

INTERNAL SECURITY

World Drug Report 2023

IN CONTEXT: Recently, the World Drug Report 2023 was released by the UN Office on Drugs and Crime (UNODC).

About the Report

- ✓ The World Drug Report is published **annually** by the United Nations Office on Drugs and Crime.
- ✓ The first report was published in **1997**, the same year the agency was established.
- ✓ The World Drug Report provides an **annual overview** of the major developments in drug markets for the various drug categories, ranging from production to trafficking, including development of new routes and modalities, as well as consumption.

UN Office on Drugs and Crime (UNODC)

- ✓ It is a global leader in the fight against illicit drugs and international crime, in addition to being responsible for implementing the United Nations lead programme on terrorism.
- ✓ Established in 1997 and headquartered in Vienna.
- ✓ UNODC relies on voluntary contributions, mainly from governments, to carry out the majority of our work.
- ✓ The UNODC Strategy 2021-2025 is committed to promoting human rights, gender equality and disability inclusion, as well as protecting children and harnessing the transformative power of youth.

Key Findings of the Report

Social and economic disparities and Public Health

Increase in Drug use: Drug use continues to be high worldwide. In 2021, 1 in every 17 people aged 15–64 in the world had used a drug in the past 12 months, 23 percent more than a decade earlier. Cannabis continues to be the most used drug in 2021.

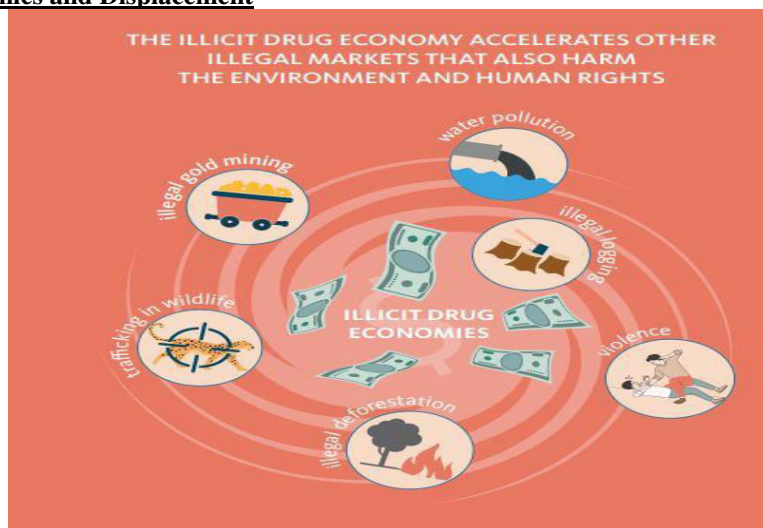
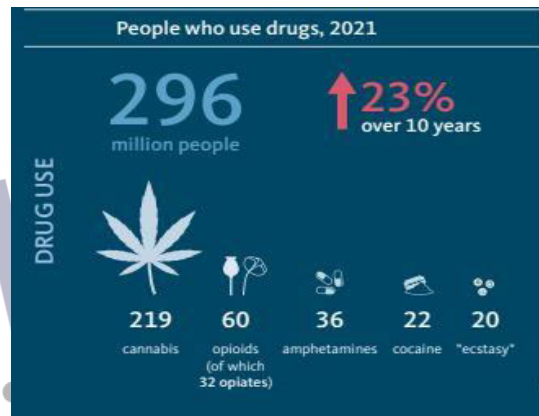
Injecting drug use on rise: New data put the global estimate of people who injected drugs in 2021 at 13.2 million, 18 percent higher than in 2020. Injecting drug use continues to be an important **facilitating driver of the global epidemic of hepatitis C**, with WHO estimating that 23 percent of new hepatitis C infections are attributable to unsafe drug injection.

Unavailability of pharmaceutical opioids: Large inequalities remain in the availability of pharmaceutical opioids for medical consumption. Some 86 percent of the world’s population live without adequate access to pharmaceutical opioids for pain relief and care.

