



PIB, THE HINDU Newspaper and Editorial Current Affairs

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PIB

SATAT scheme

Why in news?

Recently Minister of Petroleum and Natural Gas & Skill development and Entrepreneurship handed over the 100th Letter of Intent (LOI) to the Compressed Bio-Gas (CBG) Entrepreneur (producer) under the SATAT scheme.

About SATAT scheme:

- SATAT is an initiative **aimed** at providing a Sustainable Alternative Towards Affordable Transportation as a developmental effort that would benefit both vehicle-users as well as farmers and entrepreneurs.
- SATAT was launched with a **four-pronged agenda of utilising more than 62 million metric tonnes of waste generated every year** in India, cutting down import dependence, supplementing job creation in the country and reducing vehicular emissions and pollution from burning of agricultural / organic waste.
- Bio-gas is produced naturally through a process of anaerobic decomposition from waste / bio-mass sources like agriculture residue, cattle dung, sugarcane press mud, municipal solid waste, sewage treatment plant waste, etc. After purification, it is compressed and called CBG, which has pure methane content of over 90%.
- Compressed Bio-Gas is exactly similar to the commercially available

natural gas in its composition and energy potential.

- CBG can be used as an alternative, renewable automotive fuel. Given the abundance of biomass in the country, CBG has the potential to replace CNG in automotive, industrial and commercial uses in the coming years.

There are multiple benefits from converting agricultural residue, cattle dung and municipal solid waste into CBG on a commercial scale:

- Responsible waste management, reduction in carbon emissions and pollution
- Additional revenue source for farmers
- Boost to entrepreneurship, rural economy and employment
- Support to national commitments in achieving climate change goals
- Reduction in import of natural gas and crude oil
- Buffer against crude oil/gas price fluctuations.

Background

- Bio-gas is produced naturally through a process of anaerobic decomposition from waste / bio-mass sources like agriculture residue, cattle dung, sugarcane press mud, municipal solid waste, sewage treatment plant waste, etc.
- After purification, it is compressed and called CBG, which has pure methane content of over 95%. Compressed Bio-Gas is exactly similar to the commercially available natural gas in its composition and energy potential.
- With calorific value (~52,000 KJ/kg) and other properties similar to CNG, Compressed Bio-Gas can be used as an alternative, renewable automotive fuel.
- Given the abundance of biomass in the country, Compressed Bio-Gas has the potential to replace CNG in automotive, industrial and commercial uses in the coming years.

Why in news?

The Prime Minister attended the closing ceremony of National Youth Parliament Festival Awards 2019, at VigyanBhawan, in New Delhi.

- National Youth Parliament Festival 2019 was celebrated on 12th January, 2019, on the occasion of National Youth Day.
- National Youth Parliament Festival 2019 has been jointly organised by National Service Scheme and Nehru Yuva Kendra Sangathan under the aegis of Ministry of Youth Affairs and Sports.
- National Youth Parliament Festival 2019 Theme: “Be The Voice of New India” and “Find solutions and contribute to policy”.
- Eligibility: Youth in the age bracket of 18-25 years are invited to participate in the District Youth Parliaments.
- Significance: The National Youth Parliament Festival will encourage the youth to engage with public issues, understand the common man’s point of view, form their opinion and express these in an articulate manner. Relevant and effective voices on
- the vision of New India would be captured and documented to make these available to policy makers and implementers to take it forward.

OBJECTIVES OF ORGANISING THE NATIONAL YOUTH PARLIAMENT FESTIVAL

- To hear the voice of youth between 18 and less than 25 years of age, who are allowed to vote but cannot stand as a candidate for election, through deliberations in Youth Parliaments at district level and above.
- To encourage the youth to engage with public issues, understand the common man's point of view, form their opinions and express it in an articulate manner.
- To develop and enhance decision making abilities.
- To develop in them a respect and tolerance for the views of others.
- To develop in them an understanding that respect for rules is essential for conducting any discussion systematically and effectively.
- To obtain and document their opinions on Vision of New India in 2022.

- To make available their views to policy makers and implementers to take it forward.
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Defence Acquisition Council

Why in news?

The Defence Acquisition Council (DAC) chaired by Raksha Mantri Smt Nirmala Sitharaman met here today and accorded approval for acquisition of defence equipment for about Rs 2700 Crores.

