

Due process of law & Demolitions in India

(GS Paper 2, Polity and Governance)

Why in news?

- Recently, the Supreme Court asked the Uttar Pradesh government to follow the due process of law as far as demolitions are concerned.

What is the process to remove illegal encroachments?

- Under the statute of Municipal Corporation, which are different for different states, government can demolish someone's private property **if the property is an unauthorised construction** on government land, buildings that encroach on someone else's property, or structures that violate regulations.

“ No (future) demolition will take place without following the process of law... ultimately, the Rule of Law must prevail. **The drive against illegal structures and encroachments must not appear as targeting one community**

They are part of society... If the court does not come to the rescue of citizens, it would not be appropriate... Everything should be fair **—SC bench**



What does up State Corporation rules say?

- Uttar Pradesh authorities carry out **demolition under Section 27(1) of the UP Urban Planning and Development Act, 1973**.
- The Act states that ‘Where any development has been commenced or is being carried on or has been completed in contravention of the Master Plan or without the permission approval or sanction, the Vice-Chairman may make an order directing that such development shall be removed by demolition within such period not being less than 15 days and more than 40 days from the date on which a copy of the order of removal was issued’.
- Any person aggrieved by an order may appeal to the Chairman against that order within thirty days. The decision of the chairman on the appeal, shall be final and shall not be questioned in any Court.

What is the rule in M.P.?

- **Rule 12 of the Madhya Pradesh Bhumi Vikas Rules 1984** specifies that a notice needs to be sent to any person whose property violates the rules.
- The recipient of the notice must also be given 10 days to either leave or to make the building comply with the rules.

What is the rule in Delhi?

- **Section 343 of the Delhi Municipal Corporation Act 1957** also provides for a notice to be served ahead of demolishing any building that has been constructed illegally, without sanction, or in violation of building bylaws. Commissioner can order the owner or occupant to demolish the building within five to 15 days. Failing this, the Commissioner may himself order the demolition of the structure.
- The rule also makes it clear that **anybody aggrieved by the Commissioner's order can file an appeal in the Appellate Tribunal within the period specified** in the demolition order. When such an appeal is filed, the tribunal can also stay the enforcement of the order.

What are the court rulings in past?

- In its 2008 judgment, the Supreme Court had passed an judgement while emphasising on the need for such a notice by municipal corporations and said, "The provision appended to **Section 269 of the Act in no uncertain terms provides for an opportunity of hearing before an order of demolition is passed**. It is imperative in character, but the said provision had not been complied with. Had a proper show cause notice been served upon the first respondent, he could have shown that the alleged violation of the provisions of the Act is of negligible character which did not warrant an order of demolition."
- In **2010 judgment, the Delhi High Court** described the serving of a show-cause notice to the concerned party as a mandatory requirement and said, "Before the department passes a demolition order against a party the service of the show-cause notice on the concerned person is mandated."
- Similarly in **another judgment passed in 2019, the Supreme Court** had underlined the need to follow the right procedure for such demolitions.
- **Recently, Allahabad HC** in a case had observed that the state authorities cannot demolish a property before the statutory period of the appeal came to an end.
- The state authorities, wherever demolition orders are passed in respect of constructions raised on the private properties under the two acts, should wait before taking any action for actual demolition till the statutory period of the appeal comes to an end.

Payments Vision Document 2025 (GS Paper 3, Indian Economy)

Why in news?

- Recently, the Reserve Bank of India (RBI) has unveiled the **Payments Vision 2025 document**.
- It proposes a host of innovative payment systems and regulation of BigTechs, fintechs, buy-now-pay-later (BNPL) systems, and introduction of a central bank digital currency (CBDC), among others.



Key Highlights:

- It has proposed **enabling of geotagging of digital payment infrastructure** and transactions and revisiting guidelines for **prepaid payment instruments (PPIs)**, including closed system PPIs.
- It also proposed a framework for **regulation of all significant intermediaries in payments ecosystem** and link credit cards and credit components of banking products to UPI.
- Other proposals include bringing in **enhancements to Cheque Truncation System (CTS)**, including **One Nation One Grid clearing and settlement** perspective, and creating payment system for processing online merchant payments using internet and mobile banking.
- It also proposed **regulation of BigTechs and FinTechs in the payments space**.

