BYJU'S EXAM PREP | IAS

THE HINDU ANALYSIS

www.thehindu.com

INDIA'S NATIONAL NEWSPAPER SINCE 1878

23rd APR, 2023

BYJU'S EXAM PREP | IAS

BYJU'S EXAM PREP | IAS

1 DAY TO GO

For Target PRELIMS 2023

SUBSCRIBE NOW

BYJU'S EXAM PREP | IAS

Target PRELIMS 2023

FREE CRASH COURSE

LIVE ON

Timings - 7:30 PM - 9:30 PM

Date	Day	Subject
April 24, 2023	Monday	Indian Economy 1
April 25, 2023	Tuesday	Indian Economy 2
April 26, 2023	Wednesday	Indian Economy 3
April 27, 2023	Thursday	Indian Economy 4
April 28, 2023	Friday	Indian Polity 1
April 29, 2023	Saturday	Indian Polity 2
April 30, 2023	Sunday	Indian Polity 3
May 1, 2023	Monday	Indian Polity 4
May 2, 2023	Tuesday	Environment & Ecology 1
May 3, 2023	Wednesday	Environment & Ecology 2
May 4, 2023	Thursday	Environment & Ecology 3
May 5, 2023	Friday	Science & Technology 1
May 6, 2023	Saturday	Science & Technology 2
May 7, 2023	Sunday	Science & Technology 3
May 8, 2023	Monday	International Relations 1
May 9, 2023	Tuesday	International Relations 2
May 10, 2023	Wednesday	International Relations 3
May 11, 2023	Thursday	Govt Schemes 1
May 12, 2023	Friday	Govt Schemes 2
May 13, 2023	Saturday	Art & Culture - Places in News
May 14, 2023	Sunday	Reports & Indices
May 15, 2023	Monday	Places in News

BYJU'S EXAM PREP | IAS

Today's topics

1. Stray dog population control is dogged by bad science - Pg 12

2. Hakki Pikki: caught in Sudan's civil war - Pg 1

3. 'Optimistic' space policy lays out plans to privatise sector - Pg 7

Prelims Bytes:

4. ISRO launches PSLVC55 with two Singapore satellites - Pg 6

5.To cut at root of narcotics, Centre plans drive against poppy, cannabis - Pg 8

6. Pushkaralu festival returns to the Ganga after a gap of 12 years - Pg 9

7. The night of Bhoota Kola - Supplementary page

Page 12. GS II (Governance)

Stray dog population control is dogged by bad science

Reckless feeding tends to congregate dogs and leads to pack formation, territoriality and aggression even amongst sterilised dogs; this behaviour is usually triggered at night, leading to attacks on people

Abi T. Vanak

The horror stories continue to pour in. Children, usually from poor families or in rural areas, are being hunted and killed by homeless dogs. State and central governments seem to be helpless to ensure the safety of people on the streets, from what has clearly become a human rights issue and a public health crisis.

The main culprit behind this is the Animal Birth Control (ABC) Rules that were first introduced in 2001 by the Ministry of Culture, and now replaced by even more absurd ABC Rules, 2023. This policy, despite the protestation by those who promoted it, is completely lacking in both science as well as logic.

The policy aims to implement a technique called 'catch-neuter-vaccinate-release' to control populations of free-ranging dogs and cats.

Unimplementable

However, despite 20 years of this policy and hundreds of crores of rupees being spent, dog population in India is now more than 65 million. Proponents of this method aver that the only reason it did not work is because it has not been implemented properly. But what they fail to understand is that it is unimplementable from a scientific, logistic and economic perspective.

The ABC programme does not seem to have any benchmarks or targets. For example, before the start of the programme, a municipal corporation would be required to estimate the base population of dogs to be sterilised. It would then need to set targets for population reduction within a reasonable time period, say five years, and then calculate how many would need to be sterilised to achieve this objective.

However, municipalities set targets for sterilisation based on budgets and available facilities. In most cases, only a small fraction of the population is sterilised, and in many cases, the programme itself is discontinued after a few cycles.

Dogs are incredibly fecund animals, and reproduce at a high rate if enough resources are available. Both field and modelling studies show that nearly 90% of the dog population needs to be sterilised over a short period of time to achieve a sustained population reduction over a 10-15-year period. This 'minor' detail is conveniently skipped by most proponents of the ABC programme.

Feeding dogs

The other major problem is that the ABC Rules, 2023, bizarrely require people to feed dogs, wherever they may be. Most people either throw a few biscuits on the roadside or leave leftover food outside their houses, but some people, with almost religious fervour, go out of their way to feed dozens of dogs.

Reckless feeding tends to congregate dogs and leads to pack formation, territoriality and aggression even amongst sterilised dogs. This behaviour is usually triggered at night. At its very worst, this frenzied hunting behaviour can end up causing severe injury or even death due to mauling, especially of small children and the elderly. Another study also found that in urban areas, dogs were the second leading cause of road accidents.

Despite all these negatives, why does the government persist with a policy that is cruel at multiple levels? It is cruel to dogs, since homeless life on the streets is not easy, with accidents, disease, wanton cruelty and constant fear being their normal state. It is cruel to ordinary citizens, depriving people of their right to life, free movement, and a safe environment. In many areas, dogs are also leading causes of harm to wildlife, and cause immense loss of biodiversity.

The unkindest cut of all is that the ABC Rules ban the euthanasia of rabid animals, making India the only country in the world to follow such a cruel practice.

However, it does not have to be this way. Solving this problem requires a multi-pronged approach, and some difficult decisions. Strict pet ownership laws, a ban on irresponsible feeding in public places, and encouraging adoption and long-term sheltering of homeless dogs will result in win-win solutions.

Expenses

Unlike the ABC programme, the expenses incurred in setting up shelters will at least result in removing dogs from streets permanently, whereas the ABC Rules require that the dogs be released back into the same area, where they can be a nuisance in perpetuity. The same people who feed dogs on the streets can supervise shelters to ensure that they are well maintained and also feed them there.