About Defence Acquisition Council:

An overarching structure, the Defence Acquisition Council (DAC), under the Defence Minister was constituted for overall guidance of the defence procurement planning process.

The composition of the DAC is as follows:

- Defence Minister: Chairman
- Minister of State for Defence: Member
- Chief of Army Staff: Member
- Chief of Naval Staff: Member
- Chief of Air Staff: Member
- Defence Secretary: Member
- Secretary Defence Research & Development: Member
- Secretary Defence Production: Member
- Chief of Integrated Staff Committees HQ IDS: Member
- Director General (Acquisition): Member
- Dy. Chief of Integrated Defence: Staff Member Secretary

The **objective** of the Defence Acquisition Council is to ensure expeditious

procurement of the approved requirements of the Armed Forces in terms of capabilities sought, and time frame prescribed, by optimally utilizing the allocated budgetary resources.

The functions of the DAC include:

- in-principle approval of 15 Year Long-Term Integrated Perspective Plan for Defence Forces;
 - accord of Acceptance of Necessity to acquisition proposals;
 - categorization of the acquisition proposals relating to 'Buy', 'Buy & Make' and 'Make';
 - issues relating to Single vendor clearance;
 - decision regarding 'offset' provisions in respect of acquisition proposals above Rs. 300 crores;
 - decisions regarding Transfer of Technology under 'Buy & Make' category of acquisition proposals; and Field Trial evaluation.
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Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS)

Why in news?

The Minister for Human Resources Development, Shri Prakash Javadekar has launched the Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS) for providing industry apprenticeship opportunities to the general graduates exiting in April 2019 through the National Apprenticeship Promotional Scheme (NAPS).

About Scheme for Higher Education Youth in Apprenticeship and Skills:

- SHREYAS is a programme conceived for students in degree courses, primarily non-technical, with a view to introduce employable skills

into their learning, promote apprenticeship as integral to education and also amalgamate employment facilitating efforts of the Government into the education system so that clear pathways towards employment opportunities are available to students during and after their graduation.

- program aims to enhance the employability of Indian youth by providing 'on the job work exposure' and earning of stipend.
- SHREYAS is a programme basket comprising the initiatives of three Central Ministries, namely the Ministry of Human Resource Development, Ministry of Skill Development & Entrepreneurship and the Ministry of Labour & Employment viz the National Apprenticeship Promotion Scheme (NAPS), the National Career Service (NCS) and introduction of BA/BSc/BCom (Professional) courses in the higher educational institutions.
- SHREYAS portal will enable educational institutions and industry to log in and provide their respective demand and supply of apprenticeship. The matching of students with apprenticeship avenues will take place as per pre-specified eligibility criteria. The State Governments are expected to play a major role in securing apprenticeship opportunities, apart from the Sector Skill Councils, so that general degree students passing out in April 2019, gain the option of industry & service sector apprenticeship.

Objectives

Following are the objectives of SHREYAS

- To improve employability of students by introducing employment relevance into the learning process of the higher education system
- To forge a close functional link between education and industry/service sectors on a sustainable basis
- To provide skills which are in demand, to the students in a dynamic manner
- To establish an 'earn while you learn' system into higher education
- To help business/industry in securing good quality manpower
- To link student community with employment facilitating efforts of the Government

Operation of the Scheme

- The primary scheme will be operated in conjunction with National Apprenticeship Promotion Scheme (NAPS) which provides for placing of apprentices upto 10% of the total work force in every business/industry.
 - The scheme will be implemented by the Sector Skill Councils (SSCs) , initially the Banking Finance Insurance Services (BFSI), Retail, Health care, Telecom, Logistics, Media, Management services, ITeS and Apparel.
 - More sectors would be added over time with emerging apprenticeship demand and curriculum adjustments.
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Atal Innovation Mission

Why in news?

NITI Aayog's Atal Innovation Mission (AIM) and Adobe today signed a Statement of Intent (SOI) to collectively drive the charter of developing creative skills and spreading digital literacy across all Atal Tinkering Labs in India.

