

**GOVERNANCE- WELFARE SCHEMES, E-GOVERNANCE, SERVICES ETC.****Producing Bio CNG from Paddy Stubble**

The Punjab Energy Development Agency (PEDA) in association with the Govt. of Punjab, is creating alternatives for paddy stubble utilisation.

- This includes setting up biomass power plants and producing Bio CNG from the paddy stubble biomass.

***Key Points***

- Biomass Power Plants: PEDA has set up 11 biomass power plants where 97.50 mega watts (MW) of power is generated.
  - In these plants, 8.80 lakh metric tonnes of paddy stubble is used annually to generate power.
- Bio CNG: Eight projects of Bio CNG are under execution in the state. These will need around 3-lakh metric tonnes of paddy stubble annually.
  - India's largest Bio CNG project, which will produce 8,000 m cube biogas per day (equivalent to 33.23 tonnes of Bio CNG per day) is under execution at Lehragaga tehsil in Sangrur district. The project is expected to be commissioned by March 2021.
- Bioethanol Project: A Bioethanol project of 100 kilolitre is being set up at Talwandi Sabo in Bathinda. This will require 2 lakh metric tonnes of paddy stubble annually.
  - Bioethanol can be used to run vehicles after blending with diesel and petrol.
- Advantages of these Projects: After commissioning of all these projects, Punjab will be able to utilise 1.5 million tonnes (7% of the total) paddy stubble.
  - Farmers' income: Farmers can benefit hugely if they can sell paddy stubble to the industry instead of burning it.
  - Environment benefits: It will reduce the pollution caused by stubble burning and also preserve the fertility of the soil which is lost due to burning paddy stubble.
  - Entrepreneurship: The youth, particularly engineers, graduates in science and technology can start such projects under the 'start-up' concept, which will create entrepreneurship among them.
  - Employment: Educated unemployed youth in rural Punjab where such projects will be set up can get big job opportunities.
- Limitations: Current usage of stubble in these plants is very small compared to the generation of stubble. Punjab needs varieties of stubble-based industry where more and more stubble is consumed.
- Issues involved with Paddy Stubble:
  - About 20 million tonnes of paddy stubble or paddy crop residue is generated in Punjab annually. Less than 5% is being utilized in Bio-gas, Biomass power generation or other environment-friendly uses. The main mode of getting rid of this stubble is stubble burning.
  - Stubble Burning is a major cause of concern because of environmental and health reasons.
    - Stubble burning is considered to be one of the factors responsible for smog in Delhi.
  - The burning of stubble reduces the soil fertility, besides polluting the environment.
  - Additionally, the heat generated by stubble burning penetrates into the soil, leading to the loss of moisture and useful microbes.
- Other alternatives to utilize paddy stubble:
  - Torrefaction: Torrefaction is a thermal process to convert biomass into a coal-like material, which has better fuel characteristics than the original biomass.
  - Fertilizer: The stubble can be used for preparation of the high-grade organic fertilizers by mixing with cow dung and few natural enzymes.
  - Mechanized Management: Stubble can be managed in three ways — by pressing the left over stubble under the earth; sowing wheat directly in the standing stubble in the fields and thirdly, by collecting it in bundles. This can be aided by use of machines like:
    - Super SMS (Straw Management System): It cuts and spreads the straw in uniform manner in the field at the time of harvesting of paddy.
    - Happy Seeder: It can sow wheat directly in such fields in standing paddy stubble (the height of which remains around 18 inches after cutting with Super SMS).
    - Super Seeder: It is more advanced and it ploughs standing paddy stubble in soil and sows wheat seed simultaneously in a single operation after harvesting.

***Government Initiatives***

- Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue - It is a Central Sector Scheme that was launched by the Government of India to tackle air pollution and to subsidize

machinery required for in-situ management of crop residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi.

- SATAT Scheme: Sustainable Alternative Towards Affordable Transportation (SATAT) scheme was launched by the Minister of Petroleum and Natural Gas. Its objectives include reducing pollution from burning of agricultural / organic waste and utilising more than 62 million metric tonnes of waste generated every year in India.
- The Punjab government has provided 74,000 subsidised machines called Super SMS, Happy Seeder and Super Seeders to the farmers for stubble management after harvesting.

