

## UPSC CURRENT AFFAIRS NOTES

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### GOBARDhan Scheme

In 2018, GoI launched the GOBAR-Dhan Scheme as a national priority project under the Swachh Bharat Mission Gramin – Phase II programme. In the Union Budget 2023, the Finance Minister announced 500 new ‘waste to wealth’ plants for promoting a circular economy with a total investment of Rs 10,000 crore under the GOBAR-Dhan scheme. Of the 500 new plants, 200 will be compressed biogas plants (CBG), including 75 in cities and the remaining 300 will be community or cluster-based plants.



### GOBAR-Dhan Scheme (Galvanising Organic Bio-Agro Resources)

The GOBAR-Dhan scheme was launched in April 2018 by the Department of Drinking Water and Sanitation under the Jal Shakti Ministry. The scheme focuses on keeping villages clean, increasing the income of rural households and generating energy from cattle waste.

The scheme is being implemented as part of the Swachh Bharat Mission (Gramin).

The Swachh Bharat Mission (Gramin) comprises two main components for creating clean villages – creating open defecation-free (ODF) villages and solid and liquid waste management (SLWM) in villages.

### A Unified Portal of GOBHAR-Dhan ensures the smooth implementation of Biogas schemes/initiatives and their real-time tracking.

A total of 589 Biogas/CBG (Compressed Biogas) plants are functional under the GOBAR-Dhan scheme. Additionally, 251 are under construction.

So far, 168 districts have been covered under the scheme.

## GOBARDhan Scheme Objectives

- The objective of the scheme is to support villages to safely manage their cattle waste, agricultural waste and eventually all organic waste.
- The scheme supports communities converting their cattle and organic waste to wealth using decentralised systems.
- Through effective disposal of waste in rural regions, the scheme helps to curb vector-borne diseases.
- The conversion of organic waste especially cattle waste to biogas and fertiliser for use in rural areas.
- The scheme promotes rural entrepreneurship, employment and income-generation opportunities.

## Implementation of GOBARDhan Scheme

- There are 4 Models for the implementation of the projects. As per GOBAR-DHAN guidelines, the Model wise incentive is as under.
- Model-A (Gram Panchayat): Rs. 7 lakhs, Rs. 12 lakhs, Rs. 15 lakh and Rs. 20.00 lakh for a GP having households up to 150, 300, 500 and more than 500 respectively.
- Model-B (SHG Federation): Rs. 7 lakhs, Rs. 12 lakhs, Rs. 15 lakh and Rs. 20.00 lakh for a GP having households up to 150, 300, 500 and more than 500 respectively.
- Model-C (Bulk Waste Generator/ Entrepreneur) is Rs. Rs. 7 lakhs, Rs. 12 lakhs, Rs. 15 lakh and Rs. 20.00 lakh for a GP having households up to 150, 300, 500 and more than 500 respectively.
- Model-D (Any Eligible Enterprise): No incentive

## Stakeholders in the GOBARDhan Scheme

- Dept of Agricultural Research and Education
- Dept of Agriculture, Cooperation and Farmers' Welfare
- Dept of Rural Development
- Ministry of New and Renewable Energy
- Ministry of Skill Development and Entrepreneurship
- Dept of Drinking Water and Sanitation
- Ministry of Petroleum and Natural Gas
- Dept of Animal Husbandry and Dairying
- Ministry of Environment, Forest and Climate Change
- Dept of Science and Technology
- Dept of Fertilizers
- Biogas-

Biogas contains about 55-65% methane, 35-44% carbon dioxide and traces of other gases such as ammonia, Hydrogen sulphide and nitrogen.

In its raw form, biogas can be used as a clean cooking fuel like LPG for lighting, motive power and electricity generation.

Biogas can be purified and upgraded up to 98 % of purity to make it suitable to be used as a green fuel for transportation or filling of cylinders. The process relies on a high pressure of circa 250 bar and hence is called compressed biogas (CBG).

The Galvanising Organic Bio-Agro Resources Scheme (GOBAR-Dhan) is implemented under the Swachh Bharat Mission (Gramin) Phase II program. Its aim is to promote a circular economy.

**Biogas mainly consists of methane (55-65%), Carbon-dioxide (35-44%) and traces of other gases.**

## Sanchar Saathi portal

**In order to reduce cyber frauds performed through fraudulently acquired SIM cards, the Department of Telecommunications (DoT) will now require police verification for SIM dealers, the enforcement move follows the launch of the Sanchar Saathi portal.**

The portal aims to provide various reforms and services related to mobile connections and telecommunications.



It has been developed by C-DoT under the Department of Tele-communications (DoT) to prevent frauds such as identity theft, forged KYC, banking frauds etc.