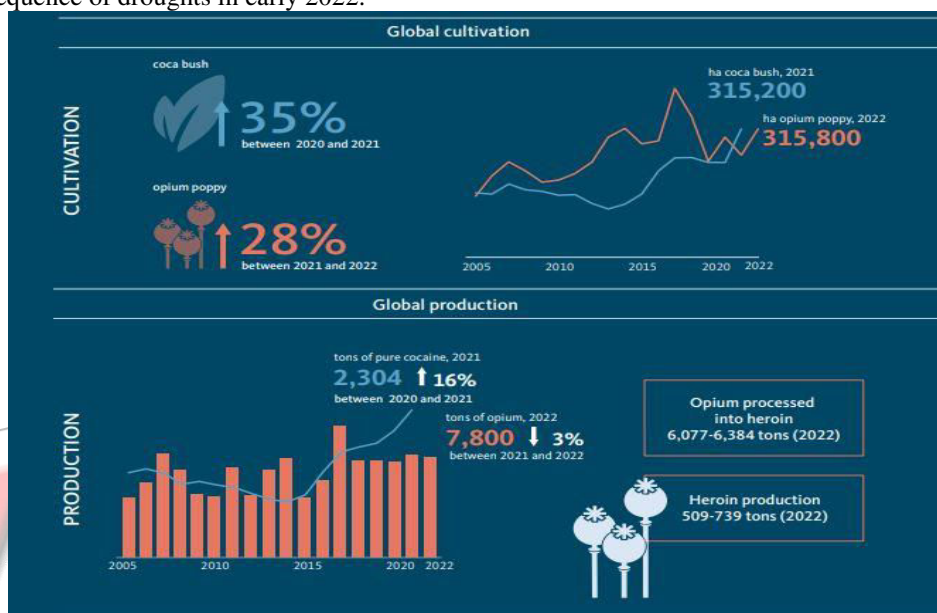
Barriers to treatment: An estimated 39.5 million people worldwide were suffering from drug use disorders in 2021, but only 1 in 5 people with drug use disorders received drug treatment. The Covid-19 pandemic has aggravated the treatment gap. Barriers in accessing treatment are multiple but women are most affected.

Young people are more vulnerable: The use of cannabis among 15–16-year-olds varies by region, from less than 3 percent in Asia to over 17 percent in Oceania but in most regions the proportion of adolescents using the drug is higher than in the general population aged 15–64.

Illicit Drug Economies and Displacement



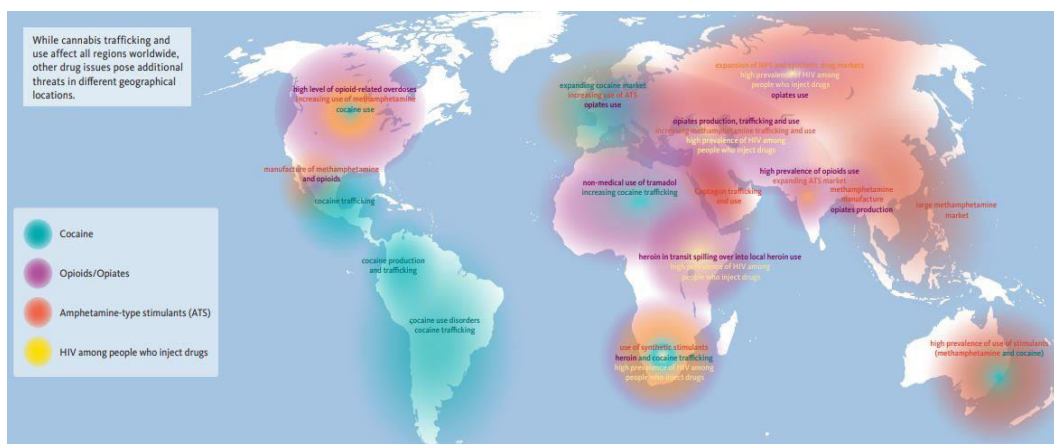
- **Amazon Basin:** Drug cultivation, trafficking and crimes that affect the environment are surging in the Amazon Basin, due in part to an abundance of natural resources alongside a limited State presence, persistent corruption and structural factors related to informality, inequality and unemployment.
- **Multiple illicit activities:** Drug trafficking constitutes just one of the multiple illicit activities in which organized criminal groups are involved, together with land-grabbing, illegal logging, illegal mining, trafficking in wildlife and other crimes that affect the environment across the region.
- **Global methamphetamine manufacture:** Trafficking and use remains concentrated in East and South-East Asia and North America, with the two subregions accounting for almost 90 percent of methamphetamine seized globally in the period 2017–2021.
- **Illicit opium production:** The bulk of global illicit opium production continues to take place in a limited number of countries, notably in Afghanistan. Although the global area under opium poppy cultivation increased by more than 26 percent from the previous year, global opium production declined marginally (3 percent) over the same period. This was due to less opium being produced in Afghanistan (10 percent less) as a consequence of droughts in early 2022.



