

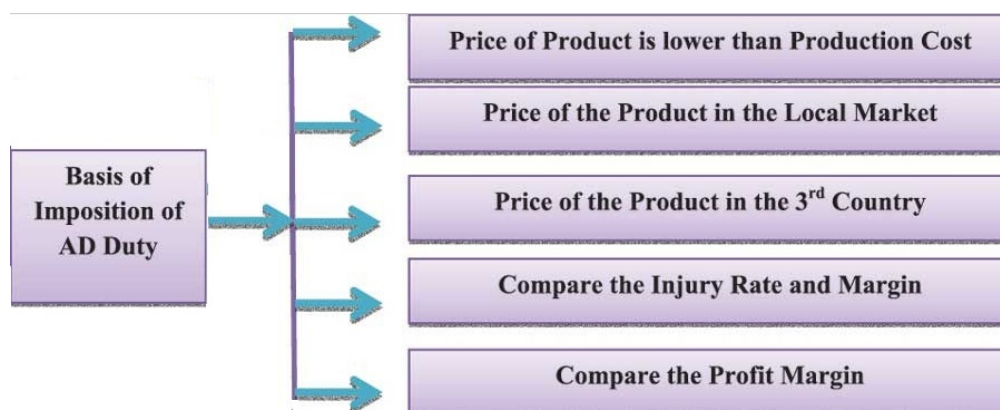
## Prelim Bits 30-08-2021 | UPSC Daily Current Affairs

### Anti-Dumping Duty

The Union government revoked anti-dumping duty on viscose staple fibre originating in or imported from China and Indonesia.

- **Dumping** is a process wherein a company exports a product at a price that is significantly lower than the price it normally charges in its domestic market.
- This impacts the price of that product in the importing country, hitting the profits of local manufacturing firms.
- **Anti-Dumping Duty (ADD)** is a protectionist tariff that a domestic government imposes on imports that are priced below fair market value.

Countervailing Duty is also a protectionist tariff imposed on imports by a domestic government when it believes that the imports are subsidised by a foreign government and causing material harm to the domestic market.



- ADD is imposed with the rationale that the products have the potential to undercut local businesses and the local economy.
- In India, ADD is levied and collected by the Directorate General of Trade Remedies.
- ADD is levied over and above the normal customs duty.
- It is valid for 5 years from the date of imposition unless revoked earlier.

### Sunset review

- If dumping continues even after the 5 years of ADD, the industry can apply for a sunset review/ expiry review for a further period of 5 years.
- Globally, once a sunset review is applied for, the ADD is extended for 1 year pending investigation.
- It can be initiated suo moto or on the basis of a duly substantiated request received from or on behalf of the domestic industry.

Difference	Customs duty	Anti-Dumping Duty
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Concept	Customs duties are there as a means of raising revenue and for overall development of the economy.	ADDs guard against the situation arising out of unfair trade practices.
Category	They fall in the realm of trade and fiscal policies of the Government.	Anti dumping and anti subsidy measures are trade remedial measures.
Purpose	To improve the government revenue & overall development of the economy.	To offset the injurious effect of international price discrimination.
Applicability	They are universally applicable to all imports irrespective of exporter & country of origin.	They are levied specifically against exporter / country.

## Viscose

- It is a **semi-synthetic material** or manufactured fiber used in clothes, upholstery and other bedding materials.
- It's one of the three types of **rayon** - modal, lyocell, and viscose.
- It is made from natural materials like wood pulp, which is treated and spun into yarns to make fabric.
- Viscose was manufactured as an affordable alternative to natural silk, hence known as **artificial silk**.
- In India, it is largely used to make apparel for women and children.
- Viscose products are seen as easy to maintain too and viscose consumption in India has witnessed 11% CAGR for the last 5 to 6 years.

## Hurricane Ida

*It is the Category 4 storm that has hit on the same date as the Hurricane Katrina that ravaged Louisiana and Mississippi in 2005.*

- Hurricane Ida will most definitely be **stronger** than Katrina, the costliest storm in American history.
- Ida is coming to the same general place of Katrina from a slightly different **direction**.
- Storms that are bigger in width have larger storm surge because of the broader push of the water. They also cause huge damage.
- Ida has the potential to be more of a natural disaster whereas the big issue in Katrina was more of a man-made one because of levee failures.

A levee breach or levee failure is a situation where a levee fails or is intentionally breached, causing the previously contained water to flood the land behind the levee.

- **Rapid intensification** - Ida was fed by the eddy of the Loop Current, going from 169 kph winds to 241 kph winds in just 8 hours.
- The Loop Current is the deep patch of incredibly warm water.
- It takes warm water off the Yucatan Peninsula does a loop in the Gulf of Mexico and spins up the eastern edge of Florida into the Gulf Stream.

