## Week 1 Current Affairs Update 1<sup>st</sup>- 7<sup>th</sup> September 2020

## **EVENTS**

## NATIONAL

## ENERGY

#### INDIA DEVELOPS WORLD'S LARGEST SOLAR TREE



#### Date: 1 September, 2020

The CSIR-CMERI operating under the Ministry of Science and Technology has developed world largest solar tree at Durgapur, West Bengal.

- The tree has an annual capacity of generating 12,000 to 14,000 units of Clean and Green power.
- The Solar Tree has been designed in such a way that maximum exposure of each Solar Photo Voltaic Panel is achieved. There are a total of 35 Solar PV panels in each tree. Each panel has a capacity of 330 watt-power.
- The arms holding the solar PV panels are adjustable and are placed in an inclined position to the arms holding them. This feature is not available with the roof mounted solar panels.
- The cost of a solar tree is Rs 7.5 lakhs. The interested MSMEs can align with Pradhan Mantri Kisan Urja Suraksha to develop renewable energy based grids.
- The CSIR-CMERI along with the Solar Trees have also developed the E-Suvidha Kiosks that can be connected to the solar trees for real time access to vast majority of agricultural database and also to eNAM.

- This will help in making instant and real time access to a unified online market.
- Thus, solar trees are a leap towards making carbon negative India.

## POLITY

## LADAKH & LAKSHADWEEP INTEGRATED TO ONE NATION ONE RATION CARD SCHEME



#### Date: 2 September, 2020

Ladakh and Lakshadweep are integrated in the One Nation One Ration card scheme.

#### Key Highlights:

- With this a total of 26 states and union territories are now connected with each other under the scheme.
- The 26 states and UTS that are connected under One Nation One card scheme are The 26 states and UTS that are connected under One Nation One card scheme are Uttarakhand, Uttar Pradesh, Tripura, Telangana, Sik-kim, Rajasthan, Punjab, Odisha, Nagaland, Mizoram, Manipur, Maharash-tra, Madhya Pradesh, Lakshadweep, Ladakh, Kerala, Karnataka, Jharkhand, Jammu and Kashmir, Himachal Pradesh, Haryana, Gijarat, Goa, Daman and Diu, Dadra and Nagar Haveli, Bihar and Andhra Pradesh.
- It is an ambitious project of Government of India that ensures delivery of food security entitlements to the beneficiaries covered under National Food Security Act, 2013.
- The scheme mainly targeted the migratory NFSA beneficiaries. These are the beneficiaries who frequently change their dwelling in search of temporary employments.
- Under the scheme, the beneficiaries can get their quota of food grains from any state. Currently, a ration card holder can buy food grains only from the Fair Price Shops that are assigned to him or her. This was usually the shops that are nearer to their living area.

#### **SPACE**

#### INDIAN ASTRONOMERS DISCOVER THE FARTHEST STAR GALAXY



#### Date: 2 September, 2020

#### **Key Highlights:**

- India's first multi-wavelength satellite "Astrosat" detected extreme Ultra Violet light from a galaxy located 9.3 billion light years away from the earth. The galaxy is called AUDFs01.
- India was able to achieve the discovery as the background noise in the UVIT detector of the satellite is very less. It is lesser than that of the Hubble Space Telescope.
- The telescope was launched in 1990. It is one of the largest space telescopes. It was launched by the Space Shuttle Discovery in 1990. It is the only telescope designed to be serviced in space by astronauts.
- The successor to Hubble Space Telescope is James Webb Space Telescope which is to be launched in 2021.
- The discovery was an international collaboration by astronomers from India, Switzerland, France, USA, Japan and the Netherlands. It was led by Dr Kanak Saha, associate professor of astronomy at the Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune.

