

Prelim Bits 03-02-2023 | UPSC Daily Current Affairs

Sickle Cell Anaemia

The Government of India plans to launch a mission to eliminate sickle cell anaemia by 2047.

- Sickle cell disease (SCD) is an inherited group of blood disorders that is genetic in nature.
- **Transmission** - It is usually transferred from the parents to the child during birth i.e. both parents can be carriers of SCDs.
- **Characteristics** - A modification in the shape of the red blood cell into a crescent shape.
- **Sickle cell Anaemia** - The misshapen cells lack plasticity and can block small blood vessels, impairing blood flow.
- The sickle cells die prematurely, resulting in a chronic lack of red blood cells (anaemia), often called [*sickle-cell anaemia*](#).
- **Effects** - This condition leads to poor blood oxygen levels and blood vessel blockages.
- Chronic acute pain syndromes, severe bacterial infections, and necrosis (tissue death).
- **Symptoms** - Babies who are born with sickle cell anaemia might not show symptoms for many months.
- Extreme tiredness, fussiness and painfully swollen hands and feet and jaundice.
- **Treatment** - Medication, blood transfusions and rarely a bone-marrow transplant are done.
- Bone marrow or stem cell transplantation which comes with several risks can be a cure.

References

1. [IE - What is sickle cell anaemia?](#)
2. [WHO - Sickle Cell Disease](#)

Additional Surveillance Mechanism

The National Stock Exchange (NSE) placed 3 of Adani Group companies under the short-term additional surveillance mechanism (ASM).

- The Additional Surveillance Mechanism (ASM) was introduced on March 26, 2018 with the intention to protect investors from market volatility and unusual changes in share price.
- The additional surveillance is part of SEBI and the Exchanges' initiative to enhance market integrity and safeguard the interest of investors.
- **Criteria** - The surveillance concerns are based on objective parameters viz. Price / Volume variation, Volatility etc.

- The shortlisting of securities for placing in ASM is based on criteria jointly decided by the Securities and Exchange Board of India (SEBI) and exchanges.
- The securities are shortlisted and reviewed under 2 frameworks
 1. Long-term ASM Frameworks
 2. Short-term ASM Frameworks
- Trading in stocks under the short-term ASM framework will require investors to pay 100% upfront margin even for intraday trading.
- **Purpose** - An ASM shortlisting signals to investors that the stocks have seen unusual activity.
- The shortlisting of securities under ASM is purely on account of market surveillance and it is not an adverse action against the concerned company / entity.

References

1. [IE - What is additional surveillance mechanism \(ASM\)?](#)

Asiatic Black Bear

The Kashmir Valley has bucked the trend of Asiatic black attacks on humans rarely reported throughout the animal's global range.

- Asiatic black bear (*Ursus thibetanus*) is also as Moon bear.
- The Asiatic black bear has 7 subspecies, out of which we find the Himalayan Black Bear (*Ursus thibetanus laniger*) subspecies in India.
- **Features** - The Asiatic Black Bear has a coat of smooth black fur and can be distinguished by a V of white fur on its chest.

Common Name:
Asiatic Black Bear

Scientific Name:
Ursus thibetanus

Lifespan in the Wild:
Upto 25 years

Weight:
Males: Upto 200 kg
Females: Upto 100 kg

Length:
140-170 cm

Cubs per Litter:
Two to four

The estimated population of the Asiatic black bears is
50,000

GEOGRAPHIC RANGE
Jammu & Kashmir, Assam, Sikkim, Arunachal Pradesh

IUCN STATUS
LC NT **VU** EN CR EW EX
Vulnerable



Major threats to Asiatic black bears- **climate change, habitat loss and poaching for body parts.**

CONSERVATION MEASURES
Protected under CITES Appendix I and Schedule II of the Indian Wildlife Protection Act.

ASIATIC BLACK BEAR
Crescent moon shaped patch on chest most distinguishable physical feature.

