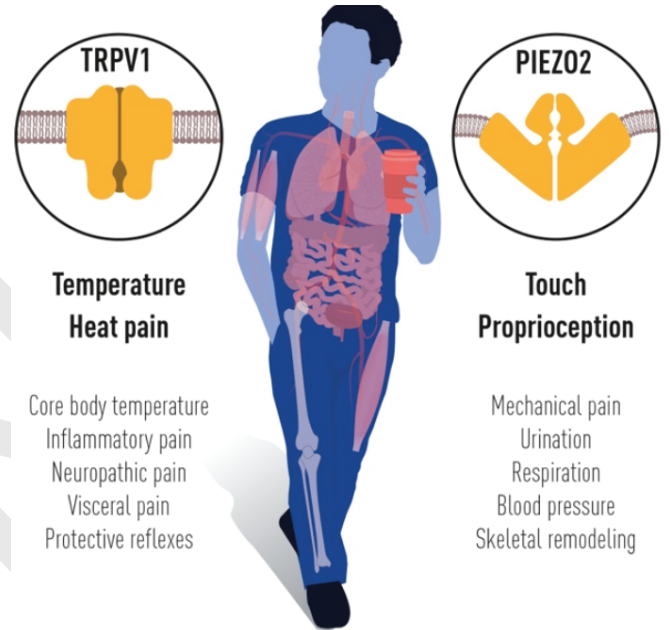


NEWS TODAY

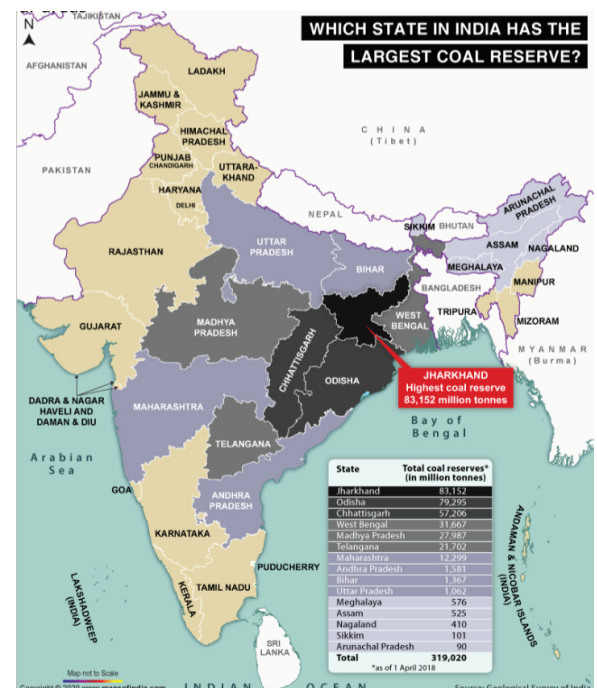
2021 NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE ANNOUNCED

- **David Julius and Ardem Patapoutian** have been awarded the prize **for their discoveries of receptors for temperature and touch.**
- They identified the **mechanism through which touch detectors communicate with the nervous system** to identify and respond to a particular touch.
 - In the human body, **all the molecules are not sensitive to heat or say to mechanical pressure.** Only very specific are, and it is their job to relay this signal to the nervous system, which then triggers an appropriate response.
- **David Julius utilized capsaicin**, a pungent compound from chili peppers that induces a burning sensation, **to identify a sensor (named TRPV1)** in the nerve endings of the skin **that responds to heat.**
- **Ardem Patapoutian** used pressure-sensitive cells to **discover a novel class of sensors (Piezo1 and Piezo2)** that respond to **mechanical stimuli in the skin and internal organs.**
 - They both also **identified TRPM8, a receptor that was shown to be activated by cold.**
- Identification of these receptors **opens up the possibility of regulating their functioning.** For ex: Pain receptors can be suppressed to minimize chronic pain present in a number of illnesses and disorders.



MINISTRY OF COAL FINALISES AGENDA DOCUMENT FOR 2021- 22

- It is the first time that an Agenda document for the ensuing year has been brought out in the form of a compilation.
- **The agenda document broadly focuses on four areas**
 - **Coal sector reforms** include projects for 2021-22, Jharia Master Plan, regulatory reforms (exploration), coal beneficiation, coking coal strategy and marketing reforms.
 - **Coal transition and sustainability** covers areas of social aspects of coal transition, monetization of de-coaled land, use of Artificial Intelligence (AI) in data mining/drones and sustainability (Net Zero Emissions).
 - **Institution building** contains reforms in Coal Controller Organisation (CCO), Coal Mines Provident Fund Organisation (CMPFO), upgrading Coal testing lab and staffing quality and training issues.
 - **Futuristic agenda** include Coal to Chemical: Syn Gas, Hydrogen Gas, Liquid fuels, Chemicals and fertilizers, CIL – diversify its business and explore prospects in sunrise industries electric charging pods etc.
- Agenda has been **designed along with a monitoring and reviewing framework** which is to be reviewed frequently by the Secretary of Coal.
- India is 5th largest coal deposit nation and 2nd largest coal producer with cumulative coal reserves of **319.02 billion tonnes** and **36 billion tonnes** of Lignite.



