance
- Border Disputes (Treaty of Sugauli 1816)
  - Kali & Mechi - 'tri-junction' & Susta
  - New Map by Nepal in 2019
- 2015 New constitution
- Madhesi Rights
- Economic Blockade Impact
- Calls for revision of Friendship Treaty 1950
- Accusation of Big brotherly attitude, interference
- Delays in projects - Mahakali Treaty 1996
- Open Border concerns - trafficking, fake currency, drugs, arms
- Chinese influence
  - Trans-Himalayan Multidimensional Connectivity Network
  - Sino-Nepal military exercises

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India-Nepal

CONTEXT: First elections in Nepal since last year's Gen Z protests.

Suggestions

- Backdoor diplomacy/ Track II diplomacy
- Joint Technical Boundary Committee
- Not losing the Perception Battle - mutual respect, sovereignty, non-interference
- High Impact Community Development Projects
- Timely completion of projects
- Economic diplomacy
- Leveraging cultural ties & soft power

Mains Practice Question

Discuss the significance of India–Nepal relations. What are the major challenges affecting the bilateral relationship? Suggest measures to strengthen cooperation between the two countries.

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Gas Sector

Syllabus: GS Paper 3: Infrastructure
Newspaper: The Hindu, **Page No. 1**

Formation

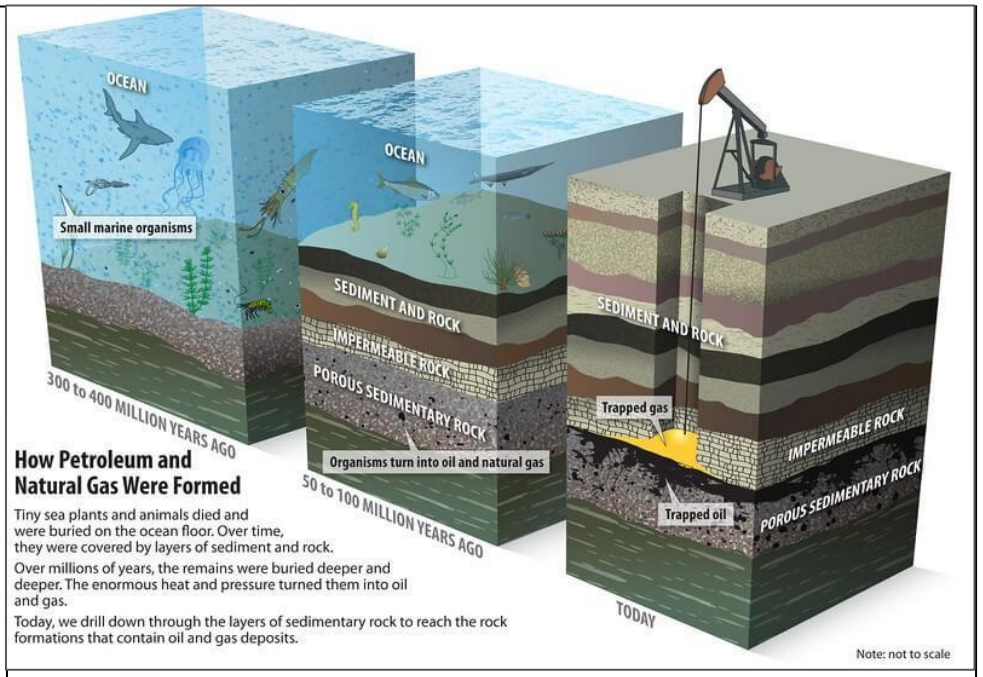
- Burial of Organic Matter
- Heat and Pressure Action
- Thermogenic Gas Formation
- Biogenic Gas Formation
- Migration and Trapping