#### DEFENSE

#### INDIA-RUSSIA TO CONDUCT NAVAL DRILLS



#### Date: 3 September, 2020

#### **Key Highlights:**

• India and Russia are to hold bilateral naval exercise INDRA 2020 in Andaman Sea, close to strategic Strait of Malacca. The exercise is being conducted while the Indian Navy is on high operational alert due to the standoff with China in Ladakh.

- Three Russian Naval ships are to take part in the exercise on September 4 and 5. The exercise comes just after India withdrew from Kav-kaz-2020 multinational exercise that is to be held in Russia. Also, it coincides with Defence Minister Raj Nath Singh's visit to Russia for Shanghai Cooperation Organization.
- It is important for the Indian Navy to involve in such frequent naval drills with its close defence partners. This is because, the Chinese Naval presence in the region has increased recently in the name of anti-piracy patrols.
- Based on cargo volume, China is home to seven of the top ten ports in the world. Therefore, it is important to India to strengthen its naval presence to boost economic and security measures.

## SOCIAL

#### **MISSION KARMAYOGI**



Date: 4 September, 2020

- The Union Cabinet approved National Programme Services Capacity Building called "Mission Karmayogi.
- The programme was designed to lay foundations for capacity building of civil servants. The programme will enhance the Indian culture values and sensibilities among the civil servants.
- An iGOT Karmayogi platform is to be set up in order to deliver the programme. iGOT is Integrated Government Online Training platform.
- The main principles of the programme are as follows
- To emphasize on on-site learning
- To support transition from "rules based" to "roles based" human resource management
- To create an ecosystem of shared training infrastructure
- To calibrate civil service positions
- To make opportunities available to the civil servants to build and strengthen their Behavioural and Functional Domain Competencies

## **INTERNATIONAL RELATIONS**

## INDIA TO HOST SUMMIT OF SCO COUNCIL



#### Date: 4 September, 2020

#### Key Highlights:

- India is to host a summit of council of heads of SCO (Shanghai Cooperation Organization) on November 30, 2020. India is in the plan of expanding its cooperation with the grouping.
- India was an observer of SCO till 2005. It became a member in 2017 along with Pakistan.
- India has been pushing for connectivity projects such as International North-South Transport Corridor to gain more access to the resource rich Central Asian countries. Also, SCO will act as a good platform for India to strengthen its ties with the extended neighbourhood.
- The extended neighbourhood of India is variously defined in geographical terms. It is usually outside of the neighbourhood list. The neighbourhood of India are Pakistan, China, Afghanistan, Maldives, Sri Lanka, Myanmar, Nepal, Bhutan, Bangladesh. Indonesia is included as a maritime border of India.
- Hence, the extended neighbourhood is usually countries in Central Asia, Gulf region, East African and South East Asia.
- India wants to expand its cooperation with SCO to increase its trade in the central Asian region. This is to be achieved through India's Connect Central Asia Policy.

## ECONOMY

#### **BUSINESS REFORMS ACTION PLAN RANKING OF STATES**



#### Date: 5 September, 2020

#### Key Highlights:

- On September 5, 2020, Union Minister of Finance and Corporate Affairs launched the fourth edition of Business Reforms Action Plan ranking of states.
- The rankings are being launched since 2015. The Business Reform Action Plan 2018-19 includes 180 reform points that covers business regulatory areas such as Single Window System, Access to Information, Labour, Environment, etc.
- This time the ranking gives full weightage to feedback to over 30,000 respondents.
- The plan was released by DPIIT-World Bank. It comprises of 80 reforms (187 reform action points) to be implemented by 19 state departments. Among them, Andhra Pradesh achieved 100% compliance to 187 reform action points.
- Andhra Pradesh was the first to come up with "ReSTART" package for the business continuity of micro-small-and medium enterprises.
- The Business Reforms Action Plan helps to improve Ease of Doing Business. India jumped to 63rd position in 2019 out of 190 countries. It improves 14 places from 77th position in 2018. India's performance improved based on four parameters.