WILDLIFE SOS

- **Distribution** - The Asiatic black bear occupies a narrow band from south-eastern Iran to Myanmar, across the foothills of the Himalayas.
- **In India** - Arunachal Pradesh, Assam, Sikkim, and the union territory of Jammu and Kashmir (J&K).
- **Diet** - Omnivorous. Mainly comprises of fruits.
- **Threats** - Hunting, poaching, habitat loss and climate change.
- In Kashmir Valley, the conversion of the bear's natural habitat to orchards and farmlands is a major threat.
- **Conservation**

Protection Status	
Wildlife (Protection) Act, 1972	Schedule I
IUCN Red List Status	Vulnerable
CITES	Appendix I

References

1. [The Hindu - Calm Asiatic black bears on a short fuse in Kashmir](#)
2. [IUCN - Asiatic Black Bear](#)
3. [WWF - Asiatic Black Bear](#)

Irula Community

Mr.Vadivel Gopal and Mr.Masi Sadaiyan of the Irula community, this year's Padma Shri recipients, have been part of Irula Snake Catchers' Industrial Cooperative Society.

- Irula community is a particularly vulnerable tribal group (PVTG).
- Irula (people of darkness) inhabit mostly in the northern TN districts and some parts of Kerala and Karnataka.
- Researches have shown that the tribe have their origin from ethnic groups of and Australia.
- They speak Irula language that is closely related to Dravidian languages like Tamil and Kannada.
- Irulas has been traditionally catching snake and rat, but also work as labourers.
- The expertise of Irulas about snakes and snake venom is legendary.
- The tribespeople know the places where snakes hide from experience and instinct.
- They even can find snakes by their track, smell and droppings.
- The Irula Snake Catchers' Industrial Cooperative Society is one of the major anti-snake venom (ASV) producers in the country.



Vadivel Gopal & Masi Sadaiyan

Global Snake Experts

- Expert **Snake Catchers** from **Irula Tribe**, specialised in catching **dangerous** & **venomous** snakes
- Despite lacking formal education, travelled **globally** to catch snakes and **train** snake catchers in other parts of the world
- Using old snake catching techniques **inherited** as **indigenous knowledge** from their **forefathers**
- Collectively, Irula tribe plays an important role in the healthcare ecosystem in India, through **antivenoms** collected

"expert snake catchers guiding & teaching people across the globe"

Padma Shri | Social Work (Animal Welfare) | Tamil Nadu | Duo



References

1. [The Hindu - Padma Shri for Irula Bravehearts Vadivel and Sadaiyan](#)

Circuit Breaker in Stock Market

Adani Group companies' stocks have been in free fall, routinely hitting the lower circuits, since the release of Hindenburg Research report.

- The term "circuit breaker refers" to an emergency-use regulatory measure that temporarily halts trading on an exchange.

- Circuit breakers function automatically by stopping trading when prices hit predefined levels in exchanges around the world.

In June 2001, the Securities and Exchange Board of India (SEBI) implemented index-based market-wide circuit breakers.

- **Reasons** - Circuit breakers are triggered to stop the sell-off by stockholders.
- They curb panic-selling of stocks and prevent markets from crashing.
- Effectively, circuit-breakers cap how much the value of a stock can fall in a single day/trading session.
- These circuit breakers bring about a coordinated trading halt in all equity and equity derivative markets nationwide, when triggered.
- **Method** - The Stock Exchange computes the Index circuit breaker limits on a daily basis based on the previous day's closing level of the index.
- This index-based market-wide circuit breaker system applies at all 3 stages of the index movement, at 10%, 15% and 20%.

Trigger limit	Trigger time	Market halt duration	Pre-open call auction session post market halt
10%	Before 1:00 pm.	45 Minutes	15 Minutes
	At or after 1:00 pm upto 2.30 pm	15 Minutes	15 Minutes
	At or after 2.30 pm	No halt	Not applicable
15%	Before 1 pm	1 hour 45 minutes	15 Minutes
	At or after 1:00 pm before 2:00 pm	45 Minutes	15 Minutes
	On or after 2:00 pm	Remainder of the day	Not applicable
20%	Any time during market hours	Remainder of the day	Not applicable

References

1. [IE - What is a circuit breaker in the stock market?](#)