

### AATMANIRBHAR BHARAT ROZGAR YOJANA

The Central Government's innovative employment incentive scheme, the Aatmanirbhar Bharat Rozgar Yojana (ABRY), has exceeded its initial employment generation goals, showcasing its success in fostering job creation and recovery during the COVID-19 pandemic.



#### About Aatmanirbhar Bharat Rozgar Yojana:

- It was launched in 2020.
- This was designed to **stimulate the creation of new job opportunities by extending financial support to employers of establishments** registered with the Employees' Provident Fund Organization (EPFO).
- This scheme aimed to incentivise **employment of unemployed individuals**, including those who lost their jobs due to the pandemic, by covering both the employee and employer contributions (24% of wages) for establishments with up to 1000 employees.
- For establishments **with over 1000 employees**, only the employee's EPF contributions (12% of wages) were covered in respect of new employees.
- As of July 31, 2023, the ABRY has already achieved an enrolment of over 7.58 million new employees, surpassing its initial employment generation target.
- **Significance:** It substantially contributed to **the job market's revival, underscoring its role in boosting economic recovery** during these challenging times.

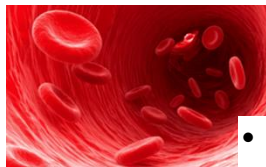
#### Key Facts about Employees' Provident Fund Organization

- It is a statutory body that came into existence under the **Employees' Provident Fund and Miscellaneous Provisions Act of 1952**.
- The Act and Schemes framed there under are administered by a **tripartite Board** known as the Central Board of Trustees, Employees' Provident Fund, consisting of representatives of Government (Both Central and State), Employers, and Employees.

- The Board administers a **contributory provident fund**, a **pension scheme**, and an insurance scheme for the workforce engaged in the organised sector in India.
- The Board is assisted by the Employees' PF Organization (EPFO), consisting of offices at 122 locations across the country.
- The EPFO is under the administrative control of the **Ministry of Labour and Employment, Government of India**.

## WHAT ARE RED BLOOD CELLS (RBCS)?

Red blood cells exposed to oxygen deficiency protect against myocardial infarction (heart attack), according to a new study.



### About Red Blood Cells (RBCs):

- RBCs, or **erythrocytes**, are one of the **components of blood**. (The others are plasma, platelets and white blood cells.)
- **Function:**
  - They **deliver oxygen to the tissues** throughout the human body.
  - Oxygen turns into energy, and **tissues release carbon dioxide**.
  - RBCs **also transport carbon dioxide back to the lungs to be exhaled**.
- **Where are RBCs made?**
  - They are **made in the bone marrow**.
  - They typically **live for about 120 days, and then they die**.
- **Hemoglobin:**
  - RBCs **contain a protein called haemoglobin, which binds to oxygen in the lungs, forming oxyhemoglobin**.
  - **Haemoglobin also helps carry carbon dioxide back to the lungs** as carbaminohemoglobin.
- **Shape:**
  - RBCs are **biconcave, disc-shaped cells with a dimple in the centre on both sides**. This unique shape **increases the surface area** of the cell, **allowing for efficient gas exchange**.
  - It is **covered with a membrane composed of lipids and proteins and lacks a nucleus**.

- **What does a low RBC count mean?**

- A low RBC count, known as **anaemia**, can cause **fatigue, shortness of breath, dizziness** and other symptoms. If untreated, **anaemia can lead to serious complications.**
- In many cases, **anaemia occurs when people don't eat a nutrient-rich diet.**
- It can **also be caused by pregnancy and certain medical conditions** such as bleeding disorders and kidney disease.
- **Choosing foods that are rich in iron and other vitamins and minerals can help raise the RBC count.**

### **What is Sickle cell anaemia?**

- It is an **inherited blood disorder.**
- It **affects haemoglobin**, the molecule in red blood cells that delivers oxygen to cells throughout the body.
- **People with this disease have atypical haemoglobin molecules called haemoglobin S,** which can distort red blood cells into a sickle, or crescent, shape.
- **These sickle cells also become rigid and sticky, which can slow or block blood flow.**
- **What causes it?**
  - The cause of Sickle cell disease is **a defective gene called a sickle cell gene.**
  - **A person will be born with sickle cell disease only if two genes are inherited—one from the mother and one from the father.**
- **Treatments:**
  - The only cure for this disease is **bone marrow or stem cell transplantation.**
  - However, **there are treatments that can help relieve symptoms, lessen complications, and prolong life.**

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## [PRADHAN MANTRI UJJWALA SCHEME](#)

### **About Pradhan Mantri Ujjwala Scheme:**

- Pradhan Mantri Ujjwala Scheme was launched by Prime Minister Narendra Modi on 1<sup>st</sup> May, 2016 with the slogan of **“Clean Fuel, Better Life”**.

