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Times of India Page 3

SURROGACY

(Syllabus: GS Paper 2 – Vulnerable section)

Can't go West's way, need to save institution of marriage: SC

Court Expresses Reservation Over Unmarried 44-Year-Old Woman's Plea Seeking Nod To Be A Mother Via Surrogacy

AmitAnand.Choudhary
@timesgroup.com



You can't have everything in life. Your client preferred to remain single... We don't want children roaming here without knowing about their fathers and mothers, SC said

New Delhi: The institution of marriage has to be protected and preserved in the country and cannot go on the lines of western countries where children being born outside of marriage is not uncommon, the Supreme Court said on Monday while expressing its reservation in permitting unmarried women to take the surrogacy route to become mothers.

While hearing the petition of a 44-year old unmarried woman who approached the court seeking permission to become mother through surrogacy, which is not allowed under the law, a bench of Justices B V Nagarathna and Augustine George Masih said a single woman bearing a child outside marriage was not the rule in Indian society, but an exception.

"It is a norm here to become a mother within the institution of marriage. Being a mother outside the institution of marriage is not the norm. We are concerned about it. We are speaking from the point of view of (the) child's welfare. Should the institution of marriage survive or not in the country? We are not like western countries. The institution of marriage has to be protected. You can call us and tag us conservative, and we accept it," Justice Nagarathna observed.

The petitioner, who works with a multinational company, approached the court through her lawyer Shayamal Kumar challenging the validity of Section 2(s) of the Surrogacy (Regulation) Act which defines "intending woman" as an Indian woman who is a widow or divorcee between the age of 35 and 45 years and intends to avail the surrogacy option. This implies that a single unmarried woman is not allowed to become a mother through surrogacy.

At the outset of the hearing, the bench told the woman that there were other ways to become a mother and suggested that she could get married or adopt a child. But her lawyer responded that she didn't want to marry and also that the waiting period for adoption was very long.

Remarking that the institution of marriage could not be thrown out of the window, the bench said, "It is difficult to rear and bring up a surrogate child at the advanced age of 44. You cannot have everything in life. Your client preferred to remain single. We are also concerned about society and the institution of marriage. We are not like the West where many children do not know about their mothers and fathers. We do not want children roaming here without knowing about their fathers and mothers."

"Science has well advanced but not the social norms and that is for some good reason," the court said.

Challenging the provision, the petitioner lawyer submitted that it was discriminatory as a single woman could also get married just to be eligible under the Act and after some time she could get a divorce. But the bench said it wasn't so easy. The court said it would hear her petition along with a batch of other petitions challenging other provisions of the Act.

"The restrictions are wholly discriminatory and without any rational or reason... the said restrictions not only infringe on the fundamental rights of the petitioner but are also violative of basic human rights of an individual to found a family as recognised by the UN and reproductive rights... recognised as an aspect of personal liberty under Article 21," the petition said.

Context: The institution of marriage has to be protected and preserved in the country and cannot go on the lines of western countries where children being born outside of marriage is not uncommon, the Supreme Court said ,while expressing its reservation in permitting unmarried women to take the surrogacy route to become mothers.

Surrogacy:

- **Meaning**: Surrogacy as a practice where a woman gives birth to a child for an intending couple with the intention to hand it over to them after the birth.
- **Surrogacy regulation in India:**
  - The regulation **prohibits commercial surrogacy** in India
  - It is permitted **only for altruistic purposes** or for couples who suffer proven infertility or disease.
  - The couple is deemed 'eligible' if they have been married for five years, the wife is **aged between 25-50 years** and the husband is between 26-55 years.
  - The couple must not have any living child (biological, adopted or surrogate.) A child with mental or physical disabilities, or one suffering from a life-threatening disorder or illness has been exempted from the above criterion.
  - The couple can get an **'essential' certificate** if suffering from proven infertility of either partner
  - A surrogate mother has to be a **close relative** of the couple, a married woman with a child of her own, aged between 25-35 years, who has been a surrogate only once in her life.

PIB

Feb -5th

BLACK-NECKED CRANE

(Syllabus: GS Paper 3– Environment)

Black-necked Crane

Context: The Wildlife Institute of India and the Zoological Survey of India have been carrying out assessment of the black-necked cranes.



About:

Scientific Name: Grus nigricollis.