#### **ENVIRONMENT**

## 5PSUSTOJOININTERNATIONALSOLARALLIANCE FORSUSTAINABLE CLIMATE ACTION

INTERNATIONAL SOLAR ALLIANCE

#### Date: 6 September, 2020

#### Key Highlights:

• Petroleum and Natural Gas Minister Dharmendra Pradhan announced that five Public Sector Undertakings will join the International Solar Alliance (ISA) Coalition for Sustainable Climate Action.

- The five PSUs to join the ISA are Indian Oil Corporation Limited, Oil and Natural Gas Corporation Limited, Bharat Petroleum Corporation Limited, Hindustan Petroleum Corporation Limited and GAIL India Limited.
   These five PSUs are to feeue on clean energy transition. The companies
  - These five PSUs are to focus on clean energy transition. The companies will deploy solar panels. Currently, the installed solar capacity is 270 MW. An additional 60 MW is to be added in the coming years.
- The GoI has also set targets to solarize 50% of fuel stations that are owned by PSUs in the next five years. In 2019 alone, alone 5,000 fuel stations owned by Indian Oil were solarized.
- The move will help India achieve its NDCs. India promised to take steps to reduce Green House Gas emissions in following ways
- To reduce emissions to one-third as compared to that of 2005 levels
- To achieve 40% of installed capacity for electricity from that of non-fossil fuel
- To create additional carbon sink through forest cover and tree cover.

## INTERNATIONAL

## **INTERNATIONAL RELATION**

## **GERMANY LAUNCHES INDO-PACIFIC STRATEGY**



#### Date: 5 September, 2020

- The current European Union President and the largest economy of Europe, Germany launched Indo-Pacific strategy. It was launched with India.
- The strategy has several indirect references to Chinese behaviour in the Indo-Pacific region. Germany has also suggested to play a key role in the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation and Indian Ocean Rim Association. It will work on maritime safety and disaster risk management.
- Germany has also exhibited its willingness to cooperate with India and Japan in United Nations Security Reforms.
- Around 90% of the world foreign trade is conducted by sea and a large part via Indian and Pacific Oceans.
- 25% of world maritime trade passes through Strait of Malacca.

- More than 2,000 ships per day transport goods between South China Sea and Indian Ocean. Disruption in these maritime routes will affect the supply chins to and from Europe.
- Millions of jobs in Germany depend on these trade and investment relations. Therefore, it is important for Germany to focus on the security of these maritime routes.
- According to Annual Defence Report of the United States, China has the biggest Naval Force in the world. It has more than 350 ships and submarines. Also, China is looking for opportunities to expand its foot prints in the Indian Ocean Region.

## **TRADE & COMMERCE**

#### **INDO-PACIFIC BUSINESS FORUM**



Date: 5 September, 2020

- The third annual Indo-Pacific Business Forum is to be held in Hanoi, Vietnam capital between October 28, 2020 and October 29, 2020. The forum is to be sponsored by US-ASEAN Business Council, Vietnam Chamber of Commerce and Industry, US Chamber of Commerce and Government of Vietnam.
- The forum aims to provide a free and open Indo-Pacific region with countries that are independent, prosperous and strong. During the forum, the business leaders will discuss infrastructure, energy, market connectivity, digital economy, health.
- The economic growth of the world has shifted towards Asia-Pacific, now called the Indo-Pacific that includes South Asia. The idea of Indo-Pacific Economic Corridor was conceptualised during US-India Strategic Dialogue, 2013.
- The Malabar Exercise has now become a major Indo-Pacific Exercise. It was started as Indo-US maritime exercise in 1992. However, today Japan has also joined. Australia has agreed to join this year.

• Triumph is army, air force and naval exercise that involves India, USA and Japan.