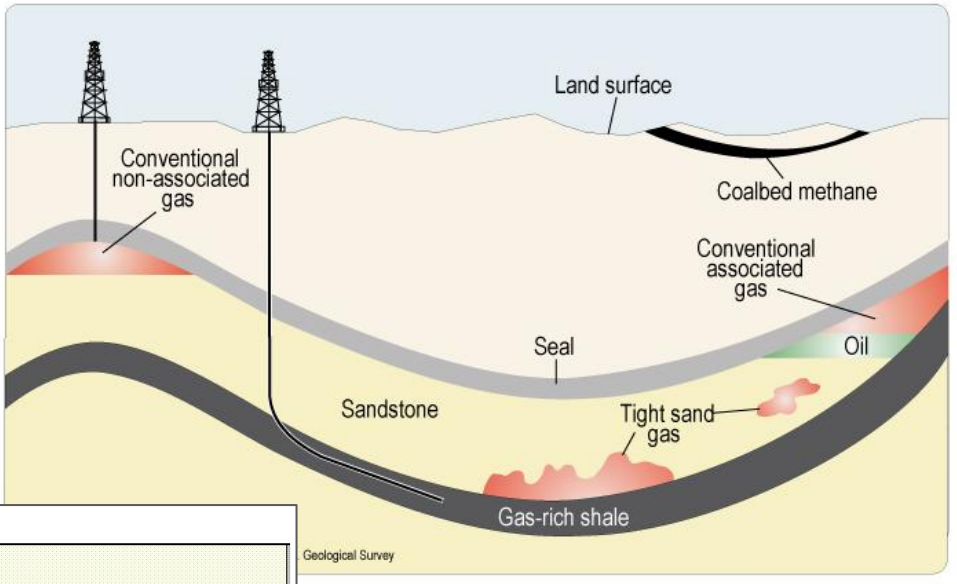
Types

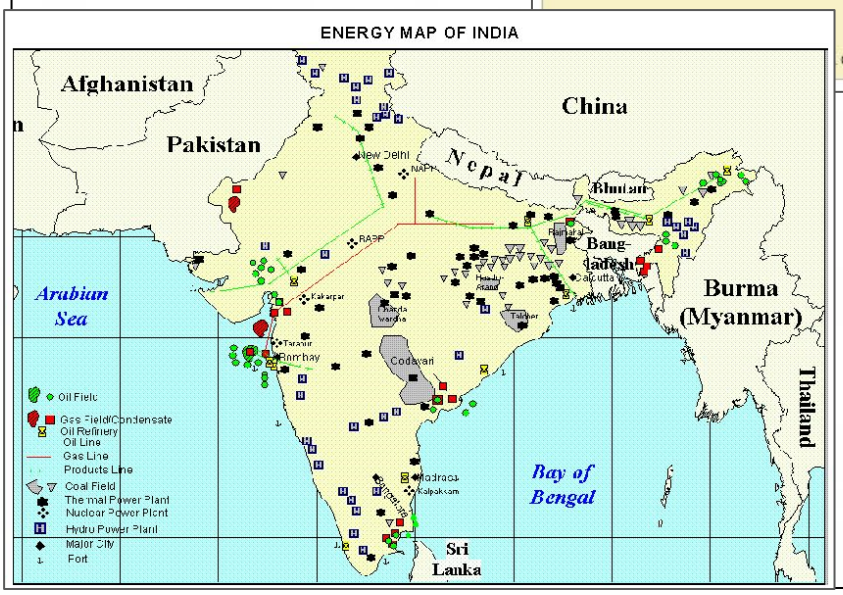
- Associated Gas or Wet Gas
- Non Associated Gas
- Sour Gas
- Sweet Gas
- Unconventional Sources