Habitat:

- The cranes primarily breed in high-altitude wetlands of the Tibetan plateau, Sichuan (China), and eastern Ladakh (India), migrating to lower altitudes during winter.
- In Bhutan and Arunachal Pradesh, they are seen only during winters, with specific areas in Tawang and West Kameng districts serving as their wintering grounds.
- As per the survey conducted by Wildlife Institute of India in 2016-2017 in Ladakh region, the population size of black necked crane was around 66-69 individuals. In Arunachal Pradesh, a small population of approximately 11 individuals arrives during winter months

Protection Status:

- The Black-necked Crane is listed in Schedule I of the Wild Life (Protection) Act, 1972, thereby according them the highest degree of protection.
- The species is also listed in Appendix I of Convention on International Trade in Endangered Species of wild fauna and flora and the Convention on conservation of Migratory Species.

Conservation measures:

- The important habitats of Black-necked Crane have been notified as a Protected Areas, for example, Changthang Sanctuary, Ladakh.
- The Tso Kar Wetlands Complex, an important foraging and breeding ground for Black-necked Crane has been designated as a Ramsar Site.

LIVEMINT

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DEEP TECH FUND

(Syllabus: GS Paper 3- Science)

mint primer

India's deep tech corpus: Is ₹1 tn really enough?

BY SHOUVIK DAS

The interim union budget for FY25 announced the setting-up of a ₹1 trillion-corpus to fund deep-tech ventures. This gives India's nascent deep-tech sectors a shot in the arm. However, there will be challenges. *Mint* explains why the corpus is significant.



1 Why does deep-tech need govt support?

Deep-tech includes sectors that are heavily driven by engineering, research and development, and innovation. This niche area covers technologies that are yet to go mainstream. Innovation of this nature requires sizeable funds, as deep-tech has a long development phase before hitting the markets. The technologies are also of national significance, because of which developed economies invest heavily in order to not be reliant on other nations. While venture capital investments are important, the massive amounts needed make government funding key to developing foundational and fundamental deep-tech industries.

AFP

2 Which sectors are likely to benefit?

Semiconductors, artificial intelligence, quantum computing, and high-tech manufacturing. Globally, other sectors that get clubbed under deep-tech include aviation, climate-tech, mobility, biotics and space. India's startup economy is the target for this fund, since domestic VCs largely offer early-stage funding that is made available in small ticket sizes. After the budget, union IT minister Ashwini Vaishnaw said the Centre will focus on certain strategic sectors to begin with, before other deep-tech sectors also get access to funds. However, the priority sectors for the Centre have not been disclosed yet.

Context: The interim union budget for FY25 announced the setting-up of a ₹1 trillion-corpus to fund deep-tech ventures.

Deep tech fund

- **Objectives:**
  - Foster innovation and research in deep-tech sectors.
  - Reduce reliance on foreign technology by promoting indigenous development.
  - Position India as a global leader in deep-tech innovation and entrepreneurship.
  - Support startups and enterprises working on cutting-edge technologies.
- **Size of Fund:**
  - ₹1 trillion corpus allocated for deep-tech ventures.
  - Significant but smaller compared to global counterparts.
- **Deep-Tech Fund Sectors of Focus:**
  - Semiconductors
  - Artificial Intelligence (AI)
  - Quantum Computing
  - High-tech Manufacturing
  - Climate-tech
  - Space Technology
- **Need for Government Support:** Deep-tech sectors require substantial funds due to long development phases and Government funding essential for fostering foundational industries.
- **Sectoral Allocation:** Initial focus on strategic sectors such as semiconductors and quantum communications and Other sectors to follow through proposal-based application framework.

BUSINESS STANDARD

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PURCHASING MANAGER'S INDEX

(Syllabus: GS Paper 3 – Economy)

India's services PMI hits 6-mth high in Jan

SHIVA RAJORA
New Delhi, 5 February

An increase in new business activity due to the buoyant demand from domestic and external clients pushed growth in India's dominant services sector to a six-month high in January, as the headline Purchasing Managers' Index (PMI) figure rose to 61.8 in January from 59 in December, showed the survey by S&P Global in partnership with HSBC on Monday.

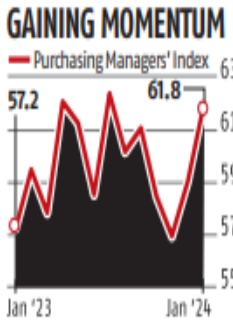
"The upturn was cemented by the quickest rise in new business since last July, which stemmed from buoyant demand from domestic and external clients. New export sales rose at the fastest pace in three months," the survey said.