**Way Forward**

- The government must help the youth in setting start-ups for stubble utilization by getting sanctioned loans and providing a market.
- Joint efforts are required on the part of the state, Centre and industries, including public and private participation, to convert all of Punjab's stubble into farmers' income. Stubble-based projects can be set up at the block-level to manage stubble of that bloc.
- An expansion of schemes like the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) for harvesting and composting of stubble will help to resolve the dual problem of unemployment and stubble burning.

**SAROD-Ports : Dispute Resolution Mechanism**

The Union Ministry of Shipping launched 'SAROD-Ports' (Society for Affordable Redressal of Disputes - Ports) through virtual ceremony in New Delhi.

**Key Points**

▪ **About SAROD-Ports:**

- It is established under Societies Registration Act, 1860.
- 'SAROD-Ports' is similar to provision available in Highway Sector in the form of SAROD-Roads constituted by National Highways Authority of India (NHAI).
- It consists of members from Indian Ports Association (IPA) and Indian Private Ports and Terminals Association (IPTTA).
- Functions:
  - SAROD-Ports will advise and assist in settlement of disputes through arbitrations in the maritime sector, including ports and shipping sector in Major Port Trusts, Non-major Ports, including private ports, jetties, terminals and harbours.
  - It will also cover disputes between:
    - Granting authority and Licensee/Concessionaire /Contractor.
    - Also, disputes between Licensee/Concessionaire and their contractors arising out of and during the course of execution of various contracts.

▪ **Benefits:**

- SAROD-Ports will become the pivotal mechanism of *ummeed* (hope), *vishwas* (trust) and *nyaya* (justice) in the Port sector of India. It will lead to saving huge amounts of legal expenditure and time.
- Enforcement of concession agreements in the letter and spirit.
  - A concession agreement is a contract that gives a company the right to operate a specific business within a government's jurisdiction or on another firm's property, subject to particular terms.
- It will promote ease of doing business in the maritime sector because of the fast, timely, cost effective and robust dispute resolution mechanism.
  - It will inspire confidence in the private players.
- All major Ports will shift towards the 'Landlord Model'.

▪ **Model Concession Agreement**

- Model Concession Agreement is the core of public private partnership projects in India. It sets regulatory framework to implement PPP (Public Private Projects) in India. There are MCAs for national highways, urban rail transit systems, state highways and ports.
- Amendments to the Model Concession Agreement (MCA): In January 2018, the government approved amendments in the Model Concession Agreement (MCA) to make the Port Projects more investor-friendly.

**Key features:**

- Constitution of the Society for Affordable Redressal of Disputes – Ports (SAROD-Ports) as dispute resolution mechanism.
- Providing an exit route to developers by way of divesting their equity upto 100% after completion of 2 years from the Commercial Operation Date (COD).
- Under provision of additional land to the Concessionaire, land rent has been reduced from 200% to 120% of the applicable scale of rates for the proposed additional land.
- Introduction of Complaint Portal for the use of port users.

### INTERNATIONAL RELATION

#### Acquisition and Cross-Servicing Agreement

Recently, India and Japan signed a logistics agreement that will allow armed forces of both sides to coordinate closely in services and supplies. The agreement is known as Acquisition and Cross-Servicing Agreement (ACSA).

- India has similar agreements with the USA, Australia, France, Oman and Singapore.



#### **Key Points**

- **The Agreement:**
  - It is aimed at greater maritime cooperation and can upgrade India-Japan naval exercises as both countries are expected to share maritime facilities for mutual benefit.
  - It establishes the enabling framework for closer cooperation between the armed forces of both countries in reciprocal provision of supplies and services while engaged in bilateral training activities, United Nations Peacekeeping Operations, Humanitarian International Relief and other mutually agreed activities.
    - The supplies and services include food, water, transportation, airlift, petroleum, clothing, communications and medical services etc.
  - It will also enhance the interoperability, assist in maintaining regional security and further increase the bilateral defence engagements between the two countries.
  - It will remain in force for 10 years and will be automatically extended for periods of 10 years unless one of the parties decides to end it.
  - The agreement is being interpreted as a coming together of Japan and India when India is having a border standoff with China at Line of Actual Control (LAC) in eastern Ladakh.
- **India-Japan Defence Cooperation:**
  - In 2019, India and Japan held the first-ever ministerial-level 2+2 dialogue. This dialogue involves the Defence and Foreign Ministers on both sides and is seen as an endorsement of the special strategic partnership between India and Japan.

