

An aerial photograph of a winding asphalt road that curves through a dense, lush green forest. Several cars are visible on the road, including a white car at the top, a blue car, and another white car further down. The road has white dashed lines for lane markings. The overall scene is vibrant and scenic.

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# DAILY NEWS DECODE

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# SELA TUNNEL PROJECT



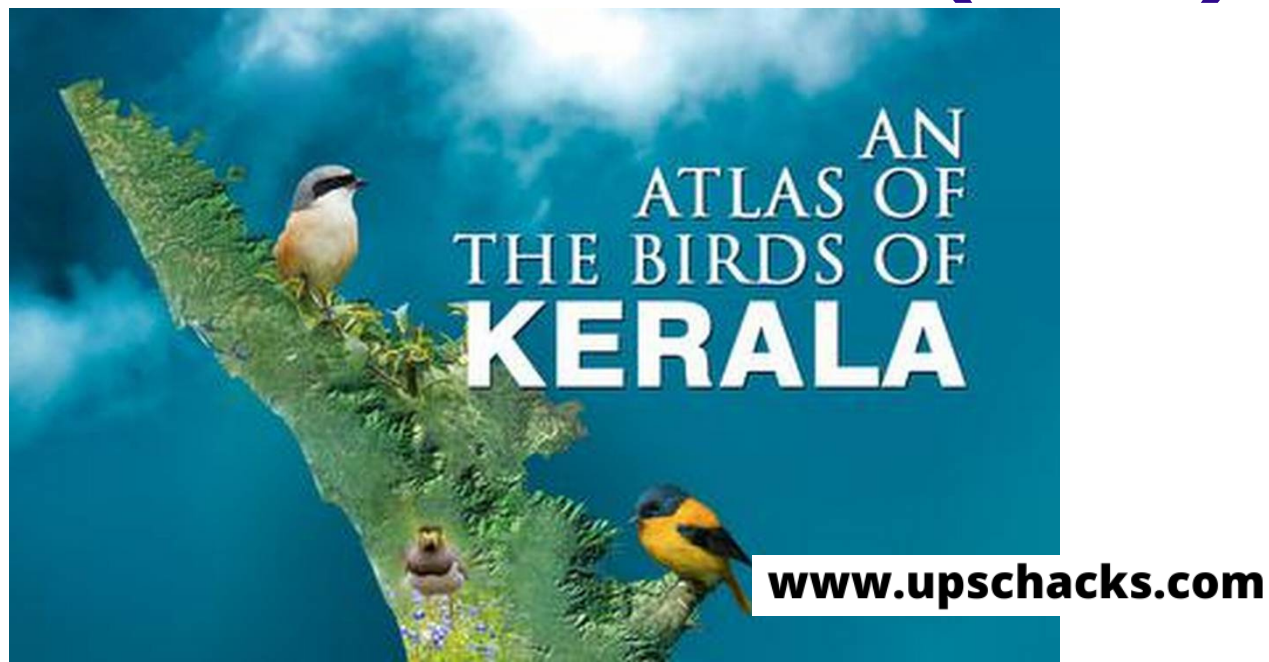
- The final blast for the 980-metre long Sela Tunnel (Tunnel 1) was conducted by Director General Border Roads (DGBR). This marks the culmination of the excavation works on the complete Sela Tunnel Project.
- The Sela Tunnel Project is located in the West Kameng District of Arunachal Pradesh.
- Once completed, it will be a lifeline as it will provide all weather connectivity to Tawang.
- The project comprises of Tunnel 1, which is a 980 m long single tube tunnel and Tunnel 2, which is a 1555 m long twin tube tunnel.
- Tunnel 2 has one bi-lane tube for traffic and one escape tube for emergencies.

- It will also be one of the longest tunnels to have been constructed above altitude of 13,000 feet.
- The project also includes construction of an approach road of seven kilometres to Tunnel 1, which takes off from BCT Road and a link road of 1.3 kilometres, which connects Tunnel 1 to Tunnel 2.
- The foundation stone of the Sela Tunnel Project was laid by the Prime Minister Shri Narendra Modi in 2019.