Buy Now, Pay Later (BNPL) services:

- It took note of the proliferation of **Buy Now, Pay Later (BNPL) services**.
- The vision document recommended that the BNPL method should be examined, and issuance of appropriate guidelines on payments involving BNPL should be explored.
- BNPL services have **developed into a new payment mode alongside the existing payment modes** like cards, UPI, and net banking.
- This channel, facilitated by a few payment aggregators, leverages the existing nodal account (escrow account after authorisation) to route payments between BNPL customer and a merchant.

Targets to be achieved:

- The **number of digital payment transactions should treble by 2025** and the Unified Payments Interface (UPI) **should register an average annualised growth of 50% by then**.
- RBI expects the **Immediate Payment Service (IMPS)** and **National Electronic Funds Transfer (NEFT)** to grow at an annual average of 20%.
- **A reduction in the volume of cheque-based payments to less than 0.25%** of the total retail payments.
- The industry should target increasing its payment transaction turnover vis-à-vis gross domestic product (GDP) to eight and debit card transactions at point of sale (PoS) by 20%. **Debit card usage is to surpass credit cards in terms of value** while transactions through prepaid payment instrument (PPI) should rise 150%.
- It further says that card acceptance infrastructure is to increase to 25 million and the registered customer base for mobile-based transactions is to grow 50% on a compound annual growth rate (CAGR) while cash in circulation (CIC) as a percentage of GDP is to be reduced.

Alternate risk-based authentication mechanisms:

- Considering emerging concerns with OTP-based authentication in terms of increasing cases of divulgence of customers' confidential details, **alternate risk-based authentication mechanisms** leveraging behavioural biometrics, location, historical payments, digital tokens and in-app notifications shall be explored.
- The use of **legal entity identifiers (LEI)** in areas like sanctions screening, know your customer (KYC), corporate invoice reconciliation and fraud detection shall be explored.
- The possibility of **interoperability for contactless transit card payments in the offline mode** shall be explored to facilitate seamless travel with a single payment instrument usable across different transit operators. A more evolved system for monitoring and reporting of frauds will be worked on.

Way Forward:

- The Payments Vision 2025 has the core theme of E-payments for everyone, everywhere, everytime (4Es) and aims to provide every user with safe, secure, fast, convenient, accessible and affordable e-payment options

'Geneva Package' at 12th WTO Ministerial Conference (GS Paper 3, International Organisation)

Why in news?

- Recently, the WTO's 12th Ministerial Conference (MC12) concluded at WTO headquarters in Geneva.
- The 12th WTO Ministerial Conference held after more than four years produced the '**Geneva Package**'.
- Last time at Bali in Indonesia, WTO Ministers adopted a comprehensive package, which finally resulted in Trade facilitation agreement getting annexed to the WTO legal text.

‘Geneva Package’:

- The WTO finalised a proposal to **not restrict supplies of food grains to the United Nations World Food Programme (WFP)**. However, these supplies would be subjected to the domestic requirements.
- It includes agreements on curbing harmful fishing subsidies and temporary patent waiver for production of COVID-19 vaccines.
- It was also agreed **to find a final solution to the issue of continuation of moratorium on imposing customs duties on electronic transmission of goods** by the next ministerial conference of the WTO or not later than March 2024.
- The package adopted by members included a ministerial declaration on the **emergency response to food insecurity**; a ministerial decision on World Food Programme (WFP) food purchases exemptions from export prohibitions or restrictions; a declaration on the WTO response to the COVID-19 pandemic and preparedness for future pandemics; and a **decision on the agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS)**.
- Besides, the ministers adopted two decisions: on the **work programme on small economies** and on the **TRIPS non-violation and situation complaints**.



What it translates for India?

- From India's point of view, the outcomes on fisheries subsidies, public stockholding for food security, TRIPs waiver for COVID vaccine manufacturing and Ministerial decision to reinvigorate the work under the Work Programme on Electronic Commerce, are historical.
- India, through its very consistent and principled stand, ensured that the rights of fishermen, farmers, poor and marginalised, MSMEs in trade and business, are protected.

IUU (Illegal, Unreported and Unregulated) fishing:

- India has been successful in **introducing checks on illegal fishing, under-reporting or outside regulation** — IUU (Illegal, Unreported and Unregulated) fishing.
- Fisheries subsidies agreement is the second multilateral pact of the WTO finalised after a gap of nine years. It aims at boosting and promoting sustainable fishing.
- There would be very strict controls on overfished areas so that fish stocks are restored. Additionally, no subsidies can be provided for fishing in areas outside EEZ (Exclusive Economic Zones) or RFMOs (Regional Fisheries Management Organisations).
- It was in 2013 at the Bali ministerial conference of the WTO, the member countries inked the trade facilitation agreement to promote seamless movement of goods across the global borders.