The portal allows mobile phone users to:

- Check the connections registered on their names.
- Report fraudulent or unrequired connections.
- Block the mobile phones which are stolen/lost
- Check IMEI genuineness before buying a mobile phone.

The three reforms are being introduced as part of the portal's framework:

**CEIR (Central Equipment Identity Register):** It enables the tracking and blocking of lost or stolen phones anywhere in the country.

**Know your mobile connections:** It allows users to check the number of mobile connections issued in their name by logging in using their mobile number. This feature helps identify any unauthorized or unwanted connections, which can be blocked immediately.

**ASTR (Artificial Intelligence and Facial Recognition powered Solution for Telecom SIM Subscriber Verification):** This AI-based technology facilitates mobile connection analysis and includes features such as IMEI-based phone theft information messaging to law enforcement agencies and the owner. It also enables blocking of any number associated with a particular IMEI and the tracking of stolen mobile devices.

The portal and its reforms aim to enhance transparency, security, and accountability in the telecom sector.

Source : Mobile SIM dealers to require police, biometric verification: IT Minister

Government Schemes and Initiatives

## Kuldiha Wildlife Sanctuary

Recently, the National Green Tribunal (NGT) directed a notice to be issued, related to the complaint of mining activities taking place in the eco-sensitive zone of Kuldiha Wildlife Sanctuary, Balasore district, Odisha



About Kuldiha Wildlife Sanctuary:

- It is a major wildlife sanctuary in Odisha which was established in 1984.
- It is spread across the Chota Nagpur Plateau region.
- It is connected with Simlipal Reserve via Nato and Sukhupada Hill ranges.
- Flora: It contains mixed deciduous forest.
- Fauna: It consists of lot of wild animals like the tigers, elephants, leopards, bison, gaur, giant squirrels and sambar etc.

### Key facts about National Green Tribunal

It has been established under the National Green Tribunal Act 2010.

New Delhi is the Principal Place of Sitting of the Tribunal and Bhopal, Pune, Kolkata and Chennai shall be the other four places of sitting of the Tribunal.

NGT is mandated to make disposal of applications or appeals finally within 6 months of the filing of the same.





### Composition:

The tribunal comprises the Chairperson, the Judicial Members, and Expert Members.

They shall hold office for a term of 5 years and are not eligible for reappointment.

The Chairperson is appointed by the Central Government in consultation with the Chief Justice of India (CJI).

A Selection Committee shall be formed by the central government to appoint the Judicial Members and Expert Members.

There are to be at least 10 and a maximum of 20 full-time Judicial members and Expert Members in the tribunal.

### **Debt-for-nature swap**

**Recently, Gabon announced a \$500 million debt-for-nature swap which is the largest such deal signed by any country.**

Under the debt-for-nature swap, Gabon has agreed to a deal with the Bank of America, the US International Development Finance Corporation (USDFC) and The Nature Conservancy (TNC), to refinance \$500 million in national debt toward marine conservation efforts in the country.

About Debt-for-nature swap:

What it is? It allows heavily indebted developing countries to seek help from financial institutions in the developed world with paying off their debt if they agree to spend on conservation of natural resources.

The notion of debt-for-nature swaps was first mooted in 1984 by Thomas Lovejoy, the former vice-president for science at the World Wildlife Fund-US, in response to the Latin American debt crisis.

The first debt-for-nature swap was a third-party deal facilitated by Conservation International. Finalised in 1987, it involved foreign creditors agreeing to forgive USD 650,000 of Bolivia's debt in exchange for the country setting aside 1.5 million hectares in the Amazon Basin for conservation efforts.

What are the benefits?

Debt-for-climate swaps provide benefits for both creditors and debtors.

Creditors can advance their development cooperation and climate finance goals, improve their chances of debt recovery, and strengthen their diplomatic ties with debtor nations.

Debtors can reduce their external debt and debt service obligations, allocate fiscal resources towards other development priorities, promote climate action through domestic investment.



## Floating Interest Rate

**The Reserve Bank of India (RBI) recently issued detailed guidelines to reset floating-interest rates on Equated Monthly Instalments (EMI)-based personal loans.**

About Floating Interest Rate:

- A floating interest rate is an interest rate that changes periodically.
- The rate of interest moves up and down, or "floats," reflecting economic or financial market conditions.
- A floating interest rate can also be referred to as an adjustable or variable interest rate because it can vary over the term of a debt obligation.
- The change in interest rate with a floating rate loan is typically based on a reference, or "benchmark", rate that is outside of any control by the parties involved in the contract.
- The reference rate is usually a recognized benchmark interest rate, such as the prime rate, which is the lowest rate that commercial banks charge their most creditworthy customers for loans (typically, large corporations or high net worth individuals).

How is floating interest rate calculated?