If the "greatness of our nation and its moral progress" is to be judged by how we treat animals, then surely we should not be making the worst enemies of our best friends.

(Abi T. Vanak is a leading authority on the ecology of dogs, and a long-time advocate for true dog welfare. He is currently the Director for the Centre for Policy Design, ATREE, Bengaluru)

ABC programme is destined to fail

The main culprit behind stray dogs attacking/killing people is the Animal Birth Control Rules first introduced in 2001

- The ABC programme aims to implement a technique called 'catch-neuter-vaccinate-release' to control populations of free-ranging dogs and cats
- Despite 20 years of this policy and hundreds of crores of rupees being spent, the dog population in India is now more than 65 million
- In most cases, only a small fraction of the population is sterilised by municipalities, and in many cases, the programme itself is discontinued after a few cycles
- Studies show that nearly 90% of the dog population needs to be sterilised over a short period of time to achieve a sustained population reduction over a 10-15-year period
- The ABC Rules 2023 bizarrely require people to feed dogs, wherever they may be. Reckless feeding tends to congregate dogs and leads to pack formation, territoriality and aggression even amongst sterilised dogs
- Strict pet ownership laws, a ban on irresponsible feeding in public places, and encouraging adoption and long-term sheltering of homeless dogs will result in win-win solutions

Flawed: The ABC programme is unimplementable from a scientific, logistic and economic perspective

Children, usually from poor families or in rural areas, are being hunted and killed by homeless dogs. The main culprit behind this is the Animal Birth Control (ABC) Rules that were first introduced in 2001 by the Ministry of Culture, and now replaced by even more absurd ABC Rules, 2023. The policy aims to implement a technique called 'catch-neuter-vaccinate-release' to control populations of free-ranging dogs and cats.

Unimplementable - Despite 20 years of this policy and hundreds of crores of rupees being spent, dog population in India is now more than 6.5 crore. This policy is unimplementable from a scientific, logistic and economic perspective.

The ABC programme does not seem to have any benchmarks or targets. Municipal corporation would be required to estimate the base population of dogs to be sterilised. It would then need to set targets for population reduction within a reasonable time period, and then calculate how many would need to be sterilised to achieve this objective.

However, municipalities set targets for sterilisation based on budgets and available facilities while the dogs reproduce at a high rate.

Feeding dogs - The other major problem is that the ABC Rules, 2023, require people to feed dogs, wherever they may be. This creates huge conflict between feeders and ordinary residents who have to deal with packs of dogs roaming around their neighbourhoods. Reckless feeding tends to congregate dogs and leads to pack formation, territoriality and aggression even amongst sterilised dogs. Another study also found that in urban areas, dogs were the second leading cause of road accidents.

ABC Rules also ban the euthanasia of rabid animals, making India the only country in the world to follow such a cruel practice. The rules require rabid dogs to “die a natural death”.

Suggestions - Strict pet ownership laws, a ban on irresponsible feeding in public places, and encouraging adoption and long-term sheltering of homeless dogs.

Expenses - Unlike the ABC programme, the expenses incurred in setting up shelters will at least result in removing dogs from streets permanently, whereas the ABC Rules require that the dogs be released back into the same area, where they can be a nuisance in perpetuity.

Beyond the writeup: Animal Birth Control Rules, 2023

16 crore cases cases of street/stray dog bites were recorded in the country between 2019 and 2022.

Provisions:

- The Rules are in line with the guidelines issued by the SC while hearing a matter involving the Animal Welfare Board of India. The SC said that relocation of dogs cannot be permitted.
- The Rules focus on sterilisation and immunisation of stray dogs through Animal Birth Control (ABC) programmes.
- Local bodies in the form of municipalities, municipal corporations, and panchayats have been given the responsibility of implementing the ABC programmes along with the Anti Rabies Program.

Beyond the writeup: Stray dogs numbers in India

- According to Family Welfare's Central Bureau of Health Intelligence (CBHI) 2021 report, there were 105 cases of human death from rabies in India in 2019.
  - The 2018 edition put the figure at 97 in 2017. According to various data, there were 86 human deaths from rabies in 2016, 113 in 2015, 125 in 2014 and 132 in 2013.

- Over the last five years, more than 300 people, mostly children from poor and rural families, have been killed by dogs. Dogs are responsible for over 20,000 rabies deaths.
- According to Lok Sabha data, Delhi has 60,472 stray dogs as of 2019. There were at least 1.53 crore dogs in the streets of India till 2019, the Animal Husbandry Ministry said in parliament.

Beyond the writeup: Important court judgments

- In 2012, the Karnataka High Court decreed that the authorities have a right to remove stray dogs or practice euthanasia in cases where human lives needed protection.
- In its Eighth Report, WHO Technical Report, the Expert Committee on Rabies, had stated in 1991:
  - “There is no evidence that the removal of dogs has ever had a significant impact on dog population densities and the spread of rabies. The population turnover of dogs may be so high that even the highest recorded removal rates (about 15 percent of the dog population) are easily compensated by survival rates.”
- The court also suggested that people who feed stray dogs could be made responsible for vaccinating them and bearing costs if somebody is attacked by the animal.

Page 1. GS II (Social Justice)

BYJU'S EXAM PREP | IAS

Hakki Pikki: caught in Sudan's civil war

Marginalised back home, the bird catcher tribe of Karnataka had tasted success as herbal healers in Africa till the war arrived

The total number of Hakki Pikki in Sudan is likely to be around 300, with a majority of them in the capital city, Khartoum. SPECIAL ARRANGEMENT

Kallol Bhattacherjee
NEW DELHI

The story of how the Hakki Pikki – or bird catchers of Karnataka – got caught in a civil war in Sudan is a contemporary tale of migration, development, and the human desire to thrive.

Today, the tribe is scattered across the capital city Khartoum and in the Darfur region in west Sudan. A few stranded members of the community said their total number in the African country is likely to be around 300, including women and children. Out of them, approximately 250 are in Khartoum, while 33 are in Darfur, where a civil war has raged for many years.