Forms

- LNG
- Regasified LNG
- CNG
- PNG







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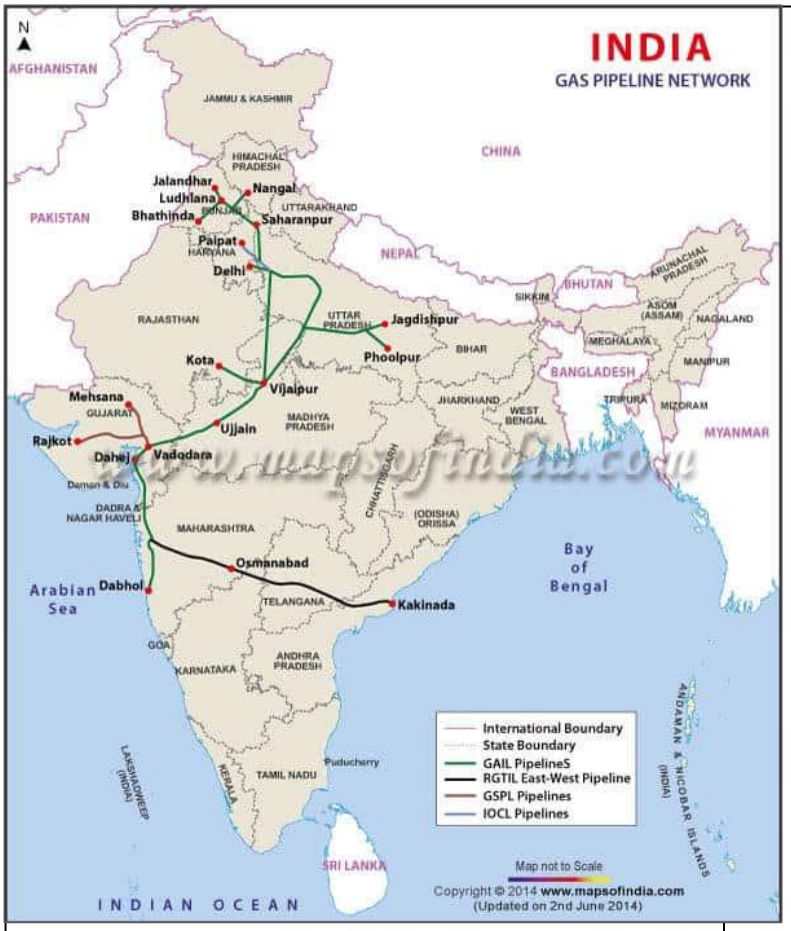

THE HIKE in liquefied petroleum gas (LPG), or cooking gas, for domestic consumers by Rs 60 per cylinder was done in view of the West Asia conflict-induced surge in international prices, which are weighing on public sector oil marketing companies (OMC) that have been retailing the fuel to households at a loss on a sustained

sources, even before the West Asian conflict, the three OMCs had accumulated losses worth roughly Rs 20,000 crore in the first three quarters of the current financial year. In 2024-25, they had initially absorbed Rs 40,000 crore worth of losses on sale of LPG to households below market prices; the government later approved Rs 30,000 crore as compensation support. Prior to that, in 2022-

able... the modest price adjustment must be seen as part of a calibrated approach balancing consumer protection, financial sustainability of OMCs, and uninterrupted LPG supply for households across India," said

Air Defence Systems

Syllabus: Prelims: Current events of national and international importance
Newspaper: The Hindu, **Page No. 16**

Category	System	Range	Characteristics
Long-Range	S-400 Triumf (Sudarshan Chakra)	400 km	Russian-built; engages aircraft, UAVs, ballistic/cruise missiles; strategic deterrence vs China/Pakistan
	Prithvi AD (BMD)	300–2000 km	Indigenous; exo-atmospheric interceptor; altitude up to 80 km.
	AAD (BMD)	150–200 km	Indigenous; endo-atmospheric; altitude up to 30 km; speed Mach 4.5.
Medium-Range	Barak 8	100 km	India-Israel joint development; MR-SAM/LR-SAM; deployed in Ladakh.
	Akash	45 km	Indigenous; Mach 3.5; dual guidance (command + radar); Akash-NG (70 km range).
	SPYDER	20–50 km	Israeli; quick-reaction SAM; uses Python-5 and Derby missiles

