

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. The road has white dashed lines for lane markings. The overall scene is vibrant and scenic.

www.upschacks.com

DAILY NEWS DECODE

21.11.21

India became World's Largest Recipient of Remittances



www.upschacks.com

- According to the latest report by the World Bank titled 'World Bank's Remittance Prices Worldwide Database', India became the world's largest recipient of remittances by receiving USD 87 billion in 2021.
- The United States (US) was its biggest source, accounting for over 20% of these funds. India is followed by China, Mexico, the Philippines, and Egypt.
- In India, remittances are projected to grow 3% in 2022 to USD 89.6 billion

BRO received Guinness World Record for world's highest motorable road



www.upschacks.com

- The Border Roads Organisation has received the Guinness World Record for constructing & blacktopping the world highest motorable road passing through the 19,024 feet 0.73 inches (5798.251m) high Umlingla Pass in the Union Territory of Ladakh.
- The 52-kilometre long Chisumle to Demchok tarmac road was developed under Project HIMANK (93RCC/753 BRTF) of BRO.
- Lieutenant General Rajeev Chaudhry, Director General Border Roads, received the Guinness World Records certificate.

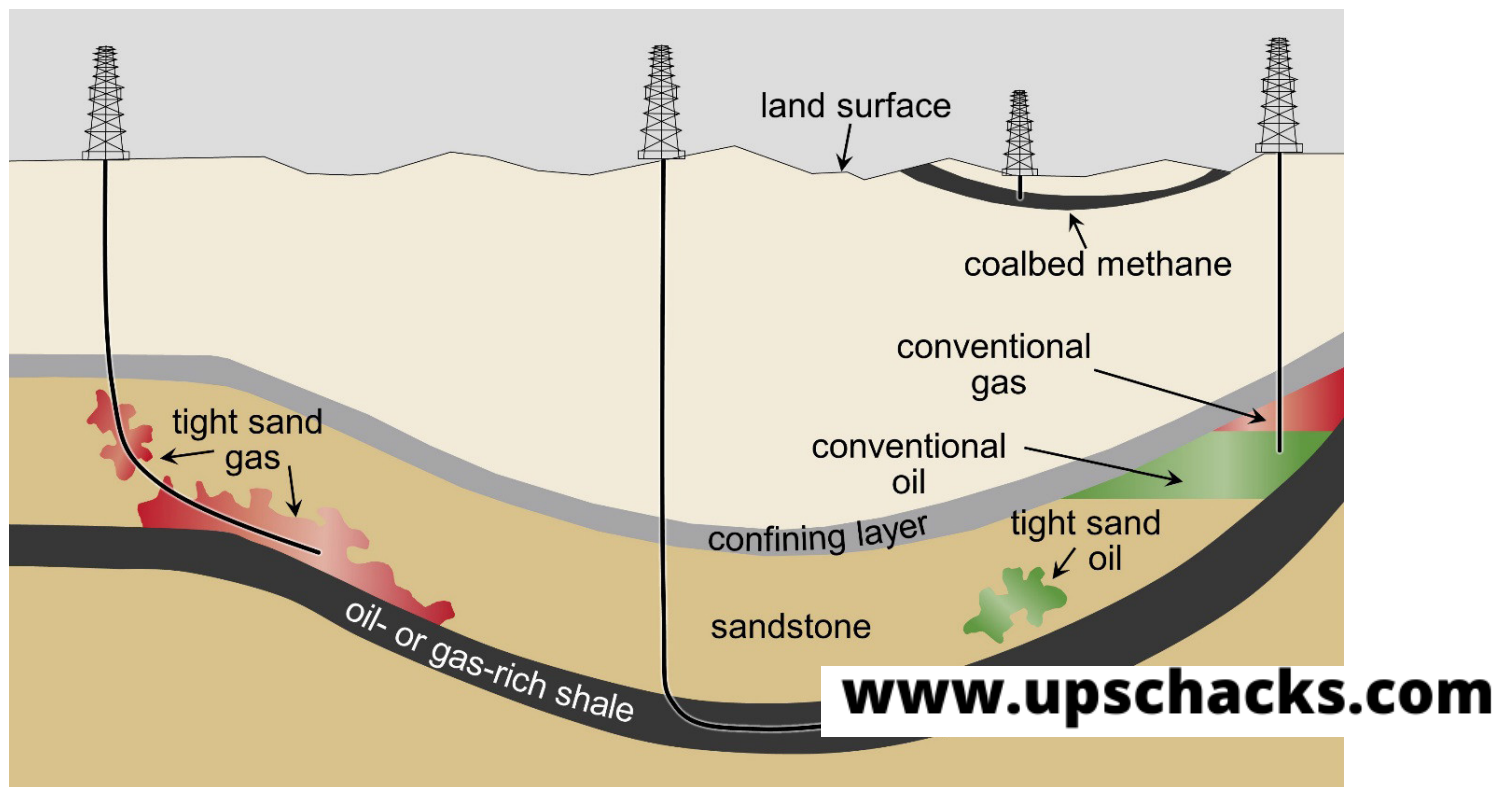
Sydney dialogue



- The Indian Prime Minister delivered the keynote address at The Sydney Dialogue during which he elaborated on India's technology evolution and revolution.

