TATHASTU ICS

DAILY CURRENT AFFAIRS

SEPTEMBER 13, 2023

AP/KK/AJ

S.NO.	TOPIC
1.	LEGALISING CANNABIS CULTIVATION
2.	NIPAH VIRUS
3.	DEFENCE MINISTER INAUGURATES 90 BORDER INFRASTRUCTURE PROJECTS

LEGALISING CANNABIS CULTIVATION

SOURCE: THE HINDU

WHY IN NEWS?

➢ As the **Himachal Pradesh government moves closer to permitting the cultivation of cannabis (specifically hemp)** within the state, there is a sense of optimism among growers regarding the potential economic benefits.

➢ However, it is essential to acknowledge the associated concerns and the various impacts on society.

WHAT IS CANNABIS?

➢ Cannabis is a term that encompasses **a trio of plants recognized for their psychoactive characteristics, namely Cannabis sativa, Cannabis indica, and Cannabis ruderalis**.

➢ As per **the World Health Organization** (WHO), the term "cannabis" is a broad descriptor referring to various psychoactive products derived from the Cannabis sativa plant.

➢ **The Atharva Veda**, written around 1400 BCE, holds early records of cannabis's sacred role in India. Hindu god Shiva is linked as a cannabis user, titled the "Lord of bhang."

Figure 1CANNABIS PLANT

BENEFITS OF LEGALISING CANNABIS:

➢ **HEALTH BENEFITS:**
Studies have explored the potential health advantages of cannabis, but its medical utilization varies by location due to legal and regulatory disparities.
Some of them include:
- Neuropathic and arthritic pain management.
- Appetite stimulation in patients especially those with HIV/AIDS.
- Treatment of neurogenerative disorders like Parkinson's disease.
- Treating sleep disorders, anxiety, and inflammation.

➢ **PROMOTION OF TRADITIONAL MEDICINE:**
- It's undeniable that Ayurveda recognizes cannabis as a medicinal plant with diverse qualities that profoundly affect the body.

➢ **ECONOMIC BENEFITS:**
- Cannabis cultivation can provide an alternative and potentially profitable crop for farmers.
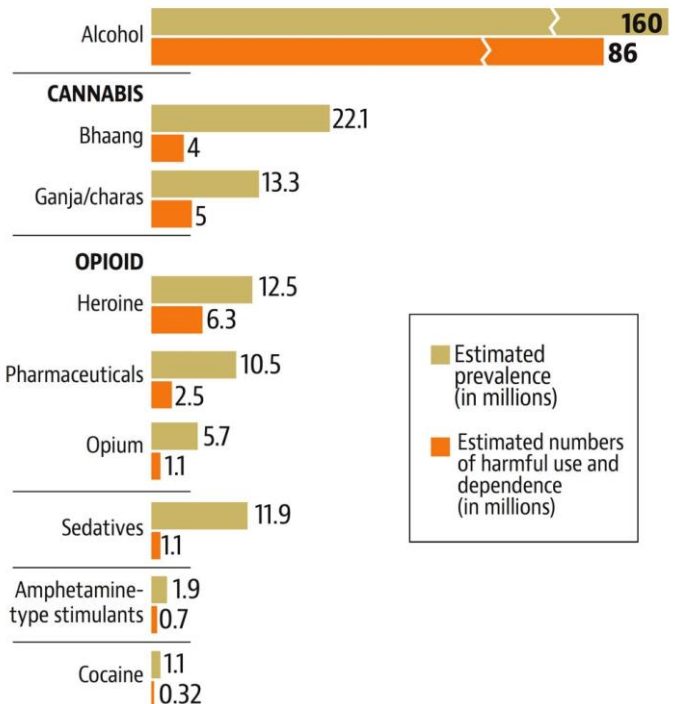
- Legal cannabis can attract cannabis tourists.
- ➢ **Application in other industries:**
    - Hemp can be used a textile and, in the pulp, and paper industry.
    - They are used in food products like hemp oil, hemp milk, and hemp protein powder.
    - Hemp can be used as a feedstock for the production of biofuels.