## **HEALTHCARE**

## UNICEF TO LEAD PROCUREMENT & SUPPLY OPERATION OF COVID-19 VACCINE



Date: 6 September, 2020

- In an attempt to ensure that all countries have safe, fast and equitable access to initial doses of COVID-19 vaccine UNICEF has announced that it will be leading the procurement and supply of Corona Virus vaccines.
- The mission is said to be the world's largest and fastest ever operation of its kind.
- The UNICEF in collaboration with PAHO (Pan American Health Organization) will lead these candidates. The UNICEF will procure on behalf of the COVAX Global Vaccines Facility.
- This purchase will help nearly 92 low and lower middle-income countries whose vaccine purchase mechanism is not so good.
- 92 Lower income economies along with 80 higher income economies have expresses their intent to participate in the COVAX facility. This huge operation involving more than 170 countries will be world's largest and fastest ever operation of its kind. This giant operation will involve a partnership between governments, manufacturers and multilateral partners.



#### PEOPLE

## NATIONAL

## **APPOINTMENTS**

#### AYUSHMAN KHURRANA APPOINTED AS UNICEF'S CELEBRITY ADVOCATE



Date: 2nd September, 2020

- UNICEF (United Nations International Children Education Fund) appointed Ayushmann Khurrana as its celebrity advocate for promoting and supporting its work around ending violence against children.
- The actor will work towards ending violence against children especially in the current scenario when COVID-19 risk has blanketed the whole world.
- Ayushman Khurrana will spread awareness and bring the child issue in light for public debates.
- The special focus will be towards ending violence and abuse against the child. In the recent wake of times, extended lockdown and socio-economic impacts of the global pandemic has worked as a catalyst for child abuse and violence.
- Popularly known as United Nations Children Fund and erstwhile known as United Nations International Children Emergency Fund, UNICEF was formed on 11th December 1946, 73 years ago from now. UNICEF has a presence in 191 countries excluding nine countries. Its headquarter is present in New York City.

#### **OBITUARY**

#### KESAVANANDA BHARATI PASSED AWAY



Date: 4 September, 2020

#### Key Highlights:

- Kesavananda Bharti, the head seer of Edneer Mutt in Kerala since 1961 passed away on September 6, 2020.
- He was famous for initiating the historic judgement of Supreme Court that "Basic Structure of Constitution" cannot be amended by the Parliament.
- The Kerala Government had passed a land law with an objective to distribute land to the landless farmers. Kesavananda Bharti challenged the Kerala Government in 1970 on this Kerala land reforms legislation.
- He contended that the land reforms passed by the Kerala Government will impose restrictions on management of the mutt property that was the only source of income.
- The petition filed by Bharati challenged three Constitutional Amendments 24, 25 and 29 that were passed by the Indira Gandhi Government to give power to the Parliament to change the fundamental rights.

## APPOINTMENTS

PARESH RAWAL BECOMES NEW CHAIRMAN OF NATIONAL SCHOOL OF DRAMA



Date: 5 September, 2020

#### Key Highlights:

- Former Lok Sabha MP and Bollywood actor, Paresh Rawal has been appointed as the new chief of National School of Drama by President Ram Nath Kovind.
- In a career span of over three decades, Rawal has been acknowledged with numerous awards, including the prestigious National Film Award for Best Supporting Actor in 1994.
- He was conferred with the Padma Shri in 2014 for his contribution to the entertainment industry.
- Rawal made his debut with the 1985 film Arjun. He played a supporting role in the film. He, however, gained recognition after the release of the 1986 blockbuster Naam.
- In 1994, he won the National Film Award for Best Supporting Actor for his performances in the films Woh Chokri and Sir. For the latter, he received his first Filmfare Award for Best Comedian.
- This was followed by Ketan Mehta's Sardar, which saw him playing the lead role of freedom fighter Vallabhbhai Patel, a role that got him national and international acclaim.

