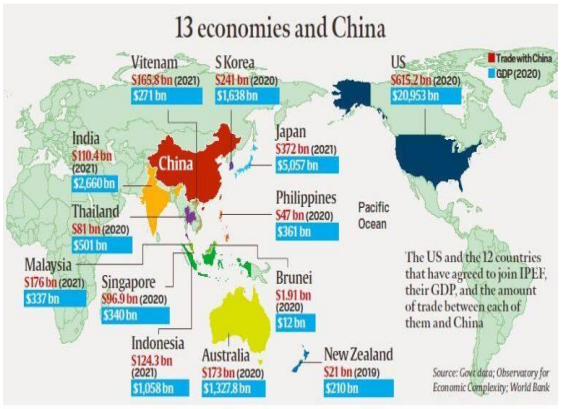
SC ON BAIL

- The Supreme Court has held that orders of courts in bail cases should neither be too long and elaborate nor come too late as both violate the constitutional mandate of personal liberty.
- While rejecting or granting bail to accused persons, should not slip into extensive deliberations on the merits of the case or evidence involved. Such "long" debates at the stage of bail may prejudice the case itself for the accused.
- Again, once a case for bail is reserved for orders, the pronouncement of the decision should not take too long. Every day of waiting is a dent on the personal liberty of an under trial.

THE HINDU

IPEF



About IPEF

- In May 2022, the United States launched the Indo-Pacific Economic Framework for Prosperity (IPEF) with Australia, Brunei Darussalam, Fiji India, Indonesia, Japan, the Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, and Vietnam.
- This framework will advance resilience, sustainability, inclusiveness, economic growth, fairness, and competitiveness for our economies.
- Through this initiative, the IPEF partners aim to contribute to cooperation, stability, prosperity, development, and peace within the region. This framework will offer tangible benefits that fuel economic activity and investment, promote sustainable and inclusive economic growth, and benefit workers and consumers across the region.

- The 14 IPEF partners represent 40 percent of global GDP and 28 percent of global goods and services trade.
- The launch began discussions of future negotiations on the following pillars: (1) Trade; (2) Supply Chains; (3) Clean Energy, Decarbonization, and Infrastructure; and (4) Tax and Anti-Corruption. The IPEF is designed to be flexible, meaning that IPEF partners are not required to join all four pillars.

ANALYSIS

- In November 2019, India walked out from the trade pact called the Regional Comprehensive Economic Partnership (RCEP) involving China, Japan, South Korea, Australia, New Zealand, and the 10-state Association of Southeast Asian Nations (ASEAN) grouping.
- Now India along with many of the same countries, but with China replaced by the United States, is getting into the U.S.-driven Indo-Pacific Economic Framework for Prosperity (IPEF).
- Trade deals used to be mostly about tariffs. Increasingly though, issues related to intellectual property, services, investment, domestic regulation, digital, and labor and environmental standards, are becoming more important.
- The U.S.'s IPEF proposal completely removes the tariff element of typical trade deals and is entirely about all these other areas. In any case, traditional trade deals in the U.S. face likely roadblocks in the legislature.
- Early assessment by many experts shows that the IPEF would result in a complete stranglehold over the economic systems of the participating countries, in a manner that is to the complete advantage of the U.S.
- The IPEF is really about developing a strategic economic bloc an integrated economic system centred on the U.S., and, as importantly, excluding China.
- The IPEF has four pillars: trade, supply chains, clean economy, and fair economy.

THE HINDU

Millets

- The UN Food and Agriculture Organization (FAO) has declared 2023 to be the 'International Year of Millets', giving these crops a shot in the arm even as countries worldwide are looking to them for their ability to grow in environmental conditions that the climate crisis is rendering more common.
- Millets are becoming more popular in India as well because of their low input requirements and high nutritional density, both of which are valuable for a country whose food security is expected to face significant challenges in the coming decades.

What are millets?

