

NON-MELANOMA SKIN CANCER

As per the World Health Organization, about one in every three deaths that take place from nonmelanoma skin cancer is reportedly caused by working outdoors under the sun.



Highlights of the report:

- In 2019, approximately **6 billion people of working age** (15 years and older) were **exposed to solar ultraviolet radiation** while working outdoors, accounting for 28 per cent of all working-age people.
- In the same year, **nearly 19,000 people in 183 countries** died from non-melanoma skin cancer as a result of working outside in the sun. The majority (65 per cent) were men.
- Governments should establish, implement and enforce policies and regulations that protect outdoor workers from sun-induced skin cancer

About Non-melanoma skin cancer:

- It refers to a group of cancers that develop in the upper layers of the skin.
- The main types are **basal cell carcinoma (BCC)** and **squamous cell carcinoma (SCC)**.
- The main cause is **ultraviolet light**, which comes from the sun and is used in sunbeds.
- It is **more common in older people**, but younger people can also get it.

Symptoms

- The main symptom of non-melanoma skin cancer is **a growth or unusual patch on the skin**, but it's most common in areas exposed to the sun, such as head, face and ears neck and shoulders etc.

Treatment: Surgery is the main treatment for non-melanoma skin cancer. Radiotherapy, targeted medicines, photodynamic therapy and chemotherapy are also sometimes used.

EXERCISE CORPAT AND BONGOSAGAR

Recently, Exercise CORPAT and BONGOSAGAR between the Indian Navy and Bangladesh Navy were conducted in the Northern Bay of Bengal from 07 - 09 Nov 2023.



About Exercise CORPAT and Bongosagar:

- It is the 4th edition of the BONGOSAGAR and the 5th edition of Coordinated Patrol (CORPAT) exercise. Both are bilateral naval exercise.
- Indian Navy Ships Kuthar, Kiltan and Maritime Patrol Aircraft (MPA) Dornier participated in the exercise along with Bangladesh Navy Ships Abu Bakr and Abu Ubaidah.
- CORPAT-23 also included the maiden Humanitarian Assistance and Disaster Relief (HADR) drills conducted between the two navies wherein a Search and Rescue scenario at sea was exercised.
- INS Kuthar is an indigenously built guided-missile Corvette, whereas INS Kiltan is an indigenously built anti-submarine Corvette.

WHAT IS KADAKNATH CHICKEN

With the Madhya Pradesh assembly elections just around the corner, the demand and price of Kadaknath chicken have increased in Jhabua.



About Kadaknath Chicken:

- Kadaknath, a native of Madhya Pradesh (MP), is prominently found in the Jhabua district of the state.
- It has black flesh and this chicken is also called black chicken or Kali Masi.
- It's not just the meat, but even the organs and bones of this chicken are black. The eggs of this chicken are black as well.
- It received the Geographical Indication (GI) tag in 2018.
- It is known for its high iron content and much lower cholesterol than other breeds. It has a high protein content and is considered ideal for muscle repair and building.

- Kadaknath chicken is often claimed to be beneficial for individuals with certain health conditions, such as asthma and respiratory issues.

What is a Geographical Indication (GI) Tag?

- It is a **sign used on products that have a specific geographical origin** and possess qualities or a reputation that are due to that origin.
- In order to function as a GI, a **sign must identify a product as originating in a given place**.
- It is typically used for agricultural products, foodstuffs, wine and spirit drinks, handicrafts, and industrial products.
- GI Tag ensures that no one other than those registered as authorized users is allowed to use the popular product name.
- Geographical Indications are covered as a component of intellectual property rights (IPRs) under the Paris Convention for the Protection of Industrial Property.
- At the international level, GI is **governed by the World Trade Organisation's (WTO's) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)**.
- **In India**, Geographical Indications registration is **administered by the Geographical Indications of Goods (Registration and Protection) Act, 1999**.
- This GI tag is **valid for 10 years**, following which it can be renewed.
- The first product in India to be accorded the GI tag was **Darjeeling tea** in the year 2004-05.

KALI TIGER RESERVE

Kali Tiger Reserve officials recently arrested five habitual wildlife offenders and recovered a huge cache of poached animal parts from them.



About Kali Tiger Reserve:

- **Location:** Kali Tiger Reserve, **earlier known as Dandeli-Anshi Tiger Reserve** is located in the central portion of the **Uttara Kannada (North Canara)** district of Karnataka state.

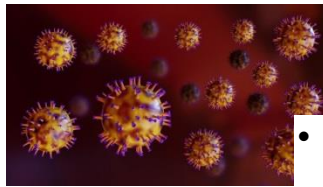
- It **comprises** two important protected areas of the region, viz., **Dandeli Wildlife Sanctuary and Anshi National Park**. They are contiguous to each other and form a single tract of protected area located in the biologically sensitive Western Ghats.