- **Increase in Drug Trade due to the internet:** Growing use of the Internet and other digital means of communication, including darknet marketplaces catering for the illegal trade in drugs, social media platforms, and other encrypted communication applications, facilitate the drug trade in new ways.
- **Drug abuse in displaced population:** By mid-2022, the number of people who had been forcibly displaced worldwide had exceeded 100 million, which was more than double the nearly 43 million who were forcibly displaced a decade earlier. Among displaced populations, the initiation of, or transition to, harmful use of substances is complex.

Synthetics and Innovations in the Supply of Plant Based Drugs

- **Production of cannabidiol:** Over the last few years, but mainly since 2020, there has been a new trend of synthesis of cannabinoids mainly from a non-psychoactive substance occurring in the cannabis plant, namely cannabidiol (CBD).
 - ✓ These cannabinoids, possibly developed to evade drug laws, have been sold in various forms (mainly edibles, vaping cartridges and sprayed on low-tetrahydrocannabinol (THC) cannabis) for non-medical use. The most common are delta-8-THC and hexahydrocannabinol (HHC).
- **Synthetic Drugs:** Without the need for plant-based inputs that require large tracts of land in territories with weak rule of law, synthetic drugs **only require cheap chemical inputs that can be easily sourced**.
 - ✓ Illegal manufacture of synthetic drugs is expanding in **low- and middle-income countries**, including in countries with strong rule of law.
 - ✓ Synthetic drugs offer criminals several advantages, namely lower operational costs, fewer production impediments, and reduced risks of detection, interdiction and prosecution because they can be produced closer to destination.
- **Increase in new psychoactive substances (NPS):** Traffickers continue to innovate and the range of drugs available on the market has started to expand again. After several years of stabilization, the number of new psychoactive substances on the global market increased in 2021. Of the 618 substances reported to be on the global market in 2021, 87 were newly identified.



Frameworks for the Medical use of Controlled Drugs

- New research on the use of controlled drugs in treating mental health conditions shows that such treatments have potential but regulators run the risk of increasing harm if public health is not prioritized over commercial interests.
- If frameworks for medical use are not well designed and adequately resourced, ensuring access and availability of the drugs for medical purposes, approaches could contribute to the creation of illicit markets through limited supply or diversion of therapies for non-medical use.

Suggestions as per the Report

- **Reducing inequalities and the gap** in access to treatment and comprehensive services to minimize the adverse public health and social consequences of drug use in a continuum of care for people who use drugs, especially vulnerable and marginalized populations, is critical.
- Harms to the environment and to remote and vulnerable communities call for more integrated responses to illicit drug economies at the **local and national level**.
- The continuously shifting strategies and tactics used by criminal groups and traffickers, away from traditional production methods and modes, require **law enforcement strategies that are more targeted and strategic**.
- Thoughtful regulations can help shape the drug landscape to limit diversion, shrink illicit markets, and reduce public health harms when jurisdictions are considering expanding access to psychoactive substances for a growing range of therapies.