SEYCHELLES' TAX INSPECTORS WITHOUT BORDERS (TIWB) PROGRAMME LAUNCHED IN PARTNERSHIP WITH INDIA

- It aims to aid Seychelles in **strengthening its tax administration by transferring technical know-how and skills to its tax auditors through sharing of best audit practices.**
 - Focus of the programme will be **on Transfer Pricing cases of tourism and financial services sectors.**
 - So far India has committed to support **TIWB programmes in Eswatini, Sierra Leone, Uganda and Bhutan.**
- TIWB is a joint initiative** of United Nations Development Programme (UNDP) and Organisation for Economic Cooperation and Development (OECD) **to enable sharing of tax audit knowledge and skills with tax administrations in developing countries.**
 - TIWB programmes are **flexible and tailored to a country's specific needs.**
 - TIWB **does not cover assistance relating to customs matters** nor is concerned with providing policy support, advice on legislative changes.
 - TIWB programmes can include **pre-audit risk** assessment, investigatory techniques, audit cases involving transfer pricing issues, anti-avoidance rules, or sector-specific issues (e.g. natural resources, e-commerce, etc).
- Benefits of TIWB programme**
 - More certainty and consistency for business,** as well as a more transparent investment climate.
 - Fostering of international dialogue on tax matters** between tax administrations in developed and developing countries.

GOVERNMENT MOOTS CHANGES TO FOREST CONSERVATION ACT (FCA)







- Proposed amendment is **part of a larger rationalising of existing forest laws,** particularly for accelerated integration of conservation and development.
 - FCA was **enacted for providing a higher level of protection to the forests and to regulate diversion of forest lands** for non-forestry purposes.
 - The FCA came in 1980 and was amended in 1988.

Provision	Present mechanism	Proposed Amendment
Development of infrastructure along the international border areas	<ul style="list-style-type: none"> Approval needed for non-forestry use of forest land. 	<ul style="list-style-type: none"> Absolving agencies involved in national security projects and border infrastructure projects from obtaining prior forest clearance from the Centre.
Applicability of the Act over the right of way (RoW) of railways, highways, etc.	<ul style="list-style-type: none"> A landholding agency (Rail, NHAI, PWD, etc) is required to take approval under the Act as well as pay stipulated compensatory levies such as Net Present Value, Compensatory Afforestation, etc. for use of such land. 	<ul style="list-style-type: none"> To exempt such lands acquired before 1980 from the purview of the Act.
Penal provisions for offences under the Act.	<ul style="list-style-type: none"> Punishable with simple imprisonment for a period, which may extend to fifteen days. 	<ul style="list-style-type: none"> Adding a clause to make offences punishable with simple imprisonment for a period which may extend to one year and make it cognisable and non-bailable.
Restriction on the de-reservation of forests or use of forest land for non-forest purpose.	<ul style="list-style-type: none"> Limited scope for non-forest purposes such as for cultivation of tea, coffee, spices, rubber, palms, oil-bearing plants, horticultural crops or medicinal plants etc. 	<ul style="list-style-type: none"> Proposes removing zoos, safaris, Forest Training infrastructures from the definition of "non-forestry" activities.

SPRAYING SEEDS FROM SKY TO RAISE FORESTS

- Recently, Marut Drones (a Hyderabad based startup) came up with an **aerial seeding campaign** to overcome the reforestation challenge through its **Hara Bhara** initiative.
 - Earlier, **Haryana Forest Department** has **employed aerial seeding technique** in 2020 to improve green cover in **Aravalli area of Faridabad.**
 - In 2015, **Andhra Pradesh** had launched aerial seeding programme using Indian Navy helicopters.
- Aerial seeding is a technique of plantation** wherein **seed balls – seeds covered with a mixture of clay, compost, char and other components** – are sprayed on the ground using aerial devices, including planes, helicopters or drones.
 - Seed balls after being dispersed in a barren area are expected to dissolve when it rains, and result in germination of the seeds.
- Advantage of Aerial Seeding:**
 - Easy plantation** in difficult terrains or inaccessible areas, helping to increase forest cover.
 - Process of the seed's germination and growth is such that **it requires no attention** after it is dispersed.
 - Eliminate the need for ploughing and digging holes** in the soil.
- The species selected have to be **native to the area, higher survival percentage.**

