

## **Prelim Bits 10-08-2018**

### **Unnat Bharat Programme 2.0**

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- The Government has recently launched the phase-2 of Unnat Bharat Abhiyan.  
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- It is the flagship programme of Ministry of Human Resource and Development.  
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- It aims to link the Higher Education Institutions with atleast (5) villages, to enable the institutions contribute to the economic and social betterment of these village communities using their knowledge base.  
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- The institutions will provide the knowledge and technology support to improve the livelihoods in rural areas.  
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- It will also helps in upgrading the capabilities of both the public and private sectors.  
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- Both technical and non-technical institutions have been invited to build systems in villages as per their strengths.  
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- Each selected institute would adopt a cluster of villages / panchayats and gradually expand the outreach over a period of time.  
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- IIT Delhi has been designated to function as the National Coordinating Institute for this program.  
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### **Global Innovation Index - 2018**

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- The 2018 edition of the index was recently launched in New Delhi.  
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- The event was organized by the Confederation of Indian Industry (CII) along with the World Intellectual Property Organization (WIPO) and Department of

Industrial Policy and Promotion (DIPP).

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- The index developed jointly by Cornell University, the Paris-based business school Insead and WIPO in Geneva.

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- The top rankers of 2018 are Switzerland, Netherlands and Sweden.

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- India's rank has been improved from 60 in 2017 to 57 in 2018.

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- India also ranked 1st in ICT service exports category and 4th in labour productivity growth.

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- The GII indicators are grouped into innovation inputs and outputs.

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- Innovation inputs capture the efforts made by the country to boost innovation.

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- Innovation outputs measure the results of these efforts in terms of scientific publications, patents, trademarks, production, exports and other outputs.

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- India is 2nd among middle-income economies (after China) in the indicators that capture the quality of the innovation inputs and outputs.

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- NITI Aayog has decided to join hands with CII to develop a Roadmap for Top 10 Rank in GII.

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## **Deputy Chairman - Rajya Sabha**

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- Harivansh Narayan Singh was elected as the Deputy Chairman of the Rajya Sabha recently.

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- **Article 89** of the constitution has the provision about the method of the election of Deputy chairman of Rajya Sabha.

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- The Deputy Chairman is elected from amongst the Rajya Sabha members.

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- The chairman of Rajya Sabha (Vice President of India) presides over the session of election of Dy. Chairman.

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- He/She presides over the proceedings of the Rajya Sabha in the absence of

the Chairman of the Rajya Sabha.

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- He/She will perform the functions of Rajya Sabha Chairman in case of a vacancy or when the Vice-President is discharging the functions of the President.

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- There is also a panel of six Vice-Chairmen, which is constituted every year.

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- A Vice-Chairman presides over the meeting of the Rajya Sabha in the absence of the Chairman or the Deputy Chairman.

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## **World Biofuel Day**

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- World Biofuel Day is observed every year on August 10.

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- Its aim is to create awareness about the importance of non-fossil fuels as an alternative to conventional fossil fuels.

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- It is being observed by the Ministry of Petroleum & Natural Gas for the last three years.

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- Since 2014, the Government of India has taken a number of initiatives to increase blending of biofuels.

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- The major interventions include,

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- i. Administrative price mechanism for ethanol,

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- ii. Simplifying the procurement procedures of Oil Marketing Companies,

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- iii. Ethanol blending in petrol (from 38 crore litres in the ethanol supply year 2013-14 to 141 crore litres in 2017-18),

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- iv. Setting up of 2nd generation Bio-refineries to augment ethanol supply.
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  - v. National Policy on Biofuels-2018 with the objective of reaching 20% ethanol-blending and 5% biodiesel-blending by the year 2030.
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  - vi. The policy expands the scope of feedstock for ethanol production and has provided for incentives for production of advanced biofuels.
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  - vii. Reduction of GST rates on ethanol for blending in fuel from 18% to 5%.
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## Radio Galaxy Spotted

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- Radio galaxy are colossal galaxies with a **super massive black hole** in their centre that actively accretes gas and dust from its surroundings.
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- They are very rare objects in the universe.
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- Most distant radio galaxy ever known, located at a distance of 12 billion light-years was discovered by Indian Telescope.
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- It was found using the Giant Metrewave Radio Telescope (GMRT) in Pune, operated by the National Centre for Radio Astrophysics.
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- The distance to this galaxy was determined using the Gemini North telescope in Hawaii and the Large Binocular Telescope in Arizona.
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- This discovery is important for understanding of the formation and evolution of galaxies.
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## Thermal Battery Plant

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- World's first-ever thermal battery plant was recently inaugurated in Andhra Pradesh.
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- It aims to create a new energy storage form with commercial applications,

maintaining a low carbon footprint and less dependent on external factors like weather.

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- Conventional battery technology is based on the system of charging/discharging cycles that are driven by electricity. Eg. Lithium ion battery used in electronic devices.

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- Thermal batteries, use thermal energy to operate, i.e. the energy created by temperature differences.

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- The energy transfer in thermal batteries helps store heat when heat travels from one part of the battery setup to the other.

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- **Working of Thermal Battery** - It consists of two parts such as a cool zone known as sink, and a hot source called source.

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- When the sink of a thermal battery receives heat, it transforms physically or chemically, thereby storing energy, while the source cools down.

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- During operation, the sink is cooled down, so it releases the stored energy, while the source heats up.

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- **Applications** - Electric vehicles, Telecom infrastructures, Power intensive industries.

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**Source: The Hindu, PIB**

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