

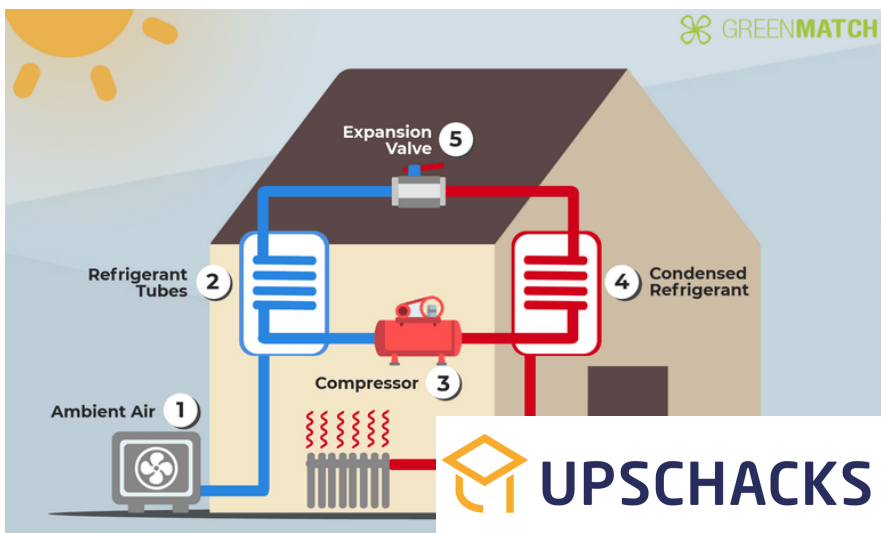
An aerial photograph of a winding asphalt road that curves through a dense, lush green forest. Several cars are visible on the road, including a white car at the top, a blue car, and another white car further down. The road has white dashed lines for lane markings. The overall scene is vibrant and scenic.

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DAILY NEWS DECODE

04.07.21

HEAT PUMPS



- There is concern about ACs not being environmentally friendly.
- Therefore, as an alternative to them, some cities in the US are considering using heat pumps that are considered to be more eco-friendly.

- The US Department of Energy notes that for climates with moderate heating and cooling needs, heat pumps offer an energy-efficient alternative to furnaces and air-conditioners.
- It says that much like a refrigerator, heat pumps use electricity to move heat from a cool space to a warm space.
- This makes the cool place cooler and the warm place warmer.
- Therefore, a heat pump does not create any heat or cool air, but it merely shifts air.
- For instance, if a heat pump is being used inside a room to make it cool, it will absorb the heat in the room and will release it outdoors with the help of an outdoor compressor.

- In heating mode, the heat pump will absorb heat from outside and release it indoors.
- There are mainly two types of heat pumps depending on the type of medium they extract heat from. One type extracts heat from the ground and the other from air.



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ATUL KESHAP



- **Atul Keshap took charge as United States' new envoy to India.**
- **He will serve as Chargé d'Affaires at the U.S. Mission in India.**
- **The US state department said, appointment of the Indian-American career diplomat, an old India-hand at the US state department will help reinforce the close US partnership with the Government and people of India.**
- **He most recently served as the Ambassador to Sri Lanka and Maldives.**

SATELLITE TV CLASSROOMS



- **Indian Space Research Organisation, ISRO has given its nod to the Parliamentary Standing Committee on Education to provide technical assistance for satellite TV classrooms in the country to bridge the learning gap due to COVID-induced lockdown.**
- **Vinay Sahastrabuddhe-led parliamentary panel had earlier sought help from ISRO scientists to provide technical assistants to start satellite TV classrooms for students who reported a learning gap in the school syllabus due to the COVID pandemic.**
- **The Committee explored satellite TV classrooms that will broadcast school-based educational programs and students can take advantage of it in cluster classrooms and the issue of smartphone and data connectivity can be resolved, especially in the rural areas.**