## **APPOINTMENTS**

## S KRISHNAN BECOMES NEW MD & CEO OF PUNJAB & SIND BANK



#### Date: 7 September, 2020

- Appointments Committee of the Cabinet (ACC) has approved the appointment of S Krishnan as the Managing Director and Chief Executive Officer of Punjab & Sind Bank. He will replace S Harishankar.
- ACC has given permission to S Harishankar to voluntarily retire with effect from the date of notification of the acceptance. Earlier to this elevation, S Krishnan was as an Executive Director at Canara Bank.
- Previously, Krishan served as the executive director of Syndicate Bank from November 2017 to March 2020 and executive director of Canara bank from April 2020 to September 3, 2020.

- He had joined Indian Bank in 1983. Krishnan has specialisation in credit, specifically corporate credit and risk management.
  - A post graduate in commerce, he is a qualified cost accountant and a certified associate of Indian Institute of Bankers (CAIIB).

## INTERNATIONAL

#### **AWARDS & HONOURS**

INDIRA GANDHI PEACE PRIZE AWARDED TO SIR DAVID ATTENBOROUGH



#### Date: 1 September, 2020

#### Key Highlights:

- Sir David Attenborough was conferred with the prestigious Indira Gandhi Peace Prize for the year 2019. He is an English broadcaster and a historian.
- He is popular for writing and presenting the BBC Natural History Unit. He worked to make aware to preserve and protect the biodiversity of the planet.
- The Indira Gandhi Peace Prize award is for peace, disarmament and development. It has been named after the former Prime Minister Indira Gandhi.
- It Is being conferred every year since 1986 by Indira Gandhi Memorial Trust. It consists of a monetary award of Rs 25 lakhs.
- He is best known for writing and presenting, in conjunction with the BBC Natural History Unit, the nine natural history documentary series forming the Life collection that together constitute a comprehensive survey of animal and plant life on Earth. He is a former senior manager at the BBC, having served as controller of BBC Two and director of programming for BBC Television in the 1960s and 1970s.
- He is the only person to have won BAFTAs for programmes in each of black and white, colour, HD, 3D and 4K.

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## **ISSUES**

## NATIONAL

## ECONOMY

#### INDIAN ECONOMY CONTRACTS 23.9% DUE TO COVID-19 IMPACT



Date: 1 September, 2020

#### Key Highlights:

- India's GDP shrank by the steepest extent ever, 23.9 per cent, in the April-June period when the coronavirus brought the country to a standstill.
- Agriculture stood out as the only outlier; all other sectors, including manufacturing, construction and services, suffered steep declines.
- In the same quarter last year, India's economy had grown by 5.2 per cent.
- As per data released by the National Statistical Office (NSO), gross value added (GVA) growth in the manufacturing sector contracted by 39.3 per cent in the first quarter of 2020-21, from 3 per cent expansion a year ago.
- However, farm sector GVA grew at 3.4 per cent, compared to 3 per cent in the corresponding period of 2019-20.
- The construction sector GVA contracted by a whopping 50.3 per cent from 5.2 per cent expansion earlier. Mining output declined by 23.3 per cent, as against a growth of 4.7 per cent a year ago.

#### INDIA SET FOR HIGHEST DEBT BURDEN BY 2021



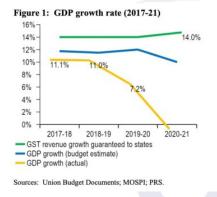
#### Date: 3 September, 2020

#### Key Highlights:

• According to Moody's Investors Service, India will be among the large emerging market sovereigns to have highest debt burden by 2021.

- The coronavirus pandemic-induced deterioration in growth and fiscal dynamics will leave most large emerging market sovereigns with higher debt burdens over the next few years.
- Government debt in the large emerging market sovereigns to rise by almost 10 percentage points of GDP on average by the end of 2021 from 2019 levels, driven primarily by wider primary deficits, although some are likely to see higher interest payments contributing to higher debt.
- Debt burdens in Brazil, India and South Africa will rise to among the highest across the large emerging market sovereigns by 2021.
- Medium-term growth and fiscal challenges pose downside risks as some of these nations face economic risks and potential revenue shortfalls beyond the immediate shock, given their exposure to commodities, tourism and generally sectors exposed to lasting changes in behaviours.
- In India, increased stress within the financial system, among banks and nonbank financial companies, raises contingent liability risks to the sovereign.