Highlights:

- Adobe shall be adopting 100 schools under Atal Tinkering Labs (ATL) initiative. Further, Adobe shall be implementing its Digital Disha Program in ATLs , under which free licenses of Adobe Spark premium shall be offered to ATLs.
- Launched in 2018, the Adobe Digital Disha Programme is aimed at driving synergies in creative thinking and technology-based learning.
- Under this collaboration with AIM, children and teachers across these schools and communities shall benefit from creative learning resources, thereby empowering them with new age skills to thrive in the current digital era and preparing them for long term success.

About Atal Innovation Mission :

- AIM is the Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country.
- The AIM along with Self-Employment and Talent Utilization (SETU) are Government of India's the leading ventures to promote a culture of innovation and entrepreneurship. The Atal Innovation Mission has two core functions:
 - Entrepreneurship promotion through Self-Employment and Talent Utilization, wherein innovators would be supported and mentored to become successful entrepreneurs.
 - Innovation promotion: to provide a platform where innovative ideas are generated.
 - To realize these two core objectives, AIM has different sub-components. Atal Incubation Centers, Atal Tinkering Laboratories, Atal Grand Challenge Awards and Scale up Support to Established Incubation Centers.
 - Atal Incubation Centers are aimed at the creation and promotion of incubation centers across the country.
 - AICs will promote startups in various sectors like manufacturing, transport, energy, health, education, agriculture, water, sanitation, etc., and would provide them with necessary infrastructural facilities and other value-added services. AIM gives a grant-in-aid of Rs 10 crore to each AIC for a maximum of five years to cover capital and operational expenditure cost.

About Atal Tinkering Lab

ATL is an approach of Central government of India to create an environment of scientific temperament, innovation, creativity amongst Indian Students. It is a step towards a new India.

Objectives

- The objective of this scheme is to foster curiosity, creativity, and imagination in young minds and inculcate skills such as design mindset, computational thinking, adaptive learning, physical computing etc.
 - Young children will get a chance to work with tools and equipment to understand what, how and why aspects of STEM (Science, Technology, Engineering, and Math) The objective of this scheme is to foster curiosity, creativity, and imagination in young minds and inculcate skills such as design mindset, computational thinking, adaptive learning, physical computing etc. Young children will get a chance to work with tools and equipment to understand what, how and why aspects of STEM (Science, Technology, Engineering and Math)
 - ATL would contain educational and learn “do it yourself” kits and equipment on - science, electronics, robotics, open source microcontroller boards, sensors and 3D printers etc.
 - As a part of AIM, ATLs are being established in more than 5,000 schools in India where students of class 6th to class 12th acquire problem solving and innovation skills, developing innovative solutions leveraging Tinkering technologies like 3D printers, robotics, miniaturised electronics, IOT and programming, do it yourself kits with support from teachers.
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National e-Governance Awards

Why in news?

Recently Union Minister for Personnel, Public Grievances and Pensions presented National e-Governance Awards, 2019 at a function organised by Department of Administrative Reforms and Public Grievances (DARPG), Ministry of Personnel, Public Grievances and Pensions.

National Awards for e-Governance

Purpose of Award

The purpose of the award is to:-

- Recognize achievements in the area of e-Governance
- Disseminate knowledge on effective methods of designing and implementing sustainable e-Governance initiatives
- Encourage incremental innovations in successful e-Governance solutions
- Promote and exchange experiences in solving problems, Mitigating risks, resolving issues and planning for success.

National Awards on e-Governance

To recognize and promote excellence in implementation of e-Governance initiatives, DAR&PG presents National Awards every year during National conference on e-Governance. Earlier awards were given in nine categories. The award scheme has been revised and new categories for National Awards 2018-19 are:

- Excellence in Government Process Re-engineering for Digital Transformation.
- Excellence in providing Citizen-centric Delivery.
- Excellence in District level Initiative in e-Governance
- North-East States + Hilly States (ii) UTs (including Delhi) (iii) Other States.
- Outstanding research on Citizen Centric Services by Academic/Research Institutions.
- Innovative Use of ICT in e-Governance solutions by Startups [Startup as defined by Department of Industrial Policy and Promotion (DIPP) Government of India]
- Excellence in Adopting Emerging Technologies.

THE HINDU

Regulating Drug Prices

What is the issue?