CHALLENGES IN LEGALISING CANNABIS CULTIVATION IN INDIA:

- ➢ **Drug abuses:**
    - **Around 95% of individuals with substance addiction issues in Himachal Pradesh primarily consume cannabis and its related products.**
    - In a **United Nations Office on Drugs and Crime (UNODC) report, India is identified as a significant center for the illegal trade of cannabis.**
- ➢ **Difficulties in regulation**:
    - Cannabis legalization may conflict with certain existing laws and regulations, including those related to the Narcotic Drugs and Psychotropic Substances Act in India.
- ➢ **Promotion of illegal markets**:
    - There's a concern that the unlawful cultivation and distribution of cannabis may persist alongside its legal production.
    - This can potentially result in elevated criminal activities and present challenges for law enforcement.
- ➢ **Enforcement of international treaties:**
    - United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988)
    - Convention on Psychotropic Substances (1971)
    - Enforcement of these treaties can conflict with the legalization of cannabis cultivation in India.

Scale of substance abuse in India

Alcohol is the most commonly used legal psychoactive substance, with about about 14.6% of population using it

Substance	Estimated prevalence (in millions)	Estimated numbers of harmful use and dependence (in millions)
Alcohol	160	86
CANNABIS		
Bhaang	22.1	4
Ganja/charas	13.3	5
OPIOID		
Heroine	12.5	6.3
Pharmaceuticals	10.5	2.5
Opium	5.7	1.1
Sedatives	11.9	1.1
Amphetamine-type stimulants	1.9	0.7
Cocaine	1.1	0.32

(Source: Magnitude of Substance Abuse in India Report, 2019)

REGULATIONS RELATED TO CANNABIS IN INDIA:

- ➢ **NARCOTIC DRUGS AND PSYCHOTROPIC SUBSTANCES ACT, 1985:**
    - According to the NDPS Act, a "**cannabis plant**" refers to any plant belonging to the cannabis genus.
    - The Act also defines "**charas**" as the resin extracted from the cannabis plant. The NDPS Act encompasses separated resin, in any state, be it crude or purified, obtained from the cannabis plant.

- ➢ **NARCO COORDINATION CENTRE:**

- The Narcotics Control Bureau (NCB) in India established the Narcotics Coordination Centre (NCC) to enhance coordination and information sharing among various law enforcement agencies.
- **CONSTITUTIONAL PROVISIONS:**
  - In line with the constitutional principles, Article 47 of the Indian Constitution guides the State to make efforts to enforce a ban on the use of harmful intoxicating drugs, except when prescribed for medicinal reasons.

INTERNATIONAL ORGANISATIONS ASSOCIATED:

- **United Nations Office on Drugs and Crime (UNODC):**
  The UNODC is a primary United Nations agency responsible for coordinating global efforts to combat illicit drugs, transnational organized crime, and terrorism.
- **United Nations Commission on Narcotic Drugs (CND):**
  The CND is the central policymaking body within the United Nations system for drug control.
- **International Narcotics Control Board (INCB):**
  The INCB is a UN-established, independent body that monitors and enforces compliance with international drug control treaties.

WAY FORWARD

- **PROMOTE RESPONSIBLE USE:**
  Promote responsible cannabis use by informing the public about its potential advantages and risks, thereby reducing stigma.
- **CLEAR REGULATORY FRAMEWORK:**
  Establish a comprehensive regulatory system for the lawful cannabis sector, encompassing licensing, quality assurance, distribution, taxation, and product safety.
- **INTERDISCIPLINARY APPROACH:**
  Encourage cooperation among different government departments, such as health, agriculture, and justice, to create a unified strategy for regulating cannabis.

PRELIMS SPECIFIC:

TYPES OF CANNABIS AND THEIR USES:
Cannabis, also known as marijuana or weed, has a wide range of chemical components, including over 100 cannabinoids. Delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD) are the two most well-known and researched cannabinoids in cannabis.

VARIETY	CHARACTERISTICS	USAGE
CANNABIS SATIVA	**Tall and thin plants -** **- Narrow leaves** **- High THC content**	**Used for enhanced creativity and energy uplifting**
CANNABIS INDICA	**Short and bushy plants - - Broad leaves - High CBD content**	**Anxiety and stress reduction.**
CANNABIS RUDERALIS	**Short, hardy plants -** **- Wild and less common**	**Not typically used for medicinal purposes.**

NIPAH VIRUS

SOURCE: THE HINDU

WHY IN NEWS?

➢ Nipah infection has resurfaced in **Kerala**, with two fatalities reported in Kozhikode district, indicating a **reemergence of the viral disease in the region.**

NIPAH VIRUS:

➢ Nipah Virus encephalitis is **caused by a zoonotic RNA virus belonging to the Paramyxoviridae family, Henipaviral genus, closely linked to Hendra virus.**

➢ **Hendra virus**, a rare emerging zoonosis, can lead to severe, often fatal illnesses in horses and humans.