ALSO IN NEWS

 <p>Credit Guarantee Scheme for Subordinate Debt (CGSSD)</p>	<ul style="list-style-type: none"> CGSSD which is also called "Distressed Assets Fund-Sub-ordinate Debt for MSMEs" has been extended upto 31st March 2022. It was launched under Atma Nirbhar Bharat Package to provide credit facility through lending institutions to the promoter(s) of operational but stressed MSMEs (those becoming NPA as on 30th April 2020). Promoter(s) are given credit equal to 15% of their stake (equity plus debt) or Rs. 75 lakh whichever is lower. 90% guarantee coverage for this sub-debt will be given under the Scheme and 10% would come from concerned promoters.
 <p>ICMR's Drone Response and Outreach in Northeast (i-Drone)</p>	<ul style="list-style-type: none"> It is a delivery model, launched by Ministry of Health and Family Welfare, to facilitate vaccine delivery to hard-to-reach terrains of India. i-Drone will overcome these challenges by deploying Unmanned Aerial vehicles (UAV) / drones to remote areas. <ul style="list-style-type: none"> Currently, the project has been granted permission for implementation in Manipur and Nagaland, as well as Andaman and Nicobar Islands. Recently, i-Drone used a made-in-India drone to facilitate COVID-19 vaccine delivery to tough and hard-to-reach terrains of the Northeast region.
 <p>WHO'S "Solidarity" Clinical Trial for COVID-19</p>	<ul style="list-style-type: none"> India will roll out the next phase of World Health Organization's Solidarity trial - Solidarity PLUS - which aims to assess the effectiveness of new drugs in treating hospitalised Covid-19 patients. <ul style="list-style-type: none"> India is among the 52 countries taking part in WHO's Solidarity PLUS trial. In 2020 WHO initiated the Solidarity trial. India trial will study two drugs - Imatinib and Infliximab. <ul style="list-style-type: none"> Imatinib is used for treating certain cancers while infliximab is used for diseases of the immune system, including Crohn's disease and rheumatoid arthritis.
 <p>DRDO Dare to Dream 2.0 & Young Scientists awards</p>	<ul style="list-style-type: none"> Defence Minister gives away Defence Research & Development Organisation (DRDO) Dare to Dream 2.0 & Young Scientists awards. Dare to Dream is DRDO's pan-India contest to promote Indian academicians, individuals and startups to develop emerging defence and aerospace technologies/systems. <ul style="list-style-type: none"> DRDO provides technical and financial support to the winners for realisation of their ideas under Technology Development Fund (TDF) scheme.
 <p>Kuttiattoor Mango and Edayur Chilli</p>	<ul style="list-style-type: none"> Edayur Chilli and Kuttiattoor Mango which belongs to Kerala received the Geographical Indication status.
 <p>Shanti Swarup Bhatnagar (SSB) Prize</p>	<ul style="list-style-type: none"> SSB Prizes are awarded annually for outstanding research, applied or fundamental, in following disciplines: Biological Sciences, Chemical Sciences, Earth, Atmosphere, Ocean and Planetary Sciences, Engineering Sciences, Mathematical Sciences, Medical Sciences and Physical Sciences. Eligibility: Any Citizen of India, Overseas citizen of India and Persons of Indian Origin (PIO) working in India (up to the age of 45 years). Dr Shanti Swarup Bhatnagar was the Founder Director of Council of Scientific & Industrial Research (CSIR). <ul style="list-style-type: none"> He was the first Chairman of University Grants Commission (UGC). He was awarded the Padma Vibhushan in 1954.



- **India is set to host its largest naval exercise, Ex Milan**, early in 2022 for which 46 countries have been invited.
 - > The invitees **include all Indian Ocean littoral states and countries from Southeast Asia** among others.
- Milan, which **began in 1995**, is **held biennially** and **brings together Navies of all the countries** in the region.
 - > It has so far been held at Port Blair but is now being **shifted to Visakhapatnam** which offers more space and infrastructure.



Personalities in News

Shyamji Krishna Varma (4 October 1857 – 30 March 1930)

- He was an Indian **freedom fighter, lawyer and journalist**.
- **He founded:**
 - > **Indian Home Rule Society (IHRS)** in London in 1905 that to promote the cause of self-rule in British India.
 - > **India House**, a student residence in London.
 - > **Indian Sociologist** a monthly journal to propagate the cause of India's independence.
- **Later, he shifted his base from England to Paris** and continued his movement.
- After the **outbreak of World War I, he moved to Geneva** (Switzerland) and spent the rest of his life there.

Correction: In News Today dated 2nd, 3rd and 4th October 2021, under also in news (in Jal Jeevan Mission), It was mentioned that JJM was launched to provide Functional Household Tap Connection (FHTC) to every home by 2024. It should be "every rural home".



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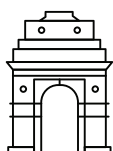
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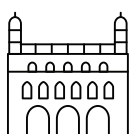
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DELHI



LUCKNOW



JAIPUR



HYDERABAD



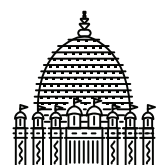
PUNE



AHMEDABAD



CHANDIGARH



GUWAHATI