

## Prelim Bits 25-10-2023 | UPSC Daily Current Affairs

### Preventive detention

Supreme court, in at least 3 separate instances, has red-flagged the Telangana government's usage of the stringent preventive detention law.

Preventive detention	Pre-trial detention	Punitive detention
Detention of a person <b>without trial</b> and conviction by court, but merely on suspicion.	Detention of an accused <b>under trial</b> .	Detention <b>after trial</b> and conviction by a court.

- **Preventive detention** - To prevent an individual from committing an offense in the future.

Article 22 of the Indian Constitution contains provisions for preventive detention.

- **Central Legislations** - The National Security Act, the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA) are examples of laws under which preventive detention can be ordered.
- **Suspension of Fundamental rights** - Part III of the Constitution gives the state the power to suspend fundamental rights for preventive detention.
- A detainee under preventive detention can have no right of personal liberty guaranteed by Article 19 or Article 21.
- **Grounds for Preventive Detention**
  - Security of state, maintenance of public order,
  - Maintenance of supplies and essential services and defense,
  - Foreign affairs or security of India.
- **Duration** - The detention of a person cannot exceed **3 months** unless an advisory board (consist of judges of a high court) reports sufficient cause for extended detention.
- **Rights for Detenu** - The grounds of detention should be communicated to the detenu. However, the facts considered to be against the public interest need not be disclosed. The detenu should be afforded an opportunity to make a representation against the detention order.
- **Judicial Review** - There are very narrow grounds of judicial review because the Constitution emphasises the state's "**subjective satisfaction**" when ordering a detention.
- In countries such as Britain, United States and Canada, preventive detention is a wartime measure.

## References

[The Indian Express | How preventive detention works?](#)

## Ghost particles

*China is building the World's largest neutrino detector called "Trident" in the Western Pacific Ocean.*

- **About - Neutrinos**, also known as the Ghost Particles, are a type of electron but they ***do not have any charge***.
- **Family** - Neutrinos belong to the family of particles known as ***leptons***. There are 3 main leptons, namely electrons, muons and tau particles.
- **Symbol** - Neutrinos are denoted by the Greek symbol  $\nu$ , or **nu**.
- **Mass** - They are among the most abundant and tiniest particles in the universe and ***have very small mass***.
- **Source** - Neutrinos come from all kinds of different sources and are often the product of heavy particles turning into lighter ones, a process called ***decay***.
- **Interactions** - Neutrino's weak charge and almost non-existent mass have made it difficult to observe and impossible to track.
- **Underwater Telescope** - Neutrinos sometimes interact with water molecules that is why ***China*** is building its ghost molecule telescope ***underwater***.

*Currently, the largest neutrino-detecting telescope is the University of Madison-Wisconsin's "IceCube" telescope situated in the Antarctic.*

## References

1. [The Indian Express | world's largest 'ghost particle' detector](#)
2. [NDTV | Scientists Detect 'Ghost Particles'](#)
3. [Space | what are neutrinos?](#)

## Vikram 1 Rocket

*Hyderabad-based space startup Skyroot Aerospace has recently unveiled 'Vikram-1' with an expected space launch in early 2024.*

### Vikram-1

- **Stages** - Multi-stage launch vehicle
- **Body** - All-carbon-fibre.
- **Payload** - 300 kg payloads
- **Orbit** - Low Earth Orbit.

- **Fuel** - Mixture of solid fuel at the lower stage and a mixture of liquid fuel in the upper

stages to propel the rocket into the orbit.

- It has a Raman-II engine in the 4<sup>th</sup> stage.
- The Raman-II engine is regeneratively cooled and uses Mono Methyl Hydrazine and Nitrogen Tetroxide as propellants.
- It also features **3D-printed liquid engines**.
- The Vikram-1 is expected to perform its first flight to space in the first quarter of 2024. It will launch satellites.
- It is the second rocket from the company after '**Vikram-S**,' the country's first privately-built rocket.
- The 'Vikram' in the launch vehicles' name is a tribute to **Vikram Sarabhai**, the father of India's space programme.

## References

1. [The Hindu | Vikram 1](#)
2. [Hindustan Times | Vikram 1](#)
3. [Times of India | Skyroot unveils Vikram-1](#)

## International Migration Outlook 2023

*India saw the highest migration flows to OECD countries in 2021 and 2022, according to the 'International Migration Outlook 2023' released recently.*

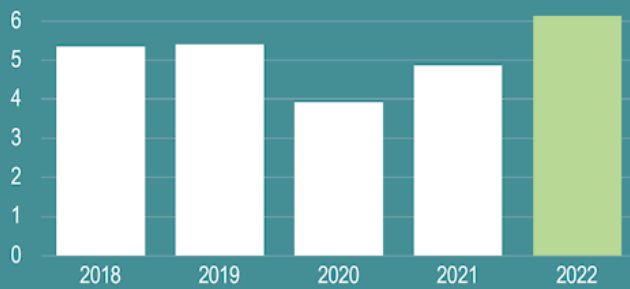
- The 2023 edition of International Migration Outlook analyses recent developments in migration movements and the labour market inclusion of immigrants in OECD countries.
- It also monitors recent policy changes in migration governance and integration in OECD countries.

*Organisation for Economic Co-operation and Development (OECD) is an association of 38 member countries, most being rich developed nations that attract migrant workers and students.*

- **India** - India saw the highest migration flows to OECD countries in 2021 and 2022.
- India replaced China as the main country of origin of new migrants to OECD countries in 2020.
- In 2021, for the 2<sup>nd</sup> consecutive year, India, with 0.41 million new migrants, was the top country of origin.
- India was followed by China and Romania in terms of new migrants.
- **Inflows of refugees** - Due to the ongoing Russia-Ukraine war, inflows of refugees from Ukraine reached the highest level on record.