The latest figure marks 30 months of the index remaining above the 50-mark since July 2021. A reading above 50 in the survey indicates expansion of the sector and a figure below that suggests contraction. The survey noted that firms reported a rise in overall expenses at the start of 2024, with food, labour, and freight identified as the key sources of cost pressures. However, selling charges were raised to a lesser extent.

"Amid reports of higher food, freight and salary costs, there was another increase in the overall expense of Indian services firms in January. The rate of inflation was marked the fastest in five months and above its long-run average. That said, with the vast majority of panellists opting to leave their charges unchanged and only 6 per cent hiking them, output prices rose to the lowest extent in 11 months," the survey notes.

Data showed that consumer services by far led the rise in input costs, but it was in transport, information & communication that the quickest increase in selling prices was registered.

Ines Lam, economist at HSBC, said that new business expanded at a faster pace and managers' expectations for future activity were strong.



Context: India's services PMI hits 6 month high in January.

Purchasing Managers' Index (PMI):

- **Meaning:** Purchasing Managers' Index (PMI) is **an indicator of business activity, both in the manufacturing and services sectors.**
  - It is a survey-based measures that asks the respondents about changes in their perception of some key business variables from the month before.
  - It is **calculated separately for the manufacturing and services sectors** and then a composite index is constructed.
- **Method of Formulation:** The PMI is derived from a series of qualitative questions. Executives from a reasonably big sample, running into hundreds of firms, are asked whether key indicators.
  - The questions are related to **5 key variables.** The variables with their weights **in the index are:** new orders (30%), output (25%), employment (20%), suppliers' delivery times (15%) and stock of items purchased (10%).
- **PMI Numbers: The indices vary between 0 and 100.**
  - A figure above 50 denotes expansion in business activity. Anything below 50 denotes contraction. The rate of expansion can also be judged by comparing the PMI with that of the previous month data.
- **Frequency of its release:** The PMI is released at the start of **every month.**
- **Significance of the PMI:**
  - It is released much before most of the official data on industrial output, manufacturing and GDP growth becomes available. It is, therefore, considered **a good leading indicator of economic activity.**
  - **Central banks** of many countries also **use the index** to help make decisions on interest rates.
  - The PMI also gives an indication of corporate earnings and is **closely watched by investors as well as the bond markets.** A good reading enhances the attractiveness of an economy vis-a-vis another competing economy.

E-SAKSHI MOBILE APPLICATION

(Syllabus: GS Paper 2 – Polity & Governance)

E-SAKSHI MOBILE APPLICATION

Posted On: 05 FEB 2024 4:38PM by PIB Delhi

Context: The Ministry of Statistics and Programme Implementation recently informed the Parliament that MPLADS e-SAKSHI Mobile Application offers convenience and accessibility, allowing MPs to propose, track, and oversee the projects in real-time, which enhances decision-making processes, enabling swift responses to emerging needs or issues.

MPLADS e-SAKSHI Mobile Application

- **Nodal Ministry**: Ministry of Statistics and Programme Implementation (MoSPI).
- **Objective:** To bring forth a myriad of benefits, revolutionizing the way they engage with and manage development projects in their constituencies.
- **It offers:** Convenience and accessibility, allowing MPs to propose, track, and oversee the projects at their fingertips.
- **Benefit**: This real-time access enhances decision-making processes, enabling swift responses to emerging needs or issues.
  - It will streamline the communication between MPs and relevant authorities, facilitating a more efficient exchange of information.
  - It will promote transparency by providing MPs with instant updates on the status and progress of their proposed projects.
  - Budget management, ensuring MPs can monitor expenditures.

MPLAD Scheme

- **About**: The **Local Area Development Scheme** known as MPLADS is a government scheme launched on 23rd December 1993. The scheme, Members of Parliament Local Area Development Scheme (MPLADS) was started by late **Prime Minister P.V. Narasimha Rao.**
  - Under the scheme, each MP has the choice to suggest to the District Collector for works **to the tune of Rs.5 Crores per annum** to be taken up in his/her constituency.
- **Nodal Ministry**: Ministry of Statistics and Implementation.
- **Objectives**: This central sector scheme was developed as an initiative to enable the parliament members to **recommend developmental work in their constituencies** based on locally felt needs.
  - These developmental works mainly **focused on the areas of national priorities** such as drinking water, education, public health, sanitation, roads, etc.

