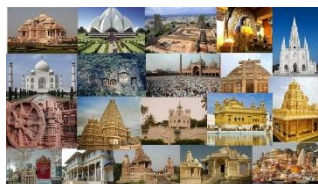


### WHAT IS PRADHAN MANTRI UJJWALA YOJANA (PMUY)?



- It is a flagship scheme of the **Ministry of Petroleum and Natural Gas (MOPNG)** launched in May 2016.
- **Objective:** To make **clean cooking fuel** such as **LPG** available to the **rural and deprived households** which were otherwise using traditional cooking fuels such as firewood, coal, cow-dung cakes, etc.
- **Benefits:**
  - **1600** for a **14.2 kg** cylinder or **Rs. 1150** for a **5 kg** cylinder.
  - Additionally, All PMUY beneficiaries will be **provided with their first LPG refill and stove (hot plate), both free of cost**, along with their **deposit-free connection**.
  - **Priority** would be given to the **states which have lower LPG coverage** (compared to the national average) as on 1st Jan 2016.
- **Eligibility:** An **adult woman belonging to a poor household** and **not having an LPG connection** in her household will be eligible under UJJWALA 2.0. The beneficiaries should belong to any of the following categories:
  - **Eligible as per the SECC 2011 list**
  - Belongs to **SC/ST households**, be a **beneficiary of Pradhan Mantri Awas Yojana (PMAY), Antyodaya Anna Yojana (AAY), Forest dwellers, Most Backward Classes (MBC), Tea and Ex-Tea Garden Tribes, People residing in river islands** (Beneficiary will submit supporting document).
  - If she is not falling in the above 2 categories, then she can stake her claim to be a beneficiary under a poor **household** by submitting a 14-point declaration (as per prescribed format).
- **Exclusions:** **Male members** from a household **cannot apply** for the scheme.

### WHAT IS THE PRASHAD SCHEME?



- The PRASHAD (Pilgrimage Rejuvenation And Spiritual Augmentation Drive) was launched in the year 2014-2015 under the Ministry of Tourism.
- It is a Central Sector Scheme with the objective of integrated development of identified pilgrimage destinations.
- The primary objective of the scheme is to develop tourism infrastructure at pilgrimage and heritage sites, ensuring a more enriching experience for pilgrims and heritage enthusiasts.
- Under the scheme, the ministry provides financial assistance to state governments and Union Territory administrations for the development of tourism infrastructure at these sites.
- Additionally, the scheme incorporates voluntary contributions through Corporate Social Responsibility (CSR) initiatives and Public-Private Partnerships (PPP).
- The scheme aims at infrastructure development such as entry points (road, rail, and water transport), last-mile connectivity, basic tourism facilities like information/interpretation centers, ATMs/money exchange, eco-friendly modes of transport, area lighting and illumination with renewable sources of energy, parking, drinking water, toilets, cloakrooms, waiting rooms, first aid centers, craft bazaars/haats/souvenir shops/cafeterias, rain shelters, telecom facilities, internet connectivity, etc.

### SERVANTS OF INDIA SOCIETY

- The Servants of India Society (SIS) was founded by Gopal Krishna Gokhale, along with K. Devadhar, A.V. Patwardhan, and N.A. Dravid, in Pune, Maharashtra, on June 12, 1905.

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- According to Gokhale, the society's objectives were to **train individuals** who were willing to devote their lives **to the country's cause in a religious spirit, for political education and agitation** and to **promote the national interest** of the Indian people **through constitutional means**.
- The members of the society were considered as young missionaries of Indian nationalism.
- Several young Indian nationalists, including **S. Sreenivasa Sasthri, Hriday Nath Kunzru, and A.V. Thakkar**, enrolled as a **member of the SIS**.
- Members go through a **five-year training period** and agree to **serve on extremely modest salaries**.
- In 1915 **Gokhale** was **succeeded as president by Srinivasa Sastri (1869–1946)**.
- The organization has its **headquarters in Pune (Poona)** and branches in Chennai (Madras), Mumbai (Bombay), Allahabad, Nagpur, and other locales.
- Though the number of members has dwindled over time, the society has been influential in its demonstration of the ideals of social service.

### WHAT IS RUDRASTRA?



India's latest homegrown battlefield tech marvel Rudrastra was successfully tested by the Indian Army.