- A floating interest rate uses a reference rate as the base.
- In order to arrive at the floating rate, a spread (or margin) is added to the reference rate.
- Floating Interest Rate = Base Rate + Spread
- Floating interest rates can be modified quarterly, half-yearly or annually.
- Several factors tend to influence the calculation of floating interest rates. Some of the economic factors are,
- Repo rate

Government's monetary policies

- Inflation rate
- Fiscal deficit
- Global and foreign interest
- When is Floating Rate Relevant?

While applying for a loan:

Typically, intending borrowers pick a loan with a floating rate when they expect a reduction in the interest rate or a dynamic rate through their loan tenure.

Additionally, such an interest type enables individuals to make prepayments easily and pay off their debt faster and at a much lower interest burden.

While investing:

Individuals can choose investment instruments with floating rates when they anticipate the base rate will be the same, or an expected change will be in their favour.

Under such situations, the interest earned on investments made either stays the same or is likely to increase.

### Limitations of Floating Rate:

The fluctuation of rate is beyond the control of both parties in a contract, namely – the lender and borrower in a lending institution setup.

Similarly, investors and investment firms have to make their way around the fluctuations to generate earnings while cushioning their capital.

Even the slightest increase in the interest rate can push loan EMI burden significantly for loan borrowers. It often makes the repayment process challenging and disrupts a functioning financial plan.

A small decrease in the interest rate generates a return on investment which is much lower than what one had anticipated before. As a result, investors may take a longer time to reach their respective financial goals.

Both borrowers and investors often find it quite challenging to manage their budget plan and regulate savings when dealing with a floating rate based financial or investment option.

### What is the International Criminal Court (ICC)

#### **Russia recently announced sanctions on the International Criminal Court (ICC) prosecutor and British ministers.**

It is the only permanent international criminal tribunal.

Background: It was created by the 1998 Rome Statute of the International Criminal Court (its founding and governing document), and began functioning on 1 July 2002 when the Statute came into force.



**Mandate:** It investigates and, where warranted, tries individuals charged with the gravest crimes of concern to the international community: genocide, war crimes, crimes against humanity, and the crime of aggression.

**HQ:** Hague, Netherlands.



**Members:** 123 nations are States Parties to the Rome Statute and recognize the ICC's authority; the notable exceptions being the US, China, Russia, and India.

**Funding:** The Court is funded by contributions from the States Parties and by voluntary contributions from Governments, international organizations, individuals, corporations, and other entities.

### Composition:

**Judges:** The Court has eighteen judges, each from a different member country, elected to non-renewable nine-year terms.

**The Presidency:** Consists of three judges (the President and two Vice-Presidents) elected from among the judges. It represents the Court to the outside world and helps with the organization of the work of the judges.

**Judicial Divisions:** 18 judges in 3 divisions, the Pre-Trial Division, the Trial Division, and the Appeals Division.

**Office of the Prosecutor (OTP):** OTP is responsible for receiving referrals and any substantiated information on crimes within the jurisdiction of the Court. OTP examines these referrals and information, conducts investigations, and conducts prosecutions before the Court.

**Registry:** The core function of the Registry is to provide administrative and operational support to the Chambers and the Office of the Prosecutor.

### **Jurisdiction of ICC:**

Unlike the International Court of Justice, which hears disputes between states, the ICC handles prosecutions of individuals.

The ICC is only competent to hear a case if:

the country where the offence was committed is a party to the Rome Statute; or

the perpetrator's country of origin is a party to the Rome Statute.

The ICC may only exercise its jurisdiction if the national court is unable or unwilling to do so.

The ICC only has jurisdiction over offences committed after the Statute's entry into force on 1 July 2002.

### **Relation with UN:**

While not a United Nations organization, the Court has a cooperation agreement with the United Nations.

When a situation is not within the Court's jurisdiction, the United Nations Security Council can refer the situation to the ICC, granting it jurisdiction.

**Source :** Russia imposes sanctions on ICC prosecutor for seeking Putin's arrest.



## Likaru-Mig La-Fukche road

**Border Roads Organisation (BRO) recently started the construction of the Likaru-Mig La-Fukche road close to Hanle in Eastern Ladakh's Demchok sector.**



- It is located close to Hanle in Eastern Ladakh.
- The 64-km long road will connect Likaru to Fukche, situated 3 km from the Line of Actual Control (LAC).
- Once completed, it will be the world's highest motorable road at a height of 19,400 ft in Mig La.
- This would also provide an alternate land connectivity route to the Fukche advanced landing pad, which is only 2.5 km away from the LAC.
- It is the first project in India to be carried out entirely by an All Woman Road Construction Company. It is led by a five-member All Woman Border Road Task Force.