Prabhu Dass, one of the 33, is now stranded in Al Fashir, the capital of North Darfur. With gunfire in the background, he speaks in a steady voice in Mysuru Hindi, the signal coming and going, explaining how and why members of the tribe made the journey to Darfur between 2021-22. "Bird catching is our traditional occupation. But now we don't have that kind of dense forest anymore and the birds have fled," he said, adding that raising a family was not possible with their small earnings.

The Hakki Pikki of India are the latest group to arrive in Al Fashir, a region that has witnessed an influx of people because of the Darfur crisis.

A nomadic tribe, the Hakki Pikki don't have ready access to education and vocational training; so they relied on their native wisdom to earn a living, Mr. Dass said. "We make herbal medicines from gathering forest produce," he added.

It was this traditional knowledge that found a place in the post-pandemic world. Africa has its own indigenous medicine and these herbal healers from India found ready acceptance.

CONTINUED ON
» PAGE 7

- Hakki Pikki tribe is scattered across the capital city Khartoum and in the Darfur region in west Sudan. Their population is likely to be around 300, including women and children. The Hakki Pikki of India are the latest group to arrive in Al Fashir, a region that has witnessed an influx of people because of the Darfur crisis, bringing a lot of displaced people to the city.

- A nomadic tribe, the Hakki Pikki don't have ready access to education and vocational training, so they relied on their native wisdom to earn a living. They make herbal medicines from gathering forest produce.

- An informal tribal collective that produces Neelambari Adivasi Herbal Hair Oil participates in prominent tribal fairs in India and has seen interest from international travellers. They have been sending their representatives to sell hair oil in Africa.

- Many parts of Sudan do not have hospitals and herbal solutions became well known here in El Fashir. Unlike the Banjaras who have managed to access some modern education, the Hakki Pikki have remained beyond the circle of education and public welfare. However, they do not feature on the list of India's particularly vulnerable tribal groups (PVTGs).

Beyond the writeup: Hakki Pikki tribe

Hakki Pikkis (Hakki in Kannada means ‘bird’ and Pikki means ‘catchers’) are a semi-nomadic tribe, traditionally of bird catchers and hunters. According to the 2011 census, the Hakki Pikki population in Karnataka is 11,892, and they live majorly in Davangere, Mysuru, Kolar, Hassan and Shivmogga districts.

In different regions, they are known by different names, such as Mel-Shikari in northern Karnataka and Maharashtra. Hakki Pikki people are believed to hail originally from the bordering districts of Gujarat and Rajasthan.

What were their traditional jobs, and what do they do now?

Earlier, men of the tribe would hunt while women begged in villages. But as the wildlife protection laws became stricter, the Hakki Pikkis in Karnataka started selling spices, herbal oils, and plastic flowers in local temple fairs. The community moved to villages from the forests in the 1950s. “Earlier, we killed animals to make a living. But then some of our community members were booked and jailed under wildlife laws. So they shifted to selling herbal oils and other materials in villages and towns.

Beyond the writeup: Hakki Pikki tribe

The herbal oil business took off, and now the tribe members go to many places across the globe to sell their products. Hakki Pikkis in Tamil Nadu travelled to Singapore, Thailand and other places about 20-25 years ago to sell some marbles, in the process discovering there was a huge demand for Ayurvedic products in the African continent. They started selling their products in Africa, and Karnataka Hakki Pikkis followed them. People from the state have been traveling to African countries for the past 20 years now.

What are their rituals and customs?

Hakki Pikkis in Karnataka follow Hindu traditions and celebrate all Hindu festivals. They are non-vegetarians. The eldest son in a family is not supposed to cut his hair so that he can be identified easily.

The Hakki Pikki tribe

IN KANNADA, HAKKI IS 'BIRD' AND PIKKI 'CATCHER'

- A nomadic tribe, the Hakki Pikki people go by other names such as Mel Shikari in northern Karnataka and Maharashtra
- Members of the tribe speak Vaghri (an unclassified tribal Indo-Aryan language of south India), Kannada and Hindi.
- Before wildlife laws came into existence, the tribe lived inside forests and hunted animals

They are mostly based in Shivamogga, Hassan, Davangere and Mysuru districts of Karnataka. There were 11,892 Hakki Pikki people in Karnataka according to the 2011 Census.

Rehabilitated around the 1950s, the tribe shifted to the outskirts of cities in Karnataka

- Its members are largely engaged in manufacturing and selling plant extracts and alternative medicines in India and abroad

Prabhu S (far right), one of the members of the Hakki Pikki tribe, with other members at their rented house in Sudan, where they are stuck

LIBYA
EGYPT
SAUDI ARABIA
RED SEA
SUDAN
KHARTOUM
ERITREA
CHAD
CENTRAL AFRICAN REPUBLIC
SOUTH SUDAN
ETHIOPIA
INDIAN OCEAN
© Encyclopædia Britannica, Inc.

Page 7. GS III (Science)

BYJU'S EXAM PREP | IAS

'Optimistic' space policy lays out plans to privatise sector

Jacob Koshy
NEW DELHI

The Centre's updated Space Policy, cleared by the Union Cabinet on April 6 but made public on Thursday, has drawn measured optimism from India's budding private sector start-up space.

The Indian Space Policy-2023 creates four distinct, but related entities, that will facilitate greater private sector participation in activities that have usually been the traditional domain of the Indian Space Research Organisation (ISRO).

"To augment space capabilities; enable, encourage and develop a flourishing commercial presence in space; use space as a driver of technology development and derived benefits in allied areas; pursue international relations, and create an ecosystem for effective implementation of space applications among all stakeholders," the policy says.

IN-SPACe (Indian National Space Promotion and Authorisation Centre) will be a "single window" clearance and authorisation agency for space launches, establishing launch pads, buying and selling satellites, and disseminating high-resolution data among other things.

It will also develop space industry standards, promote identified space activities and work with academia to widen the space ecosystem and enable industry-academia linkages. ISRO will focus on research into outer space. This will mean developing new space technologies and applications "...to maintain India's edge" in space infrastructure, space transportation, applications, capacity building and human spaceflight.

