

04-07-2022**Ramagundam Floating Solar PV Project****Why in Newspapers?**

Recently the final 20 MW of commercial operation of 100 MW Ramagundam Floating Solar PV Project i.e. Floating Solar Power Project has been announced.

**Quick Issue?**

- The 100 MW Ramagundam Floating Solar PV Project in Telangana has been declared operational with effect from July 1, 2022. This is the biggest project of its kind in India.
- It is endowed with advanced technology and eco-friendly features
- The project is spread over an area of 500 acres of reservoir which is divided into 40 blocks with a capacity of 2.5 MW each.
- Each block consists of a floating platform and an array of 11,200 solar modules.
- The project is spread over an area of 500 acres of reservoir which is divided into 40 blocks with a capacity of 2.5 MW each.

**Other Key Facts?****Solar Park Scheme:**

- There are plans to build several solar parks with a capacity of about 500 MW in several states.

**Rooftop Solar Scheme:**

- Harnessing solar energy by installing solar panels on the roofs of houses.

**Atal Jyoti Yojana (AJAY):**

- Atal Jyoti Yojana (AJAY) Ajay Yojana was launched in September 2016 for the installation of Solar Street Lighting (SSL) system in those states where grid power is available to less than 50% of the households (as per 2011 Census) Was.

**Historical Background?**

- These are photovoltaic (PV) modules mounted on platforms and floating on reservoirs, lakes where conditions are similar to seas and oceans.
- These platforms are usually installed on calm bodies of water such as ponds, lakes or reservoirs.
- These solar panels are relatively quick to manufacture and do not require levelling of land or removal of vegetation to install them.
- The entire floating system is symmetrically installed in the reservoir by means of a special type of High Modules Polyethylene (HMPE) rope.
- The project is unique in that all electrical equipment including inverter, transformer, HT panels and Supervisory Control and Data Acquisition (SCADA) are available on a floating ferro cemented platform.
- **Limited land requirement:-**
  - The most obvious benefit from an environmental point of view is the minimum land requirement which is mostly for the associated drainage system.
- **Low water evaporation rate:-**



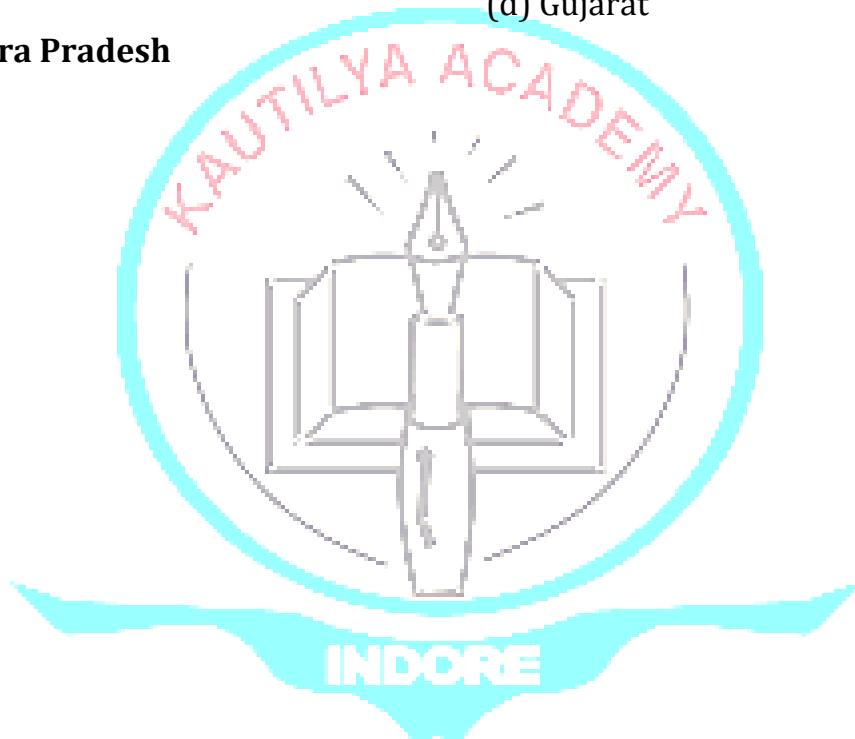
- In addition, with the presence of floating solar panels, the evaporation rate from water bodies is reduced, thus helping in water conservation. About 32.5 lakh cubic meters of water can be saved annually from evaporation.
  - **Efficient in reducing CO<sub>2</sub> emissions:-**
    - The water body beneath the solar modules helps to maintain the temperature of their surroundings, which improves their efficiency and production. Similarly, coal consumption of 165,000 tonnes per annum can be avoided; Due to which the emission of 2,10,000 tonnes of CO<sub>2</sub> can be avoided annually.

## Likely Question Asked In Preliminary Exam

**Que. Where has India's largest floating solar PV project started recently?**



**Answer: (b) Andhra Pradesh**





## Asia Pacific Sustainability Index

### Why in Newspapers?

The Asia Pacific Sustainability Index 2021 was recently launched by Knight Frank, a global property advisory.

### Quick Issue?

- In this index, four Indian cities, Bengaluru, Hyderabad, Delhi and Mumbai have been ranked among the top 20 sustainable cities.
- It ranks 36 cities on the basis of urbanization pressure, carbon emissions, climate risk and government initiatives.

### Historical Background?

- Singapore topped the index. It is followed by Sydney, Wellington, Perth and Melbourne.
- Bengaluru ranks first among Indian cities. Whereas it is ranked 14th in the Asia-Pacific region.
- Bengaluru is the only Indian city to achieve the 'Gold' standard category.
- Bengaluru is followed by Delhi, which is ranked 17th in the Asia Pacific region.
- Hyderabad is ranked 3rd in India and 18th in Asia-Pacific region.
- Mumbai ranks 4th among Indian cities and 20th in the Asia-Pacific region.
- Sustainable growth in India is driven by new market dynamics.
- Global commitment to carbon neutrality and net zero focus on creating eco-friendly campuses. This has prompted Indian developers to develop their products to meet the requirements.
- According to the report, there has been an increase of 523% year-on-year in issuance of green bonds in India.
- It was USD 1.1 billion in 2020 and has increased to USD 6.8 billion in 2021.
- Currently, India has become the sixth largest country in the Asia-Pacific region with respect to the total amount of green bonds issued in 2021.

### **Other Key Facts?**

#### Green Bonds in the Asia-Pacific Region

- The sector issued USD 126 billion in green bonds in 2021, according to estimates from the Climate Bonds Initiative. China issued the largest amount of bonds worth USD 68 billion.

#### What is meant by Green Bond?

- Green Bond is a type of fixed income investment. Under this, the government can raise money for changes in the environment and climate. These bonds are asset-linked as well as linked to the issuer's balance sheet. With this type of bond, money can be raised for any project very easily. This is the reason why governments also like these bonds.
- Through these bonds, investors get good and safe returns in a short period of time. Also, the private sector gives people an opportunity to invest through equities or bonds. In fact, money raised from government bonds is considered the benchmark for private bonds/corporate bonds. Corporates also issue bonds on the basis of how much benefit the government has got in these bonds.

## Likely Question Asked In Preliminary Exam

**Que. Who has topped the Asia Pacific Sustainability Index released by Knight Frank recently?**



**Answer: (A) Singapore**