Category	System	Range	Characteristics
Short-Range	QRSAM	30 km	Indigenous; Quick Reaction SAM; Mach 4.7.
	2K12 Kub (Kvadrat)	24 km	Soviet-origin; altitude up to 14 km.
	S-125 Pechora	30 km	Soviet-origin
Very Short-Range	Strela-10	Up to 5 km	IR-guided missiles; front-line troops.
	Tunguska	Up to 5 km	combined autocannons and missiles on tracked vehicles.
	ZSU-23-4 Shilka	Up to 5 km	Soviet-origin; radar-guided anti-aircraft gun.
	Bofors 40 mm Gun	Up to 5 km	Used against low-flying aerial threats.

The Terminal High Altitude Area Defence (THAAD) system is one of the most advanced missile defence platforms developed by the United States to counter ballistic missile threats.

Designed to intercept missiles during the final stage of their flight, THAAD can destroy incoming threats both inside and outside earth's atmosphere, providing a critical de-

ary 28, along with other weapons.

Unlike many traditional air defence systems that rely on explosive warheads, THAAD uses "hit-to-kill" technology. This means its interceptor missiles destroy incoming targets by directly colliding with them at extremely high speeds, relying on kinetic energy rather than an explosive blast.

This approach significantly improves precision and reduces the risk of debris from explosive interceptors affecting populated areas. THAAD can engage ballistic missile targets at ranges of roughly 150-200 kilometres, inter-

ed components: interceptors that destroy incoming missiles through kinetic impact; truck-mounted launchers used to deploy the interceptors; and the powerful AN/TPY-2 radar, which detects and tracks missile threats at a long range; a tactical fire control and communications unit that coordinates targeting and engagement; and additional logistics and support equipment.

A typical THAAD battery includes around 90 personnel, six launchers, and 48 interceptors, with each launcher carrying eight missiles.

THAAD is designed to operate as part of a layered

segment enhancement (MSE) interceptors, highlighting growing interoperability within the U.S. missile defence architecture.

The THAAD system is highly mobile and rapidly deployable, allowing the U.S. Army to position it in regions facing missile threats. The first operational THAAD battery was deployed to Guam in 2013. Internationally, the UAE became the first foreign buyer in 2011, followed later by Saudi Arabia.

The system has been in the spotlight ever since the latest war on Iran began on February 28. Iran has reportedly destroyed a key radar associated with the

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Canada's Uranium Deal

Syllabus: Prelims: Current events of national and international importance
Newspaper: The Hindu, **Page No. 15**

Uranium 'stocks' in India

- Ore reserves: 4.2-4.3 lakh tonnes
- Mines in Jaduguda, Turamdih, Tummalapalle
- Extractable Ur metal: 76,000-92,000 tonnes
- **Ore Quality:**
  - 'low grade', concentration 0.02-0.45%
  - Canada's ore 10 to 100 times richer
- **Imported Stockpiles:**
  - Imports 3/4 of civilian requirement
  - New deal with Canada's Cameco ~10,000 tonnes Ur between 2027-2035
  - Supply agreement with Kazatomprom
  - Ongoing contracts: Uzbek, Russia
- Building Strategic Reserve: 5 years' supply
- **Economics:**
  - Importing ore is cheaper
  - Imported not for weapons
  - Domestic mining for military use

Does the deal involve the 2010 agreement?

- **Governing Framework:**
  - Cameco deal under India-Canada Civil Nuclear Cooperation Agreement signed in 2010
  - 2010 NCA as NSG's 'clean' waiver for India in 2008
  - NSG waiver in turn enabled by 2008 India-U.S. 123 nuclear agreement
- **Obligations under NCA:**
  - provide "fissionable material accounts" to Canada
  - more intrusive than the deal with Kazakhstan
- **Dual-Use Criticism:**
  - Tacitly supporting India's weapons programme
  - Imported Ur for civilian use frees up domestic Ur for military use