It will also share technologies, products, processes and best practices with NGEs (non-government entities and this will include private companies) and government companies. The policy underlines that ISRO will "...transition out from the existing practice of being present in the manufacturing of operational space systems. Hereafter, mature systems shall be transferred to industries for commercial exploitation."

Narendra Modi receives a memento from IN-SPACe chief Pawan Goenka (right) during the inauguration of the centre in 2022. PTI

A third entity, New Space India Limited (NSIL), that has already executed a few commercial space launches – and the replacement for ISRO's beleaguered Antrix – will be responsible for commercialising space technologies and platforms created through public expenditure, as well as, manufacture, lease, or procure space components, technologies, platforms and other assets from private or public sector.

Finally, the Department of Space will provide overall policy guidelines and be the "nodal" department for implementing space technologies and, co-ordinate international cooperation and coordination in the area of global space governance and programmes in consultation with Ministry of External Affairs. It will also create "an appropriate mechanism" to resolve disputes arising out of space activity.

While private sector participation has been highlighted as one of the main draws of the new policy, they will be limited to Indian companies and the question of whether foreign direct investment via the "automatic" route will be permitted in space is as yet unresolved and pending government approval.

Role demarcation

Experts told *The Hindu* that overall, the clear demarcation of roles among various entities, meant sowing the seeds for a burgeoning private sector space industry. Much as India's telecom sector is now dominated by private companies unlike a few decades ago, similarly the space sector too was envisioned to follow a similar trajectory and the policy acts as an enabler, said Arup Dasgupta, a former scientist at the ISRO and an observer of the space sector. "The clarity has been brought that Department of Space won't be everything and that whatever will be done will be relevant to, for instance, the Ministry of Commerce, Finance etc., is significant. IN-SPACe will play the role of growing a private sector," Dr. Dasgupta added.

Narayan Prasad, Chief Operations Officer, Satsearch said that while the long-awaited policy was an important "first step" in the commercial space ecosystem, there were several others needed. These included directions on the new entities actively demanding goods and services from private start-ups, and clarity on whether IN-SPACe would take on regulatory roles.

"One aspect that's revolutionary, according to me, is the enabling of open data access from ISRO's remote sensing satellites... Also, we have clarity on IN-SPACe's role as a guardian and promoter of the private space industry rather than gatekeeper," said Sreeram Ananthasayanam, partner, Deloitte India.

In enabling open satellite data access, satellite images with a ground sample distance (GSD) greater than five metres (a satellite image where two adjacent pixels represent points five metres apart on the ground) would be freely available, the new policy states. However those with a GSD less than 30 cm required IN-SPACe authorisation due to "national security considerations," the policy noted. "We have Google images freely available that are 25 cm," said Dr. Dasgupta.

- The Indian Space Policy-2023 creates four distinct, but related entities – InSPACe, ISRO, NSIL and Department of Space.
- InSPACe (Indian National Space Promotion and Authorisation Centre) will be a “single window” clearance and authorisation agency for space launches, establishing launch pads, buying and selling satellites, and disseminating high-resolution data among other things. It will also develop space industry standards, promote identified space activities and work with academia to widen the space ecosystem and enable industry-academia linkages.
- ISRO will focus on research into outer space to maintain India’s edge in the areas of space infrastructure, space transportation, space applications, capacity building and human spaceflight. ISRO will transition out from the existing practice of being present in the manufacturing of operational space systems.
- New Space India Limited (NSIL), replacement for Antrix, will be responsible for commercialising space technologies and platforms created through public expenditure, as well as, manufacture, lease, or procure space components, technologies, platforms and other assets from private or public sector.

- Department of Space will provide overall policy guidelines and be the “nodal” department for implementing space technologies and, among other things, co-ordinate international cooperation and coordination in the area of global space governance and programmes in consultation with Ministry of External Affairs. It will also create “an appropriate mechanism” to resolve disputes arising out of space activity.

- While private sector participation has been highlighted as one of the main draws of the new policy, they will be limited to Indian companies and the question of whether FDI via the ‘automatic’ route will be permitted in space is as yet unresolved and pending government approval.

- In enabling open satellite data access, satellite images with a ground sample distance (GSD) greater than five metres (a satellite image where two adjacent pixels represent points five metres apart on the ground) would be freely available, the new policy states. However those with a GSD less than 30 cm required INSPACe authorisation due to “national security considerations.

Beyond the writeup: Vision of the policy

1. Preamble

The Government of India unleashed reforms in space domain in 2020, opening the doors for enhanced participation of NGEs in carrying out end-to-end activities in the space domain and with an aim to provide them a level playing field.

Subsequent to these reforms, the Government seeks to provide regulatory certainty to space activities by various stakeholders, in order to create a thriving space ecosystem.

The Indian Space Policy – 2023 has thus been formulated as an overarching, composite and dynamic framework to implement the reform vision approved by Cabinet.

2. Vision

To augment space capabilities; enable, encourage and develop a flourishing commercial presence in space; use space as a driver of technology development and derived benefits in allied areas; pursue international relations, and create an ecosystem for effective implementation of space applications among all stakeholders;

for,

the nation's socio-economic development and security, protection of environment and lives, pursuing peaceful exploration of outer space, stimulation of public awareness and scientific quest.

Prelims Bytes!

Page 6. GS III (Science)

ISRO launches PSLV-C55 with two Singapore satellites

Sangeetha Kandavel
SRIHARIKOTA

The Indian Space Research Organisation's Polar Satellite Launch Vehicle (PSLV-C55) carrying two Singapore satellites, TeLEOS-2 as primary satellite and Lumelite-4 as co-passenger, took off from the Satish Dhawan Space Centre, Sriharikota, at 2.19 p.m. on Saturday.

According to details provided by ISRO, PSLV-C55 was a "dedicated commercial PSLV mission of NewSpace India Limited (NSIL), for an international satellite customer from Singapore". TeLEOS-2 carries a Synthetic Aperture Radar payload while Lumelite-4 is a technology demonstration nano-satellite. This is the 57th flight of PSLV and 16th mission using the PSLV Core Alone configuration (PSLV-CA).