Temporary patent waiver for manufacturing COVID-19 vaccines:

- The members also agreed to grant a temporary patent waiver for manufacturing COVID-19 vaccines for a period of five years.
- Under this, a country would be able to issue a compulsory licence to its domestic pharma firms to make that vaccine without taking approval from the original maker. Besides, it was also decided to permit export of those vaccines.
- However, talks on including therapeutics and diagnostics, as proposed by India and South Africa, under the purview of this waiver would start after six months.
- The TRIPS decision will boost export, vaccine equity, accessibility and affordability.

WTO Reforms:

- On WTO reforms, it was ensured that the **core principles like consensus-based decision making and special and differential treatment for developing and LDCs (Least Developed Countries)** are there.
- Under this, the dispute settlement body will be revived and it will play its expected role in settling trade disputes.
- A reference to gender, environment and MSME has been made in the WTO reform agenda.

E-commerce:

- On e-commerce, while agreeing to the temporary moratorium, India asked for intensifying discussions on the moratorium including on its scope, definition and impact for taking an informed decision on the same.

Way Forward:

- The “Geneva Package” confirms the historical importance of the multilateral trading system and underlines the important role of the WTO in addressing the world’s most pressing issues, especially at a time when global solutions are critical.

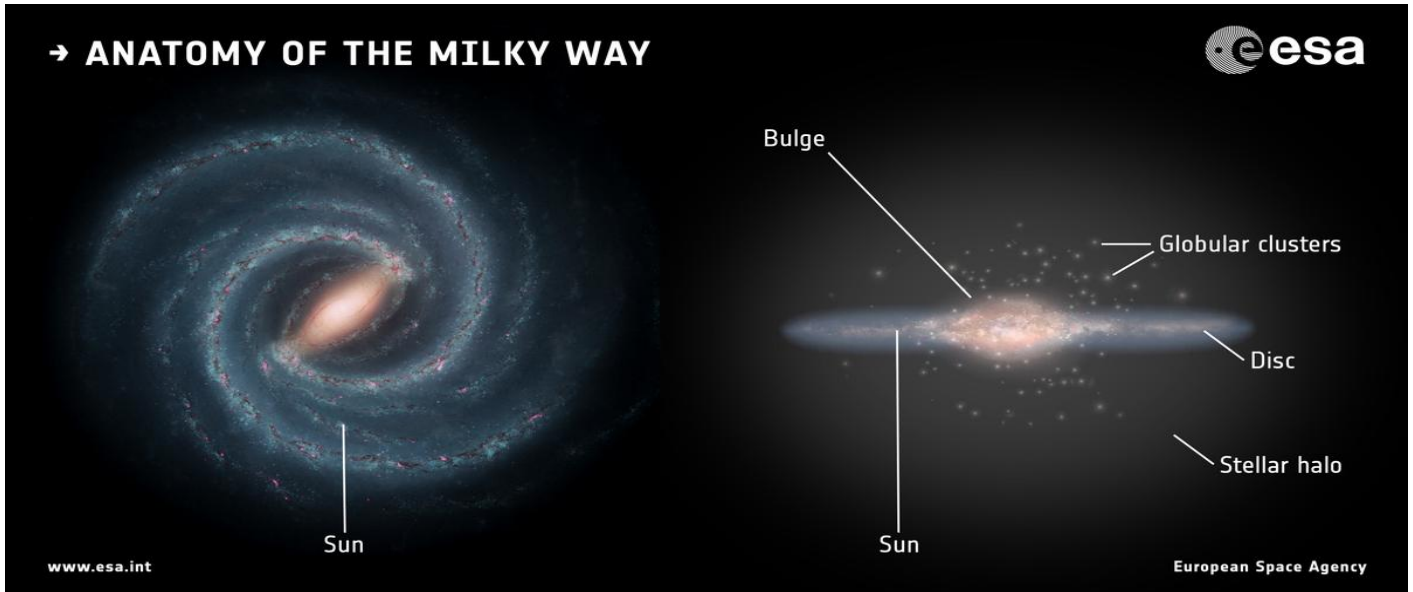
Gaia space mission **(GS Paper 3, Science and Tech)**

Why in news?