Times of India Page 1

CENTRAL DRUGS STANDARD CONTROL ORGANISATION

(Syllabus: GS Paper 2 – Health)

Regulator seeks fresh data on 2 cough-cold pills

Central Drug Regulatory Authority has asked companies manufacturing two commonly prescribed cough and cold medications and one painkiller drug available in fixed-dose combinations, which have been on sale for more than 30 years, to carry out trials to review their safety and efficacy, **reports Durgesh Nandan Jha.**

One of the cough & cold medications contains paracetamol, nasal decongestant and processed form of caffeine. The other contains caffeine anhydrous, paracetamol, hydrochloride and anti-allergic medication in different compositions. **P 11**

Context:Central Drug Regulatory Authority (CDSCO) has advised post-marketing surveillance to generate safety and efficacy data on a third FDC that belongs to a class of painkillers called non-steroidal anti-inflammatory drugs

Central Drugs Standard Control Organization (CDSCO)

- **About:** CDSCO establishes standards and measures to ensure the safety, effectiveness, and quality of drugs, cosmetics, diagnostics, and medical devices within the country.
- **Headquarters**: New Delhi.
- **6 Zonal Offices of CDSCO:** Mumbai, Kolkata, Chennai, Ghaziabad, Hyderabad, and Ahmedabad.
- **Ministry:** Ministry of Health & Family Welfare.
- **Under the Drugs and Cosmetics Act:**
  - CDSCO is tasked with the approval of drugs, conduct of clinical trials, and establishment of standards for drugs.
  - This coordination aims to ensure uniform enforcement of the Drugs and Cosmetics Act, contributing to a standardized and regulated pharmaceutical landscape in the country.
- **Export Regulation:**
  - CDSCO plays a role in regulating the export of drugs from India.
  - Manufacturers with CDSCO certification can export drugs to other countries, expanding India's pharmaceutical presence internationally.
- **Function:**
  - Approval of new drugs and clinical trials.
  - Import Registration and licensing.
  - Banning of drugs and cosmetics.
  - Testing of new drugs.

BUSINESS STANDARD

Page 4

FAME INDIA SCHEMES

(Syllabus: GS Paper 2 – Govt schemes)

FAME-II: Only 38% of subsidy used in FY24

SURAJEET DAS GUPTA
New Delhi, 5 February

The Ministry of Heavy Industries (MHI) has stated that the total utilisation of the FAME-II subsidy fund electric vehicles (EVs) till January 31 for FY24 was ₹1,980.83 crore, which is only 38 per cent of its total allocation.

In 2023-24, according to MHI, the budgeted allocation was ₹5,171.97 crore.



Responding to an unstarred question in the Rajya Sabha, the MHI has revealed that the entire budgeted allocation was used up in the first three years, beginning from 2019-20, falling marginally in 2022-23, but in 2023-24, there is still a huge gap, with just two months left for the completion of the FAME-II scheme.

Under phase II, a subsidy amounting to ₹5,790 crore has been given to manufacturers on the sale of 1.3 million EVs as on January 31, 2024. This is based on details of claims on the FAME-II portal as on January 31, 2024.

The MHI has also sanctioned 6,862 e-buses for various cities, state transport undertakings, and state governments for intracity operations. It has supplied 6,862 e-buses in addition to 3,487 e-buses to state transport undertakings as on November 29, 2023.

The ministry has also sanctioned 2,877 EV charging stations in the same period in 68 cities across 25 states and union territories. However, out of these, only 148 have been constructed and are operational.

MHI had also sanctioned ₹800 crore as capital subsidy to the three OMCs under the ministry of petroleum and natural gas for the setting up of 7,432 EV charging stations.

Context: The Ministry of Heavy Industries (MHI) has stated that the total utilization of the FAME-II subsidy fund electric vehicles (EVs) till January 31 for FY24 was ~1,980.83 crore, which is only 38 per cent of its total allocation.

Fame India schemes

- **About**:The FAME India Scheme is a government subsidy scheme under the National Electric Mobility Mission Plan (NEMMP). FAME stands for Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India .
- **Objectives:**To encourage the adoption of electric and hybrid vehicles by offering upfront incentives on purchase.
- **Nodal ministry:** The Ministry of Heavy Industries.

Salient Features of the FAME Scheme – 2

- This scheme is the expanded version of the present scheme titled 'FAME India-1 which was launched on 1st April 2015, with a total outlay of Rs. 895 crores.
- The target is to support 10 Lakhs e-2Wheeler, 5 Lakhs e-3 Wheelers, 55000 4 Wheelers, and 7000 Buses.
- Under the scheme of FAME-II, the demand incentive for e-2W has been increased to Rs. 15,000/KWh from Rs. 10,000/KWh with an increase in cap from 20% to almost 40% of the cost of the vehicle to increase the adoption of e-2W.
- The phase II of the FAME-India Scheme has been extended for a period of two years after 31st March 2022.