- **Objective:** To safeguard the health of women & children by providing them with a clean cooking fuel – LPG, so that they don't have to compromise their health in smoky kitchens or wander in unsafe areas collecting firewood.
- **Implementing Agency:** Ministry of Petroleum & Natural Gas
- **Budget:** Rs 8,000 crore

### Features of the Scheme:

- 5 crore LPG connections were to be provided to BPL (Below Poverty Line) families with a support of Rs 1600 per connection in the next 3 years (2016-19).
- Subsequently, the target was revised to 8 crore LPG connections in April 2018.
- **Connections are issued in the name of women of the households.**

### Eligibility & Identification:

- **All BPL families** can get the benefit of this scheme.
- Any adult woman from a BPL family can apply for a deposit free LPG gas connection under the Ujjwala scheme.
- The scheme was expanded in April 2018 to include women beneficiaries from seven more categories (SC/ST, PMAY (Pradhan Mantri Awas Yojana), AAY (Antyodaya Anna Yojana), most backward classes, tea garden, forest dwellers, river islands).
- The identification of the BPL families is done through **Socio Economic Caste Census Data 2011**.

### Challenges in Implementation of the Scheme:

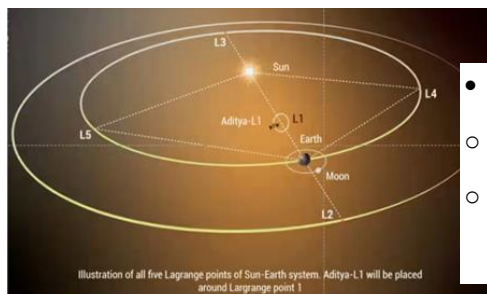
- The government faced the following challenges while implementing the PMUY scheme:
  - **Identification of poor households:**
    - This was the key challenge in allotment of free LPG connections, as there was a lack of authentic data that could help identify poor households with 100% accuracy.
    - Though the government used the SECC-2011 data, it was reported that many deserving households were left out during the field work.
  - **Misuse of the SECC data:**

- It was noted that a few affluent households were also listed as BPL households in the SECC-2011 data.
- Therefore, it became challenging to validate the authenticity of every data in the SECC database.
- **Safety awareness among beneficiaries:**
- As most beneficiaries were from poor and illiterate backgrounds, they had limited awareness about the safety requirements for cooking on an LPG stove.
- **Unavailability of documents:**
- In addition, many deserving households did not have mandatory documents such as ration card and Aadhaar card.
- **Limited reach of LPG distribution:**
- In some parts of the country, LPG distributorships could not be established due to law & order issues or it being a forest area.
- Households in those areas are still disconnected with the scheme and are unable to have access of cleaner cooking fuel.

## ISRO SUCCESSFULLY PLACES ADITYA L1 IN ORBIT

### Why in news?

- The Indian Space Research Organisation (ISRO) successfully launched the observatory that will study the Sun from 1.5 million kilometres away.
- It is the space organisation's **maiden expedition to study the Sun**.
- It is also ISRO's **second astronomy observatory-class mission** after AstroSat (2015).
- It took nearly 63 minutes for one of the heaviest configurations of the PSLV to place the spacecraft in a precise elliptical orbit of nearly 235 km x 19,500 km.

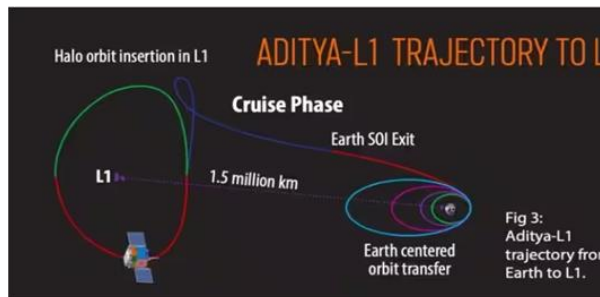


### Aditya L1 Mission

- **About**

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- Launched by the PSLV-C57, Aditya-L1 mission aims to study prospects of Sun.

- The solar probe was carried into space by the Polar Satellite Launch Vehicle (PSLV) in ‘XL’ configuration.
- This mission is India's solar mission where the spacecraft will be placed in a halo orbit around the Lagrange point 1 (L1) of the Sun-Earth system.
- The Lagrange point as defined by NASA refers to positions in space where the gravitational forces of a two-body system like the Sun and Earth produce enhanced regions of attraction and repulsion.
- There are five Lagrange points -L1, L2, L3, L4, and L5.
- Placing the satellite in a **halo orbit around L1** of the Sun-Earth system enables continuous viewing of the Sun without any eclipses or obstructions.
- The mission will span five years and carry seven specialised payloads designed to observe various aspects of solar activity.
- **Trajectory followed**



- The PSLV initially placed the Aditya L-1 in a lower Earth orbit.
- Subsequently, the spacecraft’s orbit around the Earth will be raised multiple times before it is put on a path to a **halo orbit around the**