- Recently, the third dataset released by the **European Space Agency’s star-mapping Gaia probe**, covering almost 1.8 billion stars in the Milky Way galaxy, has revealed an **unexpected phenomena called ‘starquakes’**, which are similar to earthquake-like movements but on the surface of stars.
- The data has also revealed the largest chemical map of the entire Milky Way, showing the DNA of millions of stars, which includes their age, mass, chemical composition, colour, temperature, and metal content.
- Besides, the new data has also made discoveries about binary star systems, quasars, asteroids, and exoplanets.

Anatomy of the Milky Way:

- The Milky Way is just one of the estimated one to two hundred billion galaxies of varied shapes and sizes in the universe. Roughly 13 billion years old, the Milky Way is a **barred spiral galaxy consisting of 100 to 200 billion stars**, with the sun as its local star.
- The galaxy is shaped like a flattened disc spread across 100,000 light-years with spiral arms. The majority of the stars are located in the disc, scattered around with a mixture of gas and cosmic dust.
- The Milky Way has a central bulge where about 10 billion of its oldest stars are concentrated. The sun is positioned between the centre and the periphery of the galaxy.
- Outside the bulge and the disc exists a halo of isolated stars and ancient clusters of stars, and further beyond this is an even bigger halo of invisible dark matter.



What is the Gaia mission?

- Gaia is an ongoing astronomical observatory mission launched in December 2013 by the European Space Agency (ESA) with the **objective of creating the most accurate and complete 3D map of the Milky Way by surveying 1%** or one billion of the galaxy’s 100 billion stars.
- The almost hat-shaped spacecraft is fitted with two optical telescopes and the largest digital camera in space or the billion-pixel camera, with over 100 electronic detectors. This camera is precise enough to capture the diameter of a human hair from as far away as 1,000 km.
- The spacecraft is strategically stationed 1.5 million km from the Earth, in the opposite direction of the sun, in an orbit around the gravitational parking point in space called the Lagrange 2 or L2.
- In order to study the stars and objects, Gaia is also equipped with screening and imaging systems that employ three techniques—**astrometry, photometry, and spectroscopy**.
- **Astrometry is the science of measuring the movement and position of stars** within the plane of the sky, **photometry studies the colour, brightness** and other derived properties of stars, and **spectroscopy measures the radial velocity or the movement of stars** towards or away from us by studying stellar spectra or the fingerprints of stars.
- Spectra are obtained by passing the light from a star through a prism which splits it into a spectrum of colours.

GAIA'S OBSERVING TECHNIQUES

Techniques to study the stars in our cosmic neighbourhood.

ASTROMETRY

- Position
- Proper motion
- Distance

PHOTOMETRY

- Colour
- Mass
- Temperature
- Brightness changes
- Brightness
- Age
- Metallicity
- Dust