BAGRAM AIRBASE



- The last US and Nato forces have left Afghanistan's Bagram airbase, the centre of the war against militants for some 20 years.
- This was informed by the US officials.
- The pull-out could signal that the complete withdrawal of foreign forces from Afghanistan is imminent.
- The withdrawal from the sprawling base, north of Kabul, comes as the main jihadist group, the Taliban, advances in many parts of Afghanistan.
- President Joe Biden has said US forces will be gone by 11th September.
- The 11th September deadline is the anniversary of the attacks on America in 2001, which killed nearly 3,000 people.
- The attacks were carried out by Al-Qaeda, an international jihadist group then based in Afghanistan with the support of the Taliban, who had been in control of the country since the 1990s. A US-led coalition invaded Afghanistan later that year to defeat both the groups.

LAST ICE AREA



- A part of the Arctic's ice called "Last Ice Area", located north of Greenland, has melted before expected.
- Scientists had believed this area was strong enough to withstand global warming.
- In an article published in 2015, the National Geographic noted that while climate projections forecast the total disappearance of summer ice in the Arctic by the year 2040, the only place that would be able to withstand a warming climate would be this area of ice called the "Last Ice Area".
- The World Wildlife Fund (WWF) notes that climate change is shrinking the extent of Arctic summer sea ice, which is not only important for animals but also the local Inuit communities.
- But while this piece of ice above northern Canada and Greenland was expected to last the longest time, it is now showing signs of melting.
- WWF claims that WWF-Canada was the first to call this area 'Last Ice Area'.

- **The area is important because it was thought to be able to help ice-dependent species as ice in the surrounding areas melted away.**
- **The area is used by polar bears to hunt for seals who use ice to build dens for their offspring.**
- **Walruses too, use the surface of the ice for foraging.**



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Bharatnet project



- The Union Cabinet recently approved a revised implementation strategy for the BharatNet project by opting for public-private partnership mode in 16 states.
- The revised implementation strategy is for 3,60,000 villages at a total cost of Rs 29,430 crore. Of this, the government will provide Rs 19,041 crore as viability gap funding.
- Now BharatNet will extend up to all inhabited villages beyond the gram panchayats (GPs) in the said states.
- The revised strategy includes creation, upgradation, operation, maintenance and utilisation of BharatNet by the concessionaire who will be selected by a competitive international bidding process.
- Till date, 1.56 lakh out of the 2.5 lakh village panchayats have been connected with broadband.
- The Cabinet also accorded approval for extending BharatNet to cover all inhabited villages in the remaining states and union territories.

- The department of telecommunication will separately work out the modalities for the remaining states and UTs.
- The selected concessionaire, private sector partner is expected to provide reliable, high speed broadband services as per the predefined services level agreement (SLA).
- The states to be covered under the revised plan are Kerala, Karnataka, Rajasthan, Himachal Pradesh, Punjab, Haryana, Uttar Pradesh, Madhya Pradesh, West Bengal, Assam, Meghalaya, Manipur, Mizoram, Tripura, Nagaland and Arunachal Pradesh.
- Bharat Net seeks to connect all of India's households, particularly in rural areas, through broadband by 2017, forming the backbone of the government's ambitious Digital India programme.
- Aim is to connect all the gram panchayats of the country through optic fibre for providing broadband services.
- It is the world's largest rural broadband connectivity programme using Optical fibre.
- Earlier National Optical Fibre Network (NOFN) failed due to slow implementation.
- NOFN is now rebranded as Bharat Net.

- **At present, a special purpose vehicle, Bharat Broadband Network Ltd (BBNL), under the telecom ministry is handling the roll out of optical fibre network.**
- **The project is being executed by BSNL, Railtel and Power Grid.**
- **The project is being funded by the Universal service Obligation Fund (USOF).**



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Bamboo Oasis on Lands in Drought”

(BOLD)