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# KERALA BIRD ATLAS (KBA)



- The Kerala Bird Atlas (KBA), the first-of-its-kind State-level bird atlas in India, has created solid baseline data about the distribution and abundance of bird species across all major habitats, giving an impetus to futuristic studies.
- Conducted as a citizen science-driven exercise with the participation of over 1,000 volunteers of the birdwatching community, the KBA has been prepared based on systematic surveys held twice over 60 days a year during the wet (July to September) and dry (January to March) seasons between 2015 and 2020.
- The KBA accounts for nearly three lakh records of 361 species, including 94 very rare species, 103 rare species, 110 common species, 44 very common species, and 10 most abundant species.

- It is arguably Asia's largest bird atlas in terms of geographical extent, sampling effort and species coverage derived from the aggregation of 25,000 checklists.
- It was found that the species count was higher during the dry season than in the wet season while species richness and evenness were higher in the northern and central districts than in the southern districts.
- Most of the endemics were concentrated in the Western Ghats while the threatened species were mostly along the coast.
- The survey ignored the short duration passage of migrant species.

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# GANODERMA



- Researchers from Kerala have identified two new species of fungi from the genus *Ganoderma* that are associated with coconut stem rot.
- They have also genotyped the two fungi species, named *Ganoderma keralense* and *G. pseudoapplanatum* and identified genetic biomarkers.
- The DNA barcodes have been made publicly available in DNA sequence repositories so that future studies can use it for early detection of the pathogen. The research was published in the journal *Mycologia*.
- The butt rot or basal stem rot of coconut is known by several names in different parts of India: *Ganoderma* wilt (Andhra Pradesh), Anaberoga (Karnataka) and Thanjavur wilt (Tamil Nadu), to mention a few.

- The infection begins at the roots, but symptoms include discolouration and rotting of stem and leaves. In the later stages, flowering and nut set decreases and finally the coconut palm (*Cocos nucifera*) dies.

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# GHERKINS



- India has emerged as the largest exporter of gherkins in the world.
- India has crossed the USD 200 million mark of export of agricultural processed product, - pickling cucumber, which is globally referred as gherkins or cornichons, in the last financial year.
- Gherkins are exported under two categories -- cucumbers and gherkins, which are prepared and preserved by vinegar or acetic acid and cucumbers and gherkins, which are provisionally preserved.
- Gherkin cultivation, processing and exports started in India during the early 1990s with a modest beginning in Karnataka and later extended to the neighbouring states of Tamil Nadu, Andhra Pradesh and Telangana.



- **Nearly 15% production of the world's gherkin requirement is grown in India.**
- **Gherkins is currently exported to more than 20 countries, with major destinations being North America, European countries and Oceanic countries such as USA, France, Germany, Australia, Spain, South Korea, Canada, Japan, Belgium, Russia, China, Sri Lanka and Israel.**
- **Apart from its export potential, the gherkin industry plays a key role in the creation of rural employment. In India, cultivation of gherkins is carried out under contract farming by around 90,000 small and marginal farmers with an annual production area of 65,000 acres.**