- It is a hybrid **Vertical Take-Off and Landing (VTOL)** drone developed by **Solar Aerospace and Defence Limited (SDAL)**.
- **Features**
  - It can not only take off like a helicopter but **also cruise like an aircraft**, making it versatile and hard to spot.
  - The drone is equipped with smart warheads **meant for anti-personnel roles**, meaning it can target enemy soldiers and **positions with high accuracy**.
  - It can hit **targets more than 50 km away**.

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- In tests at the Pokhran range, it demonstrated a full range of 170 km and stayed in the air for nearly 90 minutes, relaying real-time video and returning on its own.
- It even **dropped an airburst munition** that exploded low to the ground, damaging a wide area, perfect for enemy camps or artillery.
- **What can Rudrastra do?**
  - It's **meant for deep strikes**, think enemy artillery guns or terrorist hideouts well inside hostile territory.
  - The drone can quietly sneak in, strike, and return, all without risking lives. It gives the Army a powerful "stand-off weapon" that works from a safe distance.

#### INTERNATIONAL CIVIL AVIATION ORGANIZATION



- It is an **intergovernmental specialized agency** associated with the **United Nations (UN)**.
- It was established in 1947 by the Convention on International Civil Aviation (1944) known as **Chicago Convention**.
- **Functions:**
  - It is dedicated to **developing safe and efficient international air transport** for peaceful purposes and ensuring a reasonable opportunity for every state to operate international airlines.
  - It sets **standards and regulations** necessary for aviation safety, security and facilitation, efficiency, and economic development of air transport as well as to improve the environmental performance of aviation.
  - It also serves as a **clearing house for cooperation and discussion** on civil aviation issues among its 193 member states.
  - It also **promotes regional and international** agreements aimed at liberalizing aviation markets.

- It helps to establish legal standards to ensure that the growth of aviation does not compromise safety, and encourages the development of other aspects of international aviation law.
- **Headquarters:** Montreal, Canada

### DNA IDENTIFICATION



- It is the gold standard for **identifying human remains**, especially after mass fatality events in which bodies might not be easy to identify otherwise.
- **Collection and Storing samples of DNA**
  - As soon as an individual dies, their **DNA begins to degrade**.
  - DNA **survives** much better in **cold and dry conditions**, than when it is hot and humid. Once collected, stored in as cool and dry an environment as possible.
  - DNA samples should be **frozen at minus 20 degrees Celsius**, or, in the case of soft tissues (skin, muscles, etc.), they may be **stored in 95% ethanol**.
  - **DNA from soft tissues degrades much faster** than that from hard tissues (bones and teeth).
  - This is because cells in **hard tissues are largely protected** from the effects of putrefaction and decomposition.

### Methods to analyse DNA Samples

- **Short tandem repeat (STR) analysis:**
  - It evaluates **short tandem repeats**, which are essentially short repeating sequences **of DNA**.
  - STRs are used for DNA identification as they **widely vary between individuals**.  
“After analysing 15 or more of these hyper-variable regions of DNA... the resulting profile can be used to ascertain family relationships with a high degree of confidence,



- STRs are **typically found on nuclear DNA** which is located within the nucleus of a cell.
- Therefore, to carry out STR analysis it is essential that the nuclear DNA extracted from the **sample is not degraded**.
- **Mitochondrial DNA (mtDNA) analysis:**
  - It is used when nuclear DNA is degraded or unavailable.
  - Mitochondrial DNA is found within the **cell's energy-producing organelles** known as mitochondria.
  - As mtDNA is **present in multiple copies** within the cell, it is easier to recover from human remains that are not well preserved.
  - This is used for identification because mtDNA is **passed down by the mother, unchanged, to her children**.
  - This means that samples from a person's remains can be matched with reference samples from their **mother, maternal grandmother, sibling, maternal aunts** or uncles, and distant relatives as long as they belong to the **maternal line of inheritance**.
- **Y chromosome analysis:**
  - Humans have two types of **sex chromosomes, X and Y**: biological males typically have one X and one Y chromosome, and biological females typically have two X chromosomes.
  - In this method, a panel of **STR on Y chromosomes**, passed **on from father to son**, is examined to match the remains of the victim with their male relatives.
  - "This can be useful when close relatives are not available for comparison: any **member of the paternal line**, including brothers, paternal uncles, and paternal male cousins, may be used for matching,"
- **Single Nucleotide Polymorphisms (SNPs) analysis:**
  - It is used when the DNA to be analysed is highly degraded.