After the lift-off, ISRO Chairman S. Somanath said the PSLV-C55/TeLEOS-2 mission was accomplished successfully and placed both satellites in the intended orbit.

The TeLEOS-2 was developed under a partnership between DSTA (representing the Government of Singapore) and ST Engineering, a Singapore firm. Once deployed and operational, it will be used to support the satellite imagery requirements of various agencies of Singapore. TeLEOS-2 will be able to provide all-weather day-and-night coverage, and capable of imaging at 1-metre full-polarimetric resolution, the ISRO said.

Lumelite-4 was co-developed by the Institute for Infocomm Research (I2R) of Agency for Science, Technology and Research (A*STAR) and Satellite Technology and Research Centre (STAR) of the National University of Singapore. It is an advanced I2U satellite developed for the technological demonstration of the High-Performance Space-borne VHF Data Exchange System (VDES). Using the VDES communication payload developed by I2R and STAR's scalable satellite bus platform, it aims to augment Singapore's e-navigation maritime safety and benefit the global shipping community.

Incidentally, PSLV-C55 mission will carry out in-orbit scientific experiments by using the spent PS4 stage as an orbital platform. This is the third time that PS4 will be used after satellite separations as a platform for experiments. There will be non-separable payloads mounted on MSA (multi satellite adapter). Payloads will be "powered on" by a command after all satellites are separated. The platform will have solar panels mounted around the PS4 tank which will be deployed after confirmation of the stage achieving stabilisation. The deployment of the solar panels will be through a ground command. The platform will ensure that the deployed solar panel points towards the sun optimally using appropriate sun-pointing mode, which will increase the power generation capability of the platform. The power will be provided to payloads and avionic packages based on their requirements, the ISRO said.

Successful take off: PSLV-C55 lifts off from the Satish Dhawan Space Centre, Sriharikota, on Saturday. B. JOTHI RAMALINGAM

ISRO will launch its first uncrewed test rocket Geosynchronous Satellite Launch Vehicle (GSLV) as a part of the human space mission — Gaganyaan.

ISRO's Polar Satellite Launch Vehicle (PSLV-C55) carrying Singapore's TeLEOS-2 as primary satellite and Lumelite-4 as a co-passenger satellite took off from the Satish Dhawan Space Centre, Sriharikota.

PSLV-C55 is a dedicated commercial PSLV mission of NewSpace India Limited (NSIL), for the international satellite customer from Singapore. The TeLEOS-2 satellite is developed under a partnership between DSTA (representing the Government of Singapore) and ST Engineering. Once deployed and operational, it will be used to support the satellite imagery requirements of various agencies within the Government of Singapore.

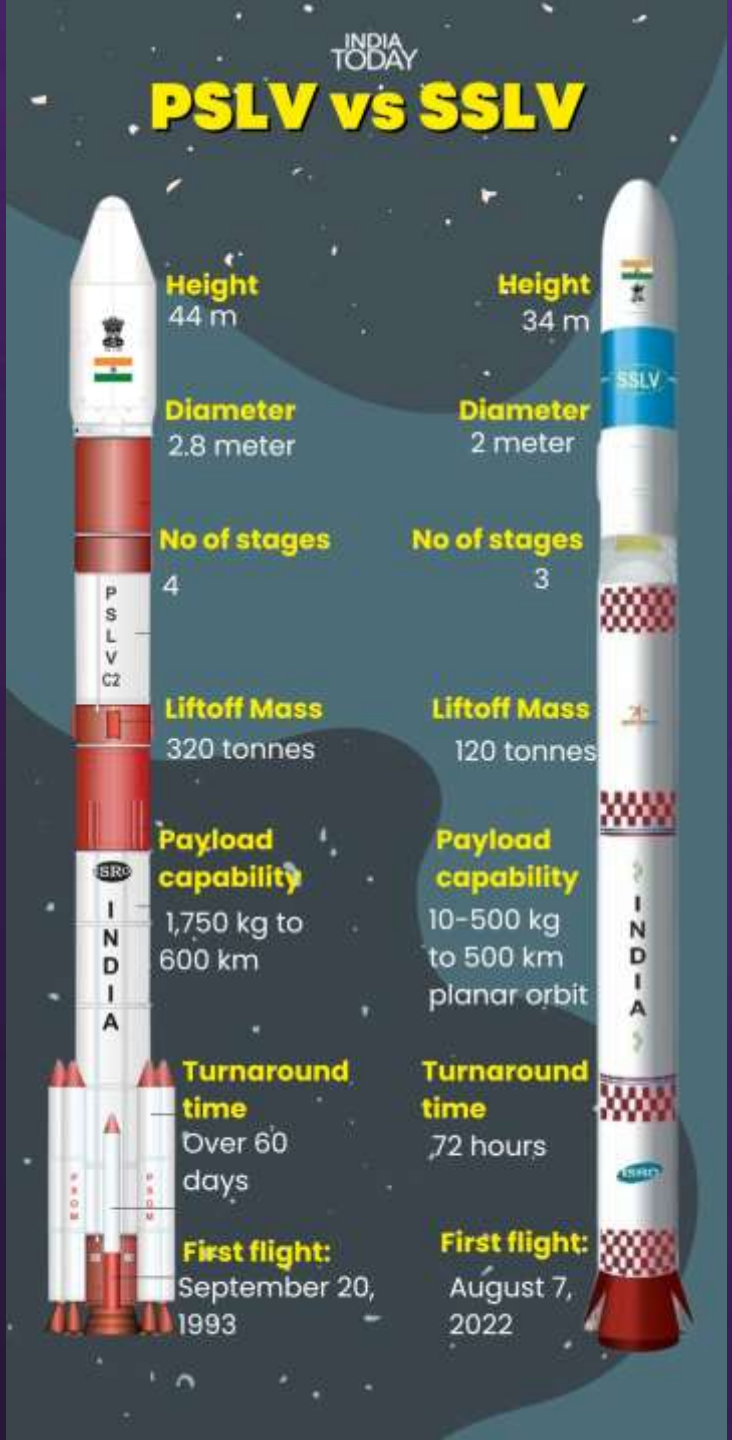
The LUMELITE-4 satellite is co-developed by the Institute for Infocomm Research (I2R) of A*STAR and Satellite Technology and Research Centre (STAR) of the National University of Singapore.