- Both nations share a common vision of a free, open, inclusive and rules-based Indo-Pacific region in which the principles of sovereignty and territorial integrity are ensured.
- India and Japan defence forces organize a series of bilateral exercises namely, JIMEX (naval exercise), SHINYUU Maitri (air force exercise), and Dharma Guardian (military exercise). Both countries also participate in Malabar exercise with the USA.
  - Both the countries are also part of Quadrilateral Security Dialogue (QUAD).

**Way Forward**

- India needs sophisticated weapons and technology from Japan, so more collaboration and cooperation can prove beneficial to both nations.
- There is huge potential as far as Make in India and defence deals are concerned. Joint ventures could be created by merging Japanese technology with Indian raw materials and labour.
- Closer cooperation is the best measure to combat China's growing role in Asia and Indo-Pacific.

**INDIAN POLITY**

**Cooperative Labour in Odisha Tribes**

The concept of labour cooperatives is popular in almost all tribal communities in Odisha including the Dongria Kondh, Juanga, Lanjia Saura, Saura, Didayi, Paudi Bhuyan and Kandh.

**Key Points**

1. Need: Farming on the steep hill slopes requires more labour which a single family cannot provide. Therefore, they have evolved an indigenous system to engage the labour available in the community to accomplish the farming tasks of all the families of the village.
2. Benefit: These cooperatives ensure all families of the community are ensured food and no fields remain barren. They also strengthen the feeling of collective belongingness among the members.
3. Cooperatives in Different Tribes:
  - Lanjia Saura: All members are bound to participate in constructing terraces for farming on the slopes and designing and creating traditional irrigation systems, harnessing hill streams.
  - Juanga community: All villagers trek hills, clear trees and create crop fields. The village council ensures that all members contribute their labour.
    - The Juanga and Saura are Munda ethnic groups from Southern Odisha.
    - They are Austroasiatic tribes i.e. they are believed to be part of the first wave of migration out of Africa about 60,000 years ago.
  - Dongria Kondh: This tribe practices at least 10 types of cooperative labour sharing within the community.
  - Types of Cooperatives in Dongria Kondh Tribe:
    - *Sahabati*: All Dongria households of the village work in turns for a day on the land of one villager.
    - *Daasibati*: Cooperative of younger, unmarried girls from the village for less strenuous but tedious work such as weeding, fencing of fields, cleaning or harvesting of crops.
    - *Dhangdabati*: Young bachelors are required to take up work such as felling trees, hoeing, carrying logs and digging pits.

**Additional Information:**

**Dongria Kondh**

About: They derive their name from dongar, meaning 'hill' and are the member of Khond Tribe

Status: They are a Particularly Vulnerable Tribal Group.

Habitation: They reside in the Niyamgiri hill range of Odisha, around 4,500 ft above sea level.

Language: Kui language (Oral only, not written)

Beliefs: They worship Niyam Raja, the god of the Niyamgiri Forests.

Occupation: They sustain themselves from the resources of the Niyamgiri forests, practising horticulture and shifting cultivation

Issues: They are currently facing displacement due to the Bauxite mining in the Niyamgiri hills.

They are also facing severe health problems because of dust coming from the red mud pond (waste generated by the refinery) site.

**Tribes in Odisha**

Odisha is home to 62 tribal communities — the largest diverse groups of tribal population in India.

13 of them are PVTGs— Bonda, Birhor, Chuktia Bhunjia, Didayi, Dungaria Kandha, Hill Kharia, Juang, Kutia Kondh, Lanjia Saora, Lodha, Mankirdia, Paudi Bhuyan and Saora.

Tribal populations are found in the entire seven districts of Kandhamal, Mayurbhanj, Sundargarh, Nabarangpur, Koraput, Malkangiri and Rayagada, and in parts of 6 other districts.

### **INDIAN ECONOMY**

#### **India Among the top 50 Innovative Countries**

Recently, the Global Innovation Index 2020 was released by the World Intellectual Property Organisation (WIPO).