Drug Trafficking in Indian Ocean

- Drug production impacting Indian Ocean states takes place in two main regions: the “Golden Crescent”, comprising illicit opium production areas in Iran, Afghanistan and Pakistan; and the “Golden Triangle”, the second largest opium production region in the world, covering Myanmar, Thailand and Laos.
- While heroin produced in the Golden Crescent is trafficked through the Southern Route, drug production in the Golden Triangle has shifted to methamphetamines, including Yaba, a highly addictive pill that combines methamphetamines and caffeine, smuggled into South and Southeast Asian countries.
- Yaba has become widely popular in Bangladesh, where the drug is trafficked into the country through the Naf River, a fluvial bordering area with Myanmar.



SCIENCE AND TECHNOLOGY

Cell-cultivated Chicken

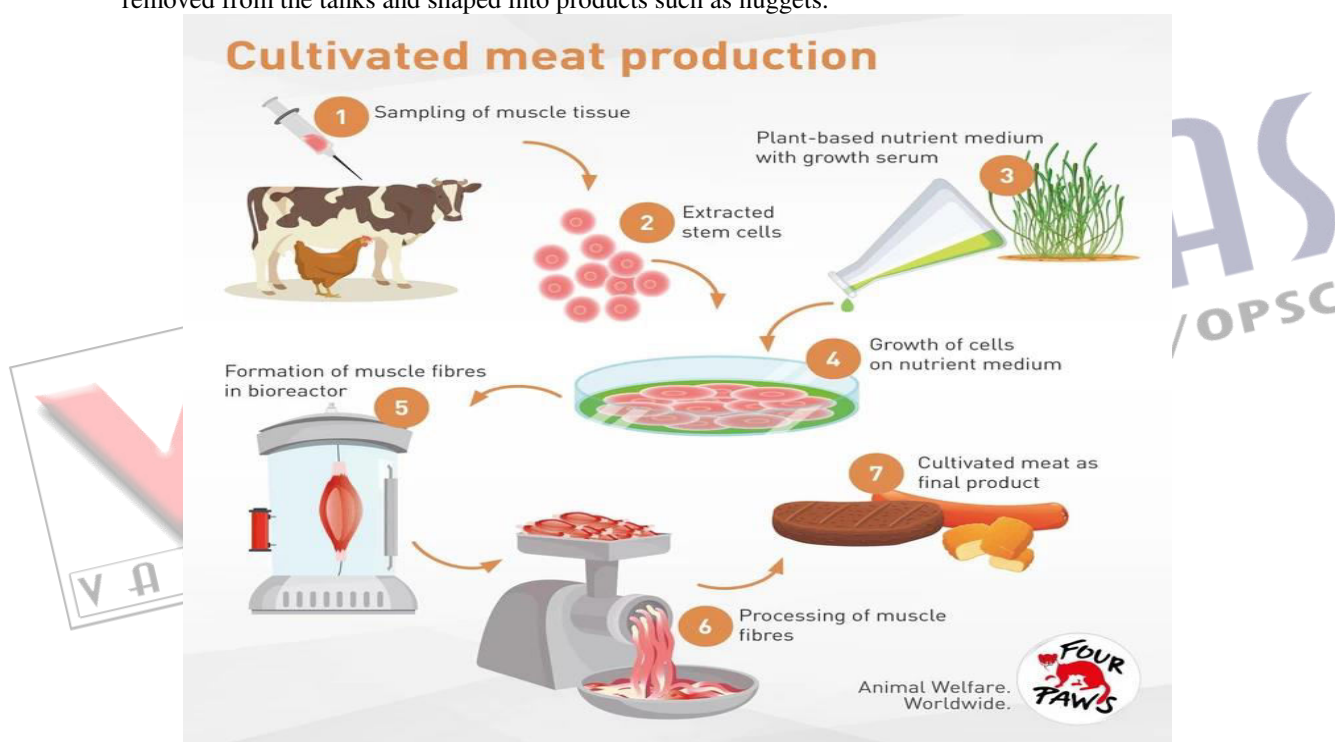
IN CONTEXT: Recently, two California-based companies were cleared to make and sell cell-cultivated chicken in the country .