Beyond the writeup: PSLV

It is the first launch vehicle of India that has liquid stages. There is a total of 4 stages in this launch vehicle.

- First Stage – PS 1 – PSLV uses the S139 solid rocket motor that is augmented by 6 solid strap-on boosters.
- Second Stage – PS 2 – PSLV uses an Earth storable liquid rocket engine for its second stage, known as the Vikas engine, developed by Liquid Propulsion Systems Centre.
- Third Stage – It is a solid rocket motor that provides the upper stages high thrust after the atmospheric phase of the launch.
- Fourth Stage – The PS4 is the uppermost stage of PSLV, comprising of two Earth storable liquid engines.

The first successful launch of PSLV was in October 1994.



BYJU'S EXAM PREP | IAS

Page 8. GS III (Science)

To cut at root of narcotics, Centre plans drive against poppy, cannabis

Vijaita Singh
NEW DELHI

As the Union government intensifies its crackdown against drugs, cultivation of poppy and cannabis in area the size of over 89,000 football fields has been destroyed in the past three years.

Aiming to make India "drug-free" by 2047, the Union Home Ministry plans to link recovery and usage of narcotics and banned substances in a particular area to the annual appraisal report of a District Superintendent of Police. This will bring accountability and fix responsibility, a senior government official said.

According to the Narcotics Control Bureau (NCB), in the past three years, 35,592 acres of poppy cultivation and 82,691 acres of cannabis has been destroyed across the country. The States where the crops were destroyed are Arunachal Pradesh, Assam, Manipur, Jharkhand, Madhya Pradesh, Himachal Pradesh, Jammu and Kashmir, Gujarat, Maharashtra, Odisha, Tripura and Telangana.

Manipur Chief Minister N. Biren Singh told *The Hindu* that from March 20, 2022, to April 20 this year, 4305.1 acres of poppy cultivation in the State has been destroyed. In relation to this, as many as 110 cases have been registered and 40 persons arrested. Manipur has seen the highest-ever destruction of such crops in the past three years.

Mr. Singh said the State has launched an alternative livelihood scheme for farmers growing poppy illegally, and also provides cash incentives to destroy the illegal crops.

"Farmers in Peh village of Ukhrul district were given a cash reward of ₹10 lakh for voluntarily destroying cultivated poppy.

Stringent action: Jharkhand Police personnel destroying illegal poppy cultivation in Khunti district. FILE PHOTO

Winter hybrid vegetable seeds and saplings of pineapple, apple and spices, including ginger and turmeric, were distributed to farmers. The scheme covered 600 farmers," Mr. Singh said.

Use of drones

The Ministry has constituted a study group to analyse the use of drones in the destruction of illegal crops in remote areas, and the NCB also shares satellite images with the affected States.

The NCB arrested 2,412 persons in the last three years, out of which 224 are foreigners.

The Ministry is encouraging the liberal application of the Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances (PITNDPS) Act, 1988, which includes a provision to detain an individual for up to two years without a court's intervention.

"Earlier, the PITNDPS Act was not being used much. We have made the States aware that the provision needs to be used more often. As of now, more than 500 persons are detained across the country under the particular Section," the official said. The orders can be passed by the Central government or a State government, or any officer of the Central government not below the rank of Joint Secretary.

The NCB said the use of the 'dark net' and crypto currency in illegal drugs is increasing, and in 2020, 2021 and 2022, the agency investigated 59 such cases. A sub-group on the counter-terrorism portal, the Multi Agency Centre (MAC), has been created to share inputs on the use of the dark net and crypto currency for trade in narcotics.

Following the directives by Union Home Minister Amit Shah, all States have created dedicated Anti-Narcotics Task Forces (ANTF). The first ever conference of State ANTFs was held on April 19-20. At the conference, Mr. Shah stressed the need to confiscate the property and assets of the accused for maximum deterrence.

Property frozen

Data shows that in 2022, the NCB conducted financial investigation into 33 such cases in which property worth ₹17 crore was frozen.

At the conference, the Minister said that unless seized drugs were destroyed through proper process, there will be chances of rotation of drugs due to corruption, adding that the destruction should be held in public. So far, 6.7 lakh kg of drugs have been burnt by government agencies.

Each recovery, seizure and arrest is plotted on an interactive map and placed on a centralised portal run by the NCB, the Central anti-narcotics agency.

On the National Narcotics Coordination portal, the source and destination of drugs are highlighted too, and information up to the district levels is maintained. Another database, called NIDAAN, has the photographs, fingerprints, court orders, information and details of all suspects and convicts arrested under the Narcotic Drugs and Psychotropic Substances (NDPS) Act so far, which can be accessed by State and Central law enforcement agencies.

Officials have been asked to study court judgments that have led to acquittal of the accused and take remedial steps to enhance the conviction rate. Special training is being given to public prosecutors to handle such cases.

- Opium and cannabis cultivation in area the size of over 89,000 football fields has been destroyed in the past three years as the Union government intensifies its crackdown against drugs. Aiming to make India “drug-free” by 2047, the Ministry of Home Affairs (MHA) plans to link recovery and usage of narcotics and banned substances in a particular area to the annual appraisal report of a District Superintendent of Police.

- The Ministry is encouraging the liberal application of the Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act (PITNDPS), 1988, which includes a provision to detain an individual for up to two years without a court’s intervention.

- On the National Narcotics Coordination portal (NCORD), the source and destination of drugs are highlighted too, and information up to the district levels is maintained. Another database, called NIDAAN, has the photographs, fingerprints, court orders, information and details of all suspects and convicts arrested under the Narcotic Drugs and Psychotropic Substances (NDPS) Act so far, which can be accessed by State and Central law enforcement agencies.