Benefits: The scheme will help in addressing the issue of environmental pollution and fuel security.

THE HINDU

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QUAD
(Syllabus: GS Paper 2 – IR)

Quad summit more likely after U.S. polls in November: envoy

U.S. Ambassador Eric Garcetti says the Quad agenda will be more productive by 2024-end; at a discussion on the grouping's new version, former officials clarify it was the U.S. and Australia, and not India, that pulled out of the Quad in 2007

Suhasini Haidar
NEW DELHI



PM Narendra Modi with leaders of U.S., Australia and Japan during the Quad Leaders' Summit last year in Hiroshima, Japan. FILE PHOTO

Leaders of the Quad nations may not be able to meet for a summit in India before the U.S. elections, U.S. Ambassador Eric Garcetti said, stressing that the Quad agenda would be "more productive" by 2024-end. Australia, India, Japan, and the U.S. form the Quad.

Mr. Garcetti, who was speaking at a discussion with envoys from Australia and Japan and former officials at the Jaipur Literature Festival over the weekend, indicated that the election schedules and campaign requirements would make it difficult for U.S. President Joseph Biden to travel to Delhi. Mr. Biden had earlier declined an invitation to attend the Republic Day parade followed by the Quad summit, with the dates proposed by New Delhi for January 26-27.

"Absolutely. It will take place right after the elections," Mr. Garcetti said in response to a question from *The Hindu*, clarifying that he meant the U.S. elections, to be held on November 5, 2024.

"As exciting as 2023 was for bilateral relations, with PM Modi's state visit, President Biden's visit to India for the G-20 summit, India being the number one destination for U.S. Cabinet members, and Treasury Secretary Yellen visiting the country four times, we need time to put the agenda back together... This will make the end of the year have more productive outcomes," the U.S. envoy said.

Mr. Garcetti said there would be some Quadrilateral discussions on technology later this month on the sidelines of the Initiative on Critical and Emerging Technologies (iCET) meetings.

U.S. National Security Adviser Jake Sullivan is expected to lead a delegation to Delhi for talks with his Indian counterpart, Ajit Doval, for the iCET intersessional meetings, and to address the annual Raisina Conference organised by the External Affairs Ministry and the Observer Research Foundation on February 21-23.

Mr. Garcetti, however, rejected the idea that the election schedule, or the possibility of Republican frontrunner and former President Donald Trump defeating Mr. Biden in the elections, would affect the India-U.S. bilateral or Quadrilateral relationship.

How it ended

The panel, which included former Australian Prime Minister Malcolm Turnbull and former Indian Foreign Secretary Shyam Saran, also shed light on how the first round of Quad engagement from 2005 to 2007 had come to an end, until it was revived in 2017 by the four countries involved.

According to Mr. Turnbull, it was Australia that publicly announced its decision to pull out of the Quad first in 2008, although Mr. Saran added that behind the scenes, it was the then-Bush administration that had directly asked India "not to push [the Quad] forward".

The accounts are at some variance with the belief that it was India, not the U.S. and Australia, that ended the Quad's earlier version.

During a speech in February 2023, External Affairs Minister Jaishankar had said that "in 2007, one country put pressure, you can guess which one and we backed down," he said referring to pressure from China, and comparing the responses in 2007 against 2017.