About Cell-cultivated chicken:

- ✓ It's meat grown from the cells of animals in steel tanks for human consumption.
- ✓ Though it's known in the industry as cultivated meat, it's sometimes called cultured meat, lab-grown meat or cell-based meat.
- ✓ Livestock doesn't need to be raised and killed to produce this new type of meat.
- ✓ The first country to approve the sale of alternative meat was Singapore in 2020.
- ✓ There are more than 150 companies around the world trying to develop these food products.
- ✓ They're working on a variety of meats: chicken, beef, pork and lamb.

Process

- ✓ It starts with cells, which can come from a fertilized egg, a special bank of stored cells or tissue initially taken from a living animal.
- ✓ The cells are mixed with a broth of nutrients that the cells need to grow and divide.
- ✓ Cells are triggered to turn into skeletal muscle, fat and connective tissues. After days or weeks, the cells are removed from the tanks and shaped into products such as nuggets.



Purpose and Needs

- ✓ Its proponents have advanced the following arguments in favour of developing lab-grown meat: emissions, land use, prevention of animal slaughter, food security, and customisation.
- ✓ It is better for the animals and for the environment because land does not need to be cleared for grazing or growing feed.
- ✓ The FAO has estimated that global livestock is responsible for 14.5% of all anthropogenic greenhouse-gas emissions.
- ✓ It can be customized to be healthier than their animal counterpart, such as being designed to contain less fat, thus contributing to public health.

Challenges:

- ✓ Consumer acceptance – Perfectly substituting animal meat with alternative meat requires the latter to match the former's taste, texture, and appearance, and cost.
- ✓ Researchers have achieved some success on these counts but it remains a work in progress, especially as more meats acquire alternative counterparts.
- ✓ Cost – The cost of cell-cultivated meat is expected to remain high in the near future.
- ✓ It may never be cost-competitive, while reports have also expressed concerns about the costs imposed by quality control, especially at scale.

- ✓ A World Health Organization report on the food safety aspects of cell-based food noted several potential issues, such as microbial contamination at various points in the process, biological residues and by-products and scaffolding that some people might be allergic to.

Way Forward: Although there are several potential issues, such as microbial contamination at various points in the process, biological residues and by-products and scaffolding that some people might be allergic to. But experts noted that conventional meat also carries risks, such as bacterial contamination before and during the slaughtering and packaging process. Overall, these advances are the result of the global necessity to renovate our approaches to nutrition and health systems toward providing for both individual and planetary health

PRELIM FACTS

1. UTPRERAK

In Context: Recently, the Ministry of Power established UTPRERAK, to help improve energy efficiency of Indian industry.

What is it?

- UTPRERAK (Unnat Takniki Pradarshan Kendra) also known as Advanced Industrial Technology Demonstration Centre (AITDC) is the Centre of Excellence to Accelerate Adoption of Energy Efficient Technologies.
- It has been set up by the Bureau of Energy Efficiency (BEE), at the Badarpur, New Delhi campus of the National Power Training Institute (NPTI), Ministry of Power.

Functions

- ✓ UTPRERAK will act as an exhibition cum information center and knowledge repository to demonstrate and showcase energy-efficient technologies in key industry sectors.
- ✓ The Centre envisages to provide key inputs for national energy policy formulation, link education and research in energy-efficient solutions, and develop innovative applied solutions for energy efficiency.
- ✓ It is expected to provide intensive training to more than 10,000 energy professionals from the industry and other potential sectors over the next five years.

Necessity of adoption of advanced technologies

- ✓ Advanced Technologies are key to becoming a developed nation for India by 2047.
- ✓ They are also important to Achieve India's Emission Reduction Targets under Nationally Determined Contributions (NDCs).
- ✓ The latest technologies are necessary to manufacture goods at low cost and to compete in the global market.

2. Kharchi Puja

In Context: Recently, The Prime Minister of India greeted people on the occasion of Kharchi Puja. Kharchi Puja, also called the Festival of 14 Gods, is observed on the eighth day of the new moon in July or August every year.

