

Prelim Bits 10-08-2018

Unnat Bharat Programme 2.0

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- \bullet The Government has recently launched the phase-2 of Unnat Bharat Abhiyan.
- 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.
- 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.
- Each selected institute would adopt a cluster of villages / panchayats and gradually expand the outreach over a period of time.
- 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.
- 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).

• 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.
- India's rank has been improved from 60 in 2017 to 57 in 2018.
- 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.
- 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.
- India is 2nd among middle-income economies (after China) in the indicators that capture the quality of the innovation inputs and outputs.
- 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.
- The Deputy Chairman is elected from amongst the Rajya Sabha members.
- The chairman of Rajya Sabha (Vice President of India) presides over the session of election of Dy. Chairman.
- 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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- \bullet There is also a panel of six Vice-Chairmen, which is constituted every year. \n
- 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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 $_{\text{ii.}}$ Simplifying the procurement procedures of Oil Marketing Companies, $_{\text{n}}$

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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.

- v. National Policy on Biofuels-2018 with the objective of reaching 20% ethanol-blending and 5% biodiesel-blending by the year 2030.
- 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.
- They are very rare objects in the universe.
- Most distant radio galaxy ever known, located at a distance of 12 billion light-years was discovered by Indian Telescope.
- It was found using the Giant Metrewave Radio Telescope (GMRT) in Pune, operated by the National Centre for Radio Astrophysics.
- The distance to this galaxy was determined using the Gemini North telescope in Hawaii and the Large Binocular Telescope in Arizona.
- 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.
- 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.
- \bullet During operation, the sink is cooled down, so it releases the stored energy, while the source heats up. $\ensuremath{\backslash} n$
- **Applications** Electric vehicles, Telecom infrastructures, Power intensive industries.

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Source: The Hindu, PIB

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