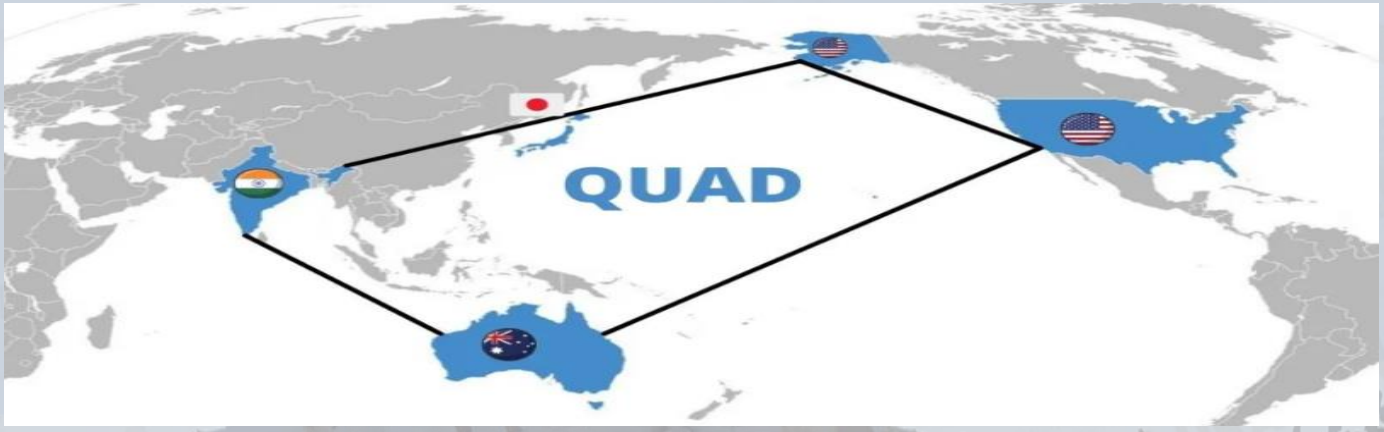
Mr. Saran, however, described a phone call from a senior U.S. official just before the then Prime Minister Manmohan Singh's visit to Tokyo in 2006.

"Please tell your PM not to encourage Abe [the then Japanese PM] on the Quad. This is not the time we should push this forward," he said. Mr. Saran added the official cited the Iran nuclear deal and North Korea six-party talks as reasons for the U.S.'s desire to not annoy Beijing in 2006.

Context: Leaders of the Quad nations may not be able to meet for a summit in India before the U.S. elections, U.S. Ambassador said.

Quad:

- **About:** It is also known as the Quadrilateral Security Dialogue or simply the Quad, is an Informal strategic forum.
- **History:** It was initially proposed by Japanese Prime Minister Shinzo Abe in 2007. Nevertheless, the initiative faced obstacles as Australia withdrew from it, seemingly influenced by Chinese pressure, which hindered its progress.
- **Established:** 2007 (1st time); lasted until 2008, 2017 (re-established).
- **Members:** United States, Japan, India, and Australia.
- **Aim:** To promote regional security and economic cooperation in the Indo-Pacific region.
- **Quad Plus:** A first Quad Plus meeting that included representatives from South Korea, New Zealand, and Vietnam.



INDIAN EXPRESS Page 12

SNOW LEOPARD

(Syllabus: GS Paper 3 – Env and Eco)

Snow leopard count: why this Himalayan feat is the first step in securing the cat

JAY MAZOOMDAAR
NEW DELHI, FEBRUARY 5

THERE ARE 718 snow leopards in India – in Ladakh, Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh, the Snow Leopard Population Assessment in India (SPAI) has estimated. The study, carried out between 2019 and 2023, is a major leap in the understanding of the species.

Snow leopards are believed to occupy around 1 lakh sq km of the higher Himalayan terrains in India. As recently as 2016, the cat's status was unknown in as much as one-third of its range. This went well with the legend of the "ghost of the mountains" built around the elusive cat's mastery of stealth and camouflage.

But for this 'ghost' to have a future – and since the future of most species is increasingly determined by human actions – knowledge of the cat's status across its range is necessary for framing the right policies. This is also a question of securing the future of Indians, because the snow leopard's habitat is where all major Himalayan rivers, which sustain life across much of the country, spring to life.

Yet, a national effort to count snow leopards across its range remained daunting.

The challenges

The first and foremost challenge is the unforgiving terrain snow leopards occupy. While the cold deserts of Ladakh and Spiti are their strongholds, snow leopards range all along the higher Himalayas, above the tree line between altitudes of 10,500 feet and 17,000 feet. Much of this habitat is not accessible by motorable roads, and its rarified air makes even routine fieldwork, such as locating suitable sites for placing camera traps, a test of endurance.

Analysing photos camera-trapped in the field poses the next challenge. Specialised software can identify unique individuals by comparing stripes or rosettes on both flanks from a pool of photographs. But unlike tigers, zebras, or even leopards, snow leopards do not yield to artificial intelligence.

For long, researchers have grappled with the issue of misidentifying individual snow leopards "as their spot patterns may not be easily recognised when their thick fur gets ruffled or when their body is photographed at different angles". To overcome this challenge, a global consensus of researchers recommended manual evaluation, using at least three marking patterns to differentiate between individuals, and employing multiple independent analysts for identification.