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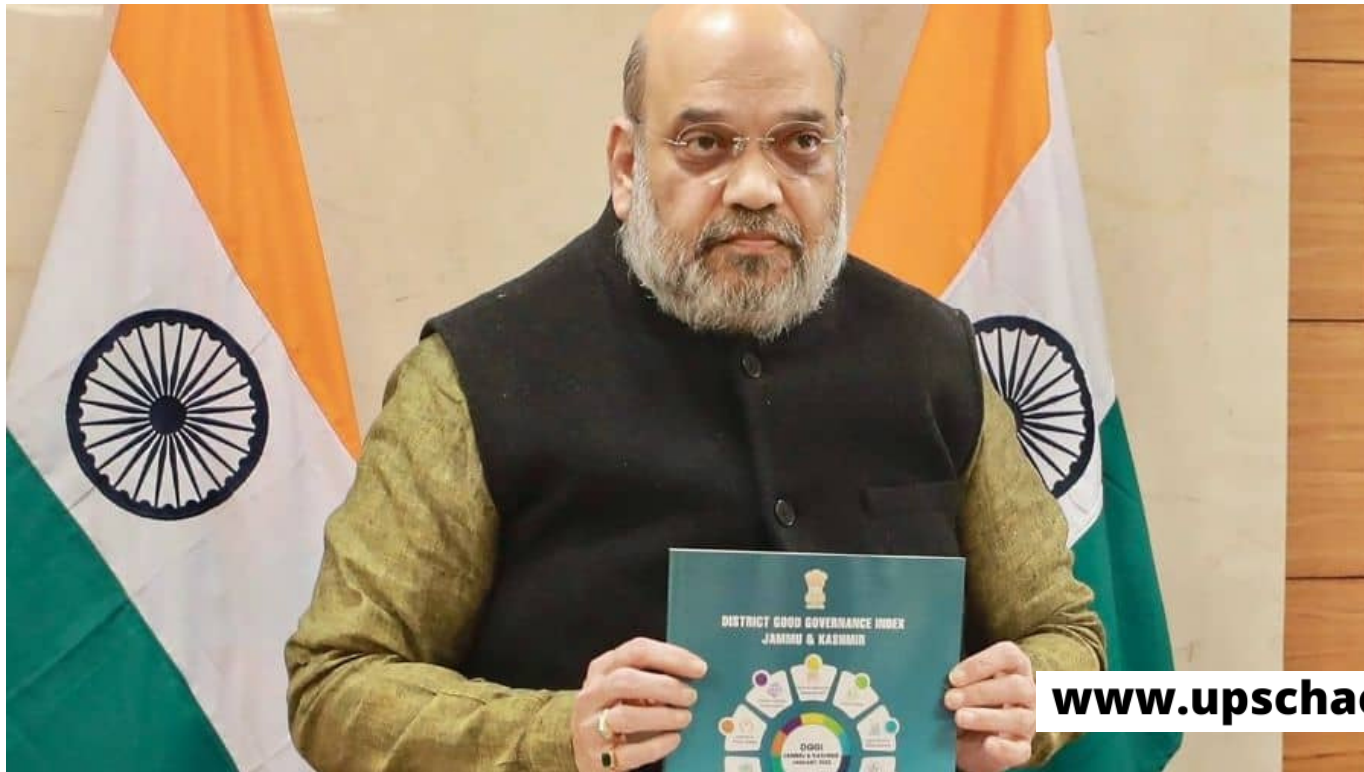
# **Karnataka became India's first state to launch AVGC Center of Excellence**



- The government of Karnataka has launched India's first AVGC Center of Excellence (CoE) (Animation, Visual Effects, Gaming, and Comics) in Mahadevapura, Bengaluru, Karnataka. AVGC CoE was launched with pioneering high technology digital media hub under its Innovate Karnataka initiative. It is funded by the Department of Electronics Information Technology Biotechnology and Science & Technology. Karnataka became India's first state to set up such an AVGC CoE, it is also the biggest centre in Asia
- The centre also has a finishing school that offers unique courses based on emerging technology such as virtual reality, digital compression, photogrammetry, gamification of education, real-time virtual production, and other emerging technologies.



# India's First "District Good Governance Index" launched



- The Union Minister of Home and Cooperation Amit Shah has virtually released India's First "District Good Governance Index" for 20 districts of Jammu and Kashmir. The top 5 districts in the District Good Governance Index" are (1) Jammu, (2) Doda, (3) Samba, (4) Pulwama and (5) Srinagar.
- This index has been prepared by the Department of Administrative Reforms and Public Grievances (DARPG) in collaboration with the Government of Jammu & Kashmir. The District Good Governance Index (DGGI) is a framework document comprising of performance under ten governance sectors having 58 indicators with 116 data points.