- **Bamboo Oasis on Lands in Drought” (BOLD) is the first of its kind exercise in India which was launched today from the tribal village NichlaMandwa in Udaipur, Rajasthan.**
- **5000 saplings of special bamboo species – Bambusa Tulda and Bambusa Polymorpha specially brought from Assam – have been planted over 25 bigha (16 acres approx) of vacant arid Gram Panchayat land.**
- **KVIC has thus created a world record of planting the highest number of bamboo saplings on a single day at one location.**
- **Project BOLD, which seeks to create bamboo-based green patches in arid and semi-arid land zones, is aligned with Prime Minister Shri Narendra Modi’s call for reducing land degradation and preventing desertification in the country.**
- **The initiative has been launched as part of KVIC’s “Khadi Bamboo Festival” to celebrate 75 years of independence “Azadi ka Amrit Mahotsav”.**

- **KVIC is set to replicate the Project at Village Dholera in Ahmedabad district in Gujarat and Leh-Ladakh region by August this year.**
- **Total 15,000 bamboo saplings will be planted before August 21.**
- **KVIC has judiciously chosen bamboo for developing green patches.**
- **Bamboos grow very fast and in about three years' time, they could be harvested. Bamboos are also known for conserving water and reducing evaporation of water from the land surface, which is an important feature in arid and drought-prone regions.**

India's newest freshwater snail found in Mizoram



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- India is ecstatic to welcome the newest species of freshwater snails, found recently in the foothills of the northeastern state of Mizoram.

- Scientifically named as *Pila mizoramensis*, the species is the sixth member of the *Pila* genus from India and the second to inhabit hill streams. It is commonly known as Apple Snail.
- The apple snail or Ampullariidae are common freshwater snails found in tropical areas around the world.
- The apple snail family is divided into several genera, of which, *Asolene*, *Felipponea*, *Marisa*, and *Pomacea* are the New World genera found commonly in South America, Central America, the West Indies, and the Southern U.S.A., while the genera *Afropomus*, *Lanistes*, and *Saulea* are found in Africa.

- **On the other hand, the genus Pila is native of both Africa and Asia.**
- **The species, commonly named Mizoram Apple Snail, has a diameter and shell height of about 2.5 cm.**
- **The perennial habitat of this freshwater snail is waterfalls**
- **So far, there are only two species of Pila in India, restricted to either the streams or found in the northern Western Ghats.**
- **The discovery of new species of flora and fauna is indicative of ecosystem health.**
- **It reflects the geographical and topographical changes that an ecosystem went through over the years.**

Alluri Seetarama Raju



- Vice President M Venkaiah Naidu today remembered the fervent freedom fighter, Alluri Seetarama Raju on his birth anniversary
- Alluri Sitarama Raju (1897 or 1898 - 7 May 1924) was an Indian revolutionary involved in the Indian independence movement.
- After the passing of the 1882 Madras Forest Act, its restrictions on the free movement of tribal people in the forest prevented them from engaging in their traditional podu agricultural system, which involved shifting cultivation.
- Alluri led the Rampa Rebellion of 1922, during which a band of tribal people and other sympathisers fought in the border areas of the East Godavari and Visakhapatnam regions of Madras Presidency, in present-day Andhra Pradesh, against the British Raj, which had passed the law.
- He was referred to as "Manyam Veerudu" (transl. 'Hero of the Jungle') by the local villagers.

- **Harnessing some aspects of the earlier non-cooperation movement and with widespread support among the tribal people, Alluri led raids on police stations in and around Chintapalle, Rampachodavaram, Dammanapalli, Krishna Devi Peta, Rajavommangi, Addateegala, Narsipatnam and Annavaram.**
- **With his followers, he stole guns and ammunition and killed several British police officers, including two near Dammanapalli.**
- **Alluri was eventually trapped by the British in the forests of Chintapalle, then tied to a tree and was executed by gunfire in Koyyuru village. His tomb is in Krishnadevipeta village.**

NASA shares pic of 'tsunami' formed by gas escaping supermassive black hole's gravity



- NASA on Sunday shared artist Nima Abkenar's illustration of a "tsunami-like structure" formed by the the gas escaping the gravitational pull of a supermassive black hole on Instagram.
- The illustration shows high-energy X-rays from the disk surrounding the black hole interact with this gas and giving rise to tsunamis (light blue 'waves' above disk) and a Kármán vortex street (orange).