Use of Ur

- **Commercial Power Generation:**
  - 24 nuclear reactors: capacity of 9 GW
  - 700-MW PHWRs provide 6-7 GW (~3% of total electricity)
  - Target 100 GW by 2047
- **Research and Isotope Production:**
  - Research reactors: 'Dhruva' in Trombay
  - Medical isotopes: technetium-99m and iodine-131
  - Materials science research
- **Future Reactor Development:**
  - Rs 20k crore in 2025-26 budget for developing SMRs
- **Military and Strategic Use:**
  - Nuclear warheads (currently 170)
  - Nuclear-powered INS Arihant class submarines

3-Stage Programme Status:

- Transitioning from Stage I to Stage II
- **Stage I:**
  - PHWRs use natural Ur-235 to produce electricity
  - Pu-239 as a byproduct
- **Stage II:**
  - FBRs use a mixed oxide fuel of Ur-238 and Pu-239
  - Produce electricity, Ur-233, more Pu-239
  - "breeders" produce more fuel than they consume
  - Prototype PFBR in Kalpakkam: advanced stage of commissioning

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Syllabus: Prelims: Current events of national and international importance
Newspaper: The Hindu, **Page No. 15**

- **Stage III:**
  - Advanced HWRs use Pu-239, Th-232
  - Produce electricity and Ur-233

- **Challenges:**
  - Delays and cost overruns
  - Fast Breeder Test Reactor (FBTR) built in 1977 at Kalpakkam
  - PFBR not sanctioned until 2000s, as post-Pokhran-II sanctions
  - Doubling time (fuel produced to start a second reactor) is 15-20 years
  - 100 GW capacity require several doubling cycles
  - So multiple uranium import deals
  - DAE in 2013: large-scale Thorium deployment ~ 3-4 decades after commercial operation of FBRs

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PMJAY Appraisal

Syllabus: Prelims: Economic and Social Development – Sustainable Development, Poverty, Inclusion, Demographics, Social Sector Initiatives
Newspaper: Indian Express, **Page No. 11**

PM JAY

- World's Largest Health Assurance Scheme: cover of ₹5 lakh per family per year
- Beneficiaries
  - Over 12 crore families (~55 crore people) eligible
  - Based on SECC 2011
- Cashless Access: treatment at empanelled hospitals
- Comprehensive Treatment: 1,961 procedures including diagnostics, medicines, room charges, physician fees, surgeries, and ICU
- Family Floater Scheme: entire family, with no restriction on age, gender, or family size
- Pre-Existing Conditions: covered from day one
- Portability Across India: any empanelled hospital
- Pre- and Post-Hospitalization Coverage: 3 days pre-hospitalization and 15 days post-hospitalization care

PATIENTS accessing private facilities under Pradhan Mantri Jan Arogya Yojana (PMJAY) had to incur on an average Rs 53,965 Out-of-Pocket Expenditure (OOPE) per hospitalisation on medicine, transport and diagnostics services, reveals an evaluation study commissioned by the NITI Aayog.

The study, conducted by the IQVIA Consulting and Investigation. In public facilities, the patients incurred on an average OOPE of Rs 21,827 per hospitalisation, said the study.

no insurance cover. Among those with health insurance coverage, most (1,380 households) were covered under government-sponsored schemes, while a smaller proportion, 81 (5%), were covered under private insurance plans.

Among those covered under government schemes, a majority were PMJAY (1,156 households) beneficiaries. During the survey, 35% of those covered under PMJAY had not incurred any sort of OOPE during hospitalisation while the remaining 65% had to pay for medicine, transport and diagnostics services.

In September 2024, the PMJAY was expanded to cover all senior citizens aged 70 and above, irrespective of their socio-economic status.