- It is an initiative of the Australian Strategic Policy Institute.
- It is an annual summit of cyber and critical technologies to discuss the fallout of the digital domain on the law and order situation in the world.
- It was held from November 17-19, 2021.
- It brought together political, business and government leaders to debate, generate new ideas and work towards common understandings of the opportunities and challenges posed by emerging and critical technologies.

Tight oil



- Cairn Oil & Gas has announced that it is partnering with US-based Halliburton to start shale (Tight Oil) exploration in the Lower Barmer Hill formation, Western Rajasthan.
- Tight oil, also known as shale oil, shale-hosted oil or light tight oil, is light crude oil contained in petroleum-bearing formations of low permeability, often shale or tight sandstone.
- However, tight oil should not be confused with oil shale (shale rich in kerogen) or shale oil (oil produced from oil shales).
- The key difference between shale oil and conventional crude is that the former is found in smaller batches, and deeper than conventional crude deposits.

- Its extraction requires creation of fractures in oil and gas rich shale to release hydrocarbons through a process called hydraulic fracking.
- However, tight oil is processed into gasoline, diesel, and jet fuels— just like conventional oil.
- Russia and the US are among the largest shale oil producers in the world,
- Currently, there is no large-scale commercial production of shale oil and gas in India.
- Though ONGC's assessment found prospects of shale oil at the Cambay basin in Gujarat and the Krishna Godavari basin in Andhra Pradesh, the quantity of oil flow observed in these basins did not indicate commerciality.

www.upschacks.com

www.upschacks.com

World's most sophisticated MRI facility inaugurated in Haryana



www.upschacks.com

- The Union Minister of State Science & Technology launched first of its kind, latest, world's most sophisticated MRI facility at the National Brain Research Centre (NBRC), Manesar Haryana.
- With this facility, India embarks on new frontiers of human Neuroscience with a unique and powerful 3T MRI platform of outstanding performance.
- MRI Scanner Prisma from Siemens, Germany is being used by several international initiatives, like Brain initiative of USA, the European human brain project.

- **This new facility can run intense scanning modalities very fast, which reduces the scanning time for patients by almost a quarter from earlier generation machines.**
- **This is being used to develop human cohort data for patients suffering from common brain and mental health disorders including Parkinson's Disease, Alziemer's Disease, anxiety, depression, PTSD, bipolar, anxiety, depression etc.**
- **It can detect and quantify highly sensitive receptors and antioxidants from the brain which has a direct link with onset of various brain disorders like Alzheimer's, Parkinson's and psychiatric disorders.**
- **The machine is equipped to detect brain sodium levels, which has direct relevance for assessment of brain tumors non-invasively.**
- **Also, heavy metal deposition in the brain due to pollution or many other factors can be quantified as necessary for various psychiatric and neurodegenerative disorders**

www.upschacks.com

HANDLOOM VILLAGE AT MOIRANG



- The Union Minister of Textiles Piyush Goyal announced that the Ministry of Textiles has decided to set up a Handloom Village at Moirang of Manipur
- The city- Moirang of Manipur is a very important place in the history of India's freedom movement. The Netaji Subhas Chandra led INA hoisted the tricolour flag at Moirang in its Imphal Campaign during the second World War.
- An INA Museum is there at Moirang and tourists across the globe visit the Museum. To showcase the rich handloom products of Manipur and attract the tourists, the ministry decided to set up the Handloom Village there and work on it will be started very soon.

WHY MUMBAI'S COLABA, MAZAGAON HAVE 'VERY POOR' AIR QUALITY?



- Over the past three days, Colaba and Mazagaon in South Mumbai have emerged as the most polluted localities in the city, with the air quality index (AQI) exceeding 330 — indicating “very poor” air — as per data from the System of Air Quality and Weather Forecasting And Research (SAFAR). SAFAR has a network of 10 monitoring locations across Mumbai

Sea Salt a reason

- During the onset of winter, in areas close to the sea such as Colaba, the temperature is always 1 to 2 degree lower than in other areas of the city.

- But the low pressure in the Arabian Sea is causing the temperature to increase slightly, to the point where the air is becoming just humid enough to hold more particulate matter in place.
- The sea salt in water vapour tends to react with other pollutants like PM 2.5, and sulphur oxides from vehicles that are already present in the air, to create secondary pollutants.
- When wind speeds are slow, these secondary pollutants add to the pollution load.

www.upschacks.com

No breeze

- The sea breeze over Mumbai usually keeps the air clean. But wind speed has been low or stagnant for three days. Thus, emissions from road and metro construction activities and vehicular movement are getting trapped in the air, raising the AQI.

Urban Canyon Effect

- Levels of traffic-related air pollution can be substantially elevated along a road surrounded by tall buildings. This is called the Urban Canyon Effect. The canyon effect occurs when tall buildings flank both sides of city streets, restricting air movement. Eventually, this increases the concentration of pollutants in the ambient air.

Inversion layer

- **In the Inversion layer of the atmosphere there is a temperature inversion, with the layer tending to prevent the air below it from rising, thus trapping any pollutants that are present. This occurs most often when a warm, less dense air mass moves over a dense, cold air. The inversion layer does not allow pollutants to escape, thus trapping them closer to the ground**

www.upschacks.com

www.upschacks.com