- India is at the 48<sup>th</sup> position in the list of top 50 innovative countries.
  - India occupied the 52<sup>nd</sup> position in 2019 rankings.

#### ***Key Points***

- Switzerland, Sweden, the USA, the UK and Netherlands are the top five countries.
- With a group of Asian economies advancing up the rankings, the index indicates that "a gradual eastward shift in the locus of innovation" is underway.
- In Asian economies, China, India, the Philippines and Vietnam have made the most progress on the index in recent years, with all four now among the top 50.
  - India is one of the leading innovation achievers in the central and southern Asian region, as it has shown a consistent improvement in its innovation ranking for the last 5 years.
  - China, which is the only middle-income economy among the top 30, now holds the 14<sup>th</sup> position.
- India Specific Highlights:
  - India has become the third most innovative lower-middle-income economy in the world.
  - India ranks in the top 15 in indicators such as the Information and Communication Technology (ICT) services exports, government online services, graduates in science and engineering, and Research and Development-intensive global companies.
  - India improved the most in three pillars: Institutions (61<sup>st</sup>), business sophistication (55<sup>th</sup>), and creative outputs (64<sup>th</sup>).
  - The consistent improvement in the index rankings is owing to the immense knowledge capital, the vibrant startup ecosystem, and the amazing work done by the public and private research organisations.
  - The India Innovation Index 2019 which was released by the NITI Aayog, has been widely accepted as the major step in the direction of decentralisation of innovation across all the states of India.

### **IMPORTANT FACTS FOR PRELIM**

#### **Rajiv Mehrishi Panel on Loan Moratorium**

Recently, the Union government has constituted an expert committee to measure the economic impact of waiving of interest and interest on interest on the Covid-19 related loan moratorium.

#### ***Key Points***

- Chairmanship: The expert panel will be chaired by Rajiv Mehrishi, former Comptroller and Auditor General (CAG) of India, and will submit its report within one week.
- Task: It will measure the impact on the national economy and financial stability of waiving of interest and Covid-19 related moratorium.
  - It will also give suggestions to mitigate financial constraints of various sections of society in this respect and measures to be adopted in this regard.
- Background: The move came as various concerns have been raised during the ongoing hearing in the Supreme Court in the matter regarding relief sought in terms of waiver of interest and waiver of interest on interest and other related issues.
  - The Court has extended its interim order that no account is to be declared Non Performing Assets (NPA) till further orders.
  - The Court granted two weeks to the Centre and the Reserve Bank of India (RBI) to file the affidavit and place before it the decisions taken in this regard.

#### ***Moratorium on Repayments of Loans***

- A moratorium provides stressed customers extra time to repay without their accounts being labelled NPA or their credit score being affected.
- It is not a loan waiver and does not offer any discount on interest payout.
- RBI had allowed banks to defer payment of Equated Monthly Installments (EMIs) on home, car, personal loans as well as credit card dues till 31st August 2020.
- The RBI had also allowed lending institutions, banks to defer interest on working capital repayments— a move aimed at addressing the distress among firms as production is down.

- A working capital loan is a loan that is taken to finance a company's everyday operations.
- As the six-month moratorium on loan repayments ended on 31st August, the RBI has released the final loan restructuring guidelines suggested by K.V. Kamath Committee.
- Restructuring for corporate loans will be based on financial parameters set out in RBI rules, while for retail borrowers, lenders will put in place board-approved policies for recasting loans.

### DAILY ANSWER WRITING PRACTICE

**Qns. Urbanization has long been associated with human development and progress, but it has been observed that urban settings can also lead to significant inequalities and health problems . Discuss the statement.(250 words)**

**Ans.**

- Urbanization refers to the mass movement of populations from rural to urban settings and the consequent physical changes to urban settings. In 2019, the United Nations estimated that more than half the world's population now lives in urban areas and by 2041, this figure will increase to 6 billion people.
- Over 34% of India's current population lives in urban areas (UN World Urbanisation Prospects Report 2018). It has expanded rapidly as an increasing number of people migrate to towns and cities in search of economic opportunity.