### Umling La Pass:

- Currently, Umling La in Ladakh, at a height of 19,024 ft, holds the record of being the highest motorable road in the world.
- The construction of this road has been achieved by the BRO (Border Road Organization) as part of "Project Himank".
- It is a 52-km road that connects Chishumle to Demchok villages. Both these villages lie in close proximity to the Line of Actual Control (LAC), and a friction point between India and China.

## Solar Energy Corporation of India Limited (SECI)

**The Solar Energy Corporation of India (SECI) recently invited bids for developing more than 4 gigawatts (GW) of renewable energy, including wind power.**



SECI is a Central Public Sector Undertaking (CPSU) under the administrative control of the Ministry of New and Renewable Energy (MNRE)..



It was set up on 20th September 2011 to facilitate the implementation of the National Solar Mission (NSM) and the achievement of targets set therein.

It is the only CPSU dedicated to the renewable energy sector.

Vision: To build 'Green India' through harnessing abundant solar radiation and to achieve energy security for the country.

Mission:

- To become the leader in the development of large-scale solar installations, solar plants and solar parks and to promote and commercialize the use of solar energy to reach the remotest corner of India.
- To become a leader in exploring new technologies and their deployment to harness solar energy.
- It was originally incorporated as a section-25 (not-for-profit) company under the Companies Act, 1956.

However, through an amendment by the Government of India, the company was converted into a Section-3 company, in 2015, under the Companies Act, 2013.

The mandate of the company has also been broadened to cover the entire renewable energy domain.

The company is one of the nodal agencies for the implementation of a number of schemes of MNRE. In addition, SECI has ventured into solar project development on a turnkey basis for several PSUs/Government departments.

The company also has a power trading license and is active in this domain through trading of solar power from projects set up under the schemes being implemented by it.

## INDIA'S FIRST 3D-PRINTED POST OFFICE

India marked a significant technological leap with the inauguration of its maiden 3D-printed post office in Bengaluru's Cambridge Layout.

The post office, built by Larsen & Toubro Limited in collaboration with IIT Madras, showcases the practical applications and efficiency of 3D printing technology.



### Understanding 3D Printing

- 3D printing, also known as additive manufacturing, constructs three-dimensional objects layer by layer using computer-generated designs.
- Unlike conventional manufacturing methods that involve material subtraction, 3D printing is additive.
- It employs materials like plastics, composites, or bio-materials to gradually create objects with precision in shape, size, rigidity, and color.

### Basic Principles of 3D Printing

- **Layer-by-Layer Construction:** Unlike traditional subtractive manufacturing, which involves removing material from a larger block, 3D printing builds objects layer by layer, adding material to create the final product.
- **Digital Design:** A 3D model of the object is created using computer-aided design (CAD) software. The digital design is then sliced into thin horizontal layers, which serve as a blueprint for the printer.
- **Material Deposition:** Various materials, including plastics, metals, ceramics, and even biological tissues, can be used as the "ink" for 3D printers. The printer deposits material layer by layer, following the design specifications.

### Applications of 3D Printing

- **Manufacturing:** 3D printing has revolutionized manufacturing by enabling rapid prototyping, reducing production time, and minimizing waste. Complex geometries and intricate designs that were once challenging to create are now achievable with precision.



- **Healthcare:** In the medical field, 3D printing is used to create patient-specific implants, prosthetics, and even organs. Customized medical devices and models for surgical planning enhance patient outcomes.
- **Aerospace:** Aerospace industries utilize 3D printing to manufacture lightweight and durable parts, reducing aircraft weight and fuel consumption. This technology also enables rapid iteration of design improvements.
- **Automotive:** The automotive sector benefits from 3D printing for producing intricate components, optimizing vehicle design, and creating prototypes for testing.
- **Fashion and Design:** Designers leverage 3D printing to create unique and intricate fashion pieces, jewelry, and accessories that were once impossible to achieve with traditional methods.

### Advantages of 3D Printing

- **Customization:** 3D printing allows for individualized and customized products tailored to specific needs or preferences.
- **Complex Geometries:** The technology can create intricate and complex geometries that would be challenging or impossible to achieve using conventional manufacturing techniques.
- **Reduced Waste:** Unlike subtractive manufacturing, where excess material is removed, 3D printing adds material only where needed, minimizing waste.
- **Speed and Efficiency:** 3D printing reduces production time, enabling rapid prototyping and iteration of designs.

### Challenges and Future Prospects

- **Material Limitations:** While 3D printing offers versatility in material options, certain advanced materials may be challenging to work with or expensive.
- **Quality Control:** Ensuring consistent and reliable quality in 3D printed products can be challenging, especially for critical applications.
- **Regulatory and Legal Issues:** As 3D printing evolves, challenges related to intellectual property rights, safety regulations, and quality standards need to be addressed.
- **Bioprinting:** The field of bioprinting holds potential for creating functional organs and tissues for transplantation, but ethical, technical, and regulatory challenges remain.