River: The **Kali River** flows through the tiger reserve, and hence the name.

- **Vegetation:** Forests are primarily **moist deciduous and semi-evergreen**, with excellent patches of evergreen forests in the westernmost parts.
- **Flora:** The complex floral tapestry comprises hardwood trees like teak, silver oak, Malabar tamrind, jamba, lantana, bamboo, shrubbery.
- **Fauna:** Prominent species are the Asiatic elephant, tiger, leopard, gaur, chevrotain, spotted deer, barking deer, sloth bear, dhole, Malabar civet, and giant civet.

WHAT ARE VAMPIRE VIRUSES

Several 'Vampire Viruses' have been recently discovered on US soil for the first time.



About Vampire Viruses:

- They are **pathogens** that **latch onto other viruses** in order to **replicate themselves**.
- They **emerge when a bacteriophage attaches to a soil-based virus**, utilising its "life" for independent survival.
- This viral relationship between two pathogens is **called a satellite and a helper**. The satellite is the infectious strand that relies on the helper for support through its life cycle.
- Satellites depend on both their **host organism and helper virus** to complete its life cycle.
- The satellite virus depends on the helper virus to build the protective shell that covers its genetic material, called a capsid or to help it replicate its DNA.
- Most satellite viruses contain a gene that allows them to integrate into the host cell's genetic material after they enter the cell.
- This enables the satellite to reproduce whenever a helper enters the cell from then on.
- The host cell also copies the satellite's DNA and its own when it divides.

What is a Bacteriophage?

- Bacteriophages (BPs) are **viruses that can infect and kill bacteria without any negative effect** on human or animal cells. They are comprised of a protein capsule around an RNA or DNA genome.
- For this reason, it is supposed that they can be used, alone or in combination with antibiotics, to treat bacterial infections.

INSURANCE SURETY BOND

National Highways Authority of India (NHAI) has accepted Insurance Surety Bond for the monetization program of the upcoming bid of Toll Operate Transfer (TOT) Bundle 14.



Why in news?

- It is **the first time this innovative instrument** (Insurance Surety Bond) is **being utilized** as a Bank Guarantee (BG) in

the road infrastructure sector for monetization of bids.

- NHAI has been working closely with Highway Operators Association of India (HOAI), SBI General Insurance and AON India Insurance to implement this initiative.

About Insurance Surety Bond:

- These bonds can be defined in their simplest form as a **written agreement to guarantee compliance**, payment, or performance of an act.
- These are instruments where **insurance companies act as ‘Surety’** and provide the financial guarantee that the contractor will fulfil its obligation as per the agreed terms.
- Surety is a unique type of insurance because it **involves a three-party agreement**.
- The three parties in a surety agreement are:
- **Principal:** The party that **purchases the bond** and undertakes an obligation to perform an act as promised.

- **Surety:** The **insurance company or surety company that guarantees** the obligation will be performed. If the principal fails to perform the act as promised, the surety is contractually liable for losses sustained.
- **Obligee:** The party **who requires and often receives the benefit of the surety** For most surety bonds, the obligee is a local, state or federal government organisation.

Significance

- It will act as a security arrangement for infrastructure projects and will insulate the contractor as well as the principal.
- The product gives the principal a contract of guarantee that contractual terms and other business deals will be concluded in accordance with the mutually agreed terms.
- In case the **contractor doesn't fulfil the contractual terms**, the Principal can raise a claim on the surety bond and recover the losses they have incurred.
- Unlike a bank guarantee, the Surety Bond **Insurance does not require large collateral from the contractor**, thus freeing up significant funds for the contractor, which they can utilise for the growth of the business.
- The product will also help in reducing the contractors' debts to a large extent, thus addressing their financial worries.

PHREATOMAGMATIC ERUPTION

Recently, a new island emerged near Japan's Ogasawara island chain after an undersea volcano erupted.



About Phreatomagmatic eruption:

- A new island near Japan's Ogasawara island chain was formed by **phreatomagmatic eruption**.
- It is an eruption that **involves both magma and water**. It typically interacts explosively leading to concurrent ejection of steam and pyroclastic fragments.

- Phreatomagmatic ash is formed by the same mechanism over a wide range of basic and acidic compositions. A blocky and uniform crust with low vesicle content is formed.
- Deposits from phreatomagmatic eruptions are thought to be better classified and finer-grained than those from magmatic eruptions. This is the result of higher fragmentation of phreatomagmatic eruptions.

Key facts about Ogasawara Islands

- The Ogasawara Islands are located in the **North-Western Pacific Ocean**.
 - It is also known as **Bonin Islands**.
 - It is a volcanic arc comprising more than 30 islands and islets.
 - The landscape is dominated by subtropical forest types and sclerophyllous shrublands surrounded by steep cliffs.
 - It is one of the famous **UNESCO World Heritage** sites of Japan.
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