Beyond the writeup: NDPS Act

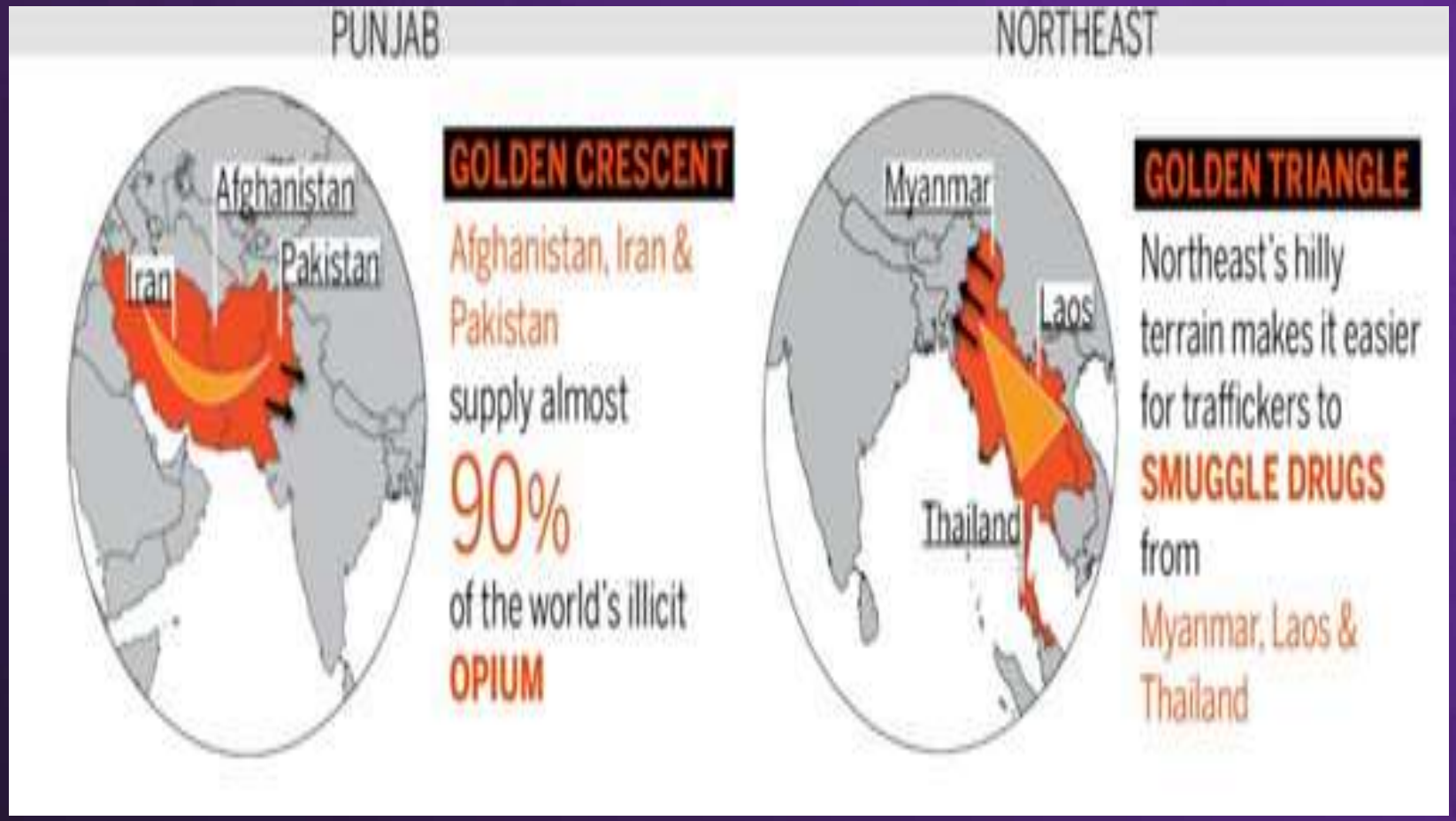
- The NDPS Act prohibits a person from the production/manufacturing/cultivation, possession, sale, purchasing, transport, storage, and/or consumption of any narcotic drug or psychotropic substance. Initially enacted in 1985, the Act was amended three times in 1988, 2001 and 2014.

- According to the Act, narcotic drugs include coca leaf, cannabis (hemp), opium, and poppy straw; and psychotropic substances include any natural or synthetic material or any salt or preparation protected by the Psychotropic Substances Convention of 1971.

- A psychotropic drug includes any natural or synthetic material or any salt or preparation protected by the Psychotropic Substances Convention of 1971.
  The Narcotics Control Bureau was constituted in 1986 under the provisions of the NDPS Act.

- The NCB is a nodal agency that is responsible for coordination with various ministries, other offices & State/Central enforcement agencies with regard to drug law enforcement and also in respect of matters relating to drug abuse.

- All the offences under the NDPS Act are non-bailable.


PUNJAB
Afghanistan
Iran
Pakistan
GOLDEN CRESCENT
Afghanistan, Iran & Pakistan
supply almost
90%
of the world's illicit
OPIUM
NORTHEAST
Myanmar
Laos
Thailand
GOLDEN TRIANGLE
Northeast's hilly terrain makes it easier for traffickers to
SMUGGLE DRUGS
from
Myanmar, Laos & Thailand

Page 9. GS I (Culture)

Pushkaralu festival returns to the Ganga after a gap of 12 years

The Hindu Bureau
LUCKNOW

The U.P. government is expecting more than one lakh pilgrims to visit the city for the event

The 12-day Pushkaralu festival celebrated by Telugus started in Varanasi on Saturday with the Uttar Pradesh government expecting more than one lakh pligrims to visit the city as part of the event till May 3.

The festival, during which pilgrims worship the Ganga and their ancestors, is being organised in Varanasi after a gap of 12 years.

It is the second event, after the Kashi-Tamil Sangamam, being organised in Varanasi which will witness a large number of South Indians visiting the city.

Many groups of pilgrims arrived on Saturday with special trains scheduled for the festival.