➢ **The virus initially emerged in Malaysia and Singapore in 1998 and 1999 and was first identified in domestic pigs**, also affecting various other domestic animals such as dogs, cats, goats, horses, and sheep.

How does NIPAH spread?

● People or animals have contact with the bodily fluids (blood, poop, pee or saliva) of an infected animal.

● People are in close contact with a person who has nipah virus, usually while caring for them.

● People eat foods that have been contaminated by an infected animal.

Photo: Pixabay

TRANSMISSION AND SYMPTOMS OF THE VIRUS:

➢ **MODE OF TRANSMISSION:**
The virus is transmitted through **fruit bats**, also known as **'flying foxes,'** specifically from the **Pteropus genus**, which serve as **natural reservoir hosts for both Nipah and Hendra viruses**. The virus is found in bat urine and **potentially in their feces, saliva, and fluids during birth**.

➢ **SYMPTOMS:**
Human infection manifests as an encephalitic syndrome, characterized by **symptoms such as fever, headache, drowsiness, disorientation, mental confusion, coma, and, in severe cases, possible fatality.**

REASONS FOR THE OCCURRENCE OF ZOONOTIC DISEASES:

➢ **ANTI-MICROBIAL RESISTANCE:**
Overuse of antibiotics in both humans and animals can lead to the development of antibiotic-resistant zoonotic pathogens.

➢ **POOR HEALTH INFRASTRUCTURE:**
Inadequate healthcare systems, sanitation, and surveillance make it difficult to detect and control zoonotic diseases early.

➢ **POOR IMMUNIZATION:**
Lack of vaccination in animals or humans can provide opportunities for zoonotic diseases to take hold.

➢ **HUMAN-ANIMAL INTERACTIONS:**
Zoonotic diseases originate from animals, often when humans come into close contact with them, whether through domestication, hunting, or habitat encroachment.
Practices such as eating undercooked animal products, inadequate hygiene, and not seeking prompt medical care can increase the risk of zoonotic disease transmission.

- ➢ **ENVIRONMENTAL CHANGES:**
  Habitat destruction, climate change, and urbanization can disrupt ecosystems, forcing animals and humans into closer proximity and increasing the likelihood of disease transmission.

WAY FORWARD

- ➢ **ONE HEALTH APPROACH:**
  Foster collaboration between human health, animal health, and environmental agencies to address zoonotic diseases holistically.
- ➢ **WILDLIFE CONSERVATION AND MANAGEMENT:**
  Strengthen regulations on wildlife trade and consumption.
  Manage wildlife populations to prevent disease transmission to humans.
- ➢ **LIVESTOCK MANAGEMENT:**
  Improve animal husbandry practices, including hygiene and biosecurity measures in farms and markets.
  Promote responsible antibiotic use to prevent antimicrobial resistance.
- ➢ **PUBLIC AWARENESS:**
  Educate the public about zoonotic disease risks and prevention measures, including safe handling of animals and animal products.
- ➢ **VACCINATION:**
  Promote and ensure widespread vaccination of the human population and animals against preventable zoonotic diseases.

PRELIMS SPECIFIC:

DISEASE	VECTOR
MALARIA	**Anopheles mosquitoes**
DENGUE FEVER	**Aedes mosquitoes**
RABIES	**Dogs**
WEST NILE VIRUS	**Culex mosquitoes**
ZIKA VIRUS	**Aedes mosquitoes**
EBOLA VIRUS	**Fruit bats**
COVID 19	**Bats**
MONKEYPOX	**Monkey**

WHY IN NEWS?

➤ Defence Minister Rajnath Singh inaugurated **a total of 90 border infrastructure projects across 11 states and Union Territories on Tuesday.**

➤ These projects include the **Nechiphu tunnel, which will ensure year-round connectivity to the strategically important Tawang region in Arunachal Pradesh, and the laying of the foundation stone for a significant military airfield in Nyoma, eastern Ladakh.**

➤ Among the 90 projects undertaken by the Border Roads Organisation, a significant **majority of 64 projects are located in the states of Arunachal Pradesh, Ladakh, and Sikkim.**

IMPORTANCE OF BORDER INFRASTRUCTURE IN INDIA:

➤ **Maintaining the integrity of the nation:**
Enhanced border infrastructure can facilitate regional integration and cooperation with neighbouring countries, promoting joint development initiatives, and regional stability.