#### **ISSUES IN GST COMPENSATION**



#### Date: 6 September, 2020

- With Centre-state friction over pending compensation payments under the Goods and Services Tax (GST) taking a new turn in the 41st GST Council meeting strain on the finances of states is likely to continue in the near term.
- Several states have opposed the two options to borrow that were proposed in the meeting as a way to bridge the revenue shortfall.
- GST compensation payments to states have been pending since April, with the pending amount for April-July estimated at Rs 1.5 lakh crore.
- The GST compensation requirement is estimated to be around Rs 3 lakh crore this year, while the cess collection is expected to be around Rs 65,000 crore an estimated compensation shortfall of Rs 2.35 lakh crore.
- Centre promised to reimburse the shortfall in tax revenues for 5 years to the states, which was to be funded by GST Compensation Cess.

- The tax year on year growth for the states, upon the base, was promised as 14%.
- Now, the Centre is abdicating its responsibility of making up for the shortfall in 14% growth in GST revenues to the states, which makes the position of states perilous.
- Under the GST (Compensation to States) Act, 2017, Centre can provide compensation to states only through the money available in the Compensation Fund.
- Despite a shortfall of money in the Compensation Fund, the Centre is constitutionally obligated to meet states' compensation requirement for a period of five years.

#### **ENVIRONMENT**

#### LOW OZONE OVER BRAHMAPUTRA RIVER VALLEY



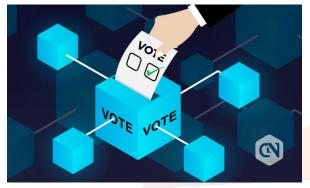
#### Date: 4 September, 2020

- Scientists at the Aryabhatta Research Institute of Observational Sciences (ARIES), Nainital (Uttarakhand) have evaluated the near surface ozone in the Brahmaputra River Valley (BRV).
- Scientists analysed the variability of ozone (O3) and other air pollutants over the BRV region.
- They assessed seasonal characteristics of ozone to identify the emission source of ozone and its precursors, especially methane (CH4) and non-methane hydrocarbons (NMHCs).
- NMHCs such as ethane, ethene, propane, propene, etc. play an important role in controlling ozone concentrations.
- They also studied the relationships between the meteorological parameters like air temperature, wind speed, solar radiation, soil temperature, rainfall, etc. and ozone in a tropical setting.
- Scientists have found relatively low concentration of ozone over BRV (Guwahati - Assam) compared to the other urban locations in India.

- The pattern of O3 concentrations in the BRV indicated that it was strongly influenced by local oxides of nitrogen (NOx) sources with an adjacent national highway being the likely major source.
  - The mean ventilation coefficient was greater than 6000 m2s during the day in the pre-monsoon season indicating pollutant dispersion.

## POLITY

# SECURITY CONCERNS OVER BLOCKCHAIN-BASED REMOTE VOTING SYSTEMS



#### Date: 7 September, 2020

- The system envisioned by the Election Commission is perhaps only slightly more acceptable than a fully remote, app-based voting system (which face a litany of issues of their own, and which have so far only been deployed in a few low-level elections in the West).
- The systems used in such low-stakes elections have suffered several blunders too, some of which could have been catastrophic if they had gone undetected.
- At an earlier event held by the Election Commission, then Senior Deputy Election Commissioner explained that electors would still have to physically reach a designated venue in order to cast their vote, adding that systems would use "white-listed IP devices on dedicated internet lines", and that the system would make use of the biometric attributes of electors.
- Digitisation and interconnectivity introduce additional points of failure external to the processes which exist in the present day.
- Blockchain solutions rely heavily on the proper implementation of cryptographic protocols.
- If any shortcomings exist in an implementation, it might stand to potentially unmask the identity and voting preferences of electors, or worse yet, allow an individual to cast a vote as someone else.