## Migration to OECD countries is at a record high

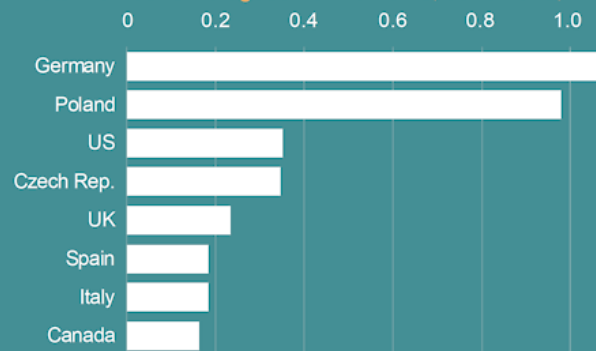
Permanent migration to the OECD, 2018-22, in millions



With more than 6 million new permanent immigrants (not including Ukrainian refugees), permanent-type migration to OECD countries reached a record level in 2022.

## The Ukrainian refugee crisis is the largest displacement in Europe since WWII

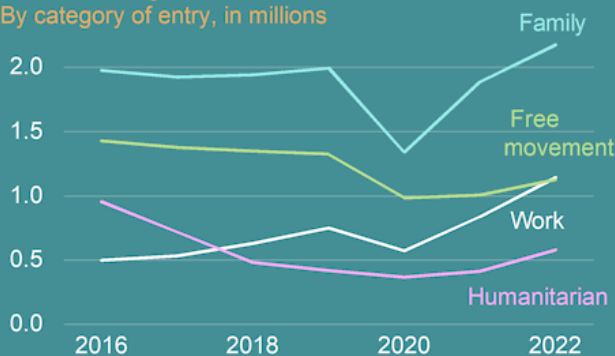
Total number of refugees from Ukraine, June 2023, millions



OECD countries have provided refuge to about 5 million people fleeing Ukraine.

## Increase in labour migration in response to labour shortages in many countries

Permanent migration to the OECD  
By category of entry, in millions



Labour migration comprised 21% of all migration in 2022, a rise of 36% since 2021. Family migration also increased by 15%.

## Migrant employment rates are at the highest levels in over two decades

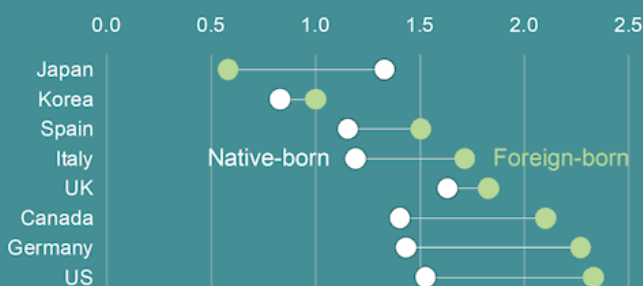
Migrant employment rates are at their highest ever levels in more than half of OECD countries and the gap with the native-born is also narrowing.

Employment rates, 2022

	Foreign-born	Native-born
New Zealand	82.7	78.3
Australia	77.2	77.6
UK	75.8	75.5
Canada	75.2	75.8
US	72.6	69.4
Korea	67.8	69.3
EU 27	66.8	70.3

## Migrant fertility has little effect on overall population levels in majority of countries

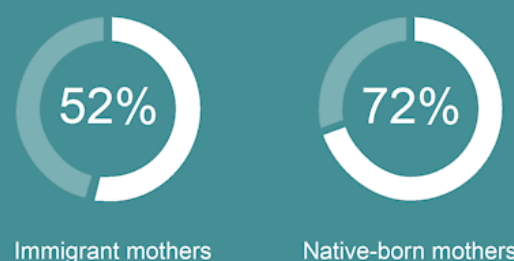
Total Fertility Rate (TFR), 2020 or latest year available



The fertility rate among migrant women is higher than among native-born women in most OECD countries, but below the replacement rate (2.1) in two-thirds of them.

## Immigrant mothers face greater challenges compared to native-born mothers

Employment rates across OECD countries, 2021



Across OECD countries, the gap in employment rates between immigrant and native-born mothers is 20 percentage points.

## References

1. [Down to Earth | Indians migrated to OECD countries](#)
2. [OECD | International Migration Outlook 2023](#)

## Vajra Mushti Kalaga

*Vajra Mushti Kalaga, a martial art form of the Wadiyars was in declining trend.*

- The “vajra mushti kalaga” is a form of wrestling different from the conventional grappling.
- It is a traditional Indian martial art that uses a small metal weapon called a knuckleduster. The name literally means "Thunderbolt Fist".
- It entails two jettys taking a swipe at each other’s head with a knuckleduster.
- The art incorporates various hand-to-hand combat techniques, such as grappling, wrestling, and striking.
- Vajra Mushti matches are still held during the annual Mysore Dasara festival at Mysore Palace.
- The tradition dates back to the Wadiyar dynasty in 1610.
- Modern combatants use knuckle-dusters with blunt studs. The weapon is sometimes called Indra-musti, which means "Indra's fist".
- Whosoever draws the blood from the opponent’s head first is declared the winner.
- Medieval travellers from Portuguese noticed this form of wrestling during the Navaratri celebrations in Vijayanagar empire and have left detailed accounts of it.

## References

[The Hindu | 'vajra mushti kalaga'](#)