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EPFO Auto-Settlement

Syllabus: Prelims: Economic and Social Development
Newspaper: Indian Express, **Page No. 15**

EPFO

- Statutory
- Employees' Provident Funds and Miscellaneous Act, 1952.
- Administrative control of Ministry of Labor and Employment
- Schemes administered by Central Board of Trustees
    - Representatives of Govt (both C&S), employers, employees
    - Chair: Minister of Labour and Employment
- Operates 3 schemes:
    - EPF Scheme, 1952
    - Employees' Pension Scheme, 1995
    - Employees' Deposit Linked Insurance Scheme, 1976
- EPFO nodal agency for implementing Bilateral Social Security Agreements
- Coverage: Indian workers and international workers (bilateral agreements)

Fund Organisation (EPFO) has a total of 31.83 lakh inoperative accounts, of which around 41% have been inoperative for over 5-10 years while about 22% are lying idle for over 20 years. In its latest (239th) meeting on Monday (March 2), EPFO's Central Board of Trustees decided to address this issue by giving a nod for auto-settlement of such inoperative accounts, initially for those with unclaimed balance of Rs 1,000 or less, to their registered bank accounts. What

What are inoperative accounts?

Inoperative accounts are those EPF accounts in which no interest is credited after a specified period. Mainly belonging to EPFO members who have retired after the age of 55 years, an EPF account is treated as inoperative if no contribution is received for a continuous period of three years after the member attains 55 years of age or from the date of retirement, whichever is later. If the member is below the

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Daily Quiz

Q1. With reference to plastic pollution, consider the following statements:

1. Microplastics are plastic particles less than 5 millimetres in size that can originate from the breakdown of larger plastic debris.
2. Primary microplastics include microbeads used in cosmetics and synthetic microfibres released from textiles during washing.
3. According to the Plastic Waste Management Rules, 2016 (as amended) in India, the manufacture, import, stocking, distribution, sale and use of certain identified single-use plastic items have been prohibited.

Which of the statements given above are correct?

a) 1 and 2 only
b) 2 and 3 only
c) 1 and 3 only
d) 1, 2 and 3

Answer: d

Q2. Regarding the India–Nepal border, consider the following statements:

1. The India–Nepal border is an open international boundary that allows citizens of both countries to move freely without visas.
2. The border largely follows the course of the Mahakali (Sharda) River in the western sector as defined under the Treaty of Sugauli (1816).
3. The Sashastra Seema Bal (SSB) is the primary force responsible for guarding the India–Nepal border on the Indian side.

How many of the above statements is/are correct?

a) Only One
b) Only Two
c) All Three
d) None

Answer: c

Q3. With reference to Liquefied Petroleum Gas (LPG), consider the following statements:

1. LPG is primarily a mixture of propane and butane, which are obtained during the refining of crude oil and the processing of natural gas.
2. LPG is stored in cylinders in a liquid state under moderate pressure to facilitate easy transportation and storage.
3. The characteristic smell of LPG is due to the natural presence of sulphur compounds in propane and butane.

Which of the statements given above are correct?

a) 1 and 2 only
b) 2 and 3 only
c) 1 and 3 only
d) 1, 2 and 3

Answer: a

Q4. With reference to the Terminal High Altitude Area Defence (THAAD) system, consider the following statements:

1. It is an anti-ballistic missile defence system designed to intercept short-, medium-, and intermediate-range ballistic missiles during their terminal phase.
2. The system destroys incoming missiles using a "hit-to-kill" kinetic energy mechanism rather than an explosive warhead.
3. It is jointly developed and deployed under the command of the North Atlantic Treaty Organisation (NATO).

How many of the above statements is/are correct?

a) Only One
b) Only Two
c) All Three
d) None

Answer: b

Q5. With reference to Pradhan Mantri Jan Arogya Yojana, consider the following statements:

1. It provides health insurance coverage of up to ₹5 lakh per family per year for secondary and tertiary care hospitalisation.
2. Beneficiary households are identified on the basis of deprivation and occupational criteria from the Socio-Economic and Caste Census.
3. All beneficiaries under the scheme are required to make a mandatory premium contribution.
4. The scheme is a component of the broader Ayushman Bharat programme.

Which of the statements given above are correct?

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

Answer: a

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