With the ever increasing out of pocket expenditure more needs to be done to make medicines affordable

Impact of market-based pricing:

- The largest share of out-of-pocket expenditure on health is due to medicines (approximately **70%**, according to the NSSO).
- This is a major access barrier to healthcare, especially for the poor.
- Health experts have criticised the **Drug (Prices Control) Order (DPCO), 2013** for doing little to increase the affordability of medicines.
- Data from the Department of Pharmaceuticals show that the majority of medicines have price reductions of 20% or less.

How are prices regulated?

- The **DPCO controls the prices of all essential medicines** by fixing ceiling prices, limiting the highest prices companies can charge.
- The **National List of Essential Medicines (NLEM)** is drawn up to include essential medicines that satisfy the priority health needs of the population.
- The list is made with considerations of safety, efficacy, disease prevalence and the comparative cost-effectiveness of medicines, and is updated periodically by an expert panel set up for this purpose under the aegis of the Ministry of Health and Family Welfare.
- This list forms the basis of price controls under the DPCO.

Mechanism for price capping:

- The **NLEM 2015 contains 376** medicines on the basis of which the **National Pharmaceutical Pricing Authority (NPPA)** has fixed prices of over 800 formulations using the provisions of the DPCO.
- However, these formulations cover less than 10% of the total pharmaceutical market.
- The DPCO follows a market-based pricing mechanism. The ceiling price is worked out on the basis of the simple average price of all brands having at least 1% market share of the total market turnover of that **medicine**.

Have any other methods been used?

- Prior to 2013, the DPCO followed a **cost-based pricing mechanism** that was based on the costs involved in manufacturing a medicine along with reasonable profit margins.
- Health experts have argued that this policy resulted in comparatively lower prices than the current market-based policy.
- Since the implementation of the DPCO, 2013, the NPPA has made certain departures from the **market-based pricing mechanism**, which was found to be insufficient for ensuring affordability.
- This has been done through the use of special powers to act in public interest under Paragraph 19 of the DPCO, to regulate the prices of cardiac stents and knee implants.
- These moves have brought about dramatic price reductions: 85% in the case of stents and 65% in the case of knee implants.

What about cancer drugs?

- The government is planning to cap the trade margins for highly priced drugs for cancer and rare diseases to bring down their prices.
- This move is in the wake of recent amendments to the DPCO that exempted patented medicines and rare disease drugs from price controls.
- The trade margin capping will not sufficiently bring down prices.
- The government should take serious policy measures to ensure true affordability such as through price controls, implementation of the **national rare disease policy** and the use of legal flexibilities under patent law.

Govt brings cancer drugs under price control

Why in news?

The government has brought 42 non-scheduled anti-cancer drugs under price control, capping trade margin at 30 per cent, which would reduce their retail prices by up to 85 per cent.

NPPA order:

- **The National Pharmaceutical Pricing Authority (NPPA)** has invoked extraordinary powers in public interest, under Para 19 of the **Drugs (Prices Control) Order, 2013** to bring 42 non-scheduled anti-cancer drugs under price control through trade margin rationalisation, an official release said.
- Invoking paragraph 19 of DPCO, 2013, the government hereby puts a cap on trade margin of 30 per cent and directs manufacturers to fix their retail price based on price at first point of sale of product of the non-scheduled formulations containing any of the 42 drugs.
- As per data available with NPPA, the **MRP for 105 brands will be reduced up to 85 per cent** entailing minimum saving of ₹105 crore to consumers.
- Currently, 57 anti-cancer drugs are under price control as scheduled formulations. Now 42 non-scheduled anti-cancer medicines have been selected for price regulation by restricting trade margin on the selling price (MRP) up to 30 per cent.
- The drug manufacturers have been given seven days to recalculate the prices and inform the NPPA, state drug controllers, stockists and retailers. The revised prices shall come into effect from March, 8.

Mechanism:

- The NPPA currently fixes prices of drugs placed in the **National List of Essential Medicines (NLEM)** under Schedule-I of the DPCO. So far, around 1000 drugs have been brought under price control under the initiative.
- Non-scheduled drugs are allowed an increase of up to 10 per cent in prices every year, which is monitored by the NPPA.

Parkinson's drug trial offers glimmer of hope for cell repair

Why in news?

An experimental drug could offer hope for restoring damaged brain

cells in Parkinson's patients although Scientists cautioned that a clinical trial was not able to prove that the treatment slowed or halted the neurodegenerative disease.