- The requirement of physical presence and biometric authentication may not necessarily make a remote voting system invulnerable to attacks either.
  An attacker may be able to clone the biometric attributes required for authenti-
- cating as another individual and cast a vote on their behalf.
- Physical implants or software backdoors placed on an individual system could allow attackers to collect and deduce voting choices of individuals.
- Further, while the provisioning of a dedicated line may make the infrastructure less prone to outages, it may also make it increasingly prone to targeted Denial-of-Service attacks (where an attacker would be in a position to block traffic from the system, effectively preventing, or at the very least delaying the registration of votes).

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## **IDIEAS**

## NATIONAL

## HEALTHCARE

#### FIRST COVID-19 'IMMUNITY-BOOSTING' ROOM FRESHENER TO CONTAIN CORONAVIRUS DEVELOPED



Date: 2 September, 2020

#### Key Highlights:

- The Defence Institute of Advanced Technology, a Deemed to be University in Pune, has developed a herbal-based immunity-boosting room freshener product named "Healthy Air" to contain the spread of COVID-19.
- According to the ministry Healthy Air has been developed by the Department of Metallurgical and Materials Engineering with various extracts of herbal oils like Neem, Neelgiri, Camphor, Daalcheeni, Tulsi, Lemon, Turmeric, Laung, Ajwain, Lavender, Elaichi, Turmeric, Natural Vetiveru, Raimuniya, and Pine Oil.
- The product consists of a blended solution of the natural herbal oils, which instinctively acts as an immunity booster for the body, and exhibits Anti-cancerous, Anti-microbial, Anti-viral and Anti-fungal properties.
- The product was also experimented on in Aerodynamic state of the art laser-based visualisation lab for understanding the flow profile, formation of primary aerosol particles, aerosol breakdown thresholds as a function of particle size, particle density, etc.

#### **TECHNOLOGY**

FIRST MACHINE LEARNING-BASED PRACTICAL APPROACH FOR AUTOMATIC INTERPRETATION OF 3D SEISMIC DATA DEVELOPED



#### Date: 4 September, 2020

#### **Key Highlights:**

- Scientists from Wadia Institute of Himalayan Geology(WIHG), an autonomous Institute under the Department of Science & Technology, Govt. of India, have developed a neural-based (machine learning-based) practical approach for automatic interpretation of 3D seismic data.
- This first of its kind approach has been developed by computing a new attribute called meta-attribute.
- The tabular sheet intrusions between older layers of sedimentary rock or beds of volcanic lava (sill complexes) significantly contribute to the transport and storage of hot magma, and leading to overburden.
- This acts as plausible structural traps for hydrocarbon accumulations in sedimentary basins. The petroliferous (petroleum containing) Canterbury basin of New Zealand is a classic example, where saucer-shaped magmatic sills are embedded within the Cretaceous to Eocene (geological period that lasted from about 145 to 33.9 million years ago) succession resulting into forced folds and hydrothermal vents.
- This work is an important step forward towards application of machine learning to address geological problems and looks promising in understanding complex geological processes in an active mountain belt such as the Himalaya.

## INTERNATIONAL

#### SOCIAL

#### WORLD'S FIRST JUMP FROM SOLAR POWERED PLANE



## Date: 3 September, 2020

#### Key Highlights:

- A parachutist completed the world's first jump from a solar-powered aircraft after the plane soared to a height of 1,520 metres (nearly 5,000 ft) over western Switzerland.
- The two-seater prototype plane made the test flight in good weather and to promote renewable energy. Parachutist Raphael Domjan reached a speed of 150 kilometres per hour during his jump, landing near the project base in Payerne.
- In 2022, the team aims to carry out a high-altitude flight powered exclusively by solar energy, seeking to reach the stratosphere with an altitude of 20,000 metres.

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