# Vikas engine



- **VIKAS** (an acronym for **Vikram Ambalal Sarabhai**) is a family of liquid-fuelled rocket engines conceptualized and designed by the **Liquid Propulsion Systems Centre** since the 1970s.
- The early production of **VIKAS** engines used imported French components which were later replaced by domestically produced equivalents.
- **VIKAS** engines are used to power the second stage **PSLV**, boosters and second stage of **GSLV Mark I** and **II** and now the first stage of **GSLV Mark III (LVM3)**.
- Two new types of **Vikas** engines, **HTVE** (**High Thrust VIKAS Engine**) and **HPVE** (**High Pressure or High Speed VIKAS Engine**), are of particular interest.
- Its recent test was conducted at **ISRO Propulsion Complex** in **Mahendragiri, Tamil Nadu**.



- It was done to see how the engine performed in conditions that were not optimal, such as change in the fuel-oxidiser ratio or pressure in the fuel chamber.
- With regard to the Vikas engine qualification for the Gaganyaan mission, two engines have already undergone tests under nominal operating conditions for a total duration of 480 seconds.
- The first stage of the launch vehicle, which used solid propellant, is already qualified for the mission.
- Three more tests are set to be conducted for a cumulative duration of 75 seconds under varying operating conditions as the agency prepares for the first Indian astronaut mission.
- Another high thrust Vikas engine will undergo a long-duration test for 240 seconds to complete the Vikas engine qualification for Gaganyaan mission.

# Somnath Temple



- Prime minister recently virtually inaugurated the Circuit House near Somnath Temple in Gujarat.
- Somnath, literally translated as the Lord of Moon (Soma) houses the first of the 12 Jyotirlingas or the symbolic representation of Lord Shiva.
- This highly famed pilgrim destination is located at the Veraval Port or Prabhas Patan in Saurashtra, Gujarat.
- The temple is positioned in such a way that not a single piece of land is visible from the Somnath seashore until Antarctica.
- Recently Prime minister was elected new chairman of the Shree Somnath Trust (SKT), the religious body which manages and maintains the temple.



- It is said the first version of the temple came into being even before the start of Christian era.
- The second version of the temple came into being under the initiative of the Vallabhi king around 408 AD-768 AD.
- This temple is often referred to as the 'eternal shrine' because historical records say that this temple has been destroyed several times by invaders and have been resurrected several times too.
- Archaeological investigations point out that the temple of Somnath had been rebuilt nearly thrice before the raid of Muhammad Ghazni in the year 1026 (It is said that the temple was looted and destroyed as many as seventeen times).
- The latest rebuilding of Somnath temple was done in 1947 under the initiative of Sardar Vallabhbhai Patel, the then deputy PM.
- Renowned temple architect Prabhaschandar designed it and the first President of India Dr. Rajendra Prasad installed the Jyotirlinga in the new temple on May 11, 1951.
- Today's temple is the 7th version.
- Some of the ancient texts tell that the temple was built for the first time in gold by king Somraj during Satya Yuga.

- In Treta Yuga, Ravana had built it out of silver while in Dwapara yuga lord Krishna had built it out of wood.
- Later King Bhimadev had built the temple out of stone.
- The present structure is built in the Chalukyan style.
- The main spire of the temple is 150 foot high and has a flag post of 27 foot tall.
- A Kalash of weight 10 tons was put on the top of the spire.
- The Baan-Stambh or the arrow-pillar located on the sea-protection wall indicates that the point is the first point on land in the north to the south-pole on that particular longitude.
- The Tirthambh located at the temple indicates that the nearest landmark (South Pole or the Antarctica) is located at about 9936 km away indicating the geographical wisdom of ancient India.
- The temple has a Grabha griha with Jyothirlingam enshrined on it and a Sabha mantapa and Nrithya mantapa.