The head and tail of a snow leopard provide the best reference points for identification. Some researchers have tried to position cameras strategically to capture the forehead region of snow leopards, as was done in Ladakh during the present SPAI exercise.

But this requires placing multiple camera traps at each location – and can stretch resources.



Future of the 'ghost' is in a way linked to the future of Indians. *Ladit Kumar/File*

NUMBERS IN THE WILD

Area	Camera trap locations	No. of unique individuals	Density estimates*	Estimated numbers
Ladakh	956	126	0.34	477
Uttarakhand	382	40	0.7-1.04	124
Himachal Pradesh	284	44	0.08-0.37	51
Arunachal Pradesh	115	8	0.26	36
Sikkim	99	14	0.40	21
Jammu & Kashmir	135	9	0.75	9
TOTAL	1,971	241	–	718

*Per 100 sq km; Source: *Status of Snow Leopard in India, 2023*

The exercise

The Wildlife Institute of India (WII) partnered with NGOs Nature Conservation Foundation and WWF-India to prepare India's snow leopard estimation protocol in 2019.

The groundwork was carried out in the next three years. In all, photographs collected from 1,971 camera trap locations led to the identification of 241 unique individuals, which was extrapolated to an estimated population of 718 snow leopards in India. This extrapolation is done as cameras cover a limited area, and do not capture all leopards across their habitat.

In Ladakh, camera traps were placed at 956 locations covering 8,604 sq km for 120 to 180 days. Based on their distinctive forehead patterns, 126 unique adult individuals were identified from 10,789 images. The population was estimated to be 477 across 47,572 sq km.

In Jammu and Kashmir, only 9 unique individuals were identified by deploying 278 camera traps at 135 locations. Even after dropping four individuals due to poor image quality and unfavourable capture angles, this data set fell short of providing a comprehensive estimate for the snow leopard population across 949 sq km, noted SPAI.

In Himachal Pradesh, 44 unique individuals were identified from 187 photos captured across 284 camera trap locations, leading to an estimated population of 51 over 25,000 sq km. From 41 unique individuals identified from 396 snow leopard photos, Uttarakhand estimated a population of 124 occupying 12,768 sq km.

Arunachal Pradesh estimated a population of 36 across 14,156 sq km, from 8 unique snow leopards identified from 115 camera trap locations. In Sikkim, 14 unique individuals were identified from 64 snow leopard photos captured from 99 camera trap locations. The estimated population was 21 snow leopards across 400 sq km.

The outlook

In the 1980s, a guesstimate of a global population of 4,000-7,500 snow leopards cited 400-700 individuals in India. In the 1990s, another guesstimate put 200-600 snow leopards in India out of a global count of 3,020-5,390. In 2016, India's leading snow leopard researchers came together to put the national estimate at 516.

The present count of 718 is consistent with the trend, and suggests overall population stability. Yet, this is just the beginning of understanding the elusive species, its dispersal, competitive land use patterns, and mortality trends.

Infrastructure development is causing a rapid influx of labourer camps in the higher Himalayas who often depend on scarce natural resources for fuel and food. Such migrations, along with a boom in tourism, have also led to garbage mismanagement which, in turn, is fuelling an explosion in the free-ranging dog population that competes with snow leopards.

Context: The Snow Leopard Population Assessment in India (SPAI) has estimated a population of 718 in Ladakh, Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh. Carried out between 2019 and 2023, this study is a major leap in our understanding of the keystone species .

Snow leopard:

- **About:** Commonly known as the ounce, is a species of large cat in the genus Panthera of the family Felidae.
- **Keystone species:** Snow leopard which has a large, disproportionate impact on its environment and holds its ecosystem together.
- **Habitat:** High mountains.
- **Global Distribution:** Afghanistan, Bhutan, China, India, Kazakhstan, Kyrgyz Republic, Mongolia, Nepal, Pakistan, Russia, Tajikistan, and Uzbekistan.
- **In India:** Parts of the Himalayas such as Ladakh, Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.
- **Conservation Status:**
  - IUCN: Vulnerable.
  - CITES: Appendix I.
  - Indian Wildlife (Protection) Act, 1972: Schedule-I.
- **Threat**: Largely threatened because of the loss of natural prey species, retaliatory killing due to conflict with humans and illegal trade of its fur and bones.