**Urbanisation is associated with human development and progress**

- Urbanization has the potential to augment economic activity, provide employment opportunities and enhance access to basic services.
- Throughout history, cities have been the main centres of learning, culture and innovation. It is not surprising that the world's most urban countries tend to be the richest and have the highest human development.
- Ongoing rapid urbanisation has the potential to improve the well-being of societies.
- Although only around half the world's people live in cities, they generate more than 80 percent of Global Domestic Product (GDP).
- Cities are also younger: home to relatively more young and working-age adults than rural areas, making them pivotal places to capture demographic dividends.
- However, urbanization can turn cities into places of deprivation, inequality and exclusion.

**Issues associated with urbanization**

- **Poor nutritional health:** Urbanization has a major negative impact on the nutritional health of poor populations. The urban people sometimes lack balanced diets and this leads to malnourishment.
- **Obesity:** People in urbanized areas of developing countries are vulnerable to obesity due to lack of physical space, continually sitting in workplaces, and excessive energy intake and low energy expenditure.
- **Urban Crimes:** Crime rates in urban areas are rising especially human trafficking, sexual assault, child labour etc.
- **Proliferation of Slums:** Due to poor infrastructure and rising cost of living in urban areas, the poor people are forced to live in slums. The number of slums have been rising from the past few years. The largest slum of Asia, **Dharavi** is located in Mumbai, India.
- **Pollution:** Pollution is another major contributor to poor health in urban environments. For instance, the World Health Organization estimated that 6.5 million people died (11.6% of all global deaths) as a consequence of indoor and outdoor air pollution and nearly 90% of air-pollution-related deaths occurred in low- and middle-income countries.
- **Waste generation:** Due to rising migration and population in urban areas, waste generated has been increasing exponentially which is posing a serious health problem.

**Way forward**

- Although urbanization has become an irreversible phenomenon, we must tackle the root causes of the problem, such as **improving the socio-economic situation** of the urban poor.
- Some examples of policies and practices that should be considered include :
  - Policies addressing urban environmental issues, such as planned urban space and taxes on the use of vehicles to reduce use or to encourage vehicles that use less fuel as well as encourage bicycle use, walking, and other forms of human transportation;
  - Greater cooperative planning between rural and urban regions to improve food security e.g., subsidies for farmers providing locally produced, unprocessed and low cost food to urban centers.

- Social protection and universal health coverage to reduce wealth disparity among urban dwellers; including introduction of programs and services for health,
- For example by establishing primary healthcare clinics accessible and affordable for all including those living in urban slums

**Conclusion**

Until the conditions in rural areas improve, populations will continue to migrate to urban settings. The governments and development agencies should concentrate on adapting to the challenges of urbanization, while seeking to reduce unplanned urbanization.

**DAILY QUIZ**

1. The 'Sustainable Alternative Towards Affordable Transportation (SATAT)' scheme is launched by which of the following ministries?  
A. Ministry of Road Transport & Highways  
B. Ministry of Agriculture & Farmers' Welfare  
**C. Ministry of Petroleum and Natural Gas**  
D. Ministry of Railways
2. Consider the following statements:
  1. Ozone occurs in both the stratosphere and troposphere of the Earth's atmosphere.
  2. The Ozone found in the troposphere is a harmful air pollutant.Which of the statements given above is/are correct?  
A.1 only  
B.2 only  
**C. Both 1 and 2**  
D. Neither 1 nor 2
3. With reference to the Global Innovation Index 2020, consider the following statements:
  1. It is released by the World Intellectual Property Organisation (WIPO).
  2. India is ranked in the list of top ten innovative countries.Which of the above statements is/are correct?  
**A. 1 only**  
B. 2 only  
C. Both 1 and 2  
D. Neither 1 and 2
4. With reference to the 'Five Star Villages' scheme, consider the following statements:
  1. It is launched by the Ministry of Rural Development.
  2. It aims to provide universal coverage of flagship postal schemes in rural areas.Which of the above statements is/are correct?  
A.1 only  
B.2 only  
C. Both 1 and 2  
D. Neither 1 and 2
5. With reference to the 'SAROD-Ports', which of the following is/are correct?
  1. It is a platform for settlement of disputes through arbitrations in the maritime sector.
  2. It has been established under Societies Registration Act, 1860.Choose the correct option from the codes given below.  
A.1 only  
B.2 only  
**C. Both 1 and 2**  
D. Neither 1 nor 2