The Varanasi district administration has made arrangements for crowd regulation as well as for facilitating visitors in completing their rituals at the ghats along the Ganga and for offering prayers at the Kashi Vishwanath temple.

"We have done all the necessary arrangements such as drinking water supply, toilets and changing rooms and deployed rescue teams, including divers, a medical team and the police, for crowd regulation. Dedicated teams of sanitary staff will take care of cleanliness works at the ghats between Assi and Dashashwamedh," said S. Rajalingam, the District Magistrate of Varanasi.

The 12-day Pushkaralu festival of Telugu-speaking people commenced on April 22 in Varanasi. The festival, in which pilgrims will worship their ancestors and the river Ganga, is being organised in Kashi this year after a gap of 12 years due to a special combination of planetary transits.

As per the legend, after severe penance, the devotee Pushkara was blessed by Lord Shiva with the ability to live in water, and purify holy rivers. On a request from Bṛhaspati (Jupiter), Pushkara decided to enter one of the 12 sacred rivers — Ganga, Yamuna, Godavari, Krishna, Kaveri, Bhima, Tapti, Narmada, Saraswati, Tungbhadra, Sindhu, and Pranhita. Each river has its zodiac sign. The river for each year's festival is decided in accordance with Brihaspati travel from one zodiac sign to another.

Supplementary Page. GS I (Culture)

The night of Bhoota Kola

The ancient art form of Bhoota Kola, which gained mainstream popularity after the film *Kantara*, inspires anticipation and hope in Dakshina Kannada, Udupi and Kasaragod

As the evening deepens into an inky darkness of the night, the people of the village of Mujungavu near Kumabala in Kasaragod, Kerala, gather around to watch the Bhoota Kola. The air is suffused with anticipation and hope, for the Bhoota Kola is an oracle and prayers to it are believed to bring them fortune and relieve them of their problems.

The trained Bhoota Kola performer, in a possessed state, provides the answers to the community and is revered as the manifestation of God himself. The ritual performance that starts in the night goes on into the early hours of the morning.

Performed in the open air, the Bhoota Kola comes in the forms of Panchuruli, Kallurutti, Koragajja and so on. Originally from Dakshina Kannada and Udupi districts of Karnataka and the northern parts of Kasaragod district, the Bhoota Kola has striking similarities with Kerala's Theyyam, but have subtle differences too.

The costumes of the Bhoota Kola are not as strikingly colourful as those of the Theyyam. The Bhoota Kola performer is bedecked in an attire entirely made of intricately woven palm leaves. The elaborate face painting, however, is similar to Theyyam. The incantations the performer utters are in Tulu. The *nema* or *kola* (as the performance is called) usually involves a fierce dance accompanied by drums, music and other rituals.

Even for the ardent followers of Theyyam of Kerala, the Bhoota Kola from Tulu Nadu was not so familiar until the release of the Kannada movie *Kantara*, which brought the less-known ritualistic art form into the mainstream. People have now begun to flock to the interior villages of Tulu Nadu just to witness Bhoota Kola.

The Tuluvas, the people who speak the Tulu language, believe in animism and the Bhoota Kola is performed to invoke these spirits of Nature. The traditional right to perform the *kola* belong to the Nalike and Parava tribes of the region. A typical Bhoota Kola season starts in January and extends to May.

Legend has it: Kuppe Panchuruli stands in front of a makeshift shrine and narrates the history of the Panchuruli, the spirit of a wild boar, in the form of songs.

- Performed in the open air, the Bhoota Kola comes in the forms of Panchuruli, Kallurutti, Koragajja and so on. Originally from Dakshina Kannada and Udupi districts of Karnataka and the northern parts of Kasaragod district, the Bhoota Kola has striking similarities with Kerala's Theyyam, but have subtle differences too.

- The Bhoota Kola performer is bedecked in an attire entirely made of intricately woven palm leaves. The elaborate face painting, however, is similar to Theyyam. The incantations the performer utters are in Tulu. The nema or kola (as the performance is called) usually involves a fierce dance accompanied by drums, music and other rituals.

- The Tuluvas, the people who speak the Tulu language, believe in animism and the Bhoota Kola is performed to invoke these spirits of Nature. A typical Bhoota Kola season starts in January and extends to May.

Beyond the writeup: Bhootha Aradhane

- Bhootaradhana or Deity worship is a ritual called nema or kola is performed for ghosts/gods. Conducting kola/nema has its own race and rules. The face is painted, wrapped in a Siri made of coconut feathers, and danced invoking the deity. The Divine Dancer gives justice to human beings and resolves disputes through the Word of God. Deity worship is the fundamental religious belief of the Tulu race.
- Bhootha Aradhane is very common in the coastal towns of Karnataka. Idols representing ‘bhoothas’ are taken out in a procession to the beating of drums and bursting of firecrackers. As the procession ends, the idols are placed on a pedestal.Frantically pacing up and down, he enters into a possessed state and acts as an oracle.

Beyond the writeup: Bhootha Aradhane

- **Performance:** Bhootada Kola is performed by a trained person who is believed to have temporarily become a god himself. The performer displays an aggressive outlook, dances fiercely and performs multiple rituals. This performer is feared and respected in the community and is believed to give answers to people's problems on behalf of the god. Drums and music give company to the dancing and pooja rituals. By praying together during Bhootada Kola, the community seeks God's blessing, prosperity and riddance of various problems the community is challenged with.
- Popular Bhootas: Panjurli, Bobbarya, Pilipoota, Kalkuda, Kalburti, Pilichamundi, Koti Chennaya are some of the popular gods (Bhootas) worshipped as part of Bhootada Kola.

Mains Practice Questions

1. The Indian Space Policy 2023 has been approved by the Indian Cabinet Committee on Security. What do you understand by mean open space policy? Discuss its advantages and potential drawbacks. (250 words; 15 marks)

2. India's proximity to the two of the world's biggest illicit opium-growing states has enhanced her internal security concerns. Explain the linkages between drug trafficking and other illicit activities such as gunrunning, money laundering and human trafficking. What counter-measures should be taken to prevent the same? (250 words; 15 marks)