About Kharchi Puja

- ✓ The word 'Kharchi' is derived from two Tripuri words—'khar' or kharta meaning sin and 'chi' or si meaning cleaning.
- ✓ Kharchi Puja is a festival in Tripura, that concentrates on the worship of Chaturdasa Devata, the ancestral deity of the Tripuri people.
- ✓ It is devoted to the deity of the royal dynasty, Tripura Sundari, also known as Kharchi or Kharcha Baba.
- ✓ This festival takes place 15 days after Ambu bachi or Ambu pechi. Ambu pechi symbolises the menstruation of the Mother Goddess or Earth Mother as per Tripuri folklore.
- ✓ There is a popular belief that the Earth becomes impure during the menstruation period of the Goddess. Hence, Kharchi Puja is observed to ritualistically clean the Earth after her menstruation is over and wash away the sins of the people in the land.

Kharchi Puja Rituals

- ✓ Kharchi Puja is observed annually on the Shukla Ashtami day, which falls on the eighth day of the lunar month of Ashadha. Depending on the lunar calendar, the festival's exact dates change every year. The festival is carried out for seven days in a row.
- ✓ Festival began with the chanting of holy mantras.
- ✓ Construction of the Chaturdasha Mandapa: An important ritual of the festival is the construction of the Chaturdasha Mandapa, which symbolises the royal palace of the Tripuri kings and is constructed by traditional artisans who craft the structure out of bamboo and thatched roofs.
- ✓ Procession of Fourteen Gods: On the day of the main puja, the idols of all the 14 deities from the ancient Ujjayanta Palace are carried by the royal priest Chantai from the temple premises in Agartala to the holy Saidra river where they are dipped in the holy waters of the river and carried back to the temple.
- ✓ Many cultural performances by local artists add to the charm of the festival.

3. Southern African Customs Union (SACU).

IN CONTEXT: India's efforts to boost its declining merchandise exports by focusing on a trade deal with the Southern African Customs Union (SACU).

Details:

- India focuses on striking a trade deal with SACU amid declining merchandise exports due to demand slowdown in the west.
- SACU is a resource-rich customs union consisting of Botswana, Eswatini, Lesotho, Namibia, and South Africa.
- The potential India-SACU preferential trade agreement has undergone five rounds of negotiations since 2007.
- ✓ Rationale for Trade Diversification
- Trade experts emphasize the need for export diversification as 40% of India's export orders come from only seven countries, making it susceptible to external shocks.
- Currently, the US and Europe constitute nearly one-third of India's merchandise exports, driving outbound shipments in the past decade.
- ✓ Progress in India-SACU Trade Talks
- Talks between India and SACU have made progress, with both sides agreeing to revive negotiations in 2020.
- SACU being a developing country union simplifies negotiations as non-trade issues like labor, gender, and environment are less likely to pose challenges.

About the South African Customs Union (SACU)

- ✓ It is the world's oldest customs union which was established in 1910.
- ✓ Member countries: South Africa, Namibia, Botswana, Lesotho, and Eswatini (formerly Swaziland).
- ✓ Head Quarter: Windhoek (Namibia)
- ✓ It was administered by South Africa through the 1910 and 1969 Agreements.
- ✓ The customs union collected duties on local production and customs duties on members' imports from outside SACU, and the resulting revenue was allocated to member countries in quarterly instalments utilising a revenue-sharing formula.
- ✓ Negotiations to reform the 1969 Agreement started in 1994, and a new agreement was signed in 2002. The new arrangement was ratified by SACU Heads of State.
- ✓ The Economic structure of the Union links the Member states by a single tariff and no customs duties between them.
- ✓ The Member States form a single customs territory in which tariffs and other barriers are eliminated on substantially all the trade between the Member States for products originating in these countries, and there is a common external tariff that applies to nonmembers of SACU.

4. Rani Durgavati

In context: Rani Durgavati Gaurav Yatra was launched in Madhya Pradesh.