Findings of the study:

- The trial involved **delivery of a protein therapy** directly into the brains of Parkinson's patients. Scientists said some brain scans revealed "extremely promising" effects on damaged neurons of those who received the treatment.
- The spatial and relative magnitude of the improvement in the brain scans is beyond anything seen previously in trials.
- Researchers said the therapy warranted further investigation even though it failed to demonstrate improvement of symptoms in patients who received it when compared to others given a placebo.

What is Parkinson's?

- Parkinson's is a **neurodegenerative disease** that affects around 1% to 2% of people over age 65.
- It causes tremors, muscle stiffness and movement and balance problems.
- Although some medicines can improve symptoms, **there is no cure or treatment** that can slow progression of the disease.

Tubes in brains:

- This trial involved 41 patients who all underwent robot-assisted surgery to have tubes placed into their brains.
- That allowed doctors to infuse either the experimental treatment called **Glial Cell Line Derived Neurotrophic Factor** (GDNF) or a placebo directly to the affected brain areas. GDNF is made by privately-held Canadian biotech firm MedGenesisTherapeutix.
- Half of the patients were given monthly GDNF infusions and half received monthly placebo infusions. After nine months, all participants were offered the GDNF infusions for a further nine months.
- Results showed some signs of improvements, but there was no significant difference between the treatment and placebo groups. This was in part due to the sizeable placebo effect in this trial.

- The **placebo effect** has been known to confound clinical trials of treatments for conditions involving the brain, boosted by patients' expectations that a potential treatment will work.
 - But the brain scan results suggested the drug might be starting to reawaken damaged brain cells. After nine months, there was no change in the scans of patients who received a placebo, but those who got GDNF showed major changes in a key area of the brain affected by the disease. This suggested GDNF could be "a means to possibly reawaken and restore" brain cells that are gradually destroyed in Parkinson's.
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Hindutva and exclusion connected

Why in news?

Expressing grave concern at the exclusionary thought guiding the ruling establishment, Nobel Laureate Amartya Sen said that there is a connection between Hindutva psychology and exclusion.

Observations:

- He was speaking at the launch of a book — whose title is borrowed from his own phrase '*A Quantum Leap in the Wrong Direction?*' which aims to evaluate the promises and policies of the current government.
- Professor Sen argued that the social inequality inherent in Hindutva translates into an **acceptance of economic inequality** also.
- This idea of progress being progress for some, but not for others there's an element of religiosity in it.
- This basic belief that **some people's progress is like everyone's progress** is something that can be rooted way back in our thinking.

Tolerance of inequality:

- There is a kind of tolerance of inequality and tolerance of judging progress by what is happening to the most successful. Pointing out that the richest 10% of the country are faring better than ever.

- The book argues that the government has failed to fulfil its poll slogan of “*sabkasaath, sabkavikas*”, and has also suppressed the data which shows this failure.
 - Professor Sen posited that the **government’s dependence on a few success stories** as opposed to wider statistics was also linked to Hindutva philosophy.
 - The numbers game is really important. That’s why Hindutva is important in this context.
 - There’s a connection between [Hindutva, and the idea that] ‘numbers don’t matter’, and worse than that, [the idea that] ‘some people don’t matter’.
 - The most problematic aspect of Hindutva is the **issue of the treatment of lower castes and tribes**. It’s not only that you can ignore some people, but that you identify who it is that you can ignore.”
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Andhra Pradesh gets new railway zone

Why in news?

Indian Railways will be making a new zone in **Vishakhapatnam, Andhra Pradesh** named ‘**South Coast Railway**’, Railway Minister Piyush Goyal inaugurated.

New divisions:

- The present divisions, including Guntakal, Guntur and Vijaywada and Waltair division will be split into two and will have the headquarter at South Coast Railway. A part of the Waltair division will be converted into a new division with its headquarter at Rayagada, Odisha.
- Last year, TDP had raised a demand for the creation of a new railway zone in Visakhapatnam, **as per the Andhra Pradesh Reorganisation Act, 2014**.