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- A SNP is a **variation in the DNA sequence** where a single base — A, C, G, or T — at a specific location differs among people.
- Given that SNPs are **unique to each person**, they can be used for identification purposes with the help of reference samples taken from the victim's personal belongings such as a **toothbrush and hairbrush**.

#### HOW IRAN-ISRAEL CONFLICT MAY AFFECT INDIA

- The escalating Israel-Iran conflict adds another layer of uncertainty, potentially affecting India's economic outlook in the coming months.
- **Growth and Inflation at Risk**
  - The escalating Iran-Israel conflict may create macroeconomic challenges for India, particularly due to its heavy reliance on oil imports.
  - A \$10/bbl increase could lower India's real GDP growth by 0.3 percentage points and raise consumer inflation by 0.4 points.
  - This threatens to reverse India's recent inflation relief — retail inflation had eased to a 75-month low of 2.82% in May 2025, prompting a 50 basis point repo rate cut by the RBI.
  - As oil prices climb, Indian refiners require more dollars to purchase crude, increasing dollar demand, weakening the rupee, and inflating import costs — creating a feedback loop that worsens India's current account deficit.
- **Energy Supply Disruption Concerns Grow**
  - Although energy infrastructure has not yet been directly targeted, risks remain high.
    - Iran reported no immediate damage to its refineries, which have a capacity of 2.8 million b/d (barrels/day).
  - Still, its crude exports may drop below 1.5 million b/d this month, as per S&P Global, adding further uncertainty to global energy markets.
- **Broader Energy Price Spike Beyond Crude Oil**

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- The ongoing Middle East conflict has triggered a surge not only in crude oil prices but also in other critical energy imports for India — including LPG, natural gas, petrochemicals, and fertilisers.
- Any disruption could significantly impact India's rural economy and food inflation due to increased fertiliser costs.
- **Rural and Agricultural Impact**
  - Higher fertiliser and LPG prices threaten to burden rural households and reduce farm productivity.
  - This could reverse recent gains in food price stability and drive overall inflation upward.
- **Manufacturing and Industrial Sectors Face Margin Pressures**
  - Key sectors like aviation, chemicals, paints, tyres, cement, and logistics — all heavily reliant on petroleum-based inputs — are likely to see reduced profit margins due to rising raw material costs.
  - Crisil Ratings warns that the impact may differ across sectors depending on their oil dependency.
- **Sectoral Divide: Winners and Losers**
  - While upstream oil companies may benefit from higher crude prices, downstream refiners could see their margins squeezed.
  - Industries indirectly linked to crude oil — including packaging, plastic products, paints, and specialty chemicals — may pass on the cost to consumers or absorb it, affecting demand or profits respectively.
- **Rising Costs for MSMEs and Consumers**
  - If tensions escalate, transport fares and logistics costs may rise, hitting grocery supply chains and increasing costs for MSMEs.
  - These businesses may struggle with higher input costs and stagnant demand, leading to tighter margins.
- **Gold Prices Soar Amid Uncertainty**



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- Gold futures in India crossed ₹1 lakh per 10 grams, driven by a weak rupee and investor flight to safe assets.
- Retail jewellery demand remains subdued due to high prices, though investment demand is expected to stay strong.

### SHONGTONG KARCHAM HYDROELECTRIC PROJECT



- It is a hydropower project, on the **river Satluj** in the Kinnaur District of **Himachal Pradesh**.
- It is a **run-of-river** project.
- Capacity:  $3 \times 150$  MW Francis turbines, totaling **450 MW**; produces 1,594 million units per year.
- The gross head and net head of the project will be 128.57 m and 126.58 m respectively.
- The total number of penstocks, pipes, or long channels that carry water down from the hydroelectric reservoir to the turbines inside the actual power station is expected to be 3 in number.
- The penstock length will be 5.1 m. The project is expected to generate 1,593.93 GWh of electricity.
- The project is being developed and currently **owned by Himachal Pradesh Power**.