About Rani Durgavati:

1. She belonged to Mahoba's Chandela dynasty and was married to Dalpat Shah, from Gond Kingdom of Garha-Katanga.
2. After death of her husband, She herself took on the reins of government.
3. She constructed several reservoirs such as Ranital, Cherital and Adhartal.
4. She allowed Acharya Bitthalnath to establish a seat of Pushtimarg Cult at Garha.
5. Durgavati repulsed Baz Bahadur, ruler of Malwa, between 1555 and 1560.
6. She was defeated by Mughal governor of Allahabad, Asaf Khan.

ANSWER WRITING

Q. Stating the significance of traditional water harvesting systems in India, enumerate the need to re-introduce them.

INTRODUCTION: Historical evidences show that both floods and droughts were regular occurrence in throughout the history of India. Perhaps this is why every region in the country has its own traditional water harvesting techniques that reflect the geographical peculiarities and cultural uniqueness of the regions. The basic concept underlying all these techniques is that rain should be harvested whenever and wherever it falls.

They are called kuhals in Jammu, kuls in Himachal Pradesh and guls in Uttarakhand. The Maharashtrians call them pats. In Ladakh, they are called zings, and in Nagaland, zabo. Tamilians call them eris, Kannadigas, keres. Rajasthanis have tankas, kundis, bawdis, jhalaras and a host of others. Traditional water harvesting systems exist all over India, but after serving the nation for several millennia, they are dying a slow death.

Traditional water harvesting system in India:

- ✓ Jhalaras are typically rectangular-shaped stepwells that have tiered steps on three or four sides. These stepwells collect the subterranean seepage of an upstream reservoir or a lake. Jhalaras were built to ensure

easy and regular supply of water for religious rites, royal ceremonies and community use. The city of Jodhpur has eight jhalaras, the oldest being the Mahamandir Jhalara that dates back to 1660 AD.

- ✓ Talabs are reservoirs that store water for household consumption and drinking purposes. They may be natural, such as the pokhariyan ponds at Tikamgarh in the Bundelkhand region or man-made, such as the lakes of Udaipur.
- ✓ Bawaris are unique stepwells that were once a part of the ancient networks of water storage in the cities of Rajasthan. The little rain that the region received would be diverted to man-made tanks through canals built on the hilly outskirts of cities. The water would then percolate into the ground, raising the water table and recharging a deep and intricate network of aquifers.
- ✓ Taanka is a traditional rainwater harvesting technique indigenous to the Thar desert region of Rajasthan. A Taanka is a cylindrical paved underground pit into which rainwater from rooftops, courtyards or artificially prepared catchments flows. Once completely filled, the water stored in a taanka can last throughout the dry season and is sufficient for a family of 5-6 members. An important element of water security in these arid regions, taankas can save families from the everyday drudgery of fetching water from distant sources.
- ✓ Ahars or Pynes are traditional floodwater harvesting systems indigenous to South Bihar. Ahars are reservoirs with embankments on three sides that are built at the end of diversion channels like pynes. Pynes are artificial rivulets led off from rivers to collect water in the ahars for irrigation in the dry months. Paddy cultivation in this relatively low rainfall area depends mostly on ahars or pynes.
- ✓ Johads, one of the oldest systems used to conserve and recharge ground water, are small earthen check dams that capture and store rainwater. Constructed in an area with naturally high elevation on three sides, a storage pit is made by excavating the area, and excavated soil is used to create a wall on the fourth side. Need to re-introduce traditional rain water technologies in India:
- ✓ The large water supply systems built around mega-dams have proved to be extremely capital intensive, with long gestation periods, and rather low returns in terms of increased crop productivity, largely because the water supplied by these systems is determined more by bureaucracies controlling these systems rather than the farmers.
- ✓ Irrigation efficiency of tubewells, since they are farmer-controlled, has been much better. But the rapid increase in tubewells in dry areas, without the supplemental groundwater recharge that used to be ensured by traditional water harvesting systems, is leading to a depletion of groundwater aquifers and will become a severe problem in the years to come.
- ✓ Traditional rainwater harvesting systems require small sums of money, a large part of which can come from local communities, thus avoiding an undue drain on the state exchequer.
- ✓ They can be built within months (instead of years like large dams); they will be under the control of farmers themselves; and, they can be used conjunctively with tubewells as they can recharge the groundwater aquifers.