Railways Ministry objections:

- However, in an internal report, the Railways Ministry had said that this will have a “**catastrophic**” effect, and “will be like putting many nails in the coffin of the Indian Railways”.
 - According to the report, prepared by senior officers of the Railway Board, the demand for a new zone to benefit a particular state “**vitiates the pan-national character of the Indian Railways**” and goes against the idea of the “forefathers of the nation”, who unified 42 small railways of the princely states into six zones in the 1950s.
 - There are 51 demands for 12 new zones and 69 demands for 35 additional divisions pending at present, as per the report. Regarding development of Andhra Pradesh’s railway infrastructure, it says there are sanctioned projects worth Rs 41,303 crore for the state, Rs 12,536 crore for Telangana, and Rs 40,641 crore for Odisha.
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Modify Forest dwellers eviction order

Why in news?

The Centre and the State of Gujarat filed applications urging the **Supreme Court** to modify its February 13 order directing the eviction of thousands of Scheduled Tribes (STs) and other traditional forest dwellers whose claims for forest land rights have been rejected under the Forest Rights Act of 2006.

Government’s Observations:

- Solicitor General Tushar Mehta made an urgent oral mention of the applications before the Bench which had passed the February 13 order. The Bench agreed to hear the case on February 28.
- In its application, the Centre said the claims of **lakhs of forest-dwelling STs and other traditional forest dwellers were rejected by the States without observing due process of law**.
- The Centre refers to its letter of September 12, 2014, which speaks of the **various injustices met out to the tribal populations** and forest dwellers in States hit by left-wing extremism. The Centre said such States have high tribal populations too.

- The forest land claims of these tribes and forest dwellers, who live from the forest, are mostly rejected by the States. Being poor and illiterate people who live in remote areas, they **do not know the appropriate procedure for filing claims.**

Improper Procedure by States:

- The **gram sabhas, which initiate the verification of their claims,** are low on awareness about how to deal with these claims. The rejection orders are not even communicated to the forest-dwelling STs and communities.
- The Centre said the 2014 letter did not produce any change in the ground and was followed by a series of letters in 2015 highlighting issues like “high rate of rejection of claims, non-communication of rejection order, unrealistic timelines in deciding claims, irregular holding of State-level Monitoring Committee meetings, lack of support from the district administration concerned in providing revenue or forest maps, rejection of claims despite incomplete or insufficient evidence, etc.
- It was requested that technology such as satellite imagery may be used for consideration of claims,” the Centre had suggested to the States in one of the letters.
- But no efforts seem to have been taken by the State governments to remedy the situation to effectively implement the 2006 Act, the Centre indicated.

Lack of Data:

- It is uncertain whether the data furnished by the State governments accurately indicates whether the rejection orders were passed after observance of due process of law; compliance with principles of natural justice and whether appeal mechanisms have been properly exhausted.
- Without such information and compliance with the mandate of law in letter and spirit, the eviction of such tribal, would amount to serious miscarriage of justice.
- The Centre urged the court to modify its order and direct the State governments to file detailed affidavits regarding the procedure followed and details of the rejection of claims.
- Till then, the eviction of the **tribals** may be withheld and the eviction

of tribals, without such information, would cause serious prejudice to them who have been residing in forests for generations.

- The Centre argued that there is **no specific provision in the 2006 Act for eviction after a claim is rejected**. The 2006 Act is a beneficial legislation which should be liberally construed in favour of the poor.
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China to ban rogue scientists

Why in news?

China has drafted new rules to supervise biotechnology research, with fines and bans against rogue scientists after a Chinese researcher caused a global outcry by claiming that he gene-edited babies.

Background:

- The announcement comes as He Jiankui's controversial experiment continues to transfix the scientific community, with researchers saying the procedure had the potential of enhancing the learning capabilities and memory of the babies.
- He announced in November that the **world's first gene-edited babies twin girls** were born that same month after he altered their DNA to prevent them from contracting HIV by deleting a certain gene under a technique known as **CRISPR**.
- The claim shocked scientists worldwide, raising questions about bioethics and putting a spotlight on China's lax oversight of scientific research.

High-risk classification:

- The new rules unveiled by Beijing on Tuesday propose to classify technology used for extracting genetic materials, gene editing, gene transfer and stem cell research as "high risk". Health authorities under the central government would manage such research.
- Scientists can be fined 10 to 20 times the amount of "illegal income"

earned from unauthorised research and be banned from their field of work for six months to one year.

- If the circumstances are serious, their medical practice licence shall be revoked and the individual shall not engage in clinical research for life.
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