## L1 Lagrange point.

- A spacecraft can orbit about an unstable Lagrange point with a minimum use of thrusters for stationkeeping.
- Such an orbit is known as a halo orbit as it appears as an ellipse floating over the plane
- **A halo orbit, however, is not the usual orbit** because the unstable Lagrange point doesn’t exert any attractive force on its own.
- The spacecraft will finally be stationed in a halo orbit around the Lagrange point 1 (L1) of the Sun-Earth system, which is about 1.5 million km from the Earth.
- The Aditya L-1 will cover its journey to the L1 point in about four months.
- **Objectives of the Aditya L-1**

- To expand our knowledge of the Sun, and how its radiation, heat, flow of particles, and magnetic fields affect us;
  - To study the upper atmospheric layers of the Sun called chromosphere and corona;
    - While the corona is the outermost layer, the chromosphere is just below it.
  - To examine coronal mass ejections (CMEs), which are large expulsions of plasma and magnetic fields from the Sun's corona;
  - To analyse the corona's magnetic field and the driver of the space weather;
  - To understand why the Sun's not-so-bright corona is a million degree Celsius hot when the temperature on the surface of the Sun is just about 5,500 degree Celsius;
  - To help scientists know the reasons behind the acceleration of particles on the Sun, which leads to the solar wind — the constant flow of particles from the Sun;
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## WHAT IS THE NOBEL FOUNDATION?

The Nobel Foundation recently withdrew its invitation for representatives of Russia, Belarus and Iran to attend this year's Nobel Prize award ceremonies.



### About Nobel Foundation:

- The Nobel Foundation is a private institution established in 1900 based on the will of Alfred Nobel.
- The Foundation manages the assets made available through the will for the awarding of the Nobel Prize in Physics, Chemistry, Physiology or Medicine, Literature and Peace.
- It represents the Nobel Institutions externally and administers informational activities and arrangements surrounding the presentation of the Nobel Prize.
- The Foundation also administers the Nobel Symposium Program.
- **Headquarters: Stockholm, Sweden.**
- **Organisational Structure:**
  - The assets of the Foundation are managed by the board of directors.
  - It consists of seven members and two deputies who are either Swedish or Norwegian.

## Key Facts about the Nobel Prize:

- The Nobel Prizes are **prestigious international awards presented annually in recognition of outstanding contributions to various fields.**
- Recipients can be **both individuals and organisations.**
- They were established in accordance with the will of Alfred Nobel, a Swedish **inventor, engineer, scientist, and philanthropist who left the majority of his fortune to fund these prizes.**
- They were **first awarded in 1901** and have been awarded annually ever since.
- **Categories:**
  - There are six Nobel Prize categories: **Physics, Chemistry, Physiology or Medicine, Literature, Peace, and the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel (commonly referred to as the Nobel Prize in Economics).**
  - Each prize is awarded by a separate Nobel Prize-awarding institution based in Sweden or Norway, **except for the Peace Prize, which is awarded in Oslo, Norway.**
  - **Selection Process:** Recipients are selected by various committees based at institutions in Sweden and, in the case of the **Peace Prize, a committee appointed by the Norwegian parliament.**
- **Ceremony:**
  - The Nobel Prizes are traditionally awarded **on December 10 each year, the anniversary of Alfred Nobel's death.**
  - The award ceremonies **take place in Stockholm, Sweden, for all prizes except the Peace Prize, which is awarded in Oslo, Norway.**
- **Nobel Medals and Diplomas:** Each laureate receives a **gold medal, an individualised diploma and a sum of money.**

## ASIATIC WILD DOG (DHOLE)



Villagers in Shivamogga district, Karnataka, were recently treated to a rare sighting of an Asiatic Wild Dog group, also known as Dholes.



## About Asiatic Wild Dog (Dhole):

- It is a **wild canid** found in the forests of central, south, and southeast Asia.
- **Scientific Name:** *Cuon alpinus*
- **Other Names:** Indian wild dog, whistling dog, red wolf, red dog and mountain wolf.
- **Distribution:**
  - They are found throughout **Eastern and Southeastern Asia**.
  - They can be seen as far north as **Siberia**, as far south as some **Malaysian islands**, and as far west as the **Indian peninsula**.
  - They are found in three clusters across **India**, namely the **Western and Eastern Ghats**, the **central Indian landscape and North East India**. The Western and Eastern Ghats is a stronghold region for dholes.
- **Habitat:** Dholes are animals that **inhabit dense jungles, steppes, mountains, scrub forests, and pine forests**.

## Features:

- Its **length ranges between 76 and 100 cm** (30 and 40 inches), exclusive of the **28–48-centimetre (11–19-inch) tail**, and its **weight is from 14 to 21 kg**.
- They **vary in colour from charcoal grey to rust red to sandy beige**, depending on their habitat.
- Their **tail is brushy and fox-like, often with a black tip**.
- They do have **lighter colouration along their chest, belly, and paws**.
- Dholes are **highly social animals**, and they frequently **hunt in packs of 5 to 12**. These **clans may grow to as many as 30 or 40 members**.
- **Conservation status:**
  - **IUCN Red List:** Endangered
  - **The Wildlife Protection Act 1972:** Schedule II
  - **CITES:** Appendix II