Conclusion: These traditional systems are ecologically safe, viable and cost-effective alternatives to rejuvenate India's depleted water resources. Productively combining these structures with modern rainwater saving techniques, such as percolation tanks, injection wells and subsurface barriers, could be the answer to India's perennial water woes. With about five-10 per cent of India's land area set aside for rainwater collection, most of India's irrigation and household water needs can be met.

MCQs

1. Considered the following statement:
 1. Ministry of Power established UTPRERAK Centre .
 2. UTPRERAK (Unnat Takniki Pradarshan Kendra) to help improve energy efficiency of Indian industry.

Which of the above statement is/are correct regarding UTPRERAK center?

(a) Only 1 (b) Only 2
(c) **Both 1 and 2** (d) None
2. The Ministry of Agriculture & Farmers Welfare recently signed a MOU with Pixxel Space India Pvt. Limited to develop various geospatial solutions for the Indian Agriculture Ecosystem using Pixxel's Hyperspectral dataset. Choose the incorrect one?
 - a) Hyperspectral remote sensing (HRS), also known as imaging spectroscopy.
 - b) It is currently being used for the detection and identification of minerals, terrestrial vegetation, and man-made materials and backgrounds
 - c) **HRS extracts information from objects or scenes that lie on earth surface as well as inner core of earth.**
 - d) None of the above.
3. With reference to the World Drug Report, consider the following statements:
 1. It is published annually by the World Health Organisation (WHO).
 2. The first report was published in 2005 by WHO.

Which of the above statement is/are correct?

(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) **None**

4. Recently, Rani Durgavati Gaurav Yatra was launched in Madhya Pradesh. Consider the following statement:
1. She belonged to Mahoba's Chandela dynasty
 2. She constructed several reservoirs such as Ranital, Cherital and Adhartal.
- Which of the above statement is/are correct?
- (a) Only 1 (b) Only 2
(c) **Both 1 and 2** (d) None.
5. Recently, "Organic Intellectuals" term in news, which of the following statement is associated with this?
1. Organic Intellectuals are those specific intellectuals who could help build awareness among the masses.
 2. The term was coined by Italian Marxist Antonio Gramsci.
- Code:
- (a) Only 1 (b) Only 2
(c) **Both 1 and 2** (d) None
6. "Project Taara", recently in news associated with?
- (a) **Google** (b) Microscope
(c) Apple (d) None of the above
7. Consider the following statements
Statement-I: Tenzing Norgay National Adventure Award is awarded for scientific innovation.
Statement-II: Tenzing Norgay National Adventure Award is awarded by the Ministry of Youth Affairs and Sports.
Which one of the following is correct in respect of the above statements?
- a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
c) Statement-I is correct but Statement-II is incorrect
d) **Statement-I is incorrect but Statement-II is correct**
8. Recently, Global Environment Facility (GEF) Council met in Brazil recently. Consider the following statements
Statement-I: Global Environment Facility Council is under UNESCO.
Statement-II: India is a founder member of GEF.
Which one of the following is correct in respect of the above statements?
- a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
c) Statement-I is correct but Statement-II is incorrect
d) **Statement-I is incorrect but Statement-II is correct**
9. Consider the following statement regarding Rugose Spiralling Whitefly.
1. It is an invasive insect.
 2. It mainly infests coconut palms and other broad-leaved hosts in its native range.
 3. Not only does it reduce the size of the coconut, but it also decreases the coconut's water content
- How many pairs is/ are correct ?
- a) Only 1
b) Only 2
c) **Only 3**
d) None
10. Tadoba-Andhari Tiger Reserve located in which state/ UTs?
- a) **Maharashtra**
b) Andhra Pradesh
c) Tamil Nadu
d) Chhattisgarh