Normally when a storm intensifies or stalls it takes up all of the region's warm water and then hits colder water that starts to weaken the storm or at least keeps it from further

strengthening.

- Ida is gaining power over a water area with above 26 degrees Celsius) more than 150-m deep. It has started the process of eyewall replacement.

### **Eyewall Replacement**

- After a hurricane rapidly intensifies, it becomes so strong and its eye so small that it often can't quite keep going that way.
- So, it forms an outer eyewall and the inside eyewall collapses, which is called eyewall replacement.
- When a new eyewall forms, often a storm becomes larger in size but a bit weaker.

### **Merging of 3 Super-massive Black Holes**

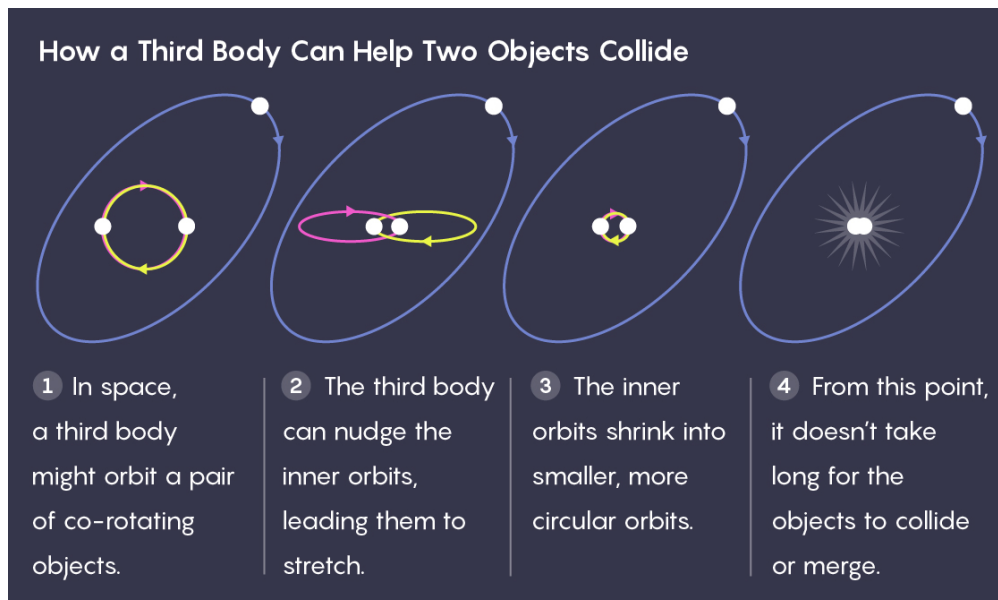
*Indian researchers have discovered 3 supermassive black holes from 3 galaxies merging together to form a triple active galactic nucleus.*

A galactic nucleus is a compact region at the center of a newly discovered galaxy that has a much-higher-than-normal luminosity.

- This is a rare occurrence in our nearby Universe.
- These small merging groups are ideal to study and detect multiple accreting supermassive black holes.
- While studying a known interacting galaxy pair (NGC7733 & NGC7734), the researchers detected unusual emissions from the centre of NGC7734 and a large, bright clump along the northern arm of NGC7733.
- Each of the galaxies hosts an active supermassive black hole in their nucleus and hence forms a very rare triple active galactic nuclei (AGN) system.

### **Merging Process**

- Galaxy interactions happen when galaxies move close by each other and exert tremendous gravitational forces on each other.
- During such galaxy interactions, the respective supermassive black holes can get near each other.
- The dual black holes start consuming gas from their surroundings and become dual AGN.
- If two galaxies collide, their black hole will also come closer by transferring the kinetic energy to the surrounding gas.
- The distance between the blackholes decreases with time until the separation is around a parsec (3.26 light-years).



- **Final parsec problem** - This problem occurs when the distance between the blackholes is around a parsec, and they are unable to lose any further kinetic energy in order to get even closer and merge.
- This problem can be solved with the presence of a third black hole.
- The dual merging blackholes can transfer their energy to the third blackhole and merge with each other.
- Hence the impossible event of merging of 2 black holes is made probable with an addition of a third into the equation.
- Many AGN pairs have been detected in the past, but triple AGN are extremely rare.

### Detection of Super-massive Black Holes

- Supermassive black holes are difficult to detect as they don't emit light.
- But they can reveal their presence by interacting with their surroundings.
- When the dust and gas from the surroundings fall onto a supermassive black hole, some of the mass is swallowed by the black hole.
- But some of the mass is converted into energy and emitted as electromagnetic radiation that makes the black hole appear luminous.
- They are called active galactic nuclei (AGN) and release huge amounts of ionized particles and energy into the galaxy and its environment.
- Both of these ultimately contribute to the growth of the medium around the galaxy and ultimately the evolution of the galaxy itself.

**Source: PIB, The Hindu, The Indian Express, Hindustan Times, Business Standard**