SPECTROSCOPY

Chemical composition

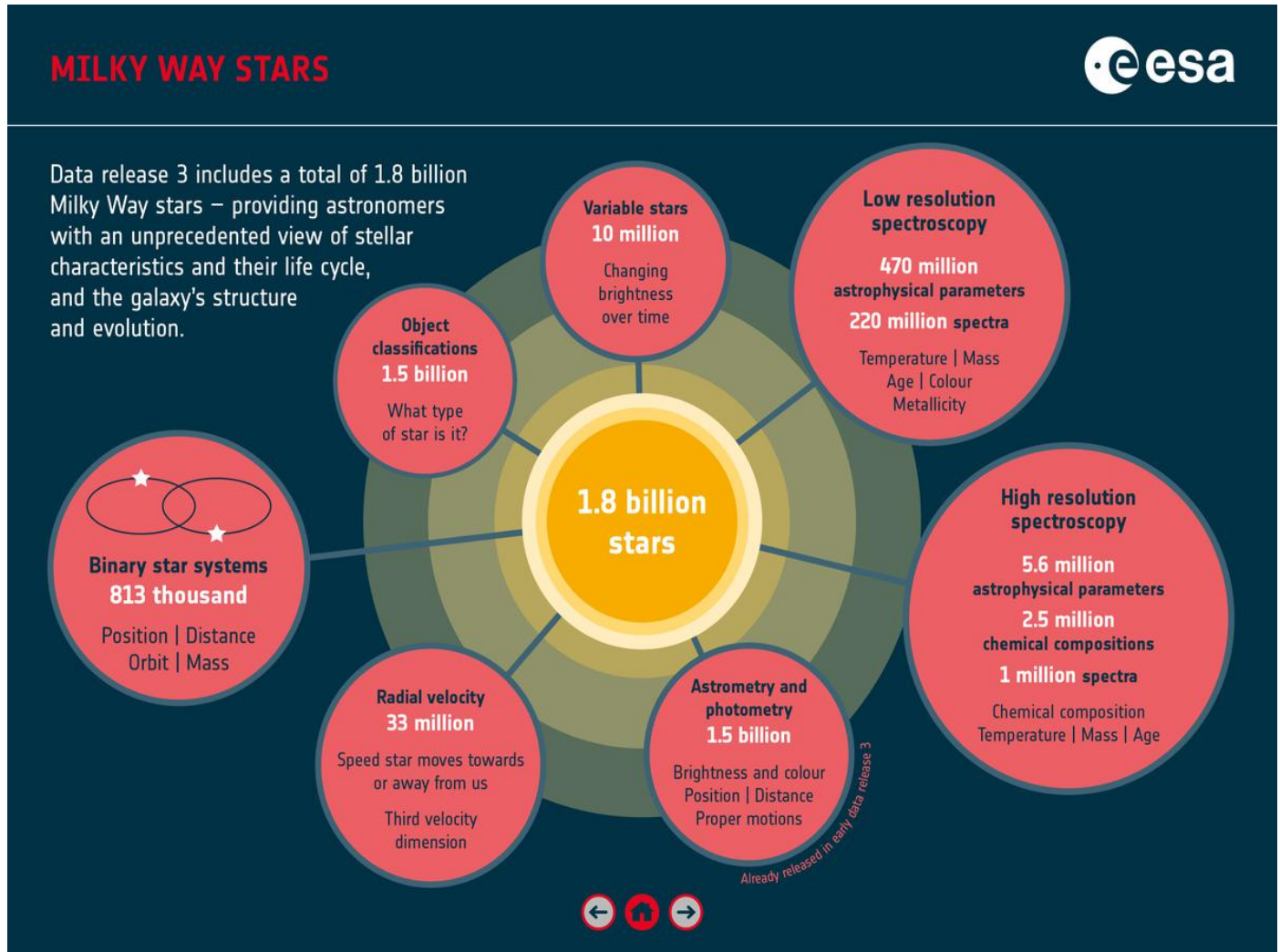
Spectrum of light

- Radial velocity
 - Speed star moves towards or away from us
- Rotational velocity
 - Speed star rotates around its axis

What has the new data revealed?

Specifics of the new data collected by Gaia. Photo: European Space Agency

- The new set of data released was collected from the Gaia probe between 2014 and 2017 and contains improved information on nearly two billion celestial objects- including stars in the Milky Way, objects outside the galaxy and those inside our solar system.
- It contains the largest-ever three-dimensional map of stars in the Milky Way. The map shows the chemical compositions as well as past and future movements of stars.



Starquakes:

- One of the most surprising discoveries was that of more than 100,000 ‘starquakes’- which can be **likened to tsunamis or massive vibrations on the surface of stars** that can change their shape.
- Such starquakes were also detected on the surface of stars that should not have any such large-scale vibrations as per existing astronomical theories.

Quasars:

- Quasars are extraordinarily active and bright cores of galaxies powered by supermassive black holes. These are the most luminous objects in the universe and are visible along its distant edges.
- The new Gaia data has revealed the measurements of over a million confirmed quasars and data related to 6.6 million quasar candidates.
- The discovery of new quasars is significant as it helps to measure the most distant stretches of our universe.

Stellar DNA:

- The data shows chemical components, colours, brightness, velocity, temperatures, and positions of millions of stars. The chemical composition of the stars also reveals what elements they contain.
- Only light elements (hydrogen and helium) were formed during the Big Bang. Heavier elements, which scientists call metals, are built inside the stars, and when they die, newer stars are formed with the metals dispersed by dead stars.
- Chemical composition can thus be used to determine which stars were born in another galaxy and then migrated to the Milky Way.

Binary Stars:

- Binary star systems are two stars that orbit each other around a shared centre. The new data has revealed the position, distance, orbits, and masses of over 8,00,000 binary star systems.
- Scientists can extract from this data, the mass of individual stars of the binary system, how stars work, and even discover if one of the two stars is an exoplanet, a planet that exists outside our solar system and generally orbits a star.

Asteroids and galaxies:

- The data has provided a catalogue of more than 156,000 asteroids in our Solar System, which includes their mass, composition, colour, and brightness (from which details of their shape and rotation can be derived).
- Besides mapping the Milky Way, the data has also found magnitudes of 2.9 million other galaxies, including how their stars were formed, how far they are and when they came into existence.