Initiatives to protect Snow Leopard

- Global Snow Leopard and Ecosystem Protection Programme (GSLEP)
- The SECURE Himalaya project
- Project Snow Leopard (PSL)

INDIAN EXPRESS

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AISHE REPORT

(Syllabus: GS Paper 2 – Social justice)

FIVE KEY TAKEAWAYS FROM THE 2021-22 HIGHER EDUCATION SURVEY

R RADHIKA
NEW DELHI, FEBRUARY 5

THE All India Survey of Higher Education (AISHE) 2021–22 report, released on January 25, found that 4.33 crore students are currently enrolled in a higher educational institute – up from 4.14 crore in 2020-21, and 3.42 crore in 2014-15.

The survey captured total student enrolment at eight different levels: undergraduate, postgraduate, PhD, MPhil, diploma, PG diploma, certificate, and integrated programmes. In all, 10,576 standalone institutions, 42,825 colleges, and 1,162 universities/university level institutions responded to the survey.

Female enrolment greater

The number of women enrolled in higher educational institutes has steadily increased. From 1.5 crore in 2014-15, there was a jump of 32% to 2.07 crore in 2021-22.

The biggest rise was seen at the PhD level. In 2021-22, the total PhD enrolment was 2.12 lakh of which 98,636 were women, up from 47,717, eight years ago.

Since 2014-15, 91 lakh more students have joined higher educational institutes as of 2021-22. Of these 55% were women. The proportion of women is highest at the PG level, where 55.4% are women.

GER and gender parity

The Gross Enrollment Ratio indicates how many students are part of the higher education system in a given population. The estimated GER for the age group 18-23 years in India is 28.4, the report said.

Among states and UTs, Chandigarh, at 64.8, boasts of the highest GER, followed by Puducherry at 61.5, and Delhi at 49.

The Gender Parity Index (GPI) shows the ratio of the female GER to the male GER. A GPI of 1 indicates parity between the two genders; any number between 0 and 1 shows a disparity in favour of males, whereas a GPI greater than 1 indicates a disparity in favour of females.

The survey observed that in 26 states and Union Territories, the GER was in favour of women. At the all-India level, the GPI was 1.01, and for the Scheduled Caste (SC) and Scheduled Tribe (ST) categories, the GPI was 1.01 and 0.98 respectively.

Arts over sciences

The Bachelor of Arts (BA) programme had the highest enrolment, with 1.13 crore students out of the total of 3.41 crore who enrolled in UG programmes.

At the UG level, in 2021-22, the enrollment in Arts was 34.2%, followed by science (14.8%), commerce (13.3%), and engineering and technology (11.8%).

At the PG level, the highest number of students enrolled in the social science stream at 10.8 lakh. At PhD level, however, social sciences (26,057) stood at third spot after engineering (52,748) and science (26,057).

Primacy of govt institutions

Even though there are more private universities, students prefer government educational institutions. As many as 73.7% of all students attend government universities, only 58.6% of all universities.

Demographics

In the 2021–22 academic year, 1.07 crore students were estimated to have graduated from UG, graduate, doctorate, master's, and other diploma/certificate programmes. Among the graduates, 54.6 lakh or roughly 50.8% were women.

Context:The report of the All India Survey of Higher Education (AISHE) 2021–22, found that 4.33 crore students are currently enrolled in a higher educational institute — up from 4.14 crore in 2020-21.

AISHE REPORT:

- **About:** It is a report, to portray the status of higher education in the country.
- **Released by:** Ministry of Education.
- **Survey covers:** The survey covers all the Institutions in the country engaged in imparting of higher education.
- **Parameters:** Data is being collected on several parameters such as teachers, student enrolment, programmers, examination results, education finance, infrastructure.
- **Indicators:** Indicators of educational development such as Institution Density, Gross Enrolment Ratio, Pupil-teacher ratio, Gender Parity Index, Per Student Expenditure will also be calculated from the data collected through AISHE.
- **Help government:** These are useful in making informed policy decisions and research for development of education sector.
- **Five takeaways:**
  - **Increase in enrolment:** A 4.58% increase in higher education enrollment and a steady improvement in female admission
  - **The Gross Enrolment Ratio (GER**) saw a hike from 27.3 in 2020-21, to 28.4 in 2021-22.
  - **Art over sciences:** The Bachelor of arts (BA) programme had the highest enrolment ,with 1.13 crore students out of the total of 3.41 crores who enrolled in UG programmes.
  - **Primacy of government institution**: Students Prefer government educational institution. As many as 73.7% of all students attend government universities.
  - **Demographics:** In the 2021-2022 academic year, 1.07 crore students were estimated to have graduated from UG, graduate,, masters, and others diploma/ Certificate programmes.

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