➤ **Maintaining connectivity:**
Border infrastructure contributes to better connectivity between remote border regions and the rest of the country.
It can help in improving the quality of life for residents in these areas by providing access to essential services, education, and healthcare.

➤ **Economic development:**
Border infrastructure, such as roads, bridges, and tunnels, facilitates trade and connectivity with neighbouring countries.
It opens up opportunities for cross-border trade, which can boost economic growth and regional development.

➤ **Defence and strategic purposes:**
Border infrastructure is vital for safeguarding national security.
It enables the Indian armed forces to maintain a strong presence along the borders.
We can respond quickly to security threats, and ensure the integrity of the nation's territorial boundaries.

CHALLENGES IN CREATING BORDER INFRASTRUCTURE IN INDIA:

➤ **BORDER DISPUTES:**
Border areas are susceptible to security threats, and construction work can be disrupted by insurgency, terrorism, or border disputes, leading to delays and increased costs.

➤ **GEOGRAPHICAL DIFFICULTIES:**
India's border regions often feature rugged terrain, extreme weather conditions, and high altitudes, making the construction and maintenance of infrastructure difficult and costly.

➤ **ENVIRONMENTAL IMPACT:**
Infrastructure development in sensitive border ecosystems can have adverse environmental consequences, necessitating rigorous environmental assessments and mitigation measures.

➤ **PROBLEMS WITH FUNDING:**
Infrastructure projects, especially those in remote border areas, can have long gestation periods, which can lead to budget overruns and delays.

Program	Objectives
Border Roads Organization (BRO)	Develop and maintain roads, bridges, tunnels, and airfields in border regions.
Bharatmala Pariyojana	Improve road connectivity in border areas, focusing on strategic regions.
Sagarmala Project	Develop coastal and inland waterways infrastructure to enhance connectivity in border regions and facilitate trade.
Atal Tunnel	Provide year-round connectivity to Ladakh, reduce travel time, and ensure security and logistics support.
Defence Industrial Corridor	Promote defense production and support the development of critical infrastructure in border areas.
Strategic Border Roads	Construct strategic border roads along the India-China border to enhance military mobility and deployment.
Border Area Development Program (BADP)	Meet developmental needs in border areas, including healthcare, education, and communication infrastructure.
Integrated Check Posts (ICPs)	Facilitate cross-border trade and improve infrastructure at key border crossings.
Dedicated Freight Corridors	Improve transportation of goods, indirectly benefiting border regions by enhancing connectivity and economic development.

WAY FORWARD:

➢ **SUSTAINABLE INFRASTRUCTURE MANAGEMENT:**
Prioritize environmentally sustainable design and construction methods, conducting thorough environmental impact assessments for all projects.
Explore innovative solutions like green infrastructure and renewable energy integration to minimize the ecological footprint.

➢ **CONTINUOUS MONITORING AND UPGRADATION:**
Establish a robust maintenance and upgradation schedule to ensure the longevity and functionality of border infrastructure.
Use data-driven analytics for predictive maintenance.

➢ **COMMUNITY ENGAGEMENT:**
Involve local communities in the planning and decision-making processes, addressing their concerns, and ensuring they benefit from infrastructure development.
Implement inclusive development projects that promote social and economic well-being.

➢ **BILATERAL ENGAGEMENTS:**
Engage in diplomatic negotiations and reach bilateral agreements with neighboring countries to facilitate smooth border infrastructure development, ensuring it does not trigger disputes or conflicts.

PRELIMS SPECIFIC

NECHIPU TUNNEL:

The 500-meter tunnel constructed along the Balipara-Charduar-Tawang road ensures year-round connectivity to the strategically significant Tawang sector.

Tawang offers the most accessible route to the Brahmaputra plains and the shortest pathway to Tezpur in Assam.
Furthermore, Tawang's communication lines extend to Guwahati and the extended Siliguri Corridor, giving it crucial military significance.

SHINKU LA TUNNEL:

The Border Roads Organization (BRO) is on the verge of achieving a remarkable feat by building the Shinku La tunnel, which will become the world's highest tunnel at an astounding altitude of 15,855 feet.
This tunnel will establish a vital link between Himachal Pradesh's Lahaul-Spiti and Ladakh's Zanskar Valley, ensuring year-round connectivity under all weather conditions.