- Millets are fundamentally grasses.
- They are cultivated worldwide, but especially in the tropical parts of Africa and Asia, as cereal crops. Some of the more common varieties include pearl millet (Cenchrus americanus), barnyard millet (Echinochloa utilis), finger millet (Eleusine coracana), and foxtail millet (Setaria italica).

- There is both palaeontological and textual evidence to indicate that millets were being cultivated in the Indian subcontinent five millennia ago. According to the Agricultural and Processed Foods Development Authority, India is the world's largest producer of millet
- Sorghum (Sorghum bicolor), adlay millet (Coix lachrymal-jobi), and teff (Eragrostis tef), among others, are grasses that differ in some respects from millets but are grouped together with them.

Why are they sought after?

- They are drought tolerant, adapted to growing in warm weather, and require low moisture (axiomatically, they are particularly efficient consumers of water) and loamy soil.
- They don't grow well in water-logged or extremely dry soil which might occur after heavy rainfall or particularly bad droughts, respectively.

- The nutritional content of millets include carbohydrates, proteins, fiber, amino acids, and various minerals. Different millet varieties have different nutrient profiles
- Each millet kernel consists of three major parts, called pericarp, endosperm, and germ. The pericarp has an outer covering called the husk. The husk and the pericarp together protect the kernel from inhospitable conditions, disease, and physical damage.
- The endosperm is the largest part of the kernel and its 'storage' centre.
- It has a protein covering called the aleurone.
- According to an FAO article about sorghum, the endosperm is "relatively poor in mineral matter, ash and oil content" but "a major contributor to the kernel's protein (80%), starch (94%) and B-complex vitamins (50-75%)

How does processing affect the nutrients?

- Processing and preparing millets for consumption can affect nutrients in three ways enhance them, suppress/remove them, and ignore them.
- In this context, 'whole grain' refers to the endosperm, germ, and bran (pericarp + aleurone) whereas 'refined grain' refers only to the endosperm.
- The husk is removed from the grains because it is composed of cellulosic matter that the human body cannot digest.

What is the effect of polishing?

- A frequent last step is polishing. The longer the grains were milled, the more protein, fat, and fibre contents the process removed.
- A different 2012 study found that barnyard millet could be polished with a rice polisher for up to three minutes without significant nutrient loss.
- Polishing is the process whereby brown rice, for example, is changed to white rice by rubbing off the bran and the germ.

THE HINDU

Mitochondrial therapy

- The announcement that a baby was born using three persons' DNA in the U. K. on Thursday caused the stir that news of this kind was expected to evoke.
- The baby, technically, has three parents, deriving the mitochondria from a donor apart from the genetic material (DNA) from biological parents

Why did the baby need 'three parents'?

- The baby carried most of its DNA from its parents, and a minor per cent from the donor, whose mitochondria has been used while fertilising the egg.
- Mitochondria are basically the powerhouses of the cells. They generate energy, and thus are also responsible for cell function in the human body.
- Certain defects might occur impacting the way the mitochondria produces energy for the cells (especially in the 'energy-hungry' tissues of the brain, nerves, muscles, kidneys, heart, liver), and thereby impacting cell function.
- The diseases that arise out of such mitochondrial mutations are called mitochondrial diseases.
- In this case, the mother had a mitochondrial disease she was intent on not passing on to her baby. She also did not want to have a donor egg, for the baby would carry the genetic material of the donor
- What is the scientific process? Mitochondrial diseases are only passed on by the mother, and research has been attempting to find a way for protecting the infant from inheriting the disease.
- The baby's biological father's sperm was used to fertilise the eggs from the biological mother, who has a mitochondrial disease, and a third, female donor with clear mitochondria, separately.
- Then, the nuclear genetic material from the donor's egg is removed and replaced with the genetic material from the biological parents.
- The final product the egg which has the genetic material (DNA) from the parents, and the mitochondria from the female donor, is implanted in the uterus and carried to full term to yield a baby who will be free from the mother's mitochondrial disease.
- This process is termed Mitochondrial Donation Treatment (MDT)
- Sometimes it is possible that a small amount of the maternal mitochondria with errors may